

**CAROL
BRAND**

Electronic Wire & Cable

FOR SIGNAL TRANSMISSION AND SOUND/SECURITY



Electronic Wire & Cable

This catalog contains in-depth information on the most comprehensive line of copper Electronics products available today for data transmission, sound, security/fire alarm, professional audio and video broadcast.

In a rapidly changing industry with ever-growing demands, General Cable continues to stay ahead of the curve with engineered products that guarantee future performance. Choose from the best cable in its class—Carol® Brand.

Our products are readily available for immediate shipment through our network of authorized stocking distributors and distribution centers.



All information in this catalog is presented solely as a guide to product selection and is believed to be reliable. All printing errors are subject to correction in subsequent releases of this catalog. Although General Cable has taken precautions to ensure the accuracy of the product specifications at the time of publication, the specifications of all products contained herein are subject to change without notice.

GENERAL CABLE, CAROL BRAND, CAROLPRENE, COMMAND SERIES, DEMAND BETTER...EXPECT MORE, FLEXFOIL, LO-CAP, MOISTURE GUARD, ONE COMPANY CONNECTING THE WORLD, PULL-PAC, SMARTWRAP, SPOOL-PAC, SUPERFLEX, WIRE WIZARD and logos are trademarks of General Cable Technologies Corporation.

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Demand Better... Expect More™ FROM CAROL® BRAND

QUALITY



General Cable is committed to meeting customer requirements through continuous quality improvements. As a significant part of our commitment to quality, General Cable's manufacturing facilities are certified to the ISO 9001:2000 quality standard. Our telecommunications cable manufacturing facility has received TL 9000 quality standards registration as a supplement to the ISO program.

This quality system is based on the ISO 9001 program with added telecommunications-specific performance metrics. We strive to provide value optimization through innovation and quality solutions.

- Our in-house testing capabilities are extensive, with strict adherence to our product specifications as well as industry standards.
- Cables are safety listed and verified.
- Third-party testing labs like ETL and UL are utilized to quantify and confirm our quality and provide final qualification data that sets the foundation for our extended product warranty.
- General Cable products have stood the test of time with proven reliability and performance.

CUSTOMER SERVICE



General Cable is dedicated to customer service and satisfaction. Call our team of professionally trained sales associates at

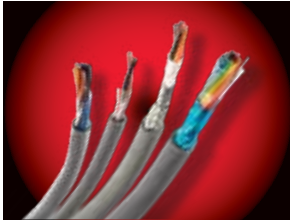
888-295-5896

with any questions to meet your application needs.

GENERALCABLE.COM

What's New?

WHEN FAILURE IS NOT AN OPTION...CHOOSE EXZEL®



Designed for cruel and unusual punishment, Carol® Brand's EXZEL line is the solution you expect from General Cable. Over 170 years of innovation stand behind the "ruggeddeering" of our high-performing EXZEL line for punishment—it's so tough you can pull, scuff, roll, heat, freeze, bend, throw oil on it—and it still exzels. Not always the case with conventional, round gray PVC electronic cables. We offer a Low-Smoke, Zero-Halogen line, various gauge and conductor sizes, and shielded and unshielded constructions, which have been incorporated into our Electronics Catalog on pages 77-97.

ELECTRONICS PRODUCTS AT YOUR FINGERTIPS



General Cable is pleased to unveil the new Mobile Web Reference Tool for Carol Brand electronic wire and cable. Equipped with a competitor cross-reference and a product directory, the Mobile Web Reference is designed to allow users to quickly and easily find Carol Brand equivalent products and their specs from anywhere, at any time. Never has it been easier to spec Carol cables. By navigating to <http://xref.carol.generalcable.com> on a mobile web browser, a user can click the *Start* button and submit a competing part number to find the Carol Brand equivalent.

LOOKING FOR PLENUM CABLES?



The Carol Electronics Catalog has been revamped, with Plenum Cables now being featured in the Communications & Control Multi-Conductor and Multi-Paired sections. If you're still not sure what you're looking for, please contact our Customer Service associates at 888.295.5896 today!

ARMORED ELECTRONICS PRODUCTS



Carol Brand Electronics products are now offered with an interlock armored option, which provides outstanding mechanical protection and is flexible for easy installation, potentially saving time and money.

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One Company Connecting The World

POWERFUL PRESENCE · PRODUCTS PERFORMANCE · PEOPLE

General Cable has been a wire and cable innovator for over 170 years, always dedicated to connecting and powering people's lives. We are one of the largest wire and cable manufacturers in the world.

Our company serves customers through a network of manufacturing facilities in our core markets and has worldwide sales representation and distribution. We are dedicated to the production of high-quality aluminum, copper and fiber optic wire and cable and systems solutions for the energy, construction, industrial, specialty and communications sectors. With a vast portfolio of products to meet thousands of diverse application requirements, we continue to invest in research and development in order to maintain and extend our technology leadership by developing new materials, designing new products, and creating new solutions to meet tomorrow's market challenges.

In addition to our strong brand recognition and strengths in technology and manufacturing, General Cable is also competitive in such areas as distribution and logistics, marketing, sales and customer service. This combination enables us to better serve our customers globally and as they expand into new geographic markets.

General Cable offers our customers all the strengths and value of a large company, but our people give us the agility and responsiveness of a small one. We service you globally and locally.



Visit our Website at
www.generalcable.com



Corporate Social Responsibility

CREATING SHARED VALUE

General Cable believes corporate social responsibility (CSR) is about creating shared value. That means keeping a dual focus in our business decisions: what is good for us as a company and what contributes to the greater good of the communities in which we live and work.



SAFETY

Working safer by working together

General Cable has one worldwide safety vision and goal – **ZERO & BEYOND**. We measure safety performance globally, share best practices and implement sound health and safety management systems. Many of our facilities worldwide are OHSAS 18001 (safety management system) certified. All North American facilities have implemented an equivalent health and safety management system. General Cable was a pioneer in obtaining the OHSAS 18001 Certificate for Occupational Health and Safety Management Systems in Europe and North Africa.



SUSTAINABILITY

Responsible practices in daily operations

As a global leader in the wire and cable industry, General Cable recognizes its role and responsibility in promoting sustainability. Our strongest business value is continuous improvement in all areas of our company. Across our many businesses, the quest to introduce new and better products through continuous improvement in environmental designs reflects our commitment to achieving industry-leading standards and responding proactively to global environmental issues. General Cable was the first cable manufacturer to obtain certification for its environmental management system, in accordance with the ISO 14001 and EMAS Standards.



CITIZENSHIP

A commitment to being good citizens

Being responsible citizens in our communities is of the utmost importance to us. Unequivocal honesty, integrity, forthrightness and fair dealing have long been part of General Cable's core values and are expected globally in all of our business relationships with our customers, employees, suppliers, neighbors and competitors. Our company leaders and employees strive to make a difference throughout a host of volunteer activities and financial support, improving the communities in which we live and work.



INNOVATION

Technologies that power and connect the world

General Cable is delivering innovation that matters. We are focusing on R&D expertise and investing in developing wire and cable solutions that meet the challenges confronting our customers and the world. In working together and using all the ingenuity and creativity we have, we will reach the goal of being the preeminent supplier of wire and cabling solutions in the industry, with both green constructions and designs for the ever-growing renewable energy market.



A commitment to achieving industry-leading standards and responding proactively to environmental global issues.

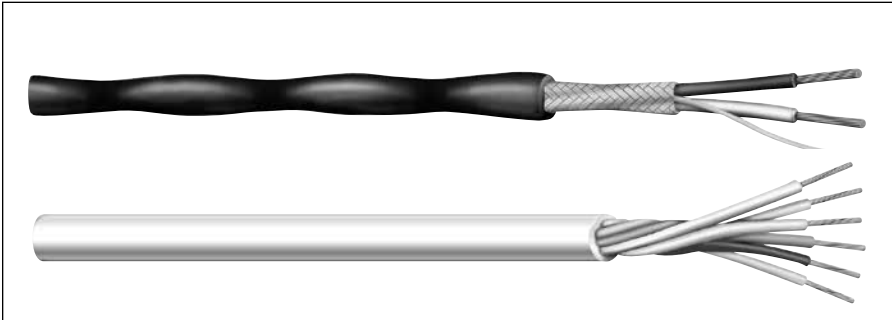
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Visit www.GeneralCableCSR.com
to learn more.



Communication & Control Cable, Multi-Conductor

1



The multi-conductor array of communication and control cable facilitates cable pull-ins and single-site installations.

This cable is typically used for industrial equipment control, electric valve actuation and remote signaling, as well as communications and broadcast applications. These designs are available in a wide variety of insulation and jacketing materials, as well as shield designs to alleviate unwanted circuit noise.

General Cable's Carol® Brand products are manufactured to meet the latest UL, CSA and NEC requirements and approvals.

A Design To Meet Every Application

PVC/PVC designs employ polyvinyl chloride insulations and jackets capable of meeting everyday, general purpose applications.

PE or PP/PVC designs employ high quality polyethylene or polypropylene insulations to assure faithful reproduction of transmitted signals across interconnection circuits.

Foamed PP/PVC designs use high speed, foamed polypropylene insulations for long-distance critical circuits, which would not perform if higher loss insulations were employed.

FEP/FEP designs employ fluoropolymer 200°C-rated materials. They are recommended for use in applications where high temperature, plenum rating, electrical and mechanical safety and chemical resistance are essential.

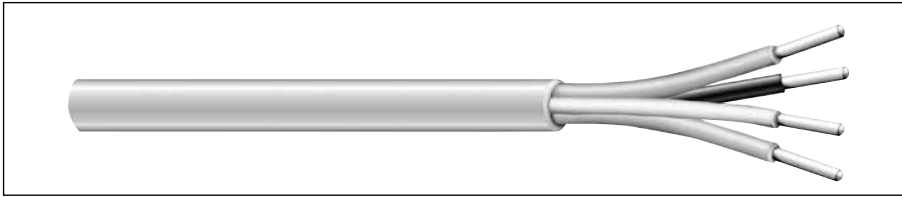
Rubber/Rubber is typically employed in installations characterized as severely hostile environments, where these designs provide unsurpassed service life.

Rubber/Carolprene® offers the ultimate performance for applications that demand the greatest protection from the environment, including physical abuse. The specially formulated Carolprene® jacket has been proven time and again to withstand all types of abuse, both mechanical and chemical.

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Multi-Conductor, Unshielded

UL 2464, NEC/CEC Type CMG UL/CSA**



Product Construction:

Conductor:

- Fully annealed tinned copper per ASTM B33 (C4311A)
- Fully annealed solid bare copper per ASTM B3 (C2754A)

Insulation:

- Premium-grade, color-coded S-R PVC per UL AWM Style 1061

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Remote control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. C-C CAP.* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | |
| C4311A | 2 | 20 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.166 | 4.22 | Black/Red | 28.0 |
| C2754A | 2 | 19 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.176 | 4.47 | Brown/Tan | 29.5 |

*Capacitance between conductors

**CSA or c(UL)

Data subject to change.



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Multi-Conductor, Unshielded

UL 2464, NEC/CEC Type CMG UL/CSA**

Product Construction:

Conductor:

- 22 thru 18 fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC (18 AWG), S-R PVC (22 AWG)
- Color code: See chart below

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

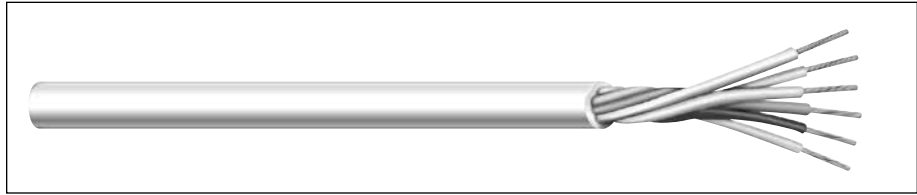
- TV antenna rotor control
- Satellite actuator control
- Public address systems
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP* pF/ft |
|----------------|--------------|--------------|---------------|---------------------------|--------------|-----------------------|------|--------------|------|---------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C4081A | 6 | 4-22 2-18 | 7/30 16/30 | 0.010 0.016 | 0.25 0.41 | 0.032 | 0.81 | 0.244 | 6.20 | 24.5 31.0 |
| C4082A | 7 | 5-22 2-18 | 7/30 16/30 | 0.010 0.016 | 0.25 0.41 | 0.032 | 0.81 | 0.253 | 6.43 | 24.5 31.0 |
| C4083A | 8 | 6-22 2-18 | 7/30 16/30 | 0.010 0.016 | 0.25 0.41 | 0.032 | 0.81 | 0.263 | 6.69 | 24.5 31.0 |
| C4084A | 9 | 7-22 2-18 | 7/30 16/30 | 0.010 0.016 | 0.25 0.41 | 0.032 | 0.81 | 0.273 | 6.94 | 24.5 31.0 |

*Capacitance between conductors

**CSA or c(UL)

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 18 ga. | Black |
| 2 | White |
| 1 22 ga. | Red |
| 2 | Green |
| 3 | Brown |
| 4 | Blue |
| 5 | Orange |
| 6 | Yellow |
| 7 | Purple |

Multi-Conductor, Unshielded

UL 2464, UL 2576, NEC/CEC Type CMG UL/CSA**



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded S-R PVC per UL AWM Style 1061
- Color code: See charts below

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- UL Style 2576 (UL: 80°C, 150 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. C-C CAP* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|-----------------|---------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | |
| C2461A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.152 | 3.86 | Black/Red | 23.0 |
| C2462A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.163 | 4.14 | Black/Red/Green | 23.0 |
| C2463A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.174 | 4.42 | 1 | 23.0 |
| C2464A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.183 | 4.75 | 1 | 23.0 |
| C2466A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.200 | 5.08 | 1 | 23.0 |
| C2488A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.200 | 5.08 | 1 | 23.0 |
| C2465A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.214 | 5.44 | 1 | 23.0 |
| C2470A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.227 | 5.77 | 1 | 23.0 |
| C2471A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.244 | 6.20 | 1 | 23.0 |
| C2467A | 12 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.251 | 6.38 | 1 | 23.0 |
| C2473A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.275 | 6.99 | 2 | 23.0 |

*Capacitance between conductors

**CSA or c(UL)

Data subject to change.

Color Code Chart 1 - For cables up to and including 12 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 7 | Orange |
| 2 | White | 8 | Yellow |
| 3 | Red | 9 | Purple |
| 4 | Green | 10 | Gray |
| 5 | Brown | 11 | Pink |
| 6 | Blue | 12 | Tan |

Color Code Chart 2 Per ICEA - For cables with 15 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|--------|--------------|--------------|--------------|-------------|
| 1 | Black | 6 | Blue | 11 | Blue/Black |
| 2 | White | 7 | White/Black | 12 | Black/White |
| 3 | Red | 8 | Red/Black | 13 | Red/White |
| 4 | Green | 9 | Green/Black | 14 | Green/White |
| 5 | Orange | 10 | Orange/Black | 15 | Blue/White |



Designed to Meet UL Vertical Tray Flame Test

Underwriters Laboratories Inc.



Multi-Conductor, Unshielded

UL 2464, UL 2576, NEC/CEC Type CMG UL/CSA**

Product Construction:

Conductor:

- 22 AWG fully annealed, stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded S-R PVC per UL AWM Style 1061
- Color code: See charts below

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

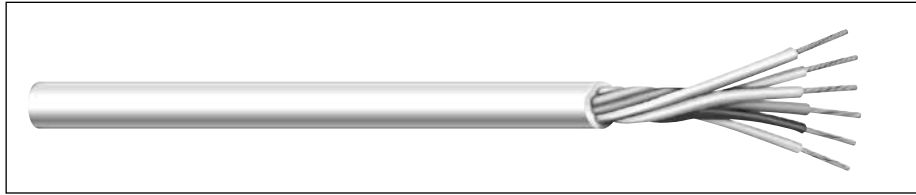
- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- UL Style 2576 (UL: 80°C, 150 V)
- CSA CMG (CSA 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. C-C CAP.* pF/ft |
|----------------------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|-----------------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | |
| C6348A [†] | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.015 | 0.38 | 0.130 | 3.30 | Black/Red | 24.5 |
| C4062A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.176 | 4.47 | Black/Red/Green | 24.5 |
| C4063A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.189 | 4.80 | 1 | 24.5 |
| C4064A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.203 | 5.16 | 1 | 24.5 |
| C4066A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.218 | 5.54 | 1 | 24.5 |
| C4088A | 7 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.205 | 5.54 | 1 | 24.5 |
| C4065A | 8 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.230 | 5.94 | 1 | 24.5 |
| C4070A | 9 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.249 | 6.32 | 1 | 24.5 |
| C4071A | 10 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.268 | 6.81 | 1 | 24.5 |
| C4067A | 12 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.276 | 7.01 | 1 | 24.5 |
| C4073A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.303 | 7.70 | 2 | 24.5 |
| C4075A | 20 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.334 | 8.48 | 2 | 24.5 |
| C4076A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.368 | 9.35 | 2 | 24.5 |
| C4077A | 30 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.389 | 9.88 | 2 | 24.5 |
| C4078A | 40 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.434 | 11.02 | 2 | 24.5 |
| C4079A | 50 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.489 | 12.42 | 2 | 24.5 |

*Capacitance between conductors

**CSA or c(UL)

†CM-CSA CMG Only

Data subject to change.

Color Code Chart 1 - For cables up to and including 12 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 7 | Orange |
| 2 | White | 8 | Yellow |
| 3 | Red | 9 | Purple |
| 4 | Green | 10 | Gray |
| 5 | Brown | 11 | Pink |
| 6 | Blue | 12 | Tan |

Color Code Chart 2 Per ICEA - For cables of 15 thru 50 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|--------------|--------------|--------------------|--------------|--------------------|--------------|-------------------|
| 1 | Black | 14 | Green/White | 27 | Blue/Black/White | 39 | White/Black/Green |
| 2 | White | 15 | Blue/White | 28 | Black/Red/Green | 40 | Red/White/Green |
| 3 | Red | 16 | Black/Red | 29 | White/Red/Green | 41 | Green/White/Blue |
| 4 | Green | 17 | White/Red | 30 | Red/Black/Green | 42 | Orange/Red/Green |
| 5 | Orange | 18 | Orange/Red | 31 | Green/Black/Orange | 43 | Blue/Red/Green |
| 6 | Blue | 19 | Blue/Red | 32 | Orange/Black/Green | 44 | Black/White/Blue |
| 7 | White/Black | 20 | Red/Green | 33 | Blue/White/Orange | 45 | White/Black/Blue |
| 8 | Red/Black | 21 | Orange/Green | 34 | Black/White/Orange | 46 | Red/White/Blue |
| 9 | Green/Black | 22 | Black/White/Red | 35 | White/Red/Orange | 47 | Green/Orange/Red |
| 10 | Orange/Black | 23 | White/Black/Red | 36 | Orange/White/Blue | 48 | Orange/Red/Blue |
| 11 | Blue/Black | 24 | Red/Black/White | 37 | White/Red/Blue | 49 | Blue/Red/Orange |
| 12 | Black/White | 25 | Green/Black/White | 38 | Black/White/Green | 50 | Black/Orange/Red |
| 13 | Red/White | 26 | Orange/Black/White | | | | |



Underwriters Laboratories Inc.



CMG Certified Canadian Standard Association



Multi-Conductor, Unshielded

UL 2464, UL 2576, NEC/CEC Type CMG UL/CSA**



Product Construction:

Conductor:

- 20 or 18 AWG fully annealed stranded, tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC per UL AWM Style 1007
- Color code: See charts below

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- UL Style 2576 (UL: 80°C, 150 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. C-C CAP* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|------------|---------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | |
| C6351A† | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.025 | 0.64 | 0.192 | 4.88 | Black/Red | 28.0 |
| C6352A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.216 | 5.50 | 1 | 28.0 |
| C6353A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.235 | 5.97 | 1 | 28.0 |
| C6355A | 5 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.254 | 6.46 | 1 | 28.0 |
| C6356A | 7 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.275 | 6.99 | 1 | 28.0 |
| C6357A | 9 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.317 | 8.05 | 1 | 28.0 |
| C6360A | 12 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.354 | 9.00 | 2 | 28.0 |
| C6358A | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.392 | 9.96 | 2 | 28.0 |
| C2830A† | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.015 | 0.64 | 0.190 | 5.33 | Black/Red | 30.5 |
| C2831A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.236 | 5.99 | 1 | 30.5 |
| C2404A | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.258 | 6.55 | 1 | 30.5 |
| C2420A | 5 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.280 | 7.11 | 1 | 30.5 |
| C2421A | 7 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.309 | 7.85 | 1 | 30.5 |
| C2422A | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.358 | 9.09 | 1 | 30.5 |
| C2412A | 12 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.401 | 10.19 | 2 | 30.5 |
| C2423A | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.445 | 11.30 | 2 | 30.5 |
| C2424A | 19 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.469 | 11.91 | 2 | 30.5 |
| C2433A | 25 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.550 | 13.94 | 2 | 30.5 |

*Capacitance between conductors

**CSA or c(UL)

†CM (UL) c(UL), CSA CMG Only

Data subject to change.

Color Code Chart 1 - For cables up to and including 9 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 6 | Blue |
| 2 | White | 7 | Orange |
| 3 | Red | 8 | Yellow |
| 4 | Green | 9 | Purple |
| 5 | Brown | | |

Color Code Chart 2 Per ICEA - For cables of 12 thru 25 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|--------------|--------------|-------------------|
| 1 | Black | 10 | Orange/Black | 19 | Blue/Red |
| 2 | White | 11 | Blue/Black | 20 | Red/Green |
| 3 | Red | 12 | Black/White | 21 | Orange/Green |
| 4 | Green | 13 | Red/White | 22 | Black/White/Red |
| 5 | Orange | 14 | Green/White | 23 | White/Black/Red |
| 6 | Blue | 15 | Blue/White | 24 | Red/Black/White |
| 7 | White/Black | 16 | Black/Red | 25 | Green/Black/White |
| 8 | Red/Black | 17 | White/Red | | |
| 9 | Green/Black | 18 | Orange/Red | | |



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Multi-Conductor, Unshielded

UL 2464, UL 2587, NEC Type CL3, NEC/CEC Type CMG UL/CSA**

Product Construction:

Conductor:

- 16 thru 12 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Jacket:

- PVC, gray
- Temperature range: -20°C to +90°C

Applications:

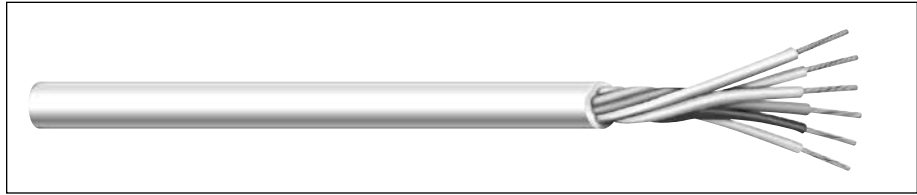
- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3 (UL: 75°C)
- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- UL Style 2587 (UL: 90°C, 600 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|---------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |

NEC TYPE CM, UL STYLE 2464 (80°C, 300 VOLTS)

| | | | | | | | | | | |
|--------|----|----|----------|-------|------|-------|------|-------|-------|------|
| C2405A | 2 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.260 | 6.81 | 30.5 |
| C2406A | 3 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.283 | 7.19 | 30.5 |
| C2425A | 4 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.306 | 7.77 | 30.5 |
| C2434A | 5 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.334 | 8.48 | 30.5 |
| C2426A | 7 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.363 | 9.25 | 30.5 |
| C2443A | 8 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.393 | 10.03 | 30.5 |
| C2435A | 9 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.423 | 10.80 | 30.5 |
| C2427A | 12 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.476 | 12.17 | 30.5 |
| C2428A | 15 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.530 | 13.46 | 30.5 |
| C2429A | 19 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.559 | 14.33 | 30.5 |
| C2436A | 25 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.657 | 16.69 | 30.5 |

NEC TYPE CL3, UL STYLE 2587 (90°C, 600 VOLTS)

| | | | | | | | | | | |
|--------|---|----|-----------|-------|------|-------|------|-------|-------|------|
| C2409A | 2 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.326 | 8.51 | 29.0 |
| C2430A | 4 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.391 | 9.93 | 28.2 |
| C2437A | 5 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.428 | 10.87 | 28.2 |
| C2431A | 7 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.469 | 11.91 | 28.2 |
| C2410A | 2 | 12 | 19/0.0185 | 0.032 | 0.81 | 0.032 | 0.81 | 0.366 | 9.40 | 31.0 |
| C2440A | 4 | 12 | 19/0.0185 | 0.032 | 0.81 | 0.032 | 0.81 | 0.437 | 11.02 | 31.0 |

*Capacitance between conductors

**CSA or c(UL)

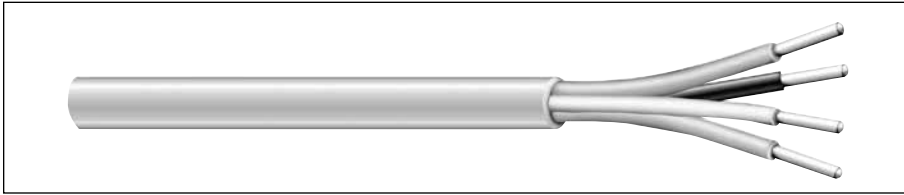
Data subject to change.

Color Code Chart Per ICEA

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|--------------|--------------|-------------------|
| 1 | Black | 10 | Orange/Black | 19 | Blue/Red |
| 2 | White | 11 | Blue/Black | 20 | Red/Green |
| 3 | Red | 12 | Black/White | 21 | Orange/Green |
| 4 | Green | 13 | Red/White | 22 | Black/White/Red |
| 5 | Orange | 14 | Green/White | 23 | White/Black/Red |
| 6 | Blue | 15 | Blue/White | 24 | Red/Black/White |
| 7 | White/Black | 16 | Black/Red | 25 | Green/Black/White |
| 8 | Red/Black | 17 | White/Red | | |
| 9 | Green/Black | 18 | Orange/Red | | |

Multi-Conductor, Unshielded

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|---------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C8102 | 4 | 18 | 19/30 | 0.007 | 0.18 | 0.014 | 0.36 | 0.178 | 4.52 | 21.5 |

*Capacitance between conductors
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |

Product Construction:

Conductor:

- 18 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Jacket:

- Flexguard® PVC, natural
- Temperature range: -20°C to +75°C

Applications:

- Audio systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 75°C, 300 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Conductor, Unshielded

NEC Type CMP (UL) c(UL) and/or CL2P

Product Construction:

Conductor:

- 22 thru 14 AWG fully annealed stranded tinned or bare copper per ASTM B3, B8 or B33

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color code: See chart below

Jacket:

- Fluoropolymer, natural
- Temperature range: -20°C to +75°C
- Sequential footage marked to facilitate installation
- Abrasion-, chemical- and water-resistant
- Includes ripcord

Applications:

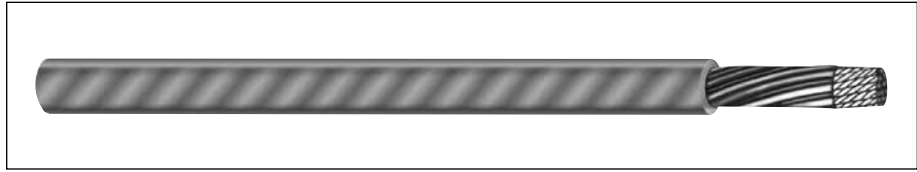
- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 75°C, 150 V)
- NEC Article 800 (UL: 75°C, 300 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP.* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C3105† | 2 | 22 | 7/30 TC | 0.006 | 0.15 | 0.010 | 0.25 | 0.089 | 2.26 | 29.0 |
| C3106† | 4 | 22 | 7/30 TC | 0.006 | 0.15 | 0.010 | 0.25 | 0.121 | 3.07 | 29.0 |
| C3102 | 2 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.123 | 3.12 | 31.0 |
| C3190 | 3 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.143 | 3.63 | 31.0 |
| C3103 | 4 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.163 | 4.14 | 31.0 |
| C3134 | 5 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.187 | 4.75 | 30.8 |
| C3192 | 6 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.198 | 5.03 | 31.0 |
| C3191 | 8 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.223 | 5.66 | 31.0 |
| C3178 | 10 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.244 | 6.19 | 31.0 |
| C3179 | 12 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.263 | 6.68 | 31.0 |
| C3193 | 2 | 16 | 19/.0117 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.141 | 3.58 | 33.0 |
| C3194 | 3 | 16 | 7/.0192 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.164 | 4.17 | 33.0 |
| C3195 | 4 | 16 | 7/.0192 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.187 | 4.75 | 33.0 |
| C3126† | 2 | 14 | 19/.0147 BC | 0.010 | 0.25 | 0.010 | 0.25 | 0.168 | 4.27 | 35.0 |
| C3135† | 2 | 12 | 19/.0185 BC | 0.010 | 0.25 | 0.010 | 0.25 | 0.238 | 6.05 | 37.0 |

*Capacitance between conductors

†CL2P only

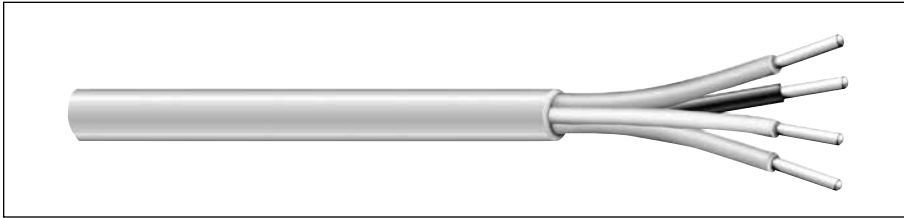
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Brown |
| 6 | Blue |
| 7 | Orange |
| 8 | Yellow |
| 9 | Purple |
| 10 | Gray |
| 11 | Pink |
| 12 | Tan |

Multi-Conductor, Unshielded

NEC Type CMP (UL) c(UL) and/or CL3P



Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid, stranded tinned or bare copper per ASTM B3, B8 or B33

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color code: See chart below

Jacket:

- Flexguard® PVC, natural
- Temperature range: 0°C to +75°C
- Sequential footage marked to facilitate installation
- Includes ripcord

Applications:

- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 75°C, 150 V)
- NEC Article 800 (UL: 75°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM.* C-C CAP. pF/ft |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |

22 AWG CONDUCTORS

| | | | | | | | | | | |
|--------------|---|----|---------|-------|------|-------|------|-------|------|------|
| C3115 | 2 | 22 | 7/32 TC | 0.008 | 0.20 | 0.015 | 0.38 | 0.122 | 3.10 | 30.0 |
| C3116 | 4 | 22 | 7/32 TC | 0.008 | 0.20 | 0.015 | 0.38 | 0.141 | 3.58 | 30.0 |

18 AWG CONDUCTORS

| | | | | | | | | | | |
|--------------|----|----|----------|-------|------|-------|------|-------|------|------|
| C3110 | 2 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.142 | 3.61 | 37.0 |
| C3114 | 3 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.151 | 3.84 | 37.0 |
| C3111 | 4 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.166 | 4.22 | 37.0 |
| C3117 | 5 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.182 | 4.62 | 37.0 |
| C3118 | 6 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.199 | 5.05 | 37.0 |
| C3119 | 8 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.216 | 5.49 | 37.0 |
| C3112 | 2 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.156 | 3.96 | 35.0 |
| C3120 | 3 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.166 | 4.22 | 35.0 |
| C3113 | 4 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.182 | 4.62 | 35.0 |
| C3125 | 5 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.200 | 5.08 | 54.6 |
| C3121 | 6 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.216 | 5.49 | 35.0 |
| C3122 | 8 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.239 | 6.07 | 35.0 |
| C3123 | 10 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.278 | 7.06 | 35.0 |
| C3124 | 12 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.287 | 7.29 | 35.0 |

16 AWG CONDUCTORS

| | | | | | | | | | | |
|--------------|---|----|-------------|------|------|-------|------|-------|------|------|
| C3127 | 2 | 16 | 19/.0117 BC | .009 | .227 | 0.015 | 0.38 | 0.178 | 4.52 | 40.0 |
|--------------|---|----|-------------|------|------|-------|------|-------|------|------|

14 AWG CONDUCTORS

| | | | | | | | | | | |
|---------------|---|----|-------------|-------|------|-------|------|-------|------|------|
| C3128* | 2 | 14 | 19/.0147 BC | 0.010 | 0.20 | 0.015 | 0.38 | 0.212 | 5.38 | 40.0 |
|---------------|---|----|-------------|-------|------|-------|------|-------|------|------|

12 AWG CONDUCTORS

| | | | | | | | | | | |
|---------------|---|----|-------------|-------|------|-------|------|-------|------|------|
| C3129* | 2 | 12 | 19/.0185 BC | 0.010 | 0.20 | 0.015 | 0.38 | 0.254 | 6.45 | 43.0 |
|---------------|---|----|-------------|-------|------|-------|------|-------|------|------|

*Capacitance between conductors

†CL3P only

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 7 | Orange |
| 2 | White | 8 | Yellow |
| 3 | Red | 9 | Purple |
| 4 | Green | 10 | Gray |
| 5 | Brown | 11 | Pink |
| 6 | Blue | 12 | Tan |



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications
Underwriters Laboratories Inc.



Multi-Conductor, Unshielded

AWM Style 2464, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 20 or 18 AWG fully annealed, stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See charts below

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

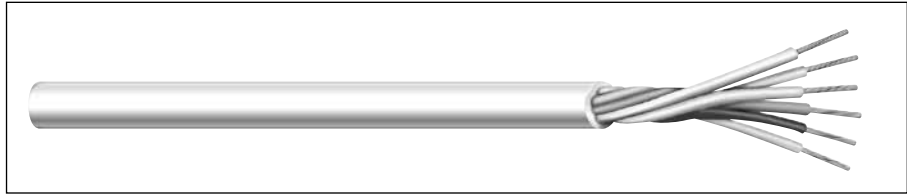
- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Compliances:

- AWM Style 2464 (UL: 80°C, 300 V)
- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 vertical flame test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. C-C CAP.* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|------------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | |
| C4117A | 2 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.184 | 4.67 | Black/Red | 31.0 |
| C4118A | 3 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.193 | 4.90 | 1 | 31.0 |
| C4119A | 4 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.209 | 5.31 | 1 | 31.0 |
| C4120A | 5 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.226 | 5.74 | 1 | 31.0 |
| C4121A | 7 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.244 | 6.20 | 1 | 31.0 |
| C4122A | 9 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.281 | 7.14 | 1 | 31.0 |
| C4123A | 12 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.313 | 7.95 | 2 | 31.0 |
| C4124A | 15 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.329 | 8.36 | 2 | 31.0 |
| C4125A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.202 | 5.13 | Black/Red | 34.0 |
| C4214A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.202 | 5.13 | 1 | 34.0 |
| C4126A | 3 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.213 | 5.41 | 1 | 34.0 |
| C4127A | 4 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.231 | 5.87 | 1 | 34.0 |
| C4128A | 5 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.250 | 6.35 | 1 | 34.0 |
| C4206A | 6 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.266 | 6.76 | 1 | 34.0 |
| C4129A | 7 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.271 | 6.88 | 1 | 34.0 |
| C4130A | 9 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.314 | 7.98 | 1 | 34.0 |
| C4131A | 12 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.351 | 8.92 | 2 | 34.0 |
| C4132A | 15 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.388 | 9.86 | 2 | 34.0 |
| C4133A | 19 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.409 | 10.39 | 2 | 34.0 |
| C4134A | 25 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.478 | 12.14 | 2 | 34.0 |

*Capacitance between conductors
Data subject to change.

Color Code Chart 1 - For cables up to and including 9 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 6 | Blue |
| 2 | White | 7 | Orange |
| 3 | Red | 8 | Yellow |
| 4 | Green | 9 | Purple |
| 5 | Brown | | |

Color Code Chart 2 Per ICEA - For cables of 12 thru 25 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|--------------|--------------|-------------------|
| 1 | Black | 10 | Orange/Black | 19 | Blue/Red |
| 2 | White | 11 | Blue/Black | 20 | Red/Green |
| 3 | Red | 12 | Black/White | 21 | Orange/Green |
| 4 | Green | 13 | Red/White | 22 | Black/White/Red |
| 5 | Orange | 14 | Green/White | 23 | White/Black/Red |
| 6 | Blue | 15 | Blue/White | 24 | Red/Black/White |
| 7 | White/Black | 16 | Black/Red | 25 | Green/Black/White |
| 8 | Red/Black | 17 | White/Red | | |
| 9 | Green/Black | 18 | Orange/Red | | |

Multi-Conductor, Unshielded

AWM Styles 2464, 2587, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US), or NEC Type CL2



Product Construction:

Conductor:

- 16 thru 12 AWG fully annealed, stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Compliances:

- AWM Style 2464 (UL: 80°C, 300 V)
- AWM Style 2587 (CSA: 90°C, 600 V)
- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- UL Certified CL2 to Standard UL 13
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP.* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |

AWM STYLE 2464, CSA TYPE AWM, CSA C/US TYPE CMG

| | | | | | | | | | | |
|--------|----|----|----------|-------|------|-------|------|-------|-------|------|
| C4135A | 2 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.268 | 6.81 | 27.0 |
| C4136A | 3 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.283 | 7.19 | 27.0 |
| C4137A | 4 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.306 | 7.77 | 27.0 |
| C4138A | 5 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.334 | 8.48 | 27.0 |
| C4139A | 7 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.364 | 9.25 | 27.0 |
| C4140A | 8 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.395 | 10.03 | 27.0 |
| C4141A | 9 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.425 | 10.80 | 27.0 |
| C4142A | 12 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.479 | 12.17 | 27.0 |
| C4143A | 15 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.530 | 13.46 | 27.0 |
| C4144A | 19 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.564 | 14.33 | 27.0 |
| C4145A | 25 | 16 | 19/.0117 | 0.021 | 0.53 | 0.032 | 0.81 | 0.657 | 16.69 | 27.0 |

AWM STYLE 2587, CSA TYPE AWM (FT4), NEC TYPE CL2**

| | | | | | | | | | | |
|--------|---|----|----------|-------|------|-------|------|-------|-------|------|
| C4146A | 2 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.334 | 8.48 | 25.0 |
| C4147A | 4 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.391 | 9.93 | 25.0 |
| C4148A | 5 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.428 | 10.87 | 25.0 |
| C4149A | 7 | 14 | 19/.0147 | 0.032 | 0.81 | 0.032 | 0.81 | 0.469 | 11.91 | 25.0 |
| C4150A | 2 | 12 | 19/.0185 | 0.032 | 0.81 | 0.032 | 0.81 | 0.370 | 9.40 | 29.4 |
| C4151A | 4 | 12 | 19/.0185 | 0.032 | 0.81 | 0.032 | 0.81 | 0.434 | 11.02 | 29.4 |

* Capacitance between conductors
Data subject to change.

Color Code Chart Per ICEA

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|--------------|--------------|-------------------|
| 1 | Black | 10 | Orange/Black | 19 | Blue/Red |
| 2 | White | 11 | Blue/Black | 20 | Red/Green |
| 3 | Red | 12 | Black/White | 21 | Orange/Green |
| 4 | Green | 13 | Red/White | 22 | Black/White/Red |
| 5 | Orange | 14 | Green/White | 23 | White/Black/Red |
| 6 | Blue | 15 | Blue/White | 24 | Red/Black/White |
| 7 | White/Black | 16 | Black/Red | 25 | Green/Black/White |
| 8 | Red/Black | 17 | White/Red | | |
| 9 | Green/Black | 18 | Orange/Red | | |



Multi-Conductor, Unshielded

AWM Style 2464, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

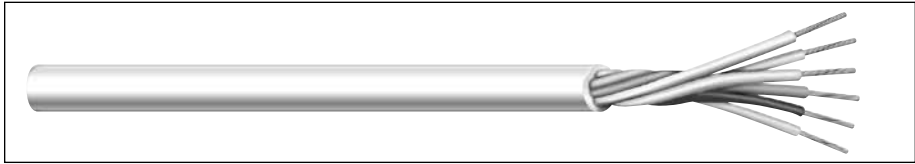
- 22 AWG fully annealed, stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See charts below

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C



Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Compliances:

- AWM Style 2464 (UL: 80°C, 300 V)
- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 vertical flame test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. C-C CAP:* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|-----------------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | |
| C4100A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.165 | 4.19 | Black/Red | 27.5 |
| C4101A | 3 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.176 | 4.47 | Black/Red/Green | 27.5 |
| C4102A | 4 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.189 | 4.80 | 1 | 27.5 |
| C4103A | 5 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.203 | 5.16 | 1 | 27.5 |
| C4104A | 6 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.208 | 5.28 | 1 | 27.5 |
| C4105A | 7 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.218 | 5.54 | 1 | 27.5 |
| C4106A | 8 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.234 | 5.94 | 1 | 27.5 |
| C4107A | 9 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.249 | 6.32 | 1 | 27.5 |
| C4108A | 10 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.268 | 6.81 | 1 | 27.5 |
| C4109A | 12 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.276 | 7.01 | 1 | 27.5 |
| C4110A | 15 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.303 | 7.70 | 2 | 27.5 |
| C4111A | 18 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.318 | 8.08 | 2 | 27.5 |
| C4112A | 20 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.334 | 8.48 | 2 | 27.5 |
| C4113A | 25 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.368 | 9.35 | 2 | 27.5 |
| C4114A | 30 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.389 | 9.88 | 2 | 27.5 |
| C4115A | 40 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.434 | 11.02 | 2 | 27.5 |
| C4116A | 50 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.489 | 12.42 | 2 | 27.5 |

*Capacitance between conductors
Data subject to change.

Color Code Chart 1- For cables up to and including 12 conductors

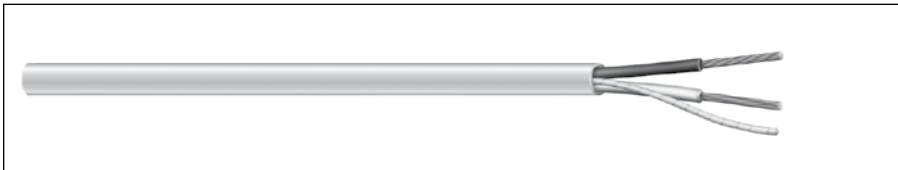
| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 7 | Orange |
| 2 | White | 8 | Yellow |
| 3 | Red | 9 | Purple |
| 4 | Green | 10 | Gray |
| 5 | Brown | 11 | Pink |
| 6 | Blue | 12 | Tan |

Color Code Chart 2 Per ICEA - For cables of 15 thru 50 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|--------------|--------------|--------------------|--------------|-------------------|
| 1 | Black | 18 | Orange/Red | 35 | White/Red/Orange |
| 2 | White | 19 | Blue/Red | 36 | Orange/White/Blue |
| 3 | Red | 20 | Red/Green | 37 | White/Red/Blue |
| 4 | Green | 21 | Orange/Green | 38 | Black/White/Green |
| 5 | Orange | 22 | Black/White/Red | 39 | White/Black/Green |
| 6 | Blue | 23 | White/Black/Red | 40 | Red/White/Green |
| 7 | White/Black | 24 | Red/Black/White | 41 | Green/White/Blue |
| 8 | Red/Black | 25 | Green/Black/White | 42 | Orange/Red/Green |
| 9 | Green/Black | 26 | Orange/Black/White | 43 | Blue/Red/Green |
| 10 | Orange/Black | 27 | Blue/Black/White | 44 | Black/White/Blue |
| 11 | Blue/Black | 28 | Black/Red/Green | 45 | White/Black/Blue |
| 12 | Black/White | 29 | White/Red/Green | 46 | Red/White/Blue |
| 13 | Red/White | 30 | Red/Black/Green | 47 | Green/Orange/Red |
| 14 | Green/White | 31 | Green/Black/Orange | 48 | Orange/Red/Blue |
| 15 | Blue/White | 32 | Orange/Black/Green | 49 | Blue/Red/Orange |
| 16 | Black/Red | 33 | Blue/White/Orange | 50 | Black/Orange/Red |
| 17 | White/Red | 34 | Black/White/Orange | | |

Multi-Conductor, Unshielded

CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)



Product Construction:

Conductor:

- 22 thru 14 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See charts below

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C
- Includes ripcord

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Suggested voltage rating: 300 or 600 volts

Compliances:

- CSA Type AWM (105°C, 600 V)
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INS. THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM C-C. CAP. pF/ft |
|--|--------------|----------|--------------|---------------------|------|-----------------------|------|--------------|------|------------|---------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | |
| CSA TYPE AWM, CSA C/US TYPE CMG | | | | | | | | | | | |
| C6700A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.134 | 3.40 | 2 | 23.5 |
| C6701A | 3 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.142 | 3.61 | 2 | 23.5 |
| C6702A | 4 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.155 | 3.94 | 2 | 23.5 |
| C6704A | 6 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.185 | 4.70 | 2 | 23.5 |
| C6717A | 2 | 20 | 7/28 | 0.011 | 0.28 | 0.016 | 0.41 | 0.148 | 3.76 | 2 | 25.7 |
| C6718A | 4 | 20 | 7/28 | 0.011 | 0.28 | 0.016 | 0.41 | 0.157 | 3.99 | 2 | 25.7 |
| C6725A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.172 | 4.37 | 1 | 27.3 |
| C6714A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.172 | 4.37 | 2 | 27.3 |
| C6726A | 3 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.183 | 4.65 | 2 | 27.3 |
| C6727A | 4 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.201 | 5.11 | 2 | 27.3 |
| C6706A | 6 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.242 | 6.15 | 2 | 27.3 |
| C6735A | 2 | 16 | 19/.0117 | 0.012 | 0.30 | 0.016 | 0.41 | 0.192 | 4.88 | 2 | 29.4 |
| C6736A | 3 | 16 | 19/.0117 | 0.012 | 0.30 | 0.016 | 0.41 | 0.204 | 5.18 | 2 | 29.4 |
| C6737A | 4 | 16 | 19/.0117 | 0.012 | 0.30 | 0.016 | 0.41 | 0.226 | 5.74 | 2 | 29.4 |
| CSA TYPE AWM (FT4) | | | | | | | | | | | |
| C6746A | 2 | 14 | 19/.0147 | 0.015 | 0.38 | 0.016 | 0.41 | 0.234 | 5.94 | 2 | 30.8 |
| C6747A | 4 | 14 | 19/.0147 | 0.015 | 0.38 | 0.016 | 0.41 | 0.276 | 7.01 | 2 | 30.8 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart 1

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |

Color Code Chart 2

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Brown |
| 6 | Blue |
| 7 | Orange |
| 8 | Yellow |

Power-Limited Tray Cable, Unshielded

NEC Type PLTC, NEC/CEC Type CMG UL/CSA**

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Jacket:

- PVC, gray
- Sunlight-resistant
- Temperature range: -20°C to +105°C

Applications:

- Cable tray installations
- Power limited circuits
- Intercom systems
- Business machines
- Cash registers
- Automatic valve control systems
- Irrigation systems
- Suggested voltage rating: 300 volts
- Burglar alarms

Features:

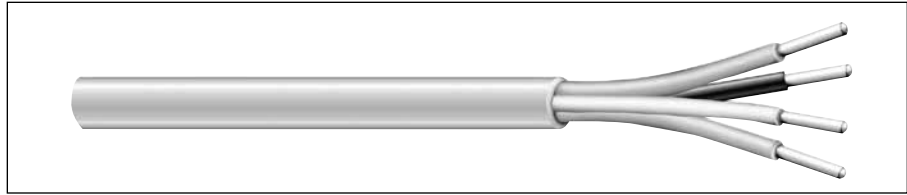
- UL rated for cable tray use

Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C, 300 V)
- NEC/CEC Type CMG (UL/CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Meets UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP.* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C0431A | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.185 | 4.70 | 27.5 |
| C0432A | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.193 | 4.90 | 27.5 |
| C0433A | 2 | 20 | 7/28 | 0.013 | 0.33 | 0.037 | 0.94 | 0.198 | 5.03 | 30.5 |
| C0434A | 3 | 20 | 7/28 | 0.013 | 0.33 | 0.037 | 0.94 | 0.208 | 5.28 | 30.5 |
| C0435A | 2 | 18 | 16/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.216 | 5.49 | 32.5 |
| C0436A | 3 | 18 | 16/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.227 | 5.77 | 32.5 |
| C0444A | 4 | 18 | 16/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.245 | 6.22 | 32.5 |
| C0437A | 2 | 16 | 19/.0117 | 0.013 | 0.33 | 0.037 | 0.94 | 0.238 | 6.05 | 37.0 |
| C0438A | 3 | 16 | 19/.0117 | 0.013 | 0.33 | 0.037 | 0.94 | 0.250 | 6.35 | 37.0 |
| C0439A* | 2 | 14 | 19/.0147 | 0.013 | 0.33 | 0.042 | 1.07 | 0.278 | 7.06 | 40.5 |
| C0440A* | 3 | 14 | 19/.0147 | 0.013 | 0.33 | 0.042 | 1.07 | 0.293 | 7.44 | 40.5 |
| C0441A* | 2 | 12 | 19/.0185 | 0.013 | 0.33 | 0.042 | 1.07 | 0.315 | 8.00 | 44.0 |

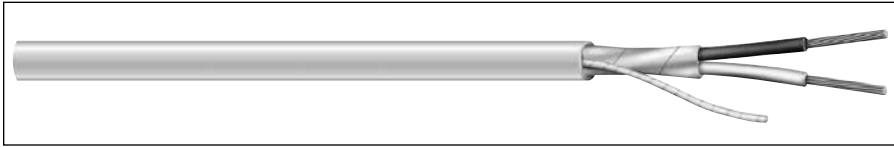
*NEC Type PLTC Only
 **CSA or c(UL)
 Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | White |
| 4 | Green |

Multi-Conductor, Foil Shield

NEC Type CL2 and CM (UL) c(UL) CMH



Product Construction:

Conductor:

- 24 thru 12 AWG fully annealed solid or stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded polyethylene
- Premium-grade, color-coded polypropylene
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

- Recording studios and sound stages
- Broadcast and sound systems
- Computers
- Industrial equipment control
- Suggested voltage rating: 300 or 600 volts

Compliances:

- UL Style 2092 (UL: 60°C, 300 V)
- UL Style 2093 (UL: 60°C, 300 V)
- UL Style 2094 (UL: 60°C, 300 V)
- UL Style 2106 (UL: 60°C, 600 V)
- UL Style 2107 (UL: 60°C, 600 V)
- UL Style 2464 (UL: 80°C, 300 V)
- NEC Article 725 Type CL2 (UL: 75°C)
- NEC Article 800 Type CM (UL: 75°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

Data subject to change.

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.*** | |
|--|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| UL STYLE 2092, CM (UL) c(UL) CMH, 300 V | | | | | | | | | | | |
| C2513A | 2 | 24 | 7/32 | 0.016 | 0.41 | 0.026 | 0.66 | 0.167 | 4.24 | 18.0 | 33.0 |
| C2514A | 2 | 22 | 7/30 | 0.016 | 0.41 | 0.020 | 0.51 | 0.167 | 4.24 | 20.0 | 36.0 |
| C2524A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.020 | 0.51 | 0.183 | 4.65 | 22.5 | 40.5 |
| C2534A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.020 | 0.51 | 0.201 | 5.21 | 25.5 | 45.5 |

Polyethylene Insulation, Color Code Chart #1

| | | | | | | | | | | | |
|--|---|----|-------|-------|------|-------|------|-------|------|------|------|
| UL STYLE 2093, CM (UL) c(UL) CMH, 300 V | | | | | | | | | | | |
| C2526A | 3 | 22 | 7/30 | 0.016 | 0.41 | 0.030 | 0.76 | 0.196 | 4.98 | 18.5 | 33.5 |
| C2528A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.030 | 0.76 | 0.210 | 5.34 | 21.0 | 37.5 |
| C2525A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.030 | 0.76 | 0.213 | 5.41 | 21.0 | 37.0 |
| C2535A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.020 | 0.51 | 0.213 | 5.56 | 23.0 | 41.0 |

Polyethylene Insulation, Color Code Chart #1

| | | | | | | | | | | | |
|--|---|----|------|-------|------|-------|------|-------|------|------|------|
| UL STYLE 2094, CM (UL) c(UL) CMH, 300 V | | | | | | | | | | | |
| C2523A | 4 | 22 | 7/30 | 0.016 | 0.41 | 0.030 | 0.76 | 0.213 | 5.41 | 18.5 | 33.5 |
| C2555A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.030 | 0.76 | 0.234 | 5.94 | 20.5 | 36.5 |

Polyethylene Insulation, Color Code Chart #1

| | | | | | | | | | | | |
|----------------------------------|---|----|----------|-------|------|-------|------|-------|------|------|------|
| UL STYLE 2106, CSA, 600 V | | | | | | | | | | | |
| C2536A* | 2 | 16 | 19/.0117 | 0.031 | 0.79 | 0.032 | 0.81 | 0.307 | 7.80 | 20.0 | 36.0 |
| C2538A** | 2 | 14 | 19/.0147 | 0.031 | 0.79 | 0.032 | 0.81 | 0.335 | 8.51 | 23.0 | 42.0 |
| C2539A** | 2 | 12 | 19/.0185 | 0.032 | 0.81 | 0.032 | 0.81 | 0.376 | 9.55 | 26.0 | 46.0 |

* CM (UL) c(UL) CMH

** CL2

Polyethylene Insulation, Color Code Chart #1

| | | | | | | | | | | | |
|--|---|----|----------|-------|------|-------|------|-------|------|------|------|
| UL STYLE 2107, CM (UL) c(UL) CMH, 600 V | | | | | | | | | | | |
| C2537A | 3 | 16 | 19/.0117 | 0.031 | 0.79 | 0.032 | 0.81 | 0.325 | 8.26 | 19.0 | 34.0 |

Polyethylene Insulation, Color Code Chart #1

| | | | | | | | | | | | |
|--|---|----|------|-------|------|-------|------|-------|-----|------|------|
| UL STYLE 2464, CL2/CM (UL) c(UL) CMH, 300 V | | | | | | | | | | | |
| C2540A | 2 | 20 | 7/28 | 0.013 | 0.33 | 0.032 | 0.81 | 0.194 | 4.9 | 49.7 | 89.5 |

PVC Insulation, Color Code Chart #2

| | | | | | | | | | | | |
|---------------------------------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| CM (UL) c(UL) CMH, 300 V | | | | | | | | | | | |
| C2515A | 2 | 22 | Solid | 0.007 | 0.18 | 0.020 | 0.51 | 0.124 | 3.15 | 30.0 | 55.0 |
| C2516A | 2 | 22 | 7/30 | 0.008 | 0.20 | 0.020 | 0.51 | 0.137 | 3.48 | 28.0 | 51.0 |
| C2517A | 3 | 22 | 7/30 | 0.008 | 0.20 | 0.020 | 0.51 | 0.144 | 3.36 | 25.0 | 45.0 |

Polypropylene Insulation, Color Code Chart #2

***A – Capacitance between conductors

***B – Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1

| NO. OF COND. | COLOR |
|--------------|---------|
| 1 | Black |
| 2 | Natural |
| 3 | Red |
| 4 | Green |

Color Code Chart 2

| NO. OF COND. | COLOR |
|--------------|---------|
| 1 | Black |
| 2 | Red |
| 3 | Natural |



Underwriters Laboratories Inc.



Multi-Conductor, Foil Shield

UL 2092, NEC Type CM (UL) c(UL) CMH

Product Construction:

Conductor:

- 22 thru 18 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded polyethylene or polypropylene
- Color code: See charts below

Shield:

- 100% aluminum/polyester foil “bonded” to jacket, foil facing in
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

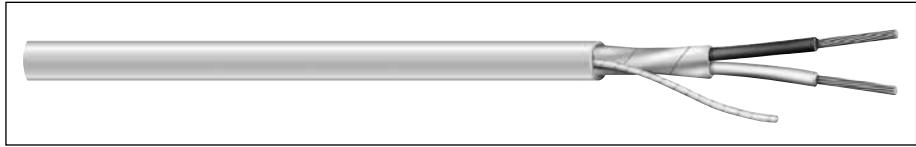
- Control circuits
- Data and signal transmission
- Computer interconnections
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2092 (UL: 60°C, 300 V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Passes CSA CMH Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|------------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |

UL STYLE 2092, CM (UL) C(UL) CMH, 300 V

| | | | | | | | | | | | |
|---------------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C2518A | 2 | 22 | 7/30 | 0.016 | 0.41 | 0.026 | 0.66 | 0.181 | 4.60 | 20.0 | 36.0 |
| C2519A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.028 | 0.71 | 0.201 | 5.11 | 21.5 | 38.5 |
| C2521A | 2 | 18 | 16/30 | 0.018 | 0.46 | 0.028 | 0.71 | 0.229 | 5.82 | 23.5 | 43.0 |

Polyethylene Insulation, Color Code Chart #1

CM (UL) c(UL) CMH, CSA CMG, 300 V

| | | | | | | | | | | | |
|---------------|---|----|------|-------|------|-------|------|-------|------|------|------|
| C2520A | 2 | 22 | 7/30 | 0.008 | 0.20 | 0.020 | 0.51 | 0.137 | 3.48 | 28.0 | 50.0 |
|---------------|---|----|------|-------|------|-------|------|-------|------|------|------|

Polypropylene Insulation, Color Code Chart #2

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart 1

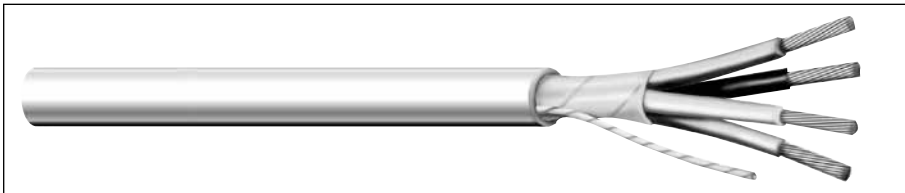
| NO. OF COND. | COLOR |
|--------------|---------|
| 1 | Black |
| 2 | Natural |

Color Code Chart 2

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |

Multi-Conductor, Foil Shield

UL 2464, NEC/CEC Type CMG UL/CSA**



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C2543A | 4 | 18 | 19/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.238 | 6.05 | 47 | 84.5 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

**CSA or c(UL)

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | White |
| 4 | Green |

Product Construction:

Conductor:

- 18 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Audio, broadcast, instrumentation and sound systems
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Multi-Conductor, Foil Shield

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- 18 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Core Wrap:

- Polyester tape with 25% overlap

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap
- Stranded tinned copper drain wire

Jacket:

- FEP, red
- Chemical-resistant
- Temperature range: -100°C to +200°C

Applications:

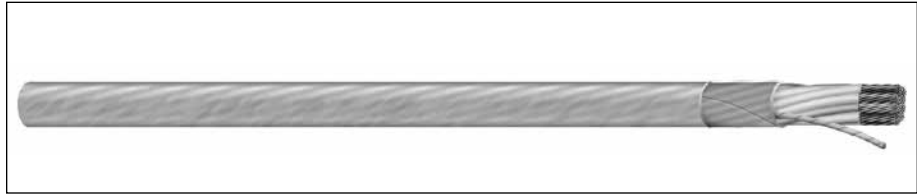
- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suitable for outdoor and direct burial
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8106 | 3 | 18 | 19/30 | 0.007 | 0.18 | 0.014 | 0.36 | 0.178 | 4.27 | 54.0 | 95.0 |
| C8114 | 4 | 18 | 19/30 | 0.007 | 0.18 | 0.014 | 0.36 | 0.185 | 4.70 | 30.0 | 55.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |

Multi-Conductor, Foil Shield

NEC Type CMP (UL) c(UL) and/or CL2P



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.** | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|-------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C3154* | 2 | 22 | 7/30 TC | 0.006 | 0.15 | 0.010 | 0.25 | 0.103 | 2.62 | 51.0 | 92.0 |
| C3310* | 3 | 22 | 7/30 TC | 0.006 | 0.15 | 0.010 | 0.25 | 0.116 | 2.95 | 45.0 | 81.0 |
| C3155* | 4 | 22 | 7/30 TC | 0.006 | 0.15 | 0.010 | 0.25 | 0.130 | 3.30 | 45.0 | 81.0 |
| C3311* | 6 | 22 | 7/30 TC | 0.006 | 0.15 | 0.010 | 0.25 | 0.152 | 3.86 | 40.0 | 73.0 |
| C3320* | 2 | 20 | 7/28 TC | 0.007 | 0.18 | 0.010 | 0.25 | 0.120 | 3.05 | 53.0 | 96.0 |
| C3321* | 3 | 20 | 7/28 TC | 0.007 | 0.18 | 0.010 | 0.25 | 0.136 | 3.45 | 46.0 | 84.0 |
| C3322* | 4 | 20 | 7/28 TC | 0.007 | 0.18 | 0.010 | 0.25 | 0.153 | 3.89 | 46.0 | 84.0 |
| C3162 | 2 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.152 | 3.86 | 54.0 | 98.0 |
| C3164 | 3 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.158 | 4.01 | 47.0 | 85.0 |
| C3163 | 4 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.178 | 4.52 | 47.0 | 85.0 |
| C3166 | 6 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.212 | 5.38 | 43.0 | 76.0 |
| C3180 | 8 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.229 | 5.82 | 43.0 | 76.0 |
| C3181 | 10 | 18 | 7/26 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.273 | 6.93 | 43.0 | 76.0 |
| C3182 | 12 | 18 | 7/26 BC | 0.008 | 0.20 | 0.012 | 0.30 | 0.285 | 7.24 | 43.0 | 76.0 |
| C3169 | 2 | 16 | 19/.0117 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.181 | 4.60 | 62.0 | 112.0 |
| C3340 | 3 | 16 | 7/.0192 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.185 | 4.70 | 52.0 | 93.0 |
| C3341 | 4 | 16 | 7/.0192 BC | 0.008 | 0.20 | 0.010 | 0.25 | 0.210 | 5.16 | 52.0 | 93.0 |

*CL2P only

**A – Capacitance between conductors

**B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Brown |
| 6 | Blue |
| 7 | Orange |
| 8 | Yellow |
| 9 | Purple |
| 10 | Gray |
| 11 | Pink |
| 12 | Tan |

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded tinned or bare copper per ASTM B3, B8 or B33
- Class B stranding per ASTM B8

Insulation:

- Halar
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, with 25% overlap
- Stranded tinned copper drain wire

Jacket:

- PVDF, natural
- Temperature range: -70°C to +150°C
- Sequential footage marked to facilitate installations
- Includes ripcord

Applications:

- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 150°C, 150 V)
- NEC Article 800 (UL: 150°C, 300 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Conductor, Foil Shield

NEC Type CMP (UL) c(UL) and CL3P

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded tinned or bare copper per ASTM B3, B8 or B33

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Flexguard® PVC, natural
- Temperature range: 0°C to +75°C
- Sequential footage marked to facilitate installation
- Includes ripcord

Applications:

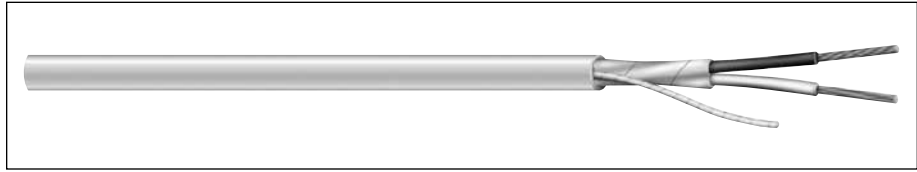
- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 75°C, 150 V)
- NEC Article 800 (UL: 75°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C3158 | 2 | 22 | 7/30 TC | 0.008 | 0.20 | 0.015 | 0.38 | 0.127 | 3.23 | 51.0 | 91.0 |
| C3159 | 4 | 22 | 7/30 TC | 0.008 | 0.20 | 0.015 | 0.38 | 0.146 | 3.71 | 45.0 | 81.0 |
| C3060 | 2 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.148 | 3.76 | 67.0 | 120.0 |
| C3061 | 4 | 18 | Solid BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.171 | 4.34 | 58.0 | 104.0 |
| C3062 | 2 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.164 | 4.17 | 61.0 | 110.0 |
| C3064 | 3 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.169 | 4.29 | 53.0 | 96.0 |
| C3063 | 4 | 18 | 7/26 BC | 0.008 | 0.20 | 0.015 | 0.38 | 0.185 | 4.70 | 53.0 | 96.0 |
| C3065 | 6 | 18 | 7/26 BC | 0.010 | 0.25 | 0.015 | 0.38 | 0.230 | 5.84 | 48.0 | 86.0 |
| C3183 | 10 | 18 | 7/26 BC | 0.010 | 0.25 | 0.015 | 0.38 | 0.295 | 7.49 | 47.0 | 84.0 |
| C3184 | 12 | 18 | 7/26 BC | 0.010 | 0.25 | 0.015 | 0.38 | 0.308 | 7.82 | 52.5 | 94.6 |
| C3068 | 2 | 16 | 19/0.117 BC | 0.009 | 0.23 | 0.015 | 0.38 | 0.187 | 4.75 | 75.0 | 134.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

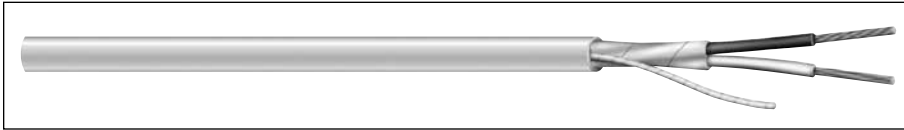
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Brown |
| 6 | Blue |
| 7 | Orange |
| 8 | Yellow |
| 9 | Purple |
| 10 | Gray |
| 11 | Pink |
| 12 | Tan |

Multi-Conductor, Foil Shield

Various AWM Styles, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US), NEC Type CL2



Product Construction:

Conductor:

- 24 thru 12 AWG fully annealed solid or stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded polypropylene
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Recording studios and sound stages
- Broadcast and sound systems
- Computers
- Industrial equipment control
- Suggested voltage rating: 300 or 600 volts

Compliances:

- AWM Style 20251 (UL: 60°C, 150 V, 300 V peak)
- CSA Type AWM (80°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC Type CL2/CEC Type CMG (CSA: 80°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |

AWM STYLE 20251, CSA TYPE AWM, CSA C/US TYPE CMG

| | | | | | | | | | | | |
|--------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C4152A | 2 | 24 | 7/32 | 0.016 | 0.41 | 0.026 | 0.66 | 0.167 | 4.24 | 23.0 | 42.0 |
| C4153A | 2 | 22 | 7/30 | 0.016 | 0.41 | 0.026 | 0.66 | 0.179 | 4.55 | 21.0 | 38.0 |
| C4154A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.030 | 0.76 | 0.203 | 5.16 | 22.0 | 40.0 |
| C4155A | 2 | 18 | 16/30 | 0.018 | 0.46 | 0.030 | 0.76 | 0.233 | 5.92 | 24.0 | 43.0 |
| C4156A | 3 | 22 | 7/30 | 0.016 | 0.41 | 0.030 | 0.76 | 0.196 | 4.98 | 25.0 | 45.0 |
| C4157A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.030 | 0.76 | 0.210 | 5.33 | 27.0 | 51.0 |
| C4158A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.030 | 0.76 | 0.213 | 5.41 | 29.0 | 52.0 |
| C4159A | 3 | 18 | 16/30 | 0.018 | 0.46 | 0.030 | 0.76 | 0.247 | 6.27 | 22.0 | 40.0 |
| C4160A | 4 | 22 | 7/30 | 0.016 | 0.41 | 0.030 | 0.76 | 0.213 | 5.41 | 23.0 | 42.0 |
| C4161A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.030 | 0.76 | 0.234 | 5.94 | 26.0 | 74.0 |

Color Code Chart #1

AWM STYLE 2106, CSA TYPE AWM, CSA C/US TYPE CMG

| | | | | | | | | | | | |
|--------|---|----|----------|-------|------|-------|------|-------|------|------|------|
| C4162A | 2 | 16 | 19/.0117 | 0.032 | 0.81 | 0.032 | 0.81 | 0.307 | 7.80 | 27.0 | 49.0 |
| C4165A | 3 | 16 | 19/.0117 | 0.032 | 0.81 | 0.032 | 0.81 | 0.326 | 8.28 | 26.0 | 46.0 |

Color Code Chart #1

NEC TYPE CL2, AWM STYLE 2464, CSA TYPE AWM

| | | | | | | | | | | | |
|--------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C4163A | 2 | 14 | 41/30 | 0.020 | 0.51 | 0.032 | 0.81 | 0.298 | 7.57 | 31.0 | 56.0 |
|--------|---|----|-------|-------|------|-------|------|-------|------|------|------|

Color Code Chart #3

NEC TYPE CL2, AWM STYLE 2106, CSA TYPE AWM

| | | | | | | | | | | | |
|--------|---|----|----------|-------|------|-------|------|-------|------|------|------|
| C4164A | 2 | 12 | 19/.0185 | 0.032 | 0.81 | 0.040 | 1.02 | 0.390 | 9.90 | 35.0 | 63.0 |
|--------|---|----|----------|-------|------|-------|------|-------|------|------|------|

Color Code Chart #1

AWM STYLE 20251, CSA TYPE AWM, CSA C/US TYPE CMG

| | | | | | | | | | | | |
|--------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C4167A | 2 | 22 | Solid | 0.007 | 0.18 | 0.020 | 0.51 | 0.124 | 3.15 | 40.0 | 76.0 |
| C4168A | 2 | 22 | 7/30 | 0.008 | 0.20 | 0.020 | 0.51 | 0.137 | 3.48 | 34.0 | 67.0 |
| C4169A | 3 | 22 | 7/30 | 0.008 | 0.20 | 0.020 | 0.51 | 0.144 | 3.66 | 32.0 | 60.0 |

Polyethylene Insulation, Color Code Chart #2

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart 1

| NO. OF COND. | COLOR |
|--------------|---------|
| 1 | Black |
| 2 | Natural |
| 3 | Red |
| 4 | Green |

Color Code Chart 2

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | Clear |

Color Code Chart 3

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | White |



Multi-Conductor, Foil Shield

AWM Styles 2464, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US), or NEC Type CL2

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

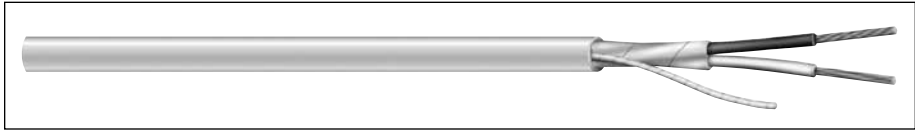
- Recording studios and sound stages
- Broadcast and sound systems
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Compliances:

- AWM Style 2464 (UL: 80°C, 300 V)
- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- UL Certified CL2 to Standard UL 13
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|------------|------------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | A | B |

AWM STYLE 2464, CSA TYPE AWM, CSA C/US TYPE CMG

| | | | | | | | | | | | | |
|--------|---|----|----------|-------|------|-------|------|-------|------|---|------|-------|
| C4192A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.171 | 4.34 | 1 | 47.0 | 85.0 |
| C4210A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.171 | 4.34 | 2 | 47.0 | 85.0 |
| C4193A | 3 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.179 | 4.55 | 2 | 43.0 | 76.0 |
| C4194A | 4 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.192 | 4.88 | 2 | 43.0 | 76.0 |
| C4207A | 6 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.218 | 5.54 | 2 | 43.0 | 76.0 |
| C4208A | 8 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.238 | 6.05 | 2 | 43.0 | 76.0 |
| C4166A | 2 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.189 | 4.80 | 1 | 46.0 | 83.0 |
| C4211A | 2 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.189 | 4.80 | 2 | 46.0 | 83.0 |
| C4195A | 3 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.200 | 5.08 | 2 | 42.0 | 75.0 |
| C4196A | 4 | 20 | 7/28 | 0.012 | 0.30 | 0.032 | 0.81 | 0.216 | 5.49 | 2 | 42.0 | 75.0 |
| C4197A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.205 | 5.20 | 1 | 51.0 | 92.0 |
| C4212A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.205 | 5.20 | 2 | 51.0 | 92.0 |
| C4198A | 3 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.214 | 5.44 | 2 | 46.0 | 83.0 |
| C4204A | 4 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.236 | 5.99 | 2 | 46.0 | 83.0 |
| C4205A | 6 | 18 | 16/30 | 0.012 | 0.30 | 0.032 | 0.81 | 0.271 | 6.88 | 2 | 46.0 | 83.0 |
| C4199A | 2 | 16 | 19/.0117 | 0.012 | 0.30 | 0.032 | 0.81 | 0.229 | 5.82 | 1 | 62.0 | 112.0 |
| C4213A | 2 | 16 | 19/.0117 | 0.012 | 0.30 | 0.032 | 0.81 | 0.229 | 5.82 | 2 | 62.0 | 112.0 |
| C4200A | 3 | 16 | 19/.0117 | 0.012 | 0.30 | 0.032 | 0.81 | 0.241 | 6.12 | 2 | 58.0 | 104.0 |

AWM STYLE 2464, CSA TYPE AWM (FT4), NEC TYPE CL2*

| | | | | | | | | | | | | |
|--------|---|----|----------|-------|------|-------|------|-------|------|---|------|-------|
| C4201A | 2 | 14 | 19/.0147 | 0.015 | 0.38 | 0.032 | 0.81 | 0.271 | 6.88 | 1 | 60.0 | 107.0 |
| C4215A | 2 | 14 | 19/.0147 | 0.015 | 0.38 | 0.032 | 0.81 | 0.271 | 6.88 | 2 | 60.0 | 107.0 |
| C4202A | 2 | 12 | 19/.0185 | 0.015 | 0.38 | 0.032 | 0.81 | 0.307 | 7.80 | 1 | 64.0 | 116.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart 1

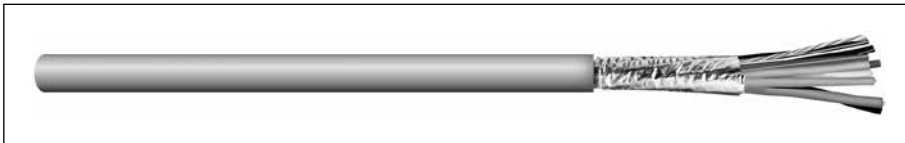
| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |

Color Code Chart 2

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Brown |
| 6 | Blue |
| 7 | Orange |
| 8 | Yellow |

Multi-Conductor, Foil Shield

AWM Style 2464, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Compliances:

- AWM Style 2464 (UL: 80°C, 300 V)
- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft @20°C | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|----|--------------------------|----|--------------|----|-------------------------|-------|---------------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |

AWM STYLE 2464, CSA TYPE AWM, CSA C/US TYPE CMG

| | | | | | | | | | | | | | |
|--------|----|----|------|-------|------|-------|------|-------|------|------|------|------|------|
| C4216A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.157 | 3.99 | 26.0 | 18.0 | 40.0 | 72.0 |
| C4217A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.164 | 4.17 | 26.0 | 18.0 | 36.0 | 66.0 |
| C4218A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.175 | 4.45 | 26.0 | 18.0 | 36.0 | 66.0 |
| C4219A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.188 | 4.78 | 26.0 | 16.0 | 36.0 | 66.0 |
| C4220A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.201 | 5.11 | 26.0 | 16.0 | 34.0 | 61.0 |
| C4221A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.201 | 5.11 | 26.0 | 16.0 | 34.0 | 61.0 |
| C4222A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.215 | 5.46 | 26.0 | 16.0 | 34.0 | 61.0 |
| C4223A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.228 | 5.79 | 26.0 | 16.0 | 34.0 | 61.0 |
| C4224A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.245 | 6.22 | 26.0 | 14.0 | 34.0 | 61.0 |

Color Code Chart #1

| | | | | | | | | | | | | | |
|--------|----|----|------|-------|------|-------|------|-------|-------|------|------|------|------|
| C4225A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.276 | 7.01 | 26.0 | 14.0 | 34.0 | 61.0 |
| C4226A | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.303 | 7.70 | 26.0 | 14.0 | 34.0 | 61.0 |
| C4227A | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.333 | 8.46 | 26.0 | 12.0 | 34.0 | 61.0 |
| C4228A | 30 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.351 | 8.92 | 26.0 | 12.0 | 34.0 | 61.0 |
| C4229A | 40 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.391 | 9.93 | 26.0 | 12.0 | 34.0 | 61.0 |
| C4230A | 50 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.439 | 11.15 | 26.0 | 10.0 | 34.0 | 61.0 |

Color Code Chart #2

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart 1 – For cables up to and including 10 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 6 | Blue |
| 2 | White | 7 | Orange |
| 3 | Red | 8 | Yellow |
| 4 | Green | 9 | Purple |
| 5 | Brown | 10 | Gray |

Color Code Chart 2 Per ICEA – For cables of 15 to 50 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|--------------|--------------|--------------------|--------------|-------------------|
| 1 | Black | 18 | Orange/Red | 35 | White/Red/Orange |
| 2 | White | 19 | Blue/Red | 36 | Orange/White/Blue |
| 3 | Red | 20 | Red/Green | 37 | White/Red/Blue |
| 4 | Green | 21 | Orange/Green | 38 | Black/White/Green |
| 5 | Orange | 22 | Black/White/Red | 39 | White/Black/Green |
| 6 | Blue | 23 | White/Black/Red | 40 | Red/White/Green |
| 7 | White/Black | 24 | Red/Black/White | 41 | Green/White/Blue |
| 8 | Red/Black | 25 | Green/Black/White | 42 | Orange/Red/Green |
| 9 | Green/Black | 26 | Orange/Black/White | 43 | Blue/Red/Green |
| 10 | Orange/Black | 27 | Blue/Black/White | 44 | Black/White/Blue |
| 11 | Blue/Black | 28 | Black/Red/Green | 45 | White/Black/Blue |
| 12 | Black/White | 29 | White/Red/Green | 46 | Red/White/Blue |
| 13 | Red/White | 30 | Red/Black/Green | 47 | Green/Orange/Red |
| 14 | Green/White | 31 | Green/Black/Orange | 48 | Orange/Red/Blue |
| 15 | Blue/White | 32 | Orange/Black/Green | 49 | Blue/Red/Orange |
| 16 | Black/Red | 33 | Blue/White/Orange | 50 | Black/Orange/Red |
| 17 | White/Red | 34 | Black/White/Orange | | |



Multi-Conductor, Foil Shield

CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 22 thru 14 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C
- Includes ripcord

Applications:

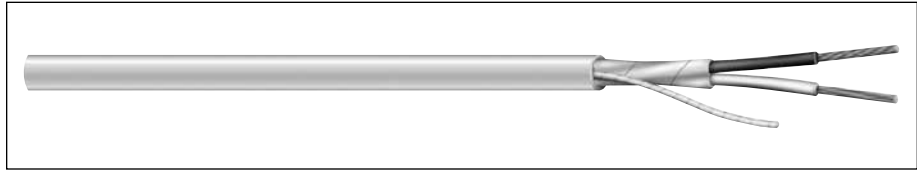
- Recording studios and sound stages
- Broadcast and sound systems
- Suggested voltage rating: 300 or 600 volts

Compliances:

- CSA Type AWM (105°C, 600 V)
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INS. THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | COLOR CODE | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------|----|-----------------------|----|--------------|----|------------|------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | | A | B |

CSA TYPE AWM, CSA C/US TYPE CMG

| | | | | | | | | | | | | |
|--------|---|----|----------|-------|------|-------|------|-------|------|---|------|------|
| C6892A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.139 | 3.53 | 1 | 37.7 | 67.8 |
| C6810A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.139 | 3.53 | 2 | 37.7 | 67.8 |
| C6893A | 3 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.147 | 3.73 | 2 | 34.3 | 61.7 |
| C6894A | 4 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.160 | 4.06 | 2 | 34.3 | 61.7 |
| C6807A | 6 | 22 | 7/30 | 0.011 | 0.28 | 0.016 | 0.41 | 0.190 | 4.83 | 2 | 31.7 | 57.0 |
| C6866A | 2 | 20 | 7/28 | 0.011 | 0.28 | 0.016 | 0.41 | 0.153 | 3.89 | 1 | 42.2 | 76.0 |
| C6811A | 2 | 20 | 7/28 | 0.011 | 0.28 | 0.016 | 0.41 | 0.153 | 3.89 | 2 | 38.0 | 68.4 |
| C6896A | 4 | 20 | 7/28 | 0.011 | 0.28 | 0.016 | 0.41 | 0.177 | 4.50 | 2 | 34.8 | 62.7 |
| C6897A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.175 | 4.45 | 1 | 45.4 | 81.6 |
| C6812A | 2 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.175 | 4.45 | 2 | 45.4 | 81.6 |
| C6898A | 3 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.185 | 4.70 | 2 | 40.5 | 72.9 |
| C6804A | 4 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.204 | 5.18 | 2 | 40.5 | 72.9 |
| C6805A | 6 | 18 | 16/30 | 0.012 | 0.30 | 0.016 | 0.41 | 0.244 | 6.20 | 2 | 36.9 | 68.4 |
| C6899A | 2 | 16 | 19/.0117 | 0.012 | 0.30 | 0.016 | 0.41 | 0.197 | 5.00 | 1 | 53.6 | 96.4 |
| C6813A | 2 | 16 | 19/.0117 | 0.012 | 0.30 | 0.016 | 0.41 | 0.197 | 5.00 | 2 | 53.6 | 96.4 |
| C6800A | 3 | 16 | 19/.0117 | 0.012 | 0.30 | 0.016 | 0.41 | 0.209 | 5.31 | 2 | 47.0 | 84.6 |
| C6837A | 4 | 16 | 19/.0117 | 0.012 | 0.30 | 0.016 | 0.41 | 0.231 | 5.87 | 2 | 47.0 | 84.6 |

CSA TYPE AWM (FT4)

| | | | | | | | | | | | | |
|--------|---|----|----------|-------|------|-------|------|-------|------|---|------|------|
| C6801A | 2 | 14 | 19/.0147 | 0.015 | 0.38 | 0.016 | 0.41 | 0.239 | 6.07 | 1 | 54.0 | 97.2 |
| C6815A | 2 | 14 | 19/.0147 | 0.015 | 0.38 | 0.016 | 0.41 | 0.239 | 6.07 | 2 | 54.0 | 97.2 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart 1

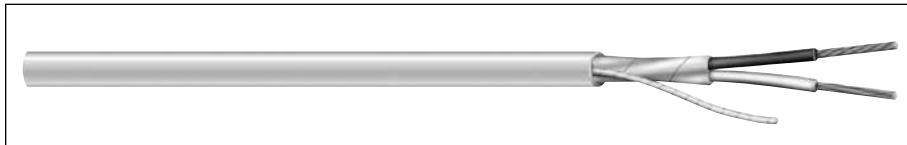
| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |

Color Code Chart 2

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Brown |
| 6 | Blue |
| 7 | Orange |
| 8 | Yellow |

Power-Limited Tray Cable, Foil Shield

NEC Type PLTC, NEC/CEC Type CMG UL/CSA**



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C0450A | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.191 | 4.85 | 43.0 | 77.5 |
| C0451A | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.199 | 5.05 | 39.5 | 71.0 |
| C0452A | 2 | 20 | 7/28 | 0.013 | 0.33 | 0.037 | 0.94 | 0.207 | 5.26 | 48.5 | 87.0 |
| C0453A | 3 | 20 | 7/28 | 0.013 | 0.33 | 0.037 | 0.94 | 0.217 | 5.51 | 44.0 | 79.0 |
| C0454A | 2 | 18 | 16/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.221 | 5.61 | 54.5 | 98.0 |
| C0455A | 3 | 18 | 16/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.232 | 5.89 | 49.0 | 88.0 |
| C0456A | 2 | 16 | 19/.0117 | 0.013 | 0.33 | 0.037 | 0.94 | 0.243 | 6.17 | 64.0 | 115.5 |
| C0457A | 3 | 16 | 19/.0117 | 0.013 | 0.33 | 0.037 | 0.94 | 0.255 | 6.48 | 56.5 | 102.0 |
| C0458A** | 2 | 14 | 19/.0147 | 0.013 | 0.33 | 0.042 | 1.07 | 0.288 | 7.32 | 72.5 | 131.0 |
| C0459A** | 3 | 14 | 19/.0147 | 0.013 | 0.33 | 0.042 | 1.07 | 0.298 | 7.57 | 63.0 | 113.5 |
| C0460A** | 2 | 12 | 19/.0185 | 0.013 | 0.33 | 0.042 | 1.07 | 0.315 | 8.00 | 80.5 | 145.0 |

*NEC Type PLTC Only

**CSA or c(UL)

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | White |

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Sunlight-resistant
- Temperature range: -20°C to +105°C

Applications:

- Cable tray installations
- Power limited circuits
- Intercom systems
- Business machines
- Cash registers
- Industrial control systems
- Petrochemical refineries
- Suggested voltage rating: 300 volts
- Burglar alarms
- UL tray cable rated

Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C, 300 V)
- NEC/CEC Type CMG (UL/CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Meets UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Underwriters Laboratories Inc.



Multi-Conductor, Spiral Shield

UL 2095, NEC Type CL2, NEC/CEC Type CMG UL/CSA**

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See charts below

Shield:

- 85% spiral tinned copper

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

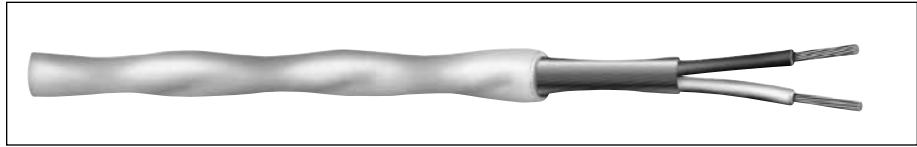
- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2095 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- NEC Article 725 Type CL2 (UL: 75°C)
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|------------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |

UL STYLE 2095, CM (UL) c(UL), CSA CMG, 300 V

| | | | | | | | | | | | |
|---------------|---|----|------|-------|------|-------|------|-------|------|------|------|
| C2882A | 2 | 22 | 7/30 | 0.015 | 0.38 | 0.032 | 0.81 | 0.197 | 5.00 | 40.0 | 72.0 |
| C2888A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.215 | 5.46 | 44.0 | 80.2 |

Color Code Chart #1

CL2/CM (UL) c(UL), CSA CMG, 300 V

| | | | | | | | | | | | |
|---------------|---|----|------|-------|------|-------|------|-------|------|------|------|
| C1335A | 3 | 22 | 7/30 | 0.015 | 0.38 | 0.032 | 0.81 | 0.206 | 5.23 | 37.0 | 67.0 |
| C1337A | 4 | 22 | 7/30 | 0.015 | 0.38 | 0.032 | 0.81 | 0.222 | 5.64 | 37.0 | 67.0 |
| C1341A | 6 | 22 | 7/30 | 0.015 | 0.38 | 0.032 | 0.81 | 0.257 | 6.53 | 34.5 | 62.0 |
| C2768A | 3 | 18 | 7/26 | 0.020 | 0.51 | 0.032 | 0.81 | 0.266 | 6.76 | 41.0 | 74.0 |

Color Code Chart #1

CM (UL) c(UL), CSA CMG, 300 V

| | | | | | | | | | | | |
|---------------|---|----|----------|-------|------|-------|------|-------|------|------|-------|
| C2892A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.252 | 6.40 | 49.5 | 89.0 |
| C2895A | 2 | 16 | 19/.0117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.265 | 6.73 | 58.0 | 104.0 |

Color Code Chart #2

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

**CSA or c(UL)

Data subject to change.

Color Code Chart 1

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | Red |
| 3 | White |
| 4 | Green |
| 5 | Yellow |
| 6 | Blue |

Color Code Chart 2

| CATALOG NUMBER | CONDUCTOR | COLOR |
|----------------|-----------|-------|
| C2892A | 1 | White |
| | 2 | Red |
| C2895A | 1 | White |
| | 2 | Black |

Multi-Conductor, Braid Shield

NEC Type CL2 and CM(UL) c(UL)



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|-----------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C2676A | 2 | 22 | Solid | 0.015 | 0.38 | 0.032 | 0.81 | 0.209 | 5.31 | 38.6 | 69.4 |
| C2677A | 2 | 22 | 7/30 | 0.015 | 0.38 | 0.032 | 0.81 | 0.211 | 5.36 | 39.3 | 70.7 |

A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |

Product Construction:

Conductor:

- 22 AWG fully annealed solid or stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Shield:

- 88% tinned copper braid
- Stranded or solid tinned copper drain wire

Jacket:

- PVC, black
- Temperature range: -20°C to +75°C

Applications:

- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Good flexibility
- Excellent shielding for noise reduction
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- NEC Article 725 Type CL2 (UL: 75°C)
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Multi-Conductor, Braid Shield

UL 2092, 2093, 2094, NEC Type CM (UL) c(UL) CMH

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded polyethylene
- Color code: See chart below

Shield:

- 80% tinned copper braid
- Mylar wrap under braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

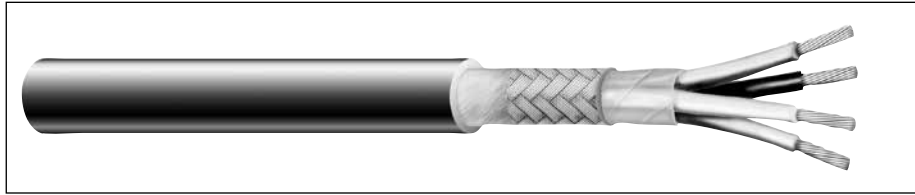
- Electronic circuits where RF shielding is required
- Video interconnect
- Broadcast and studio
- Sound systems
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM/CMH (UL: 75°C)
- AWM style 2092 (UL: 60°C, 300 V)
- AWM style 2093 (UL: 60°C, 300 V)
- AWM style 2094 (UL: 60°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL VW-1 Vertical Wire Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |

AWM STYLE 2092, CM (UL) c(UL) CMH, 300 V

| | | | | | | | | | | | |
|---------------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C1642A | 2 | 20 | 26/34 | 0.016 | 0.38 | 0.029 | 0.74 | 0.226 | 5.74 | 24.0 | 43.0 |
|---------------|---|----|-------|-------|------|-------|------|-------|------|------|------|

AWM STYLE 2093, CM (UL) c(UL) CMH, 300 V

| | | | | | | | | | | | |
|---------------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C1643A | 3 | 20 | 26/34 | 0.016 | 0.38 | 0.029 | 0.74 | 0.236 | 5.99 | 22.0 | 40.0 |
|---------------|---|----|-------|-------|------|-------|------|-------|------|------|------|

AWM STYLE 2094, CM (UL) c(UL) CMH 300 V

| | | | | | | | | | | | |
|---------------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C1644A | 4 | 20 | 26/34 | 0.016 | 0.38 | 0.029 | 0.74 | 0.255 | 6.48 | 22.0 | 39.0 |
| C1645A | 5 | 20 | 26/34 | 0.016 | 0.38 | 0.029 | 0.74 | 0.274 | 6.96 | 22.0 | 39.0 |
| C1646A | 6 | 20 | 26/34 | 0.016 | 0.38 | 0.029 | 0.74 | 0.290 | 7.37 | 20.0 | 36.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

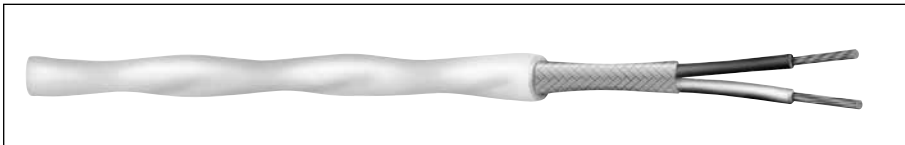
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Yellow |
| 6 | Blue |

Multi-Conductor, Braid Shield

UL 2095, NEC/CEC Type CMG UL/CSA**



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|-----------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C2679A | 2 | 22 | 7/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.212 | 5.38 | 40.0 | 72.0 |
| C2678A | 3 | 22 | 7/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.221 | 5.61 | 37.0 | 67.0 |
| C2680A | 4 | 22 | 7/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.237 | 6.02 | 37.0 | 67.0 |
| C2681A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.230 | 5.84 | 44.0 | 80.0 |
| C1332A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.240 | 6.10 | 40.0 | 72.0 |
| C2683A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.259 | 6.58 | 40.0 | 73.0 |
| C2686A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.252 | 6.40 | 49.0 | 89.0 |
| C2687A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.264 | 6.71 | 45.0 | 80.5 |
| C2688A | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.286 | 7.26 | 45.0 | 80.5 |
| C2689A | 2 | 16 | 19/29 | 0.020 | 0.51 | 0.032 | 0.81 | 0.280 | 7.11 | 51.0 | 91.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

**CSA or c(UL)

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | White |
| 4 | Green |

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Shield:

- 75% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Provides good flexibility
- Excellent shielding for noise reduction
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2095 (UL: 80°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMG (CSA: 60°C)
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Underwriters Laboratories Inc.



Multi-Conductor, Braid Shield

MIL-W-16878 Type B

Product Construction:

Conductor:

- 28 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC per MIL-W-16878 Type B
- Color code: See chart below

Shield:

- 90% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +90°C

Applications:

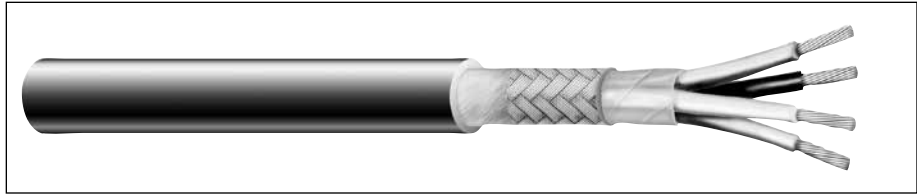
- Electronic circuits where RF shielding is required
- Remote control for studio equipment
- Sound systems
- Provides good flexibility
- Excellent shielding for noise reduction
- Suggested voltage rating: 600 volts
- Non QPL

Compliances:

- RoHS Compliant Directive 2011/65/EU
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C6500A | 2 | 28 | 7/36 | 0.010 | 0.28 | 0.016 | 0.41 | 0.130 | 3.30 | 34.0 | 61.0 |
| C6501A | 3 | 28 | 7/36 | 0.010 | 0.28 | 0.016 | 0.41 | 0.135 | 3.30 | 32.5 | 58.5 |
| C6502A | 4 | 28 | 7/36 | 0.010 | 0.28 | 0.016 | 0.41 | 0.145 | 3.68 | 32.5 | 58.5 |
| C6503A | 6 | 28 | 7/36 | 0.010 | 0.28 | 0.019 | 0.48 | 0.172 | 4.37 | 30.5 | 55.0 |
| C6504A | 8 | 28 | 7/36 | 0.010 | 0.28 | 0.021 | 0.53 | 0.187 | 4.75 | 30.5 | 55.0 |
| C6505A | 10 | 28 | 7/36 | 0.010 | 0.28 | 0.021 | 0.53 | 0.212 | 5.38 | 30.5 | 55.0 |
| C6506A | 12 | 28 | 7/36 | 0.010 | 0.28 | 0.021 | 0.53 | 0.217 | 5.51 | 30.5 | 55.0 |
| C6507A | 15 | 28 | 7/36 | 0.010 | 0.28 | 0.021 | 0.53 | 0.237 | 6.01 | 30.5 | 55.0 |
| C6508A | 20 | 28 | 7/36 | 0.010 | 0.28 | 0.021 | 0.53 | 0.259 | 6.58 | 30.5 | 55.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

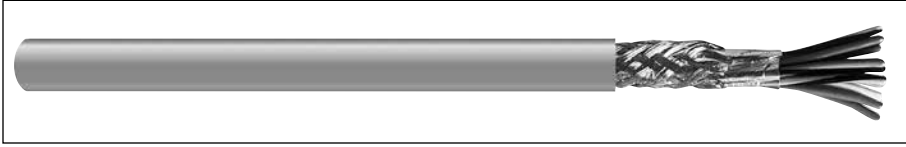
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|--------------|--------------|------------|
| 1 | Black | 8 | Red/Black | 15 | Blue/White |
| 2 | White | 9 | Green/Black | 16 | Black/Red |
| 3 | Red | 10 | Orange/Black | 17 | White/Red |
| 4 | Green | 11 | Blue/Black | 18 | Orange/Red |
| 5 | Orange | 12 | Black/White | 19 | Blue/Red |
| 6 | Blue | 13 | Red/White | 20 | Red/Green |
| 7 | White/Black | 14 | Green/White | | |

Multi-Conductor, Foil/Braid Shield

UL 2094, NEC Type CL2



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C1648A | 8 | 20 | 26/34 | 0.016 | 0.38 | 0.029 | 0.74 | 0.316 | 8.03 | 20.0 | 36.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 5 | Yellow |
| 2 | White | 6 | Blue |
| 3 | Red | 7 | Brown |
| 4 | Green | 8 | Orange |

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded polyethylene
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- 80% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

- Electronic circuits where RF shielding is required
- Video interconnect
- Broadcast and studio
- Sound systems
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL2 (UL: 75°C)
- UL Style 2094 (UL: 60°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Multi-Conductor, Foil & TC Braid Shield

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Core Wrap:

- Polyester tape with 25% overlap

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap
- 90% tinned copper braid

Jacket:

- FEP, red
- Temperature range: -100°C to +200°C

Applications:

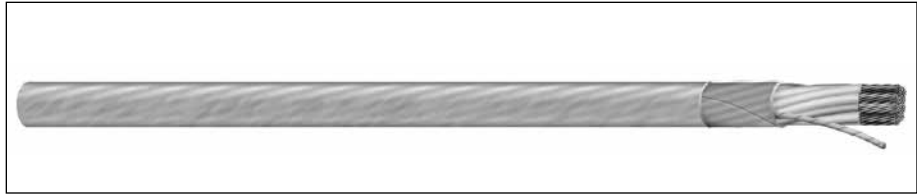
- Computer systems
- Remote control circuits
- Process control and instrumentation
- Audio controls
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |

16 AWG CONDUCTORS

| | | | | | | | | | | | |
|--------------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C8108 | 6 | 16 | 19/29 | 0.007 | 0.18 | 0.014 | 0.36 | 0.270 | 6.86 | 33.0 | 61.0 |
| C8119 | 3 | 16 | 19/29 | 0.007 | 0.18 | 0.014 | 0.36 | 0.209 | 5.31 | 35.0 | 63.0 |
| C8111 | 2 | 16 | 19/29 | 0.007 | 0.18 | 0.014 | 0.36 | 0.198 | 5.03 | 35.0 | 63.0 |

18 AWG CONDUCTORS

| | | | | | | | | | | | |
|--------------|---|----|-------|-------|------|-------|------|-------|------|------|------|
| C8120 | 6 | 18 | 19/30 | 0.007 | 0.18 | 0.014 | 0.36 | 0.242 | 6.15 | 33.0 | 61.0 |
| C8110 | 4 | 18 | 19/30 | 0.007 | 0.18 | 0.014 | 0.36 | 0.206 | 5.23 | 35.0 | 63.0 |
| C8107 | 3 | 18 | 19/30 | 0.007 | 0.18 | 0.014 | 0.36 | 0.190 | 4.83 | 35.0 | 63.0 |

24 AWG CONDUCTORS

| | | | | | | | | | | | |
|--------------|---|----|------|-------|------|-------|------|-------|------|------|------|
| C8115 | 3 | 24 | 7/32 | 0.006 | 0.15 | 0.014 | 0.36 | 0.133 | 3.38 | 25.0 | 45.0 |
|--------------|---|----|------|-------|------|-------|------|-------|------|------|------|

*A – Capacitance between conductors

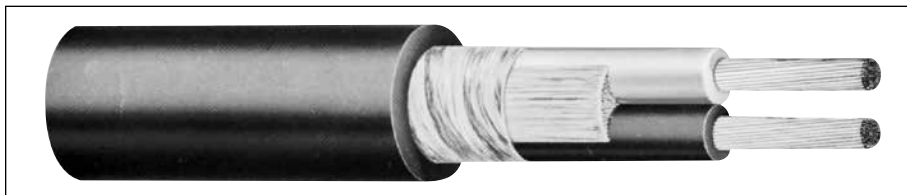
*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Orange |
| 6 | Blue |

Multi-Conductor, Rubber, Unshielded



Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded rubber
- Color code: See chart below

Jacket:

- Rubber, black
- Temperature range: -20°C to +60°C

Applications:

- Energy management systems
- Control circuits
- Fire alarm control
- Broadcast and studio requirements
- Suggested voltage rating: 350 volts

Features:

- Excellent impact resistance
- High level of abrasion resistance
- High flexibility
- Excellent mechanical strength
- Excellent moisture resistance

Compliances:

- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C3602 | 2 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |
| C3603 | 3 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |
| C3604 | 4 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |
| C3605 | 5 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |
| C3606 | 6 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |
| C3607 | 7 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |
| C3608 | 8 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |
| C3610 | 10 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.016 | 0.406 |

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Orange |
| 6 | Blue |
| 7 | Yellow |
| 8 | Brown |
| 9 | White/Black |
| 10 | Red/Black |

Multi-Conductor, Rubber, Braid Shield

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded rubber
- Color code: See chart below

Shield:

- 80% tinned copper braid

Jacket:

- Rubber, black
- Temperature range: -20°C to +60°C

Applications:

- Control circuits
- Broadcast and studio applications
- Audio interconnects
- Suggested voltage rating: 300 volts

Features:

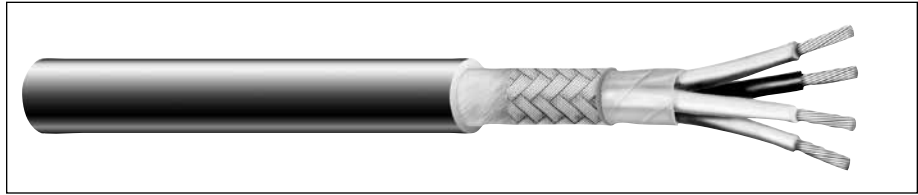
- Impact- and abrasion-resistant
- Stranded conductors for superior flexibility

Compliances:

- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options



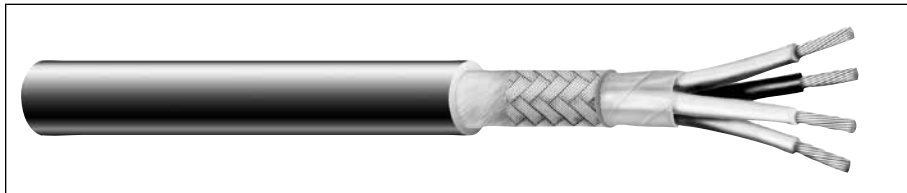
| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C1302 | 2 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.270 | 6.86 |
| C1304 | 3 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.285 | 7.24 |
| C1305 | 4 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.300 | 7.62 |
| C1308 | 5 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.330 | 8.38 |
| C1310 | 6 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.340 | 8.64 |
| C1312 | 7 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.355 | 9.02 |
| C1313 | 8 | 20 | 26/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.385 | 9.78 |

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 5 | Orange |
| 2 | White | 6 | Blue |
| 3 | Red | 7 | Yellow |
| 4 | Green | 8 | Brown |

Multi-Conductor, Carolprene® , Braid Shield



Product Construction:

Conductor:

- 18 thru 14 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded rubber
- Color code: See chart below

Shield:

- 80% tinned copper braid

Jacket:

- Carolprene®, black
- Temperature range: -20°C to +60°C

Applications:

- Control circuits
- Broadcast and studio applications
- Audio interconnects
- Suggested voltage rating: 300 volts

Features:

- Impact- and abrasion-resistant
- Stranded conductors for superior flexibility
- Designed to meet UL VW-1 Vertical Wire Flame Test

Compliance:

- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C1202 | 2 | 18 | 41/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.295 | 7.49 |
| C1203 | 3 | 18 | 41/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.305 | 7.75 |
| C1204 | 4 | 18 | 41/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.330 | 8.38 |
| C1206 | 6 | 18 | 41/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.370 | 9.39 |
| C1602 | 2 | 16 | 65/34 | 0.025 | 0.64 | 0.035 | 0.89 | 0.335 | 8.51 |
| C1603 | 3 | 16 | 65/34 | 0.025 | 0.64 | 0.035 | 0.89 | 0.355 | 9.02 |
| C1604 | 4 | 16 | 65/34 | 0.025 | 0.64 | 0.035 | 0.89 | 0.385 | 9.78 |

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Blue |
| 6 | Brown |

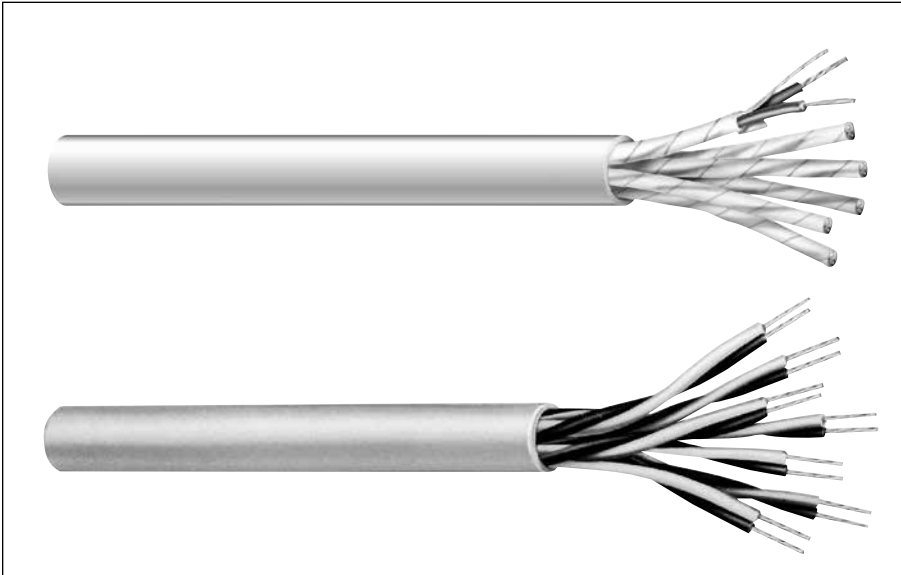


Underwriters Laboratories Inc.



Communication & Control Cable, Multi-Paired

2



In many electronic applications, two wires are required to complete circuits; these are often referred to as “balanced arrays” or “twisted pair” constructions.

Paired cable designs find frequent application in circuits requiring circuit-to-circuit isolation from noise, minimization of capacitance imbalances and a reduction of EMI interference currents.

Circuit separation is further enhanced in those designs employing individual circuit shields in concert with an overall shield. These shielding systems are available from General Cable in myriad combinations to suit the unique needs of the circuit designer.

As with the multi-conductor designs, a wide array of insulating and jacketing materials are available to meet specific electronic applications.

General Cable’s Carol® Brand communication cable products are manufactured to meet the latest UL, CSA and NEC requirements and approvals.

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Multi-Paired, Unshielded

UL 2464, NEC/CEC Type CMG UL/CSA**



Product Construction:

Conductor:

- 22 AWG fully annealed solid or stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C4008A | 1 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.156 | 3.94 | 24.5 |
| C4010A | 2 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.218 | 5.54 | 24.5 |
| C4014A | 3 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.229 | 5.82 | 24.5 |
| C4015A | 4 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.249 | 6.32 | 24.5 |
| C4017A | 6 | 22 | Solid | 0.010 | 0.30 | 0.032 | 0.81 | 0.288 | 7.44 | 24.5 |
| C6010A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.228 | 5.79 | 24.5 |
| C6014A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.240 | 6.10 | 24.5 |
| C6015A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.262 | 6.65 | 24.5 |
| C6017A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.300 | 7.62 | 24.5 |
| C6019A | 9 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.366 | 9.30 | 24.5 |
| C6023A | 12 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.410 | 10.40 | 24.5 |
| C6026A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.456 | 11.58 | 24.5 |

* Capacitance between conductors

**CSA or c(UL)

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--------------------------|--------------|-------------------------|
| 1 | Black paired with Red | 9 | Red paired with Green |
| 2 | Black paired with White | 10 | Red paired with Blue |
| 3 | Black paired with Green | 11 | Red paired with Yellow |
| 4 | Black paired with Blue | 12 | Red paired with Brown |
| 5 | Black paired with Yellow | 13 | Red paired with Orange |
| 6 | Black paired with Brown | 14 | Green paired with White |
| 7 | Black paired with Orange | 15 | Green paired with Blue |
| 8 | Red paired with White | | |



Underwriters Laboratories Inc.



Multi-Paired, Unshielded

UL 2464, NEC/CEC Type CMG UL/CSA**

Product Construction:

Conductor:

- 18 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

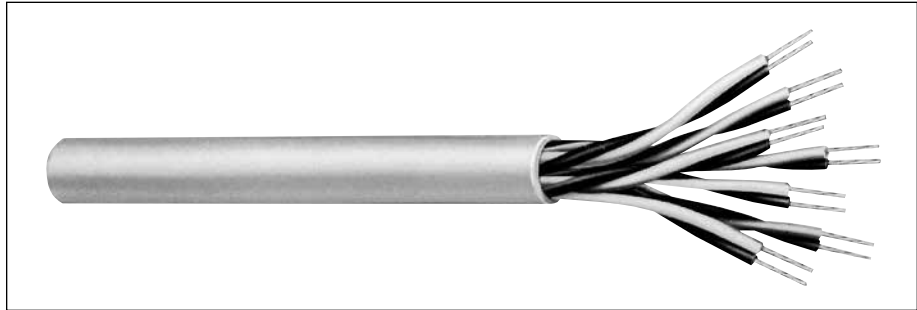
- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP.* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C6101A | 1 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.206 | 5.23 | 26.3 |
| C6118A | 2 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.320 | 8.13 | 26.3 |
| C6103A | 3 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.338 | 8.59 | 26.3 |
| C6119A | 4 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.372 | 9.45 | 26.3 |
| C6120A | 5 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.408 | 10.36 | 26.3 |
| C6106A | 6 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.445 | 11.30 | 26.3 |
| C6121A | 8 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.484 | 12.29 | 26.3 |
| C6109A | 9 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.522 | 13.26 | 26.3 |
| C6111A | 15 | 18 | 16/30 | 0.013 | 0.33 | 0.032 | 0.81 | 0.659 | 16.74 | 26.3 |

*Capacitance between conductors

**CSA or c(UL)

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--------------------------|--------------|-------------------------|
| 1 | Black paired with Red | 9 | Red paired with Green |
| 2 | Black paired with White | 10 | Red paired with Blue |
| 3 | Black paired with Green | 11 | Red paired with Yellow |
| 4 | Black paired with Blue | 12 | Red paired with Brown |
| 5 | Black paired with Yellow | 13 | Red paired with Orange |
| 6 | Black paired with Brown | 14 | Green paired with White |
| 7 | Black paired with Orange | 15 | Green paired with Blue |
| 8 | Red paired with White | | |

Multi-Paired, Unshielded

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. C-C CAP:* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C8116 | 1 | 18 | 19/30 | 0.007 | 0.18 | 0.009 | 0.23 | 0.142 | 3.61 | 20.0 |
| C8122 | 1 | 18 | 19/30 | 0.007 | 0.18 | 0.015 | 0.38 | 0.154 | 3.91 | 20.0 |

*Capacitance between conductors
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|---------------|
| 1 | Black and Red |

Product Construction:

Conductor:

- 18 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Jacket:

- C8116
- FEP, red
 - Temperature range: -40°C to +200°C
- C8122
- Flexguard® PVC, natural
 - Temperature range: -20°C to +75°C

Applications:

- Audio systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Paired, Foil Shield

NEC/CEC Type CMG UL/CSA**

Product Construction:

Conductor:

- 22 AWG fully annealed solid or stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

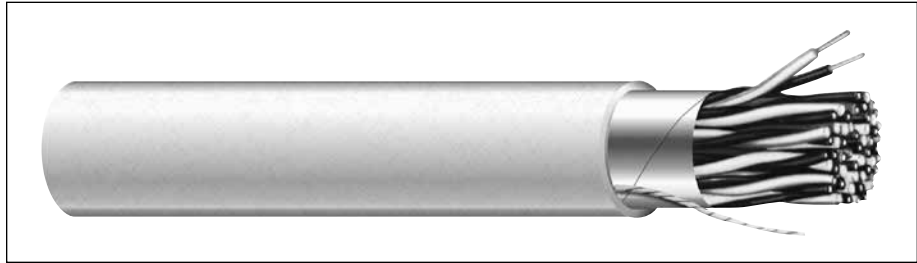
- Audio systems
- Communication circuits
- Instrumentation and control use
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP.* pF/ft | |
|----------------------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C7104A [†] | 1 | 22 | 7/.0096 | 0.013 | 0.33 | 0.035 | 0.89 | 0.185 | 4.70 | 35.0 | 62.0 |
| C1670A | 2 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.218 | 5.54 | 32.0 | 57.0 |
| C1676A | 4 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.249 | 6.32 | 28.0 | 50.0 |
| C1671A | 6 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.292 | 7.42 | 25.0 | 45.0 |
| C1672A | 9 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.338 | 8.59 | 25.0 | 45.0 |
| C1673A | 15 | 22 | Solid | 0.010 | 0.25 | 0.032 | 0.81 | 0.419 | 10.64 | 25.0 | 45.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

[†] Also UL Style 2464 (UL: 80°C, 300 V)

**CSA or c(UL)

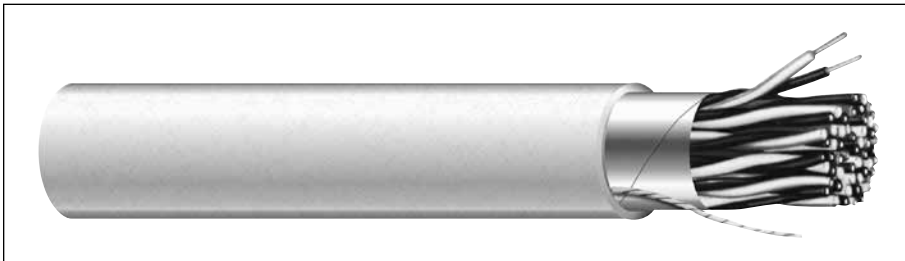
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--------------------------|--------------|-------------------------|
| 1 | Black paired with Red | 9 | Red paired with Green |
| 2 | Black paired with White | 10 | Red paired with Blue |
| 3 | Black paired with Green | 11 | Red paired with Yellow |
| 4 | Black paired with Blue | 12 | Red paired with Brown |
| 5 | Black paired with Yellow | 13 | Red paired with Orange |
| 6 | Black paired with Brown | 14 | Green paired with White |
| 7 | Black paired with Orange | 15 | Green paired with Blue |
| 8 | Red paired with White | | |

Multi-Paired, Foil Shield

UL 2095, NEC Type CM (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C6451A | 51 | 22 | Solid | 0.010 | 0.25 | 0.050 | 1.27 | 0.715 | 18.16 | 25.0 | 45.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--|--------------|---------------------------------------|--------------|--|
| 1 | Blue paired with White | 18 | Brown/White striped paired with White | 35 | Green/White striped paired with Red |
| 2 | Orange paired with White | | | 36 | Green/Brown striped paired with Red |
| 3 | Green paired with White | 19 | Brown/Gray striped paired with White | 37 | Green/Gray striped paired with Red |
| 4 | Brown paired with White | | | 38 | Brown/White striped paired with Red |
| 5 | Gray paired with White | 20 | Gray/White striped paired with White | 39 | Brown/Gray striped paired with Red |
| 6 | Blue/White striped paired with White | | | 40 | Gray/White striped paired with Red |
| 7 | Blue/Orange striped paired with White | 21 | Blue paired with Red | 41 | Blue paired with Black |
| | | 22 | Orange paired with Red | | |
| 8 | Blue/Green striped paired with White | 23 | Green paired with Red | 42 | Orange paired with Black |
| | | 24 | Brown paired with Red | | |
| 9 | Blue/Brown striped paired with White | 25 | Gray paired with Red | 43 | Green paired with Black |
| | | 26 | Blue/White striped paired with Red | | |
| 10 | Blue/Gray striped paired with White | 27 | Blue/Orange striped paired with Red | 44 | Brown paired with Black |
| | | | | 45 | Gray paired with Black |
| 11 | Orange/White striped paired with White | 28 | Blue/Green striped paired with Red | 46 | Blue/White striped paired with Black |
| 12 | Orange/Green striped paired with White | 29 | Blue/Brown striped paired with Red | 47 | Blue/Orange striped paired with Black |
| 13 | Orange/Brown striped paired with White | 30 | Blue/Gray striped paired with Red | 48 | Blue/Green striped paired with Black |
| 14 | Orange/Gray striped paired with White | 31 | Orange/White striped paired with Red | 49 | Blue/Brown striped paired with Black |
| 15 | Green/White striped paired with White | 32 | Orange/Green striped paired with Red | 50 | Blue/Gray striped paired with Black |
| 16 | Green/Brown striped paired with White | 33 | Orange/Brown striped paired with Red | 51 | Orange/White striped paired with Black |
| 17 | Green/Gray striped paired with White | 34 | Orange/Gray striped paired with Red | | |

Product Construction:

Conductor:

- 22 AWG fully annealed solid tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Intercom systems
- Sound systems
- Electronic instrumentation control systems
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300 V)
- UL Style 2095 (UL: 80°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
UL Vertical Tray
Flame Test
Underwriters Laboratories Inc.



Multi-Paired, Foil Shield

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- 22 and 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, natural
- Water-resistant
- Temperature range: -40°C to +150°C
- Sequential footage marked to facilitate installation
- Includes ripcord

Applications:

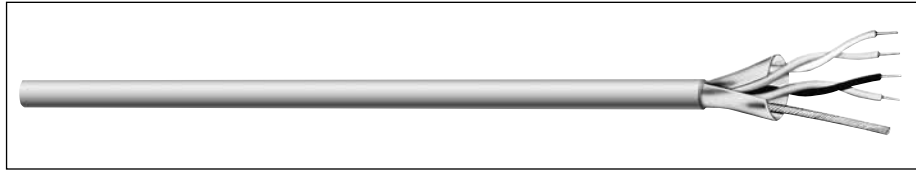
- EIA RS-232 circuits
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C3204 | 1 | 22 | 7/30 | 0.006 | 0.15 | 0.010 | 0.25 | 0.117 | 2.97 | 31.0 | 55.8 |
| C3205 | 2 | 22 | 7/30 | 0.006 | 0.15 | 0.010 | 0.25 | 0.151 | 3.84 | 25.0 | 45.0 |
| C3206 | 3 | 22 | 7/30 | 0.006 | 0.15 | 0.010 | 0.25 | 0.177 | 4.50 | 25.0 | 36.0 |
| C3207 | 4 | 22 | 7/30 | 0.006 | 0.15 | 0.010 | 0.25 | 0.200 | 5.08 | 20.0 | 45.0 |
| C3208 | 6 | 22 | 7/30 | 0.006 | 0.15 | 0.010 | 0.25 | 0.237 | 6.02 | 18.0 | 32.4 |
| C3150 | 2 | 24 | 7/32 | 0.006 | 0.15 | 0.010 | 0.25 | 0.130 | 3.30 | 22.0 | 39.6 |
| C3153 | 3 | 24 | 7/32 | 0.006 | 0.15 | 0.010 | 0.25 | 0.152 | 3.86 | 18.0 | 32.4 |
| C3151 | 4 | 24 | 7/32 | 0.006 | 0.15 | 0.010 | 0.25 | 0.170 | 4.32 | 17.0 | 30.6 |
| C3165 | 6 | 24 | 7/32 | 0.006 | 0.15 | 0.010 | 0.25 | 0.200 | 5.08 | 17.0 | 30.6 |
| C3152 | 12.5 | 24 | 7/32 | 0.006 | 0.15 | 0.012 | 0.30 | 0.290 | 7.04 | 17.0 | 30.6 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

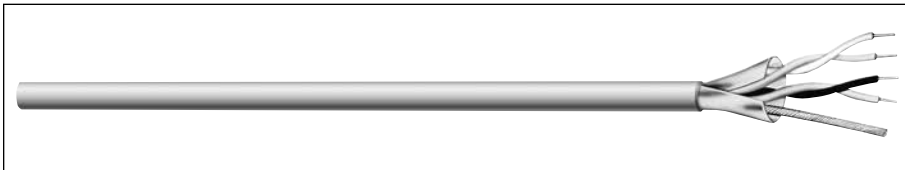
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|-----------------------------|
| 1 | Black & Yellow |
| 2 | Red & Purple |
| 3 | Dark Blue & Brown |
| 4 | Orange & Dark Green |
| 5 | Pink & Gray |
| 6 | Tan & White |
| 7 | Light Blue & Light Green |
| 8 | Red/White & White/Red |
| 9 | Orange/White & White/Orange |
| 10 | Yellow/White & White/Yellow |
| 11 | Gray/White & White/Gray |
| 12 | Blue/White & White/Blue |
| 1C | Dark Green/Yellow |

Multi-Paired, Foil Shield

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8101** | 1 | 18 | 19/30 | 0.007 | 0.18 | 0.016 | 0.41 | 0.165 | 4.19 | 51.0 | 95.0 |
| C8104 | 1 | 18 | 19/30 | 0.007 | 0.18 | 0.016 | 0.41 | 0.165 | 4.19 | 51.0 | 95.0 |
| C8103 | 1 | 22 | 7/30 | 0.006 | 0.15 | 0.014 | 0.36 | 0.120 | 3.05 | 35.0 | 65.0 |
| C8109** | 1 | 22 | 7/30 | 0.006 | 0.15 | 0.016 | 0.41 | 0.122 | 3.10 | 35.0 | 65.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

** FEP jacket

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|---------------|
| 1 | Black and Red |

Product Construction:

Conductor:

- 22 and 18 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Separator:

- Polyester tape with 25% overlap

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

C8101, C8109

- FEP, red
- Temperature range: -100°C to +200°C

C8104, C8103

- PVDF, red
- Temperature range: -40°C to +150°C

Applications:

- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options
- 1000' (305 m) reels



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Paired, Foil Shield

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded foam FEP
- Color code: See chart below

Core Wrap:

- Polyester tape with 25% overlap

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- PVDF, gray
- Temperature range: -40°C to +150°C

Applications:

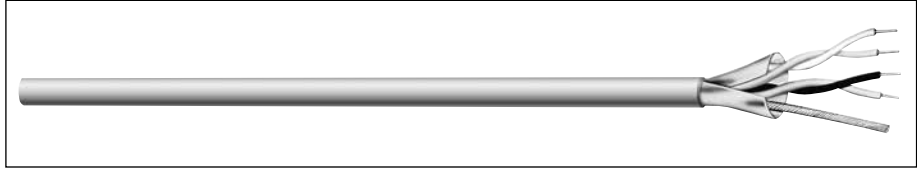
- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suitable for RS232, RS422, RS485
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8118 | 2 | 24 | 7/32 | 0.014 | 0.15 | 0.015 | 0.38 | 0.203 | 5.16 | 12.0 | 22.0 |

*A – Capacitance between conductors

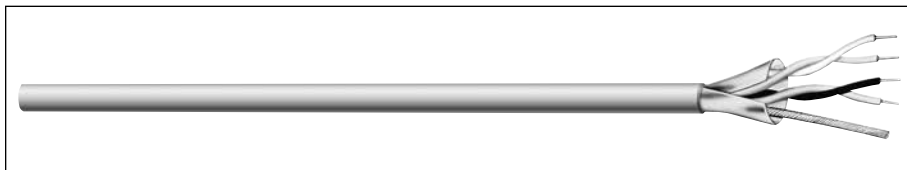
*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|---------------------------------------|
| 1 | White/Blue paired with Blue/White |
| 2 | White/Orange paired with Orange/White |

Multi-Paired, Foil Shield

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8127 | 1 | 24 | 7/32 | 0.006 | 0.15 | 0.014 | 0.36 | 0.108 | 2.69 | 30.0 | 60.0 |
| C8113 | 3 | 24 | 7/32 | 0.006 | 0.15 | 0.014 | 0.36 | 0.161 | 4.09 | 25.0 | 45.0 |
| C8126 | 1 | 22 | 7/30 | 0.006 | 0.15 | 0.014 | 0.36 | 0.120 | 3.05 | 35.0 | 65.0 |
| C8123 | 1 | 18 | 19/30 | 0.007 | 0.18 | 0.014 | 0.36 | 0.160 | 4.06 | 51.0 | 90.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

| | | | | | | | | | | | |
|----------------|---|----|------|-------|------|-------|------|-------|------|------|------|
| C8124** | 1 | 22 | 7/30 | 0.007 | 0.18 | 0.017 | 0.43 | 0.128 | 3.25 | 32.0 | 62.0 |
|----------------|---|----|------|-------|------|-------|------|-------|------|------|------|

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

**This item does not have a separator and has a shield fusible to the jacket to facilitate removal along with the jacket while stripping.

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|---------------|
| 1 | Black and Red |

| C8113 NO. OF PAIRS | COLOR |
|-----------------------|-------------------------|
| 1 | Black paired with White |
| 2 | Black paired with Red |
| 3 | Black paired with Green |

Product Construction:

Conductor:

- 24, 22 and 18 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Core Wrap:

- Polyester tape with 25% overlap

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Flexguard® PVC, natural
- Temperature range: -20°C to +75°C

Applications:

- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Paired, Foil Shield

NEC Type CMP (UL) c(UL) and/or CL2P

Product Construction:

Conductor:

- 22 and 18 AWG fully annealed stranded tinned copper per ASTM B33 or stranded bare copper per ASTM B3
- Twisted pairs

Insulation:

- Premium-grade, color-coded Halar
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- PVDF, natural
- Temperature range: -10°C to +150°C
- Sequential footage marked to facilitate installation
- Includes ripcord

Applications:

- EIA RS-232 circuits
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

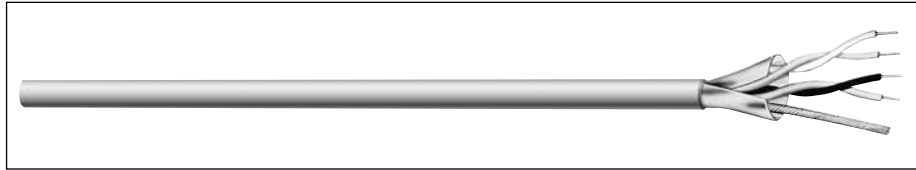
- NEC Article 800 (UL: 150°C, 300 V)
- NEC Article 725 (UL: 150°C, 150 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|--|--------------|----------|--------------|---------------------------|-------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| 22 AWG, CL2P, c(UL) 150 VOLTS | | | | | | | | | | | |
| C3352 | 2 | 22 | 7/30 TC | 0.007 | 0.180 | 0.010 | 0.25 | 0.157 | 3.99 | 37.0 | 66.0 |
| C3353 | 3 | 22 | 7/30 TC | 0.007 | 0.180 | 0.010 | 0.25 | 0.194 | 4.42 | 30.0 | 53.0 |
| C3354 | 4 | 22 | 7/30 TC | 0.007 | 0.180 | 0.010 | 0.25 | 0.207 | 4.75 | 30.0 | 53.0 |
| C3356 | 6 | 22 | 7/30 TC | 0.007 | 0.180 | 0.010 | 0.25 | 0.246 | 5.74 | 27.0 | 48.0 |
| 18 AWG, CL2P/CMP, c(UL) 150 VOLTS | | | | | | | | | | | |
| C3362 | 2 | 18 | 7/26 BC | 0.008 | 0.020 | 0.010 | 0.25 | 0.205 | 5.21 | 44.0 | 79.0 |
| C3364 | 4 | 18 | 7/26 BC | 0.008 | 0.020 | 0.010 | 0.25 | 0.277 | 7.04 | 33.0 | 59.0 |

*A – Capacitance between conductors

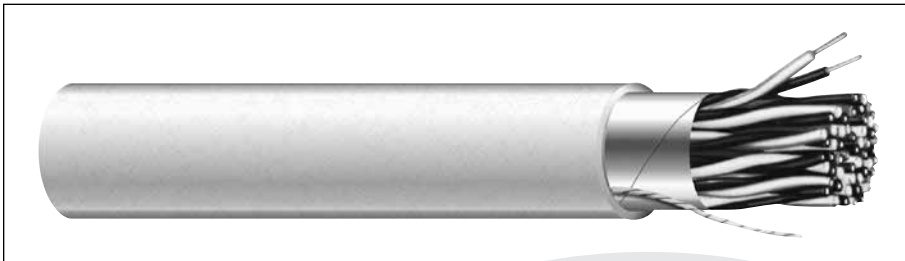
*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|---------------------|
| 1 | Black & Yellow |
| 2 | Red & Purple |
| 3 | Dark Blue & Brown |
| 4 | Orange & Dark Green |
| 5 | Pink & Gray |
| 6 | Tan & White |

Multi-Paired, Foil Shield

AWM Style 2464, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Features:

- Excellent electrical properties
- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Assists system designers in meeting FCC Docket 20780 demands
- Good flexibility

Compliances:

- AWM Style 2464 (UL: 80°C, 300 V)
- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR | | COLOR CODE | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|-------------|-------|------------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | A | B |
| C4170A | 1 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.160 | 4.06 | 26.0 | 18.0 | 1 | 36.4 | 65.5 |
| C4209A | 1 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.160 | 4.06 | 26.0 | 18.0 | Wht/Blk | 36.4 | 65.5 |
| C4191A | 1 | 24 | 7/32 | 0.011 | 0.28 | 0.030 | 0.76 | 0.160 | 4.06 | 26.0 | 16.5 | Blk/Red | 43.0 | 78.0 |
| C4171A | 2 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.214 | 5.44 | 26.0 | 18.0 | 1 | 31.9 | 57.3 |
| C4172A | 3 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.225 | 5.72 | 26.0 | 16.5 | 1 | 28.6 | 51.4 |
| C4173A | 4 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.245 | 6.22 | 26.0 | 16.5 | 1 | 28.6 | 51.4 |
| C4174A | 5 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.275 | 6.99 | 26.0 | 16.5 | 1 | 28.6 | 51.4 |
| C4175A | 6 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.300 | 7.62 | 26.0 | 15.2 | 1 | 26.3 | 47.5 |
| C4176A | 7 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.300 | 7.62 | 26.0 | 15.2 | 1 | 26.3 | 47.5 |
| C4177A | 8 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.320 | 8.13 | 26.0 | 15.0 | 1 | 26.3 | 47.5 |
| C4178A | 9 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.345 | 8.76 | 26.0 | 15.0 | 1 | 26.3 | 47.5 |
| C4179A | 10 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.375 | 9.53 | 26.0 | 14.0 | 1 | 26.3 | 47.5 |
| C4180A | 15 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.428 | 10.87 | 26.0 | 13.8 | 1 | 26.3 | 47.5 |
| C4181A | 19 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.450 | 11.43 | 26.0 | 13.5 | 1 | 26.3 | 47.5 |
| C4182A | 25 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.530 | 13.46 | 26.0 | 12.7 | 1 | 26.3 | 47.5 |

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart 1

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|-------------------|--------------|-------------------|
| 1 | Black with Red | 14 | Green with White |
| 2 | Black with White | 15 | Green with Blue |
| 3 | Black with Green | 16 | Green with Yellow |
| 4 | Black with Blue | 17 | Green with Brown |
| 5 | Black with Yellow | 18 | Green with Orange |
| 6 | Black with Brown | 19 | White with Blue |
| 7 | Black with Orange | 20 | White with Yellow |
| 8 | Red with White | 21 | White with Brown |
| 9 | Red with Green | 22 | White with Orange |
| 10 | Red with Blue | 23 | Blue with Yellow |
| 11 | Red with Yellow | 24 | Blue with Brown |
| 12 | Red with Brown | 25 | Blue with Orange |
| 13 | Red with Orange | | |



Multi-Paired, Foil Shield

AWM Style 2464, CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage ratings: 300 or 600 volts

Features:

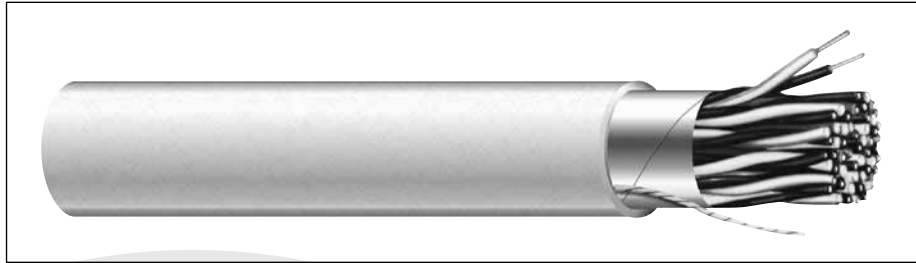
- Excellent electrical properties
- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Assists system designers in meeting FCC Docket 20780 demands
- Good flexibility

Compliances:

- AWM Style 2464 (UL: 80°C, 300 V)
- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|------|--------------------------|------|--------------|-------|-------------------|-------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| C4183A | 1 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.169 | 4.29 | 15.0 | 18.0 | 44.8 | 80.7 |
| C4184A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.234 | 5.94 | 15.0 | 16.5 | 35.9 | 64.6 |
| C4185A | 3 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.246 | 6.25 | 15.0 | 16.5 | 30.9 | 55.7 |
| C4186A | 4 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.269 | 6.83 | 15.0 | 16.5 | 30.9 | 55.7 |
| C4187A | 5 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.294 | 7.47 | 15.0 | 16.5 | 30.9 | 55.7 |
| C4188A | 6 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.320 | 8.13 | 15.0 | 16.5 | 28.4 | 51.0 |
| C4189A | 9 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.367 | 9.32 | 15.0 | 16.5 | 28.4 | 51.0 |
| C4190A | 15 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.457 | 11.61 | 15.0 | 16.5 | 28.4 | 51.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart 1

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|-------------------|--------------|------------------|
| 1 | Black with Red | 9 | Red with Green |
| 2 | Black with White | 10 | Red with Blue |
| 3 | Black with Green | 11 | Red with Yellow |
| 4 | Black with Blue | 12 | Red with Brown |
| 5 | Black with Yellow | 13 | Red with Orange |
| 6 | Black with Brown | 14 | Green with White |
| 7 | Black with Orange | 15 | Green with Blue |
| 8 | Red with White | | |

Multi-Paired, Foil Shield, Mid-Cap

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C3214 | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.010 | 0.25 | 0.150 | 3.81 | 17.0 | 30.0 |
| C3215 | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.010 | 0.25 | 0.177 | 4.50 | 15.0 | 27.0 |
| C3216 | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.010 | 0.25 | 0.201 | 5.11 | 15.0 | 27.0 |
| C3217 | 4.5 | 24 | 7/32 | 0.010 | 0.25 | 0.010 | 0.25 | 0.214 | 5.18 | 15.0 | 27.0 |
| C3218 | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.010 | 0.25 | 0.239 | 6.07 | 14.0 | 25.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|-------------------------------|
| 1 | Black paired with Yellow |
| 2 | Red paired with Purple |
| 3 | Dark Blue paired with Brown |
| 4 | Orange paired with Dark Green |
| 5 | Pink paired with Gray |
| 6 | Tan paired with White |
| 1C | Green with Yellow Stripe |

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, natural
- Temperature range: -40°C to +150°C
- Sequential footage marked to facilitate installation
- Includes ripcord

Applications:

- EIA RS-232 and RS-422 circuits
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Paired, Foil Shield, Lo-Cap®

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, natural
- Abrasion-, chemical- and water-resistant
- Temperature range: -40°C to +150°C
- Sequential footage marked to facilitate installation
- Includes ripcord

Applications:

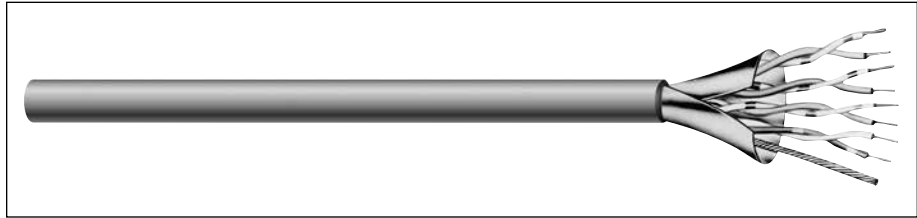
- EIA RS-232 and RS-422 circuits
- Remote control circuits
- Process control and instrumentation
- Low capacitance requirements
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | | IMPED. Ω NOM |
|----------------|--------------|----------|--------------|-----------------------|------|--------------|------|------------------|-------|--------------|
| | | | | INCHES | mm | INCHES | mm | A | B | |
| C3028 | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.159 | 4.04 | 15.0 | 27.00 | 94.0 |
| C3029 | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.183 | 4.65 | 14.0 | 25.00 | 107.0 |
| C3030 | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.246 | 6.25 | 14.0 | 25.00 | 107.0 |
| C3031 | 6 | 24 | 7/32 | 0.012 | 0.30 | 0.285 | 7.24 | 13.0 | 23.00 | 115.0 |

*A – Capacitance between conductors

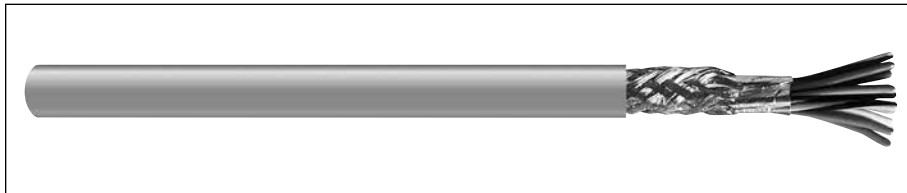
*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|-------------------------------|
| 1 | Black paired with Yellow |
| 2 | Red paired with Purple |
| 3 | Dark Blue paired with Brown |
| 4 | Orange paired with Dark Green |
| 5 | Pink paired with Gray |
| 6 | Tan paired with White |

Multi-Paired, Overall Foil & TC Braid Shield, Lo-Cap®

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8117 | 1 | 24 | 7/32 | 0.026 | 0.66 | 0.014 | 0.36 | 0.208 | 5.28 | 12.0 | 22.0 |
| C8129 | 2 | 24 | 7/32 | 0.019 | 0.48 | 0.017 | 0.43 | 0.280 | 6.93 | 12.0 | 22.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| C8117 NO. OF PAIRS | COLOR |
|-----------------------|-----------------------------------|
| 1 | White/Blue paired with Blue/White |

| C8129 NO. OF PAIRS | COLOR |
|-----------------------|---------------------------------------|
| 1 | White/Blue paired with Blue/White |
| 2 | White/Orange paired with Orange/White |

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded foam FEP
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- 90% tinned copper braid

Jacket:

C8117

- FEP, red
- Temperature range: -100°C to +200°C

C8129

- Flexguard® PVC, natural
- Temperature range: -20°C to +75°C

Applications:

- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Paired, Individually Shielded

UL 2717, UL 2835, NEC Type CM (UL) c(UL) CMH or CMG

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polypropylene
- Color code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

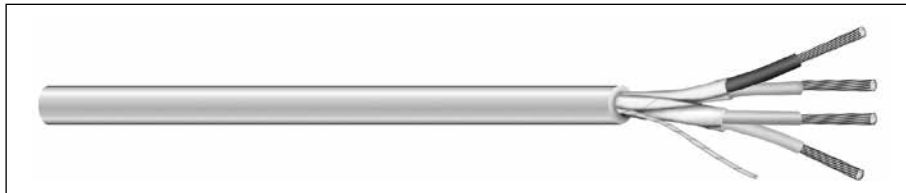
- Where total isolation of signal is required
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300 V)
- UL Style 2717 (UL: 80°C)
- UL Style 2835 (UL: 60°C, 30 V)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMH (CSA: 60°C)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH or CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP.* | |
|--|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| POLYPROPYLENE INSULATION – NEC TYPE CM(UL) c(UL) CMH | | | | | | | | | | | |
| C1352A | 2 | 22 | 7/30 | 0.007 | 0.18 | 0.020 | 0.51 | 0.160 | 4.06 | 30.0 | 45.0 |
| POLYPROPYLENE INSULATION – UL STYLE 2717, UL STYLE 2835, CM(UL) c(UL) CMH | | | | | | | | | | | |
| C1353A** | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.028 | 0.71 | 0.208 | 5.028 | 25.0 | 53.5 |
| SR-PVC INSULATION – UL STYLE 2464, CM(UL) c(UL) CMG | | | | | | | | | | | |
| C7106A | 2 | 20 | 7/28 | 0.010 | 0.25 | 0.041 | 1.04 | 0.305 | 7.75 | 46.0 | 82.0 |

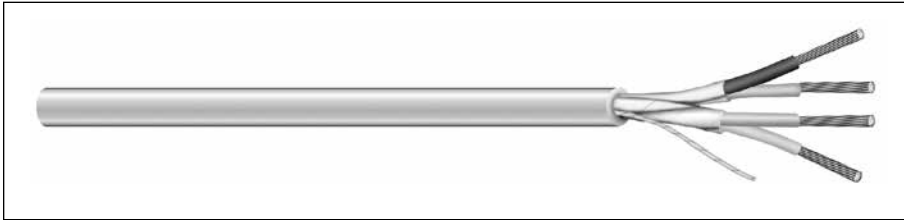
*A – Capacitance between conductors
 *B – Capacitance between one conductor and other conductors connected to shield
 **Individually shielded with overall shield
 Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|-------------|
| 1 | Black/Red |
| 2 | Green/White |

Multi-Paired, Individually Shielded

CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)



Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Where total isolation of signal is required
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 300 or 600 volts

Compliances:

- CSA Type AWM (105°C, 600 V)
- CSA Certified CMG to harmonized standard UL 444 and CSA (22.2 No. 2)
- NEC/CEC Type CMG (CSA: 105°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|------|--------------------------|------|--------------|------|-------------------|-------|---------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| C4203A | 2 | 22 | 7/30 | 0.011 | 0.28 | 0.020 | 0.51 | 0.175 | 4.45 | 16.6 | 7.2 | 67.0 | 121.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|------------------|
| 1 | Black with Red |
| 2 | Green with White |

Multi-Paired, Individually Shielded

UL 2464, UL 2576, NEC/CEC Type CMR, CMG UL/CSA†

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC per UL AWM Style 1061
- Color code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing in
- Stranded tinned copper drain wire

Jacket:

- PVC, beige
- Temperature range: -20°C to +80°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- UL Style 2576
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|-------|---------------------|-------------------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C1350A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.035 | 0.889 | 0.175 x 0.280 | 4.45 x 7.11 | 40 | 71.5 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

†CSA or c(UL)

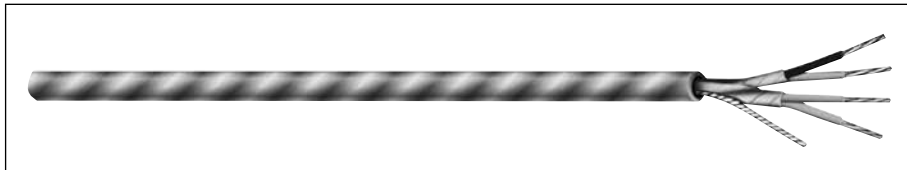
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|--------------|
| 1 | Black/White |
| 2 | Black/Yellow |

Multi-Paired, Individually Foil Shielded

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.** | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|-------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C3156* | 2 | 22 | 7/30 | 0.006 | 0.15 | 0.010 | 0.25 | 0.147 | 3.73 | 35.0 | 63.0 |
| C3157† | 3 | 22 | 7/30 | 0.006 | 0.15 | 0.010 | 0.25 | 0.184 | 4.67 | 35.0 | 63.0 |

* Cabled on common axis to reduce diameter, foil out, common drain wire

** A – Capacitance between conductors

** B – Capacitance between one conductor and other conductors connected to shield

† 3 individually shielded pairs with separate drain wires

Data subject to change.

Color Code Chart

| C3156 NO. OF PAIRS | COLOR |
|-----------------------|-------------------------|
| 1 | Black paired with Red |
| 2 | White paired with Green |

| C3157 NO. OF PAIRS | COLOR |
|-----------------------|-------------------------|
| 1 | Black paired with Red |
| 2 | Black paired with White |
| 3 | Black paired with Green |

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, each with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- PVDF, red
- Abrasion-, chemical- and water-resistant
- Temperature range: -40°C to +150°C
- Sequential footage marked to facilitate installation
- Includes ripcord

Applications:

- Point of sale systems
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300 V)
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Paired, Individually Foil Shielded

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- 24 thru 22 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded FEP or foamed FEP
- Color code: See chart below

Pair Shield:

- 100% Flexfoil® aluminum/polyester foil, with 25% overlap, minimum
- Individually shielded pairs with stranded tinned copper drain wire

Jacket:

- Flexguard® PVC, natural
- Temperature range: -20°C to +75°C

Applications:

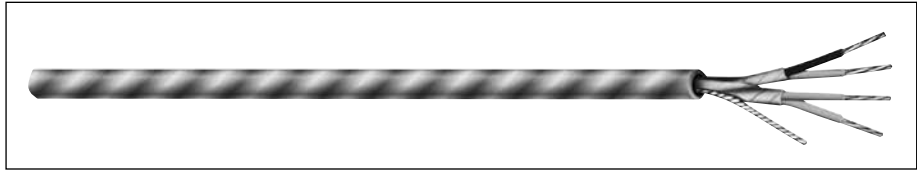
- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8134 | 2 | 24 | 7/32 | 0.019 | 0.48 | 0.015 | 0.38 | 0.255 | 7.48 | 35.0 | 76.0 |
| C8105 | 2 | 22 | 7/30 | 0.006 | 0.15 | 0.014 | 0.36 | 0.186 | 4.72 | 43.0 | 75.0 |
| C8131 | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.018 | 0.46 | 0.237 | 6.02 | 35.0 | 76.0 |
| C8133 | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.018 | 0.45 | 0.314 | 7.98 | 35.0 | 76.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| C8105 NO. OF PAIRS | COLOR |
|-----------------------|-------------------------|
| 1 | Black paired with Red |
| 2 | White paired with Green |

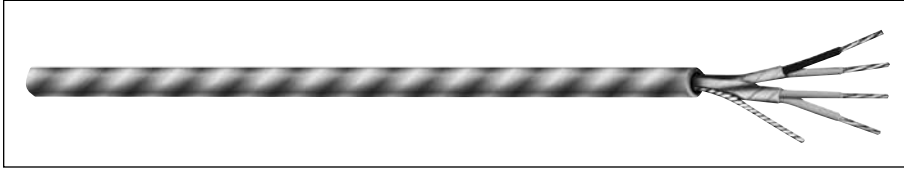
| C8131 NO. OF PAIRS | COLOR |
|-----------------------|-------------------------|
| 1 | Black paired with Red |
| 2 | Black paired with White |
| 3 | Black paired with Green |

| C8133 NO. OF PAIRS | COLOR |
|-----------------------|--------------------------|
| 1 | Black paired with Red |
| 2 | Black paired with White |
| 3 | Black paired with Green |
| 4 | Black paired with Blue |
| 5 | Black paired with Yellow |
| 6 | Black paired with Brown |

| C8134 NO. OF PAIRS | COLOR |
|-----------------------|---------------------------------------|
| 1 | White/Blue paired with Blue/White |
| 2 | White/Orange paired with Orange/White |

Multi-Paired, Individually Foil Shielded

NEC Type CMP (UL) c(UL)



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8112 | 2 | 22 | 7/30 | 0.006 | 0.15 | 0.014 | 0.36 | 0.186 | 4.72 | 35.0 | 65.0 |
| C8132 | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.015 | 0.38 | 0.309 | 7.85 | 30.0 | 65.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| C8112 NO. OF PAIRS | COLOR |
|-----------------------|-------------------------|
| 1 | Black paired with Red |
| 2 | White paired with Green |

| C8132 NO. OF PAIRS | COLOR |
|-----------------------|--------------------------|
| 1 | Black paired with Red |
| 2 | Black paired with White |
| 3 | Black paired with Green |
| 4 | Black paired with Blue |
| 5 | Black paired with Yellow |
| 6 | Black paired with Brown |

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded FEP
- Color code: See chart below

Pair Shield:

- 100% Flexfoil® aluminum/polyester foil, with 25% overlap, minimum
- Individually shielded pairs with stranded tinned copper drain wire

Jacket:

- FEP, red
- Temperature range: -100°C to +200°C

Applications:

- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications
Underwriters Laboratories Inc.



Multi-Paired, Individually Foil Shielded

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded foam FEP
- Color code: See chart below

Pair Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Individually shielded pairs with stranded tinned copper drain wire

Jacket:

- PVDF, gray
- Temperature range: -40°C to +150°C

Applications:

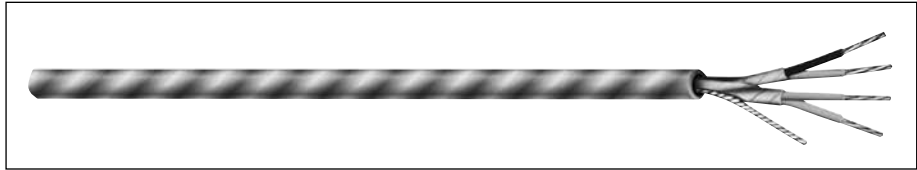
- Computer systems
- Remote control circuits
- Process control and instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C8128 | 2 | 24 | 7/32 | 0.019 | 0.48 | 0.018 | 0.46 | 0.261 | 6.63 | 12.5 | 22.0 |

*A – Capacitance between conductors

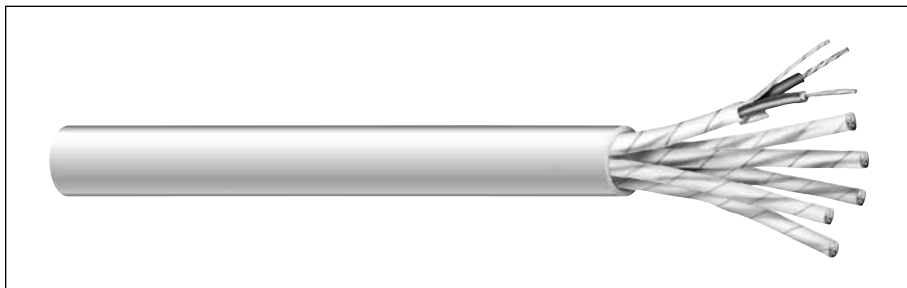
*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|---------------------------------------|
| 1 | White/Blue paired with Blue/White |
| 2 | White/Orange paired with Orange/White |

Power-Limited Tray Cable, Individually Shielded

UL 2464, NEC Type PLTC and NEC/CEC Type CMG UL/CSA†



Product Construction:

Conductor:

- 22 or 18 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color code: Each pair black and red, numbered at one-inch intervals

Shield:

- Pairs are 100% individually shielded with Flexfoil® aluminum/polyester, foil facing in
- Stranded tinned copper drain wire each pair

Jacket:

- PVC, gray
- Sunlight-resistant
- Temperature range: -20°C to +105°C

Applications:

- Power-limited circuits
- Intercom systems
- Business machines
- Cash registers
- Computer interconnects
- Suitably marked for appropriate tray cable installations
- Burglar alarms
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C, 300 V)
- UL Style 2464 (UL: 80°C)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C0570A | 2 | 22 | 7/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.327 | 8.31 | 38.5 | 69.5 |
| C0571A | 3 | 22 | 7/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.345 | 8.76 | 38.5 | 69.5 |
| C0572A | 4 | 22 | 7/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.378 | 9.60 | 38.5 | 69.5 |
| C0573A | 6 | 22 | 7/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.469 | 11.91 | 38.5 | 69.5 |
| C0574A | 9 | 22 | 7/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.542 | 13.77 | 38.5 | 69.5 |
| C0575A | 11 | 22 | 7/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.589 | 14.96 | 38.5 | 69.5 |
| C0584A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.380 | 9.65 | 50.5 | 91.0 |
| C0585A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.437 | 11.10 | 50.5 | 91.0 |
| C0586A | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.478 | 12.14 | 50.5 | 91.0 |
| C0587A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.566 | 14.38 | 50.5 | 91.0 |
| C0588A | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.063 | 1.60 | 0.679 | 17.25 | 50.5 | 91.0 |
| C0589A | 11 | 18 | 16/30 | 0.016 | 0.41 | 0.063 | 1.60 | 0.738 | 18.75 | 50.5 | 91.0 |
| C0590A | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.063 | 1.60 | 0.845 | 21.46 | 50.5 | 91.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

†CSA or c(UL)

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|--------------|
| 1 thru 15 | Black Red |

Each pair marked and numbered



Underwriters Laboratories Inc.



Power-Limited Tray Cable, Foil Shield

UL 2464, NEC Type PLTC, NEC/CEC Type CM, CMG UL/CSA†

Product Construction:

Conductor:

- 22 or 18 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC or FMPE
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire
- 65% tinned copper braid (C7112A, C7114A and C7116A only)

Jacket:

- PVC, gray or black
- Sunlight-resistant
- Temperature range: -20°C to +60°C or +105°C

Applications:

- Power-limited circuits
- Intercom systems
- Business machines
- Computer interconnects
- Suitably marked for appropriate tray cable installations
- Petrochemical control systems
- Burglar alarms
- Suggested voltage rating: 300 volts

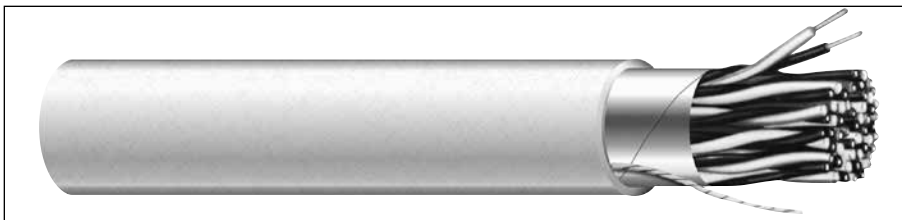
Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C or 60°C, 300 V)
- NEC Article 800 Communications Cable (UL: 105°C or 60°C, 300 V)
- †UL Style 2464 (UL: 80°C, 300 V)
- UL PTLC Listing
- CSA CMG (CSA: 60°C) or CM c(UL)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

† UL Style 2464 only available on PVC insulation constructions



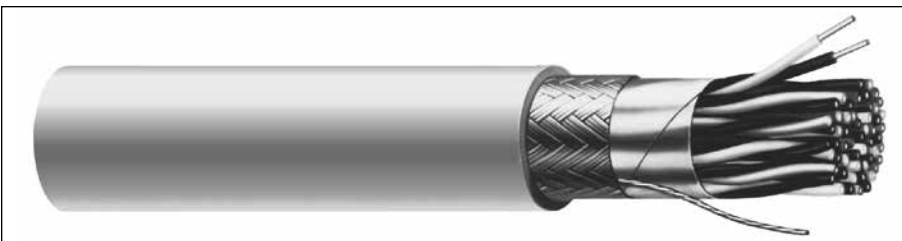
| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP.* pF/ft | |
|---|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| PVC INSULATION – UL STYLE 2464, NEC TYPE PLTC/CM, CSA CMG, 105°C | | | | | | | | | | | |
| C0550A | 2 | 22 | 7/.0096 | 0.015 | 0.38 | 0.042 | 1.07 | 0.294 | 7.47 | 32.0 | 57.0 |
| C0551A | 3 | 22 | 7/.0096 | 0.015 | 0.38 | 0.042 | 1.07 | 0.309 | 7.85 | 29.0 | 52.2 |
| C0552A | 4 | 22 | 7/.0096 | 0.015 | 0.38 | 0.042 | 1.07 | 0.337 | 8.56 | 29.0 | 52.2 |
| C0553A | 6 | 22 | 7/.0096 | 0.015 | 0.38 | 0.042 | 1.35 | 0.418 | 10.62 | 26.5 | 47.7 |
| C0554A | 9 | 22 | 7/.0096 | 0.015 | 0.38 | 0.042 | 1.35 | 0.480 | 12.19 | 26.5 | 47.7 |
| C0555A | 11 | 22 | 7/30 | 0.015 | 0.38 | 0.053 | 1.35 | 0.520 | 13.21 | 27.0 | 48.5 |
| C0556A | 15 | 22 | 7/30 | 0.015 | 0.38 | 0.053 | 1.35 | 0.592 | 15.04 | 27.0 | 48.5 |
| C0560A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.314 | 7.98 | 40.0 | 72.0 |
| C0561A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.403 | 10.24 | 33.5 | 60.3 |
| C0562A | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.440 | 11.18 | 33.5 | 60.3 |
| C0563A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.519 | 13.18 | 30.5 | 54.9 |
| C0564A | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.063 | 1.60 | 0.643 | 16.33 | 30.5 | 54.9 |
| C0566A | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.063 | 1.60 | 0.720 | 18.29 | 30.5 | 54.9 |

*A – Capacitance between conductors
 *B – Capacitance between one conductor and other conductors connected to shield
 †CSA or c(UL)
 Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|-----------|
| 1 thru 9 | Black/Red |

Each pair marked and numbered



LO-CAP® DATACOM COLOR CODE WITH 65% TINNED COPPER BRAID

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP.* pF/ft | |
|--|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| FOAMED POLYETHYLENE INSULATION – NEC TYPE PLTC/CM, CEC CM c(UL), 60°C | | | | | | | | | | | |
| C7112A | 1 | 22 | 7/.0096 | 0.024 | 0.61 | 0.037 | 0.94 | 0.261 | 6.63 | 11.5 | 20.5 |
| C7114A | 2 | 22 | 7/.0096 | 0.017 | 0.43 | 0.042 | 1.07 | 0.343 | 8.71 | 11.0 | 19.6 |
| C7116A | 3 | 22 | 7/.0096 | 0.015 | 0.38 | 0.042 | 1.07 | 0.344 | 8.74 | 11.0 | 19.6 |

*A – Capacitance between conductors
 *B – Capacitance between one conductor and other conductors connected to shield
 Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|---|
| 1 | White/Blue Stripe and Blue/White Stripe |
| 2 | White/Orange Stripe and Orange/White Stripe |
| 3 | White/Green Stripe and Green/White Stripe |



Underwriters Laboratories Inc.



Canadian Standard Association





General Cable manufactures a comprehensive line of computer cables.

This complete line of paired and unpaired, shielded computer cables—which are UL and CSA listed—are used primarily for the internal or external interconnection of electronic equipment and computers. Applications include data transmission, CAD/CAM, telemetry, data displays, computer print-out, credit verification systems and similar applications.

General Cable also offers a variety of put-ups for computer cables to meet your individual requirements.

Our products are manufactured to meet the latest UL, CSA and NEC requirements and approvals.

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Multi-Conductor, Foil Shield

UL 2464, NEC/CEC Type CMR, CMG UL/CSA

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded S-R PVC per UL AWM Style 1061
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

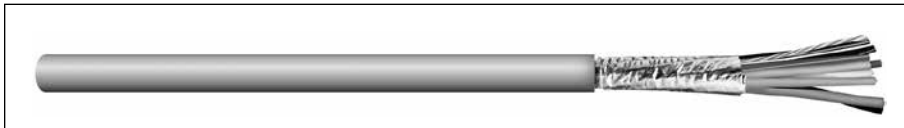
Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

Data subject to change.



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft @20°C | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|------|--------------------------|------|--------------|------|-------------------------|-------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| C0740A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.157 | 3.99 | 26.0 | 7.2 | 36.0 | 64.0 |
| C0741A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.164 | 4.17 | 26.0 | 7.2 | 33.0 | 59.0 |
| C0742A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.175 | 4.45 | 26.0 | 7.2 | 33.0 | 59.0 |
| C0753A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.188 | 4.78 | 26.0 | 7.2 | 33.0 | 59.0 |
| C0743A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.201 | 5.11 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0754A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.201 | 5.11 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0744A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.215 | 5.46 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0755A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.228 | 5.79 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0745A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.245 | 6.22 | 26.0 | 7.2 | 30.0 | 55.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1 - For cables up to and including 10 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|------------|
| 1 | Black | 6 | Light Blue |
| 2 | White | 7 | Orange |
| 3 | Red | 8 | Yellow |
| 4 | Light Green | 9 | Purple |
| 5 | Light Brown | 10 | Gray |

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft @20°C | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|------|--------------------------|------|--------------|-------|-------------------------|-------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| C0746A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.276 | 7.01 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0747A | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.303 | 7.70 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0748A | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.333 | 8.46 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0749A | 30 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.351 | 8.92 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0750A | 40 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.391 | 9.93 | 26.0 | 7.2 | 30.0 | 55.0 |
| C0751A | 50 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.439 | 11.15 | 26.0 | 7.2 | 30.0 | 55.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Color Code Chart 2 Per ICEA - For cables of 15 thru 50 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------------|--------------|-------------------------|--------------|--------------------------|--------------|------------------------|
| 1 | Black | 14 | Light Green/White | 27 | Light Blue/Black/White | 39 | White/Black/Green |
| 2 | White | 15 | Light Blue/White | 28 | Black/Red/Green | 40 | Red/White/Green |
| 3 | Red | 16 | Black/Red | 29 | White/Red/Green | 41 | Light Green/White/Blue |
| 4 | Light Green | 17 | White/Red | 30 | Red/Black/Green | 42 | Orange/Red/Green |
| 5 | Orange | 18 | Orange/Red | 31 | Light Green/Black/Orange | 43 | Light Blue/Red/Green |
| 6 | Light Blue | 19 | Light Blue/Red | 32 | Orange/Black/Green | 44 | Black/White/Blue |
| 7 | White/Black | 20 | Red/Green | 33 | Light Blue/White/Orange | 45 | White/Black/Blue |
| 8 | Red/Black | 21 | Orange/Green | 34 | Black/White/Orange | 46 | Red/White/Blue |
| 9 | Light Green/Black | 22 | Black/White/Red | 35 | White/Red/Orange | 47 | Light Green/Orange/Red |
| 10 | Orange/Black | 23 | White/Black/Red | 36 | Orange/White/Blue | 48 | Orange/Red/Blue |
| 11 | Light Blue/Black | 24 | Red/Black/White | 37 | White/Red/Blue | 49 | Light Blue/Red/Orange |
| 12 | Black/White | 25 | Light Green/Black/White | 38 | Black/White/Green | 50 | Black/Orange/Red |
| 13 | Red/White | 26 | Orange/Black/White | | | | |

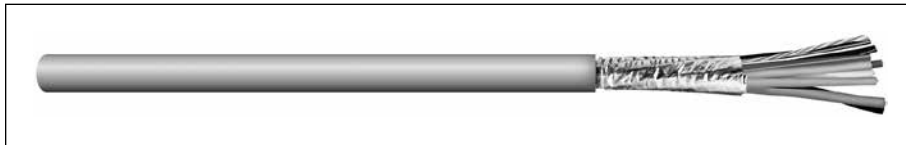


Underwriters Laboratories Inc.



Multi-Conductor, Foil Shield

UL 2464, NEC/CEC Type CM or CMR, CMG UL/CSA



Product Construction:

Conductor:

- 22 or 20 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded S-R PVC or PVC
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM - 20 AWG (UL: 75°C)
- NEC Article 800 Type CMR - 20 AWG (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft @20°C | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|----|--------------------------|----|--------------|----|-------------------------|-------|---------------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |

S-R PVC – CMR (UL) c(UL)

| | | | | | | | | | | | | | |
|--------|----|----|------|-------|------|-------|------|-------|------|------|-----|------|------|
| C0760A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.169 | 4.29 | 16.5 | 6.3 | 36.0 | 65.0 |
| C0761A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.177 | 4.50 | 16.5 | 6.3 | 36.0 | 65.0 |
| C0762A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.190 | 4.83 | 16.5 | 6.3 | 36.0 | 65.0 |
| C0763A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.219 | 5.56 | 16.5 | 6.3 | 34.0 | 61.0 |
| C0764A | 8 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.235 | 5.97 | 16.5 | 6.3 | 34.0 | 61.0 |
| C0765A | 10 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.269 | 6.83 | 16.5 | 6.3 | 34.0 | 61.0 |
| C0766A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.304 | 7.72 | 16.5 | 6.3 | 34.0 | 61.0 |
| C0767A | 20 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.335 | 8.51 | 16.5 | 6.3 | 34.0 | 61.0 |
| C0768A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.369 | 9.37 | 16.5 | 6.3 | 34.0 | 61.0 |

PVC – CM (UL) c(UL)

| | | | | | | | | | | | | | |
|--------|----|----|------|-------|------|-------|------|-------|-------|------|-----|------|------|
| C0780A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.207 | 5.26 | 11.0 | 6.3 | 39.0 | 70.0 |
| C0781A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.217 | 5.51 | 11.0 | 6.3 | 39.0 | 70.0 |
| C0782A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.236 | 5.99 | 11.0 | 6.3 | 39.0 | 70.0 |
| C0783A | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.276 | 7.01 | 11.0 | 6.3 | 37.0 | 66.0 |
| C0784A | 8 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.297 | 7.54 | 11.0 | 6.3 | 37.0 | 66.0 |
| C0785A | 10 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.345 | 8.76 | 11.0 | 6.3 | 37.0 | 66.0 |
| C0786A | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.393 | 9.98 | 11.0 | 6.3 | 37.0 | 66.0 |
| C0787A | 20 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.435 | 11.05 | 11.0 | 6.3 | 37.0 | 66.0 |
| C0788A | 25 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.483 | 12.27 | 11.0 | 6.3 | 40.0 | 72.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|--------------|--------------|-------------------|
| 1 | Black | 10 | Orange/Black | 19 | Blue/Red |
| 2 | White | 11 | Blue/Black | 20 | Red/Green |
| 3 | Red | 12 | Black/White | 21 | Orange/Green |
| 4 | Green | 13 | Red/White | 22 | Black/White/Red |
| 5 | Orange | 14 | Green/White | 23 | White/Black/Red |
| 6 | Blue | 15 | Blue/White | 24 | Red/Black/White |
| 7 | White/Black | 16 | Black/Red | 25 | Green/Black/White |
| 8 | Red/Black | 17 | White/Red | | |
| 9 | Green/Black | 18 | Orange/Red | | |



Designed to Meet UL Vertical Tray Flame Test

Underwriters Laboratories Inc.



Multi-Conductor, Foil/Braid Shield

UL 2464, NEC Type CL2 or NEC/CEC Type CM, CMG UL/CSA

Product Construction:

Conductor:

- 28 and 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded UL AWM Style 1061
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire (28 AWG only)
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

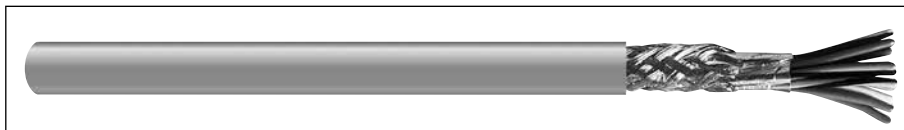
- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL2 - 28 AWG (UL: 75°C)
- NEC Article 800 Type CM - 24 AWG (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20780 demands

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft @20°C | | NOMINAL CAP.** pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|----|--------------------------|----|--------------|----|-------------------------|-------|----------------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |

CL2, CMG, UL 2464

| | | | | | | | | | | | | | |
|---------|----|----|------|-------|------|-------|------|-------|------|------|-----|------|------|
| C0939A* | 3 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.166 | 4.22 | 67.5 | 5.0 | 26.0 | 47.0 |
| C0940A* | 4 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.176 | 4.47 | 67.5 | 5.0 | 26.0 | 47.0 |
| C0941A* | 5 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.186 | 4.72 | 67.5 | 5.0 | 26.0 | 47.0 |
| C0942A* | 6 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.196 | 4.98 | 67.5 | 5.0 | 25.0 | 44.0 |
| C0943A* | 7 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.196 | 4.98 | 67.5 | 5.0 | 25.0 | 44.0 |
| C0944A* | 8 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.207 | 5.26 | 67.5 | 5.0 | 25.0 | 44.0 |
| C0945A* | 9 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.217 | 5.51 | 67.5 | 5.0 | 20.0 | 36.0 |
| C0946A* | 10 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.231 | 5.87 | 67.5 | 5.0 | 20.0 | 36.0 |
| C0947A | 15 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.256 | 6.50 | 67.5 | 5.0 | 20.0 | 36.0 |
| C0948A | 25 | 28 | 7/36 | 0.010 | 0.25 | 0.032 | 0.81 | 0.301 | 7.65 | 67.5 | 5.0 | 20.0 | 36.0 |

CM, CMG, UL 2464

| | | | | | | | | | | | | | |
|--------|----|----|------|-------|------|-------|------|-------|------|------|-----|------|------|
| C0951A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.186 | 4.72 | 25.7 | 5.3 | 33.0 | 59.0 |
| C0952A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.197 | 5.00 | 25.7 | 5.5 | 33.0 | 59.0 |
| C0953A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.210 | 5.33 | 25.7 | 4.4 | 33.0 | 59.0 |
| C0954A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.223 | 5.66 | 25.7 | 4.6 | 30.0 | 55.0 |
| C0955A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.223 | 5.66 | 25.7 | 4.6 | 30.0 | 55.0 |
| C0956A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.237 | 6.02 | 25.7 | 3.8 | 30.0 | 55.0 |
| C0957A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.250 | 6.35 | 25.7 | 3.9 | 30.0 | 55.0 |
| C0958A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.267 | 6.78 | 25.7 | 4.2 | 30.0 | 55.0 |
| C0959A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.298 | 7.57 | 25.7 | 3.6 | 30.0 | 55.0 |
| C0960A | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.325 | 8.26 | 25.7 | 4.5 | 30.0 | 55.0 |
| C0961A | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.355 | 9.02 | 25.7 | 3.5 | 30.0 | 55.0 |

*Color Code Chart 1. Remaining items Color Code Chart 2

**A - Capacitance between conductors

**B - Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart 1

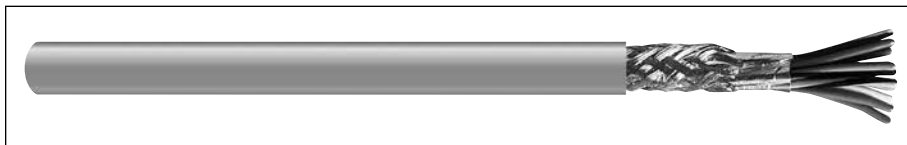
| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|------------|
| 1 | Black | 6 | Light Blue |
| 2 | White | 7 | Orange |
| 3 | Red | 8 | Yellow |
| 4 | Light Green | 9 | Purple |
| 5 | Light Brown | 10 | Gray |

Color Code Chart 2 Per ICEA

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------------|--------------|-------------------|--------------|-------------------------|
| 1 | Black | 10 | Orange/Black | 19 | Light Blue/Red |
| 2 | White | 11 | Light Blue/Black | 20 | Red/Green |
| 3 | Red | 12 | Black/White | 21 | Orange/Green |
| 4 | Light Green | 13 | Red/White | 22 | Black/White/Red |
| 5 | Orange | 14 | Light Green/White | 23 | White/Black/Red |
| 6 | Light Blue | 15 | Light Blue/White | 24 | Red/Black/White |
| 7 | White/Black | 16 | Black/Red | 25 | Light Green/Black/White |
| 8 | Red/Black | 17 | White/Red | | |
| 9 | Light Green/Black | 18 | Orange/Red | | |

Multi-Conductor, Foil/Braid Shield

UL 2464, NEC/CEC Type CMR, CMG UL/CSA



Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20780 demands

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft @20°C | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|------|--------------------------|------|--------------|------|-------------------------|-------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| C0971A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.199 | 5.05 | 16.6 | 5.6 | 36.0 | 66.0 |
| C0972A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.212 | 5.38 | 16.6 | 4.4 | 36.0 | 66.0 |
| C0973A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.226 | 5.74 | 16.6 | 4.7 | 36.0 | 66.0 |
| C0974A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.241 | 6.12 | 16.6 | 3.8 | 34.0 | 60.0 |
| C0975A | 7 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.241 | 6.12 | 16.6 | 6.2 | 34.0 | 60.0 |
| C0976A | 8 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.257 | 6.53 | 16.6 | 4.0 | 34.0 | 60.0 |
| C0977A | 9 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.272 | 6.91 | 16.6 | 3.4 | 34.0 | 60.0 |
| C0978A | 10 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.291 | 7.39 | 16.6 | 3.6 | 34.0 | 60.0 |
| C0979A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.326 | 8.28 | 16.6 | 3.6 | 34.0 | 60.0 |
| C0980A | 20 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.357 | 9.07 | 16.6 | 3.9 | 34.0 | 60.0 |
| C0981A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.391 | 9.93 | 16.6 | 2.7 | 34.0 | 60.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart Per ICEA

| NO. OF COND. | COLOR | NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------------|--------------|-------------------|--------------|-------------------------|
| 1 | Black | 10 | Orange/Black | 19 | Light Blue/Red |
| 2 | White | 11 | Light Blue/Black | 20 | Red/Green |
| 3 | Red | 12 | Black/White | 21 | Orange/Green |
| 4 | Light Green | 13 | Red/White | 22 | Black/White/Red |
| 5 | Orange | 14 | Light Green/White | 23 | White/Black/Red |
| 6 | Light Blue | 15 | Light Blue/White | 24 | Red/Black/White |
| 7 | White/Black | 16 | Black/Red | 25 | Light Green/Black/White |
| 8 | Red/Black | 17 | White/Red | | |
| 9 | Light Green/Black | 18 | Orange/Red | | |



Underwriters Laboratories Inc.



Multi-Conductor, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CL2 or NEC/CEC Type CM, CEC Type CMH UL/CSA

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium grade foamed Lo-Cap® color coded polypropylene
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 70% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

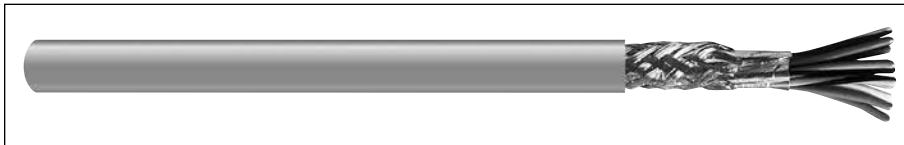
- High speed computers
- Industrial equipment
- Control circuits
- Designed for low capacitance applications
- Suitable for EIA RS-232 and RS-423 CAD/CAM applications
- Suggested voltage rating: 30 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300 V)
- UL Style 2919 (UL: 80°C, 30 V)
- CSA CMH (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20780 demands

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | NOMINAL CAP.* pF/ft | |
|---|--------------|---------------------------|------|-----------------------|------|--------------|------|-------------------|-------|---------------------|------|
| | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| 24 AWG (7/32): CM (UL) c(UL) CMH, AWM Style 2919 | | | | | | | | | | | |
| C0680A | 3 | 0.016 | 0.41 | 0.032 | 0.81 | 0.211 | 5.36 | 25.7 | 3.8 | 11.9 | 21.5 |
| C0681A | 4 | 0.016 | 0.41 | 0.032 | 0.81 | 0.227 | 5.77 | 25.7 | 3.8 | 11.9 | 21.5 |
| C0682A | 5 | 0.016 | 0.41 | 0.032 | 0.81 | 0.242 | 6.15 | 25.7 | 3.8 | 11.9 | 21.5 |
| C0683A | 6 | 0.016 | 0.41 | 0.032 | 0.81 | 0.259 | 6.58 | 25.7 | 3.2 | 11.2 | 20.2 |
| C0684A | 7 | 0.016 | 0.41 | 0.032 | 0.81 | 0.259 | 6.58 | 25.7 | 3.2 | 11.2 | 20.2 |
| C0685A | 8 | 0.016 | 0.41 | 0.032 | 0.81 | 0.276 | 7.01 | 25.7 | 3.2 | 11.2 | 20.2 |
| C0686A | 9 | 0.016 | 0.41 | 0.032 | 0.81 | 0.293 | 7.44 | 25.7 | 3.6 | 11.2 | 20.2 |
| C0687A | 10 | 0.016 | 0.41 | 0.032 | 0.81 | 0.315 | 8.00 | 25.7 | 3.6 | 11.2 | 20.2 |
| C0688A | 15 | 0.016 | 0.41 | 0.032 | 0.81 | 0.354 | 8.99 | 25.7 | 3.6 | 11.2 | 20.2 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Vp = 78%

Impedance: ≈100 Ω

Data subject to change.

Color Code Chart 1 - For cables up to and including 10 conductors

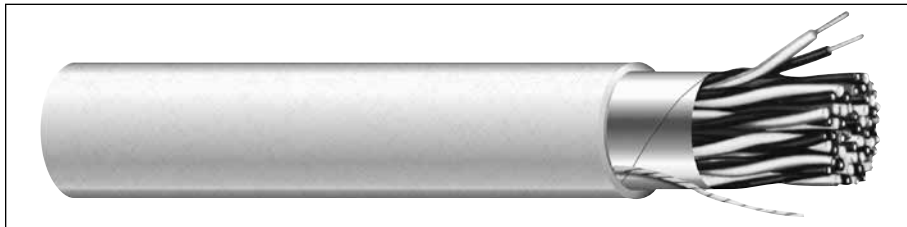
| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------|--------------|------------|
| 1 | Black | 6 | Light Blue |
| 2 | White | 7 | Orange |
| 3 | Red | 8 | Yellow |
| 4 | Light Green | 9 | Purple |
| 5 | Brown | 10 | Gray |

Color Code Chart 2 Per ICEA - For cables up to 15 conductors

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------------------|--------------|-------------------|
| 1 | Black | 10 | Orange/Black |
| 2 | White | 11 | Light Blue/Black |
| 3 | Red | 12 | Black/White |
| 4 | Light Green | 13 | Red/White |
| 5 | Orange | 14 | Light Green/White |
| 6 | Light Blue | 15 | Light Blue/White |
| 7 | White/Black | | |
| 8 | Red/Black | | |
| 9 | Light Green/Black | | |

Multi-Paired, Foil Shield

UL 2464, NEC/CEC Type CMR, CMG UL/CSA



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA, 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20780 demands

Packaging:

- Please contact Customer Service for packaging and color options

Data subject to change.

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|------|--------------------------|------|--------------|-------|-------------------|-------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| C0600A | 1 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.157 | 3.99 | 25.7 | 7.2 | 19.7 | 21.5 |
| C0601A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.214 | 5.44 | 25.7 | 7.2 | 28.7 | 21.5 |
| C0602A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.225 | 5.72 | 25.7 | 7.2 | 25.7 | 21.5 |
| C0603A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.245 | 6.23 | 25.7 | 7.2 | 25.7 | 20.2 |
| C0604A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.265 | 6.73 | 25.7 | 7.2 | 25.7 | 20.2 |
| C0605A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.287 | 7.29 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0606A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.287 | 7.29 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0607A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.309 | 7.85 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0608A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.331 | 8.41 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0609A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.359 | 9.12 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0610A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.410 | 10.41 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0611A | 19 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.432 | 10.97 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0612A | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.505 | 12.84 | 25.7 | 7.2 | 23.7 | 42.7 |
| C0720A | 1 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.169 | 4.29 | 16.6 | 6.2 | 40.4 | 72.6 |
| C0721A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.234 | 5.94 | 16.6 | 6.2 | 32.3 | 58.1 |
| C0722A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.246 | 6.25 | 16.6 | 6.2 | 27.8 | 50.1 |
| C0723A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.269 | 6.83 | 16.6 | 6.2 | 27.8 | 50.1 |
| C0724A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.292 | 7.42 | 16.6 | 6.2 | 27.8 | 50.1 |
| C0725A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.317 | 8.05 | 16.6 | 6.2 | 25.5 | 45.9 |
| C0726A | 9 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.367 | 9.32 | 16.6 | 6.2 | 25.5 | 45.9 |
| C0728A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.457 | 11.62 | 16.6 | 6.2 | 25.5 | 45.9 |
| C0729A | 19 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.482 | 12.24 | 16.6 | 6.2 | 25.5 | 45.9 |
| C0730A | 27 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.576 | 14.36 | 16.6 | 6.2 | 26.0 | 46.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|-------------------|--------------|-------------------|
| 1 | Black with Red | 14 | Green with White |
| 2 | Black with White | 15 | Green with Blue |
| 3 | Black with Green | 16 | Green with Yellow |
| 4 | Black with Blue | 17 | Green with Brown |
| 5 | Black with Yellow | 18 | Green with Orange |
| 6 | Black with Brown | 19 | White with Blue |
| 7 | Black with Orange | 20 | White with Yellow |
| 8 | Red with White | 21 | White with Brown |
| 9 | Red with Green | 22 | White with Orange |
| 10 | Red with Blue | 23 | Blue with Yellow |
| 11 | Red with Yellow | 24 | Blue with Brown |
| 12 | Red with Brown | 25 | Blue with Orange |
| 13 | Red with Orange | 26 | Brown with Yellow |
| | | 27 | Brown with Orange |



Designed to Meet UL Vertical Tray Flame Test

Underwriters Laboratories Inc.



Multi-Paired, Foil Shield, Lo-Cap®

UL 2448, NEC Type CM (UL) c(UL), CMH

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polyethylene
- Color code: See chart below

Shield:

- 100% Flexfoi® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

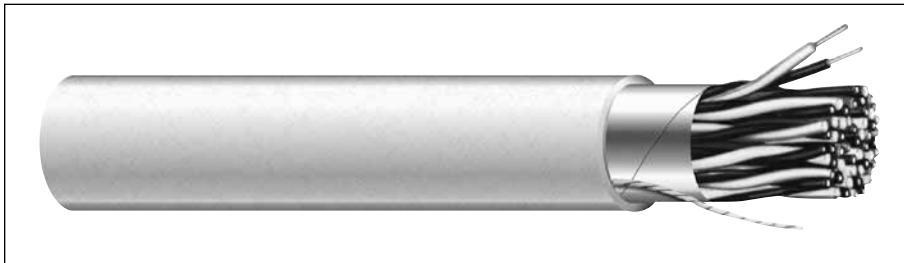
- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for low capacitance applications
- Suggested voltage rating: 30 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2448 (UL: 60°C, 30 V)
- CSA CMH (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | VEL. OF PROP. % | NOM. IMP., Ω | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|-------------------|-------|-----------------|--------------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | | A | B |
| C0890A | 2 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.247 | 6.27 | 25.7 | 7.20 | 66 | 100 | 14.4 | 26.0 |
| C0901A | 3 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.261 | 6.63 | 25.7 | 7.20 | 66 | 100 | 13.9 | 25.1 |
| C0893A | 4 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.277 | 7.04 | 25.7 | 7.20 | 66 | 100 | 13.9 | 25.1 |
| C0894A | 5 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.310 | 7.87 | 25.7 | 7.20 | 66 | 100 | 13.9 | 25.1 |
| C0899A | 6 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.336 | 8.53 | 25.7 | 7.20 | 66 | 100 | 13.0 | 23.4 |
| C0896A | 9 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.391 | 9.93 | 25.7 | 7.20 | 66 | 100 | 13.0 | 23.4 |
| C0897A | 12.5 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.97 | 0.459 | 11.66 | 25.7 | 7.20 | 66 | 100 | 13.0 | 23.4 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

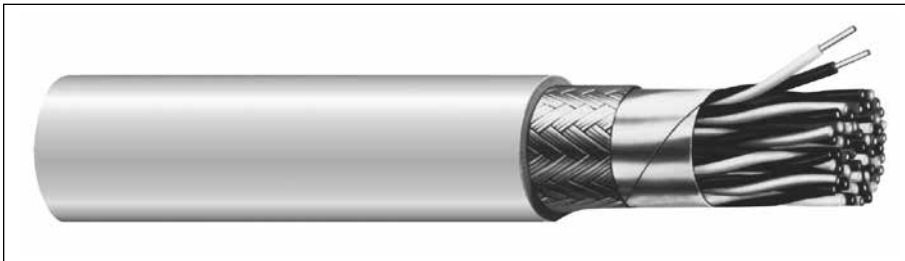
Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|---------------------------|--------------|---------------------------------------|
| 1 | Black paired with White | 7 | White/Blue paired with Blue/White |
| 2 | Red paired with Green | 8 | White/Brown paired with Brown/White |
| 3 | Brown paired with Blue | 9 | White/Orange paired with Orange/White |
| 4 | Orange paired with Yellow | 10 | White/Green paired with Green/White |
| 5 | Purple paired with Gray | 11 | White/Red paired with Red/White |
| 6 | Tan paired with Pink | 12 | White/Black paired with Black/White |

Single Conductor: Green With Yellow Stripe

Multi-Paired, Foil/Braid Shield

UL 2464, NEC/CEC Type CMR, CMG UL/CSA



Product Construction:

Conductor:

- 22 and 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300 V)
- CSA CMG (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20789 demands

Packaging:

- Please contact Customer Service for packaging and color options

Data subject to change.

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | NOMINAL CAP* pF/ft | |
|----------------|--------------|----------|--------------|------------------------------|------|--------------------------|------|--------------|-------|-------------------|-------|--------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | A | B |
| C0620A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.235 | 5.97 | 25.7 | 5.4 | 29.5 | 53.0 |
| C0621A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.231 | 5.87 | 25.7 | 5.0 | 26.4 | 47.6 |
| C0622A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.253 | 6.43 | 25.7 | 4.5 | 26.4 | 47.6 |
| C0623A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.278 | 7.06 | 25.7 | 4.6 | 26.4 | 47.6 |
| C0624A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.296 | 7.52 | 25.7 | 2.9 | 24.4 | 43.9 |
| C0625A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.313 | 7.95 | 25.7 | 3.1 | 24.4 | 43.9 |
| C0626A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.336 | 8.53 | 25.7 | 4.1 | 24.4 | 43.9 |
| C0628A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.357 | 9.07 | 25.7 | 2.6 | 24.4 | 43.9 |
| C0630A | 12.5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.386 | 9.80 | 25.7 | 3.6 | 24.4 | 43.9 |
| C0650A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.229 | 5.82 | 16.6 | 3.8 | 33.2 | 59.7 |
| C0651A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.296 | 7.52 | 16.6 | 4.1 | 28.6 | 51.5 |
| C0652A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.320 | 8.13 | 16.6 | 3.5 | 28.6 | 51.5 |
| C0653A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.331 | 8.41 | 16.6 | 3.9 | 28.6 | 51.5 |
| C0654A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.348 | 8.84 | 16.6 | 4.4 | 26.2 | 47.2 |
| C0655A | 7 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.348 | 8.84 | 16.6 | 5.0 | 26.2 | 47.2 |
| C0656A | 8 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.368 | 9.35 | 16.6 | 3.8 | 26.2 | 47.2 |
| C0658A | 10 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.388 | 9.86 | 16.6 | 4.1 | 26.2 | 47.2 |
| C0660A | 12.5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.429 | 10.90 | 16.6 | 4.7 | 26.2 | 47.2 |
| C0663A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.058 | 0.81 | 0.620 | 15.75 | 16.6 | 2.1 | 26.2 | 46.0 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--|--------------------------|--------------|--------------------------|
| 1 | Black paired with Red | 13 | Red paired with Orange |
| 2 | Black paired with White | 14 | White paired with Green |
| 3 | Black paired with Green | 15 | Blue paired with Green |
| 4 | Black paired with Blue | 16 | Yellow paired with Green |
| 5 | Black paired with Yellow | 17 | Brown paired with Green |
| 6 | Black paired with Brown | 18 | Orange paired with Green |
| 7 | Black paired with Orange | 19 | White paired with Blue |
| 8 | Red paired with White | 20 | White paired with Yellow |
| 9 | Red paired with Green | 21 | White paired with Brown |
| 10 | Red paired with Blue | 22 | White paired with Orange |
| 11 | Red paired with Yellow | 23 | Yellow paired with Blue |
| 12 | Red paired with Brown | 24 | Blue paired with Brown |
| | | 25 | Orange paired with Blue |
| Single Conductor: Green with Yellow Stripe | | | |



Designed to Meet UL Vertical Tray Flame Test

Underwriters Laboratories Inc.



Multi-Paired, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CM (UL) c(UL) CMH

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polyethylene
- Color code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 90% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

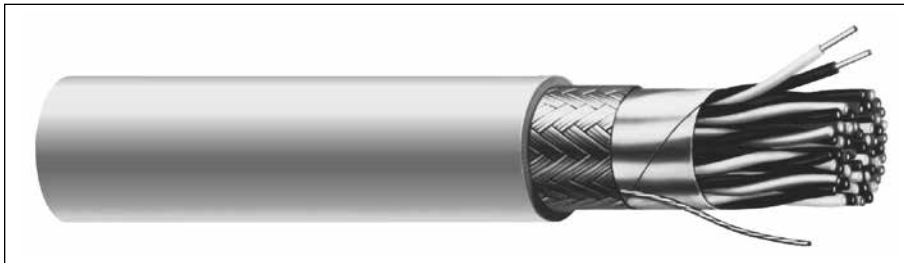
- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Low capacitance requirements
- Suitable for EIA RS-485 applications
- Suggested voltage rating: 30 volts

Compliances:

- NEC Article 800 Type CM/CMH (UL: 75°C, 300 V)
- UL Style 2919 (UL: 80°C, 30 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20789 demands

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | VEL. OF PROP., % | NOM. IMP., Ω | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|-------------------|-------|------------------|--------------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | | A | B |
| C0841A | 1 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.235 | 5.97 | 25.7 | 2.9 | 66 | 120 | 14.6 | 26.2 |
| C0842A | 2 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.304 | 7.72 | 25.7 | 2.3 | 66 | 120 | 11.7 | 21.0 |
| C0843A | 3 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.360 | 9.14 | 25.7 | 2.3 | 66 | 120 | 11.9 | 21.4 |
| C0844A | 4 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.390 | 9.91 | 25.7 | 2.1 | 66 | 120 | 11.9 | 21.4 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart 1

| NO. OF PAIRS | COLOR |
|--------------|-------------------------|
| 1 | Black paired with Red |
| 2 | Black paired with White |
| 3 | Black paired with Green |
| 4 | Black paired with Blue |

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | VEL. OF PROP., % | NOM. IMP., Ω | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|-------------------|-------|------------------|--------------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | | A | B |
| C4841A | 1 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.235 | 5.97 | 25.7 | 2.9 | 66 | 120 | 14.6 | 26.2 |
| C4842A | 2 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.304 | 7.72 | 25.7 | 2.3 | 66 | 120 | 11.7 | 21.0 |
| C4843A | 3 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.360 | 9.14 | 25.7 | 2.3 | 66 | 120 | 11.9 | 21.4 |
| C4844A | 4 | 24 | 7/32 | 0.024 | 0.61 | 0.032 | 0.81 | 0.390 | 9.91 | 25.7 | 2.1 | 66 | 120 | 11.9 | 21.4 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

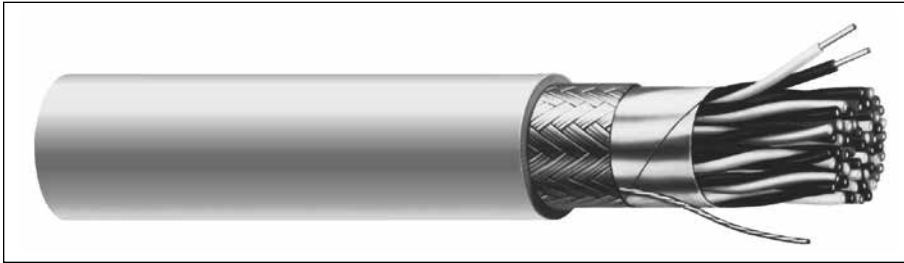
Data subject to change.

Color Code Chart 2

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--|--------------|--|
| 1 | White–Blue Stripe Blue–White Stripe | 3 | White–Green Stripe Green–White Stripe |
| 2 | White–Orange Stripe Orange–White Stripe | 4 | White–Brown Stripe Brown–White Stripe |

Multi-Paired, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CM (UL) c(UL) CMH



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polyethylene
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 90% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Low capacitance requirements
- Suitable for EIA RS-232 applications
- Suitable for EIA RS-422 applications
- Suggested voltage rating: 30 volts

Compliances:

- NEC Article 800 Type CM/CMH (UL: 75°C)
- UL Style 2919 (UL: 80°C, 30 V)
- CSA CMH (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20789 demands

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | VEL. OF PROP., % | NOM. IMP., Ω | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|-------------------|-------|------------------|--------------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | | A | B |
| C0829A | 2 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.257 | 6.53 | 25.7 | 2.7 | 66 | 100 | 14.8 | 26.7 |
| C0830A | 3 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.289 | 7.34 | 25.7 | 2.6 | 66 | 100 | 14.2 | 25.5 |
| C0831A | 4 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.313 | 7.95 | 25.7 | 3.2 | 66 | 100 | 14.2 | 25.5 |
| C0832A | 5 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.338 | 8.59 | 25.7 | 1.9 | 66 | 100 | 14.2 | 25.5 |
| C0839A | 6 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.364 | 9.24 | 25.7 | 2.4 | 66 | 100 | 13.2 | 23.8 |
| C0833A | 7 | 24 | 7/32 | 0.015 | 0.38 | 0.032 | 0.81 | 0.364 | 9.24 | 25.7 | 2.0 | 66 | 100 | 13.2 | 23.8 |
| C0835A | 10 | 24 | 7/32 | 0.015 | 0.38 | 0.038 | 0.97 | 0.462 | 11.73 | 25.7 | 1.7 | 66 | 100 | 13.2 | 23.8 |
| C0836A | 12 | 24 | 7/32 | 0.015 | 0.38 | 0.038 | 0.97 | 0.479 | 12.17 | 25.7 | 1.8 | 66 | 100 | 13.2 | 23.8 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|--------------------------|--------------|--------------------------|
| 1 | Black paired with Red | 7 | Black paired with Orange |
| 2 | Black paired with White | 8 | Red paired with White |
| 3 | Black paired with Green | 9 | Red paired with Green |
| 4 | Black paired with Blue | 10 | Red paired with Blue |
| 5 | Black paired with Yellow | 11 | Red paired with Yellow |
| 6 | Black paired with Brown | 12 | Red paired with Brown |



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Multi-Paired, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CM (UL) c(UL) CMH

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded Lo-Cap® foamed polypropylene
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

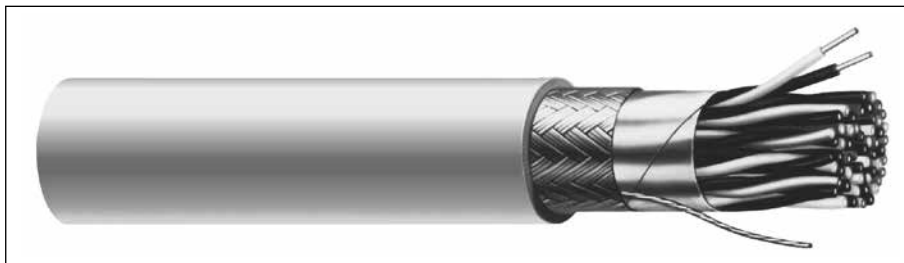
- High-speed computer interconnects
- CAD/CAM systems
- EIA RS-232 and RS-423 systems
- Control circuits
- Industrial equipment
- Low signal distortion data requirements
- Suggested voltage rating: 30 volts
- Suitable for EIA RS-485 120Ω applications

Compliances:

- NEC Article 800 Type CM/CMH (UL: 75°C, 300 V)
- UL Style 2919 (UL: 80°C, 30 V)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC
- Assists system designers in meeting FCC Docket 20789 demands

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | VEL. OF PROP., % | NOM. IMP., Ω | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|-------------------|-------|------------------|--------------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | | A | B |
| C0515A | 2 | 24 | 7/32 | 0.016 | 0.41 | 0.032 | 0.81 | 0.276 | 7.01 | 25.7 | 3.0 | 78 | 132 | 10.2 | 18.4 |
| C0516A | 3 | 24 | 7/32 | 0.016 | 0.41 | 0.032 | 0.81 | 0.290 | 7.37 | 25.7 | 3.2 | 78 | 132 | 9.9 | 17.8 |
| C0517A | 4 | 24 | 7/32 | 0.016 | 0.41 | 0.032 | 0.81 | 0.315 | 8.00 | 25.7 | 3.3 | 78 | 132 | 9.9 | 17.8 |
| C0518A | 5 | 24 | 7/32 | 0.016 | 0.41 | 0.032 | 0.81 | 0.340 | 8.64 | 25.7 | 4.2 | 78 | 132 | 9.9 | 17.8 |
| C0519A | 6 | 24 | 7/32 | 0.016 | 0.41 | 0.032 | 0.81 | 0.368 | 9.35 | 25.7 | 3.6 | 78 | 141 | 9.2 | 16.6 |
| C0520A | 7 | 24 | 7/32 | 0.016 | 0.41 | 0.032 | 0.81 | 0.370 | 9.40 | 25.7 | 3.5 | 78 | 141 | 9.2 | 16.6 |
| C0521A | 8 | 24 | 7/32 | 0.016 | 0.41 | 0.032 | 0.81 | 0.397 | 10.08 | 25.7 | 2.7 | 78 | 141 | 9.2 | 16.6 |
| C0522A | 10 | 24 | 7/32 | 0.016 | 0.41 | 0.038 | 0.97 | 0.473 | 12.01 | 25.7 | 2.4 | 78 | 141 | 9.2 | 16.6 |
| C0523A | 12.5 | 24 | 7/32 | 0.016 | 0.41 | 0.038 | 0.97 | 0.486 | 12.34 | 25.7 | 2.4 | 78 | 141 | 9.2 | 16.6 |
| C0524A | 15 | 24 | 7/32 | 0.016 | 0.41 | 0.048 | 1.22 | 0.555 | 14.10 | 25.7 | 2.6 | 78 | 141 | 9.2 | 16.6 |
| C0525A | 18 | 24 | 7/32 | 0.016 | 0.41 | 0.048 | 1.22 | 0.585 | 14.86 | 25.7 | 2.1 | 78 | 141 | 9.2 | 16.6 |
| C0526A | 25 | 24 | 7/32 | 0.016 | 0.41 | 0.048 | 1.22 | 0.677 | 17.20 | 25.7 | 2.0 | 78 | 141 | 9.2 | 16.6 |

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Data subject to change.

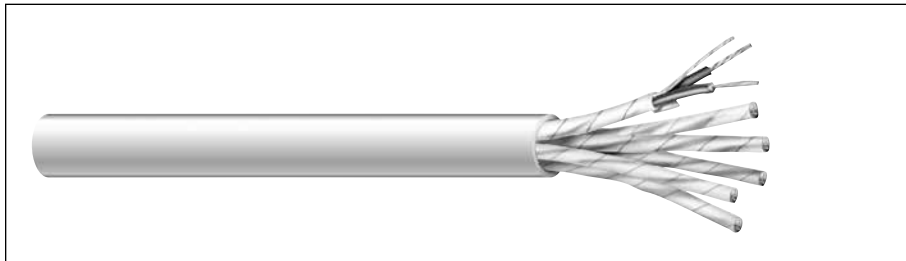
Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--|--------------|--|--------------|--|
| 1 | White-Blue Stripe Blue-White Stripe | 10 | Red-Gray Stripe Gray-Red Stripe | 18 | Yellow-Green Stripe Green-Yellow Stripe |
| 2 | White-Orange Stripe Orange-White Stripe | 11 | Black-Blue Stripe Blue-Black Stripe | 19 | Yellow-Brown Stripe Brown-Yellow Stripe |
| 3 | White-Green Stripe Green-White Stripe | 12 | Black-Orange Stripe Orange-Black Stripe | 20 | Yellow-Gray Stripe Gray-Yellow Stripe |
| 4 | White-Brown Stripe Brown-White Stripe | 13 | Black-Green Stripe Green-Black Stripe | 21 | Purple-Blue Stripe Blue-Purple Stripe |
| 5 | White-Gray Stripe Gray-White Stripe | 14 | Black-Brown Stripe Brown-Black Stripe | 22 | Purple-Orange Stripe Orange-Purple Stripe |
| 6 | Red-Blue Stripe Blue-Red Stripe | 15 | Black-Gray Stripe Gray-Black Stripe | 23 | Purple-Green Stripe Green-Purple Stripe |
| 7 | Red-Orange Stripe Orange-Red Stripe | 16 | Yellow-Blue Stripe Blue-Yellow Stripe | 24 | Purple-Brown Stripe Brown-Purple Stripe |
| 8 | Red-Green Stripe Green-Red Stripe | 17 | Yellow-Orange Stripe Orange-Yellow Stripe | 25 | Purple-Gray Stripe Gray-Purple Stripe |
| 9 | Red-Brown Stripe Brown-Red Stripe | | | | |

Single Conductor: Green with Yellow Stripe

Multi-Paired, Individually Foil Shielded

UL 2919, NEC Type CM, CSA CMH



Product Construction:

Conductor:

- 24 thru 18 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polyethylene
- Color code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire each pair

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Applications for total isolation of signal
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 30 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300 V)
- UL Style 2919 (UL: 80°C, 30 V)
- CSA CMH (CSA: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω /kft | | VEL. OF PROP. % | NOM. IMP. Ω | NOMINAL CAP.** pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------------------|-------|-----------------|--------------------|----------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | | A | B |
| C6065A | 3 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.269 | 6.83 | 26.0 | 18.0 | 66 | 71 | 21.7 | 39.0 |
| C6066A | 6 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.349 | 8.86 | 26.0 | 18.0 | 66 | 71 | 21.7 | 39.0 |
| C6067A | 9 | 24 | 7/32 | 0.011 | 0.28 | 0.032 | 0.81 | 0.406 | 10.31 | 26.0 | 18.0 | 66 | 71 | 21.7 | 39.0 |
| C6040A | 3 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.292 | 7.42 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6041A | 6 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.381 | 9.68 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6042A | 9 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.445 | 11.30 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6043A | 11 | 22 | 7/30 | 0.011 | 0.28 | 0.032 | 0.81 | 0.486 | 12.34 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6059A | 12 | 22 | 7/30 | 0.011 | 0.28 | 0.048 | 1.22 | 0.533 | 13.54 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6044A | 15 | 22 | 7/30 | 0.011 | 0.28 | 0.048 | 1.22 | 0.591 | 15.01 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6060A | 17 | 22 | 7/30 | 0.011 | 0.28 | 0.048 | 1.22 | 0.622 | 15.80 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6045A | 19 | 22 | 7/30 | 0.011 | 0.28 | 0.048 | 1.22 | 0.622 | 15.80 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6046A* | 27 | 22 | 7/30 | 0.011 | 0.28 | 0.048 | 1.22 | 0.696 | 17.68 | 16.5 | 11.3 | 66 | 63 | 24.4 | 43.9 |
| C6052A | 3 | 20 | 7/28 | 0.013 | 0.33 | 0.032 | 0.81 | 0.339 | 8.61 | 10.5 | 10.2 | 66 | 61 | 25.3 | 45.6 |
| C6053A | 6 | 20 | 7/28 | 0.013 | 0.33 | 0.032 | 0.81 | 0.446 | 11.33 | 10.5 | 10.2 | 66 | 61 | 25.3 | 45.6 |
| C6054A | 9 | 20 | 7/28 | 0.013 | 0.33 | 0.048 | 1.22 | 0.555 | 14.10 | 10.5 | 10.2 | 66 | 61 | 25.3 | 45.6 |
| C6056A | 12 | 20 | 7/28 | 0.013 | 0.33 | 0.048 | 1.22 | 0.623 | 15.82 | 10.5 | 10.2 | 66 | 61 | 25.3 | 45.6 |
| C6058A | 15 | 20 | 7/28 | 0.013 | 0.33 | 0.048 | 1.22 | 0.692 | 17.58 | 10.5 | 10.2 | 66 | 61 | 25.3 | 45.6 |
| C6047A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.395 | 10.03 | 7.2 | 8.3 | 66 | 60 | 25.7 | 46.2 |
| C6048A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.048 | 1.22 | 0.556 | 14.12 | 7.2 | 8.3 | 66 | 60 | 25.7 | 46.2 |
| C6049A | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.048 | 1.22 | 0.649 | 16.48 | 7.2 | 8.3 | 66 | 60 | 25.7 | 46.2 |
| C6050A | 12 | 18 | 16/30 | 0.016 | 0.41 | 0.048 | 1.22 | 0.731 | 18.57 | 7.2 | 8.3 | 66 | 60 | 25.7 | 46.2 |
| C6051A | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.048 | 1.22 | 0.776 | 19.71 | 7.2 | 8.3 | 66 | 60 | 25.7 | 46.2 |

*UL 2919, CSA CMH Only

**A – Capacitance between conductors

**B – Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--------------------------|--------------|--------------------------|--------------|--------------------------|
| 1 | Black paired with Red | 10 | Red paired with Blue | 19 | White paired with Blue |
| 2 | Black paired with White | 11 | Red paired with Yellow | 20 | White paired with Yellow |
| 3 | Black paired with Green | 12 | Red paired with Brown | 21 | White paired with Brown |
| 4 | Black paired with Blue | 13 | Red paired with Orange | 22 | White paired with Orange |
| 5 | Black paired with Yellow | 14 | Green paired with White | 23 | Blue paired with Yellow |
| 6 | Black paired with Brown | 15 | Green paired with Blue | 24 | Blue paired with Brown |
| 7 | Black paired with Orange | 16 | Green paired with Yellow | 25 | Blue paired with Orange |
| 8 | Red paired with White | 17 | Green paired with Brown | 26 | Brown paired with Yellow |
| 9 | Red paired with Green | 18 | Green paired with Orange | 27 | Brown paired with Orange |



Underwriters Laboratories Inc.



Multi-Paired, Individually Foil Shielded, Lo-Cap®

UL 2493, NEC Type CM (UL) c(UL) CMH

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded foamed Lo-Cap® polypropylene
- Color code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire each pair

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

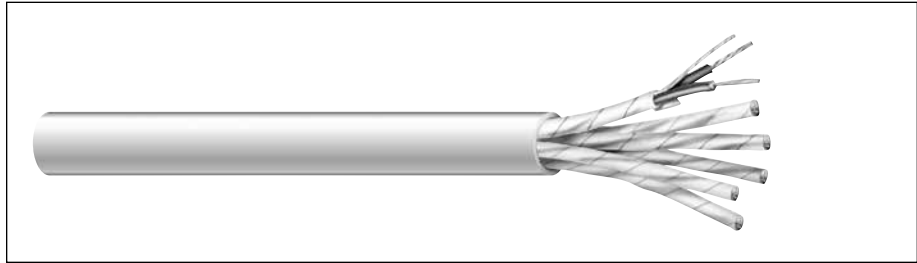
- High-speed computers
- Industrial equipment
- Control circuits
- Suitable for low capacitance applications
- Suitable for EIA RS-422 CAD/CAM applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM/CMH (UL: 75°C, 300 V)
- UL Style 2493 (UL: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR Ω/kft | | VEL. OF PROP., % | NOM. IMP., Ω | NOMINAL CAP.* pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|-------------------|-------|------------------|--------------|---------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | COND. | SHLD. | | | A | B |
| C0910A | 2 | 24 | 7/32 | 0.022 | 0.56 | 0.047 | 1.19 | 0.283 | 7.19 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |
| C0911A | 3 | 24 | 7/32 | 0.022 | 0.56 | 0.048 | 1.22 | 0.381 | 9.68 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |
| C0912A | 4 | 24 | 7/32 | 0.022 | 0.56 | 0.048 | 1.22 | 0.416 | 10.57 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |
| C0913A | 6 | 24 | 7/32 | 0.022 | 0.56 | 0.048 | 1.22 | 0.492 | 12.50 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |
| C0914A | 9 | 24 | 7/32 | 0.022 | 0.56 | 0.063 | 1.60 | 0.601 | 15.27 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |
| C0915A | 11 | 24 | 7/32 | 0.022 | 0.56 | 0.063 | 1.60 | 0.652 | 16.56 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |
| C0916A | 12 | 24 | 7/32 | 0.022 | 0.56 | 0.063 | 1.60 | 0.672 | 17.08 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |
| C0917A | 15 | 24 | 7/32 | 0.022 | 0.56 | 0.063 | 1.60 | 0.743 | 18.87 | 26.0 | 18.0 | 78 | 100 | 14.8 | 26.7 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

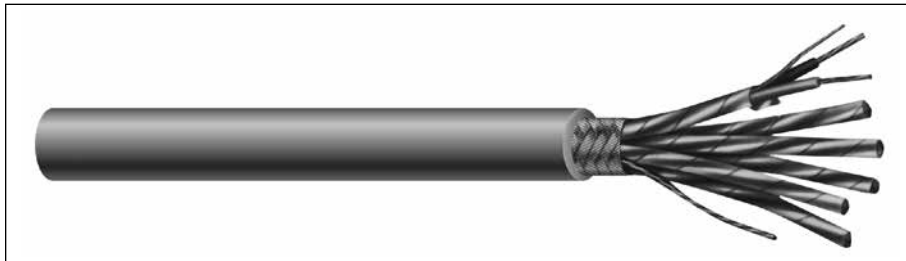
Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR | NO. OF PAIRS | COLOR |
|--------------|--------------------------|--------------|-------------------------|
| 1 | Black paired with Red | 9 | Red paired with Green |
| 2 | Black paired with White | 10 | Red paired with Blue |
| 3 | Black paired with Green | 11 | Red paired with Yellow |
| 4 | Black paired with Blue | 12 | Red paired with Brown |
| 5 | Black paired with Yellow | 13 | Red paired with Orange |
| 6 | Black paired with Brown | 14 | Green paired with White |
| 7 | Black paired with Orange | 15 | Green paired with Blue |
| 8 | Red paired with White | | |

Multi-Paired, Individually Foil/Braid Shielded, Lo-Cap®

UL 2493, NEC Type CM (UL) c(UL) CMH



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33
- Twisted pairs

Insulation:

- Premium-grade, color-coded foamed Lo-Cap® polypropylene
- Color code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire, each pair
- 70% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

- High-speed computers
- Industrial equipment
- Control circuits
- Designed for low capacitance applications
- Suitable for RS-422 CAD/CAM applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM/CMH (UL: 75°C, 300 V)
- UL Style 2493 (UL: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL DCR** | | | VEL. OF PROP., % | NOM. IMP., Ω | NOMINAL CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|---------------|------|-----|------------------|--------------|---------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | C | D | E | | | A | B |
| C0924A | 2 | 24 | 7/32 | 0.022 | 0.56 | 0.048 | 1.22 | 0.392 | 9.96 | 26.0 | 18.0 | 4.3 | 78 | 100 | 14.8 | 26.7 |
| C0925A | 3 | 24 | 7/32 | 0.022 | 0.56 | 0.048 | 1.22 | 0.410 | 10.41 | 26.0 | 18.0 | 4.4 | 78 | 100 | 14.8 | 26.7 |
| C0926A | 4 | 24 | 7/32 | 0.022 | 0.56 | 0.048 | 1.22 | 0.445 | 11.30 | 26.0 | 18.0 | 3.2 | 78 | 100 | 14.8 | 26.7 |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield

**C – Conductor resistance

**D – Individual shield resistance

**E – Overall shield resistance

Data subject to change.

Color Code Chart

| NO. OF PAIRS | COLOR |
|--------------|-------------------------|
| 1 | Black paired with Red |
| 2 | Black paired with White |
| 3 | Black paired with Green |
| 4 | Black paired with Blue |



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



EXZEL® High-Endurance Cables

4



As a full electronics solutions provider with a commitment to designing innovative cable constructions, General Cable recognizes the growing demand for a higher performance line of electronic wire and cable to support emerging technology, mission-critical applications and today's environmental concerns. That's why we've introduced a new, tougher addition to the Carol® Brand family – EXZEL High-Endurance Electronic Cables.

General Cable's new EXZEL High-Endurance Electronic Cables are engineered for extreme environments where unparalleled performance is critical and cable failures are not an option. An exceptional choice that offers complete peace of mind, this new cabling line *exzels* in applications where oil, liquids, vapors or other substances can attack the jacketing of conventional "round gray" PVC electronic cables. Along with improved jacketing performance, EXZEL's innovative Dual Foil/Braid Shield technology provides more effective shielding. This dual-foil design with 85% copper-braid coverage significantly reduces electromagnetic and radio frequency interference (EMI/RFI) over traditional single-foil tape designs.

In response to environmental concern surrounding the burning of halogens, General Cable also offers the Low-Smoke, Zero-Halogen (LSZH) line of EXZEL High-Endurance Electronic Cables. To reduce the toxicity and corrosive effects that may impact people and equipment, Carol Brand's EXZEL LSZH construction produces low amounts of smoke and acid gas during a fire, while maintaining the same flame requirements, electrical performance and longevity as traditional cable constructions.

Whether you are involved with a green building installation or simply looking for ways to safeguard people and protect the environment, EXZEL High-Endurance Electronic Cables provide a true "green" alternative. And with EXZEL, U.S. manufacturers now have access to a domestic LSZH cable solution required for use on equipment that may be sold internationally.

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Carol® Brand EXZEL® Complete Peace of Mind

READY TO SERVE

For more than 60 years, General Cable has met the ever-changing needs of major Original Equipment Manufacturers (OEMs) and the most demanding, high-volume bulk requirements of Maintenance Repair Operations (MROs), as well as smaller, niche OEMs around the world. Uniquely qualified to provide superior engineering, products and value-added services, General Cable's customers represent a virtual "who's who" of the industries we serve. All Carol® Brand's EXZEL® High-Endurance Electronic Cables are ideal for use in the following markets and applications:

Manufacturing

- Device communications
- Control interconnect
- PLC networking
- Industrial machinery

Food and Beverage

- Meat and food processing
- Bottling plants
- Packaging machines

Semiconductor

- Robotic handling systems
- Class I, Division 2
- Automated test equipment
- Wafer processing equipment

Utilities

- Wastewater treatment plants
- Wind turbine control
- Gas delivery communications

Military

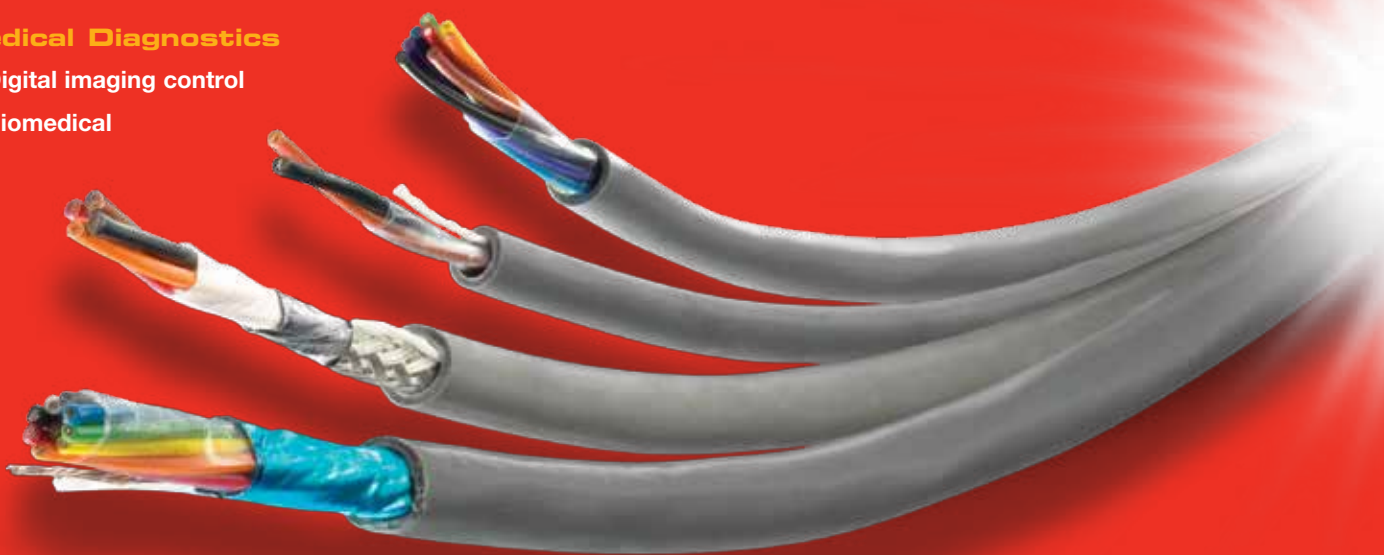
- Mobile communications
- Avionics control

Process

- Remote monitoring
- Discrete/analog signaling

Medical Diagnostics

- Digital imaging control
- Biomedical



BACKED BY QUALITY

EXZEL[®] High-Endurance Electronic Cables are manufactured with the selection, quality and dependability our customers have come to expect from Carol[®] Brand cables. From special jacket colors, print legends and TRU-Mark[®] sequential footage markings to unique constructions, innovative materials and quality manufacturing, General Cable's expert engineers offer superior service and design assistance. Most of our products carry UL, ETL, RoHS, CSA and other major approvals from around the globe.

Need a specific construction not available in our standard stock? We have you covered. General Cable will customize any standard EXZEL cable construction to meet your unique application requirements, including:

- Jacket colors
- Gauge sizes
- Conductor count and construction
- Insulation and jacket construction
- Shielding options
- Armoring
- Composites

EXZEL's LSZH cables, as well as all of our High-Endurance cables, are manufactured in General Cable's Franklin, Massachusetts and Manchester, New Hampshire facilities – both of which are recognized among North America's Top 10 Best Manufacturing Plants by *INDUSTRYWEEK* Magazine.

When exceptional performance and reliability are critical to your application, put your trust in Carol Brand EXZEL.

Comparison of Traditional Round Gray Electronic Cables to EXZEL High-Endurance Electronic Cables

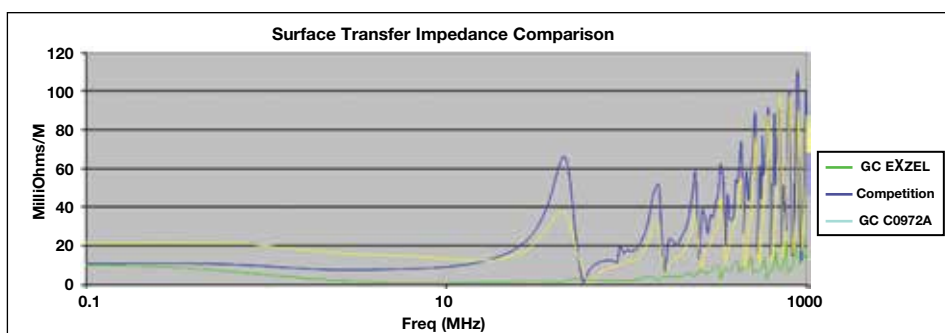
| | Traditional Round Gray Electronic Cables | EXZEL PVC | EXZEL LSZH |
|-------------------------|--|---------------|---------------|
| Conductor Type | Tinned Copper | Tinned Copper | Tinned Copper |
| Conductor Strand | 7/XX | Flexible | Flexible |
| Insulation | PVC | PVC | LSZH |
| Shielding | Limited | Full | Full |
| Braid Coverage | 70 | 70 | 85 |
| Jacket | PVC | PVC | LSZH |
| Footage Markings | No | TRU-Mark | Yes |
| Temp Rating | 80°C | 105°C | 105°C |
| Oil Resistance | No | No | OR I* |
| UV Resistance | No | Yes | Yes |
| NEC/UL Type CM | Yes (80°C) | Yes (105°C) | Yes |
| UL AWM | Style 2464 | Style 2464 | N/A |
| CSA CMG | Yes (80°C) | Yes (105°C) | No |
| UL PLTC-ER | No | No | Yes |
| PLTC | No | No | Yes |
| UL Flame Rating | UL 1581 | UL 1581 | UL 1581 |
| CSA Flame Rating | FT4 | FT4 | FT4 |

*OR I = UL Oil Resistance I

FEATURES AND BENEFITS OF CAROL® BRAND EXZEL®

- Reduced downtime for lower cost of ownership
- Superior reliability, even in the harshest environments
- Extensive selection to meet application needs
- Optimum lifespan in severe operating conditions
- Highest available shield coverage for maximum EMI/RFI resistance
- Low-Smoke, Zero-Halogen constructions available
- Premium-grade PVC insulation and jacket available for routing in tight spaces
- Resistant to most oils (UL Class 43) and to ambient temperatures up to 105°C

SURFACE TRANSFER IMPEDANCES (STI)



Why General Cable?

Unrivaled service. Unparalleled innovation. Unmatched industry leadership.

At General Cable, we believe quality is what we put in your product. That's why we employ a LeanSigma management philosophy that eliminates waste and non-value-added processes to improve the flow of information and materials. Always searching for new and better ways of doing things, General Cable consistently identifies and eliminates sources of variation while reducing cycle time and inventory, ensuring better capacity and space utilization and improving productivity. We have the right mix of people, equipment and experience to produce custom cables, wire harnesses and cable assemblies of the highest complexity and quality – High-Endurance Electronic products that *exzel!*

- **Certified ISO 9001 manufacturing facilities**
- **Rigorous performance standards**
- **Ongoing R&D for an ever-growing range of materials**
- **Superior materials and proactive prevention**
- **Comprehensive process control and quality audits**
- **Stringent in-house and third-party testing**

General Cable is an environmentally conscious company committed to reducing and, where possible, eliminating hazardous substances. Our facilities have fully implemented an ISO 14001-equivalent environmental management system with strict oversight to ensure that regulatory compliance is met or exceeded. All applicable products are certified or are being upgraded to meet RoHS standards, and we are working to comply with evolving REACH requirements as they pertain to wire and cable products and materials.

THE BOTTOM LINE

General Cable recognizes and values the vital importance of total, exceptional customer satisfaction, and we have the experience and know-how to achieve it. Our people may come to work for us, but on the job, our *Wire Wizards* work for you. Put us to work and see what we can do for you.

EXZEL® Multi-Conductor, Unshielded

UL 2464, NEC Type CM (UL), CSA CMG

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart A for 24 AWG and 22 AWG on page 97
- Color per Chart B for 20 AWG and larger on page 97
- International colors per IEC Color Chart on page 97

Shield:

- Unshielded

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant per UL 720-hr. UV test
- Nylon ripcord

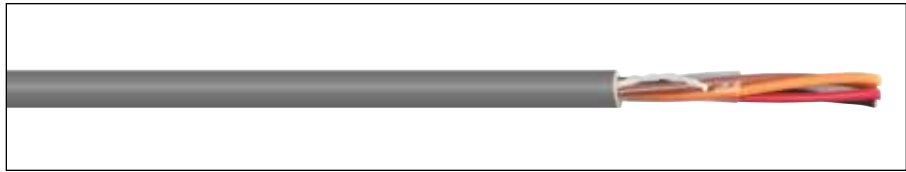
Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2464 (UL: 80°C, 300 V, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.



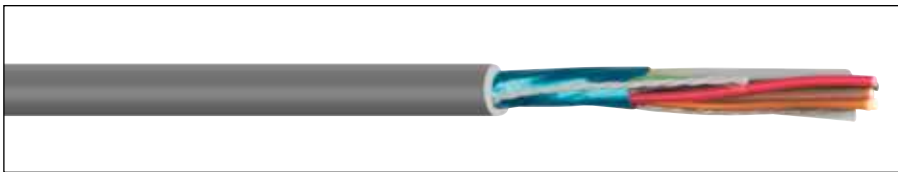
| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9000A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.155 | 3.94 |
| C9001A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.161 | 4.10 |
| C9002A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.173 | 4.40 |
| C9003A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.198 | 5.03 |
| C9004A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.211 | 5.37 |
| C9005A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.241 | 6.12 |
| C9006A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.271 | 6.89 |
| C9007A | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.297 | 7.55 |
| C9008A | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.327 | 8.31 |
| C9009A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.167 | 4.24 |
| C9010A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.174 | 4.43 |
| C9011A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.188 | 4.76 |
| C9012A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.216 | 5.49 |
| C9013A | 8 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.231 | 5.87 |
| C9014A | 10 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.265 | 6.73 |
| C9015A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.299 | 7.60 |
| C9016A | 20 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.329 | 8.36 |
| C9017A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.363 | 9.22 |
| C9018A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.205 | 5.21 |
| C9019A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.215 | 5.47 |
| C9020A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.234 | 5.93 |
| C9021A | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.273 | 6.93 |
| C9022A | 8 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.294 | 7.47 |
| C9023A | 10 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.341 | 8.66 |
| C9024A | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.389 | 9.87 |
| C9025A | 20 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.430 | 10.92 |
| C9026A | 25 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.477 | 12.12 |
| C9027A* | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.225 | 5.72 |
| C9028A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.225 | 5.72 |
| C9029A* | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.237 | 6.01 |
| C9030A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.237 | 6.01 |
| C9031A | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.258 | 6.55 |
| C9032A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.303 | 7.70 |
| C9033A | 8 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.327 | 8.31 |
| C9034A | 10 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.381 | 9.68 |
| C9035A | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.436 | 11.06 |
| C9036A | 20 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.483 | 12.27 |
| C9037A | 25 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.537 | 13.64 |
| C9038A* | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.245 | 6.22 |
| C9039A | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.245 | 6.22 |
| C9040A* | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.258 | 6.56 |
| C9041A | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.258 | 6.56 |
| C9042A | 4 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.282 | 7.16 |
| C9043A | 6 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.333 | 8.46 |
| C9044A | 8 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.360 | 9.15 |
| C9045A | 10 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.421 | 10.69 |
| C9046A | 15 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.483 | 12.26 |
| C9047A | 20 | 16 | 19/0.117 | 0.016 | 0.41 | 0.053 | 1.35 | 0.578 | 14.69 |
| C9048A | 25 | 16 | 19/0.117 | 0.016 | 0.41 | 0.053 | 1.35 | 0.639 | 16.23 |

* IEC Color Code: Brown, Blue, Green/Yellow



EXZEL® Multi-Conductor, Foil Shielded

UL 2464, NEC Type CM (UL), CSA CMG



Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart A for 24 AWG and 22 AWG on page 97
- Color per Chart B for 20 AWG and larger on page 97
- International colors per IEC Color Chart on page 97

Shield:

- 100% Flexfoil® aluminum/polyester, foil facing in
- Stranded tinned copper drain wire

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant per UL 720-hr. UV test
- Nylon ripcord

Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2464 (UL: 80°C, 300 V, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9100A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.157 | 3.99 |
| C9101A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.163 | 4.15 |
| C9102A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.175 | 4.45 |
| C9103A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.200 | 5.08 |
| C9104A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.213 | 5.42 |
| C9105A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.243 | 6.17 |
| C9106A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.273 | 6.94 |
| C9107A | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.299 | 7.60 |
| C9108A | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.329 | 8.36 |
| C9109A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.169 | 4.29 |
| C9110A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.176 | 4.48 |
| C9111A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.190 | 4.82 |
| C9112A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.218 | 5.54 |
| C9113A | 8 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.233 | 5.92 |
| C9114A | 10 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.267 | 6.78 |
| C9115A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.301 | 7.65 |
| C9116A | 20 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.331 | 8.41 |
| C9117A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.365 | 9.27 |
| C9118A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.207 | 5.26 |
| C9119A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.217 | 5.52 |
| C9120A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.236 | 5.98 |
| C9121A | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.275 | 6.99 |
| C9122A | 8 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.296 | 7.52 |
| C9123A | 10 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.343 | 8.71 |
| C9124A | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.391 | 9.92 |
| C9125A | 20 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.432 | 10.97 |
| C9126A | 25 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.479 | 12.17 |
| C9127A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.227 | 5.77 |
| C9128A* | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.227 | 5.77 |
| C9129A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.239 | 6.06 |
| C9130A* | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.239 | 6.06 |
| C9131A | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.260 | 6.60 |
| C9132A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.305 | 7.75 |
| C9133A | 8 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.329 | 8.36 |
| C9134A | 10 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.383 | 9.73 |
| C9135A | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.438 | 11.12 |
| C9136A | 20 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.485 | 12.32 |
| C9137A | 25 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.539 | 13.69 |
| C9138A | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.247 | 6.27 |
| C9139A* | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.247 | 6.27 |
| C9140A | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.260 | 6.61 |
| C9141A* | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.260 | 6.61 |
| C9142A | 4 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.284 | 7.21 |
| C9143A | 6 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.335 | 8.51 |
| C9144A | 8 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.362 | 9.20 |
| C9145A | 10 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.423 | 10.74 |
| C9146A | 15 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.485 | 12.31 |
| C9147A | 20 | 16 | 19/0.117 | 0.016 | 0.41 | 0.053 | 1.35 | 0.580 | 14.74 |
| C9148A | 25 | 16 | 19/0.117 | 0.016 | 0.41 | 0.053 | 1.35 | 0.641 | 16.28 |

* IEC Color Code: Brown, Blue, Green/Yellow



EXZEL® Multi-Conductor, Foil/Braid Shielded

UL 2464, NEC Type CM (UL), CSA CMG

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart A for 24 AWG and 22 AWG on page 97
- Color per Chart B for 20 AWG and larger on page 97
- International colors per IEC Color Chart on page 97

Shield:

- Dual foil with overall braided shield
- Aluminum/polyester/aluminum foil with 100% coverage
- Stranded tinned copper drain wire
- Tinned copper braided shield, 70% min coverage

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

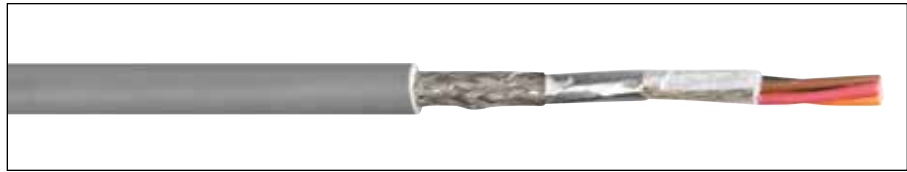
Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2464 (UL: 80°C, 300 V, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.



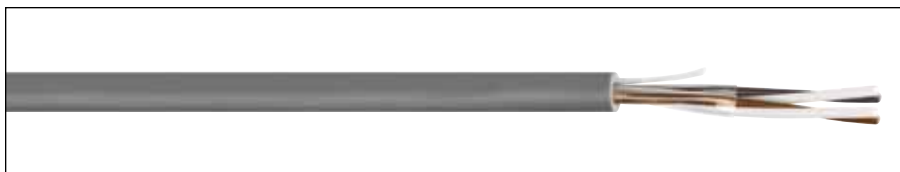
| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9200A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.184 | 4.67 |
| C9201A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.190 | 4.84 |
| C9202A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.202 | 5.13 |
| C9203A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.227 | 5.77 |
| C9204A | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.240 | 6.10 |
| C9205A | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.270 | 6.86 |
| C9206A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.300 | 7.62 |
| C9207A | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.326 | 8.29 |
| C9208A | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.356 | 9.04 |
| C9209A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.196 | 4.98 |
| C9210A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.203 | 5.17 |
| C9211A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.217 | 5.50 |
| C9212A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.245 | 6.22 |
| C9213A | 8 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.260 | 6.61 |
| C9214A | 10 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.294 | 7.47 |
| C9215A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.328 | 8.34 |
| C9216A | 20 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.358 | 9.10 |
| C9217A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.392 | 9.96 |
| C9218A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.234 | 5.94 |
| C9219A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.244 | 6.20 |
| C9220A | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.263 | 6.67 |
| C9221A | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.302 | 7.67 |
| C9222A | 8 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.323 | 8.21 |
| C9223A | 10 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.370 | 9.40 |
| C9224A | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.418 | 10.61 |
| C9225A | 20 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.459 | 11.66 |
| C9226A | 25 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.506 | 12.85 |
| C9227A* | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.254 | 6.45 |
| C9228A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.254 | 6.45 |
| C9229A* | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.266 | 6.75 |
| C9230A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.266 | 6.75 |
| C9231A | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.287 | 7.28 |
| C9232A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.332 | 8.43 |
| C9233A | 8 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.356 | 9.05 |
| C9234A | 10 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.410 | 10.41 |
| C9235A | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.465 | 11.80 |
| C9236A | 20 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.512 | 13.01 |
| C9237A | 25 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.566 | 14.38 |
| C9238A* | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.274 | 6.96 |
| C9239A | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.274 | 6.96 |
| C9240A* | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.287 | 7.29 |
| C9241A | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.287 | 7.29 |
| C9242A | 4 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.311 | 7.90 |
| C9243A | 6 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.362 | 9.19 |
| C9244A | 8 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.389 | 9.89 |
| C9245A | 10 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.450 | 11.43 |
| C9246A | 15 | 16 | 19/0.117 | 0.016 | 0.41 | 0.032 | 0.81 | 0.512 | 12.99 |
| C9247A | 20 | 16 | 19/0.117 | 0.016 | 0.41 | 0.053 | 1.35 | 0.607 | 15.42 |
| C9248A | 25 | 16 | 19/0.117 | 0.016 | 0.41 | 0.053 | 1.35 | 0.679 | 17.25 |

* IEC Color Code: Brown, Blue, Green/Yellow



EXZEL® Multi-Paired, Unshielded

UL 2464, NEC Type CM (UL), CSA CMG



Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart C for 24 AWG and 22 AWG on page 97
- Color per Chart D for 20 AWG and larger on page 97

Shield:

- Unshielded

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2464 (UL: 80°C, 300 V, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

| PART NUMBER | PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9300A | 1 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.155 | 3.94 |
| C9301A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.211 | 5.37 |
| C9302A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.222 | 5.64 |
| C9303A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.242 | 6.13 |
| C9304A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.262 | 6.65 |
| C9305A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.283 | 7.20 |
| C9306A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.327 | 8.31 |
| C9307A | 11 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.355 | 9.03 |
| C9308A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.406 | 10.31 |
| C9309A | 1 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.149 | 3.79 |
| C9310A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.231 | 5.88 |
| C9311A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.244 | 6.19 |
| C9312A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.266 | 6.75 |
| C9313A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.289 | 7.34 |
| C9314A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.314 | 7.96 |
| C9315A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.453 | 11.51 |
| C9316A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.295 | 7.49 |
| C9317A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.312 | 7.93 |
| C9318A | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.409 | 10.39 |
| C9319A | 9 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.479 | 12.16 |
| C9320A | 12 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.540 | 13.72 |
| C9321A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.329 | 8.35 |
| C9322A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.348 | 8.85 |
| C9323A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.459 | 11.67 |
| C9324A | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.539 | 13.70 |
| C9325A | 12 | 18 | 16/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.652 | 16.56 |



EXZEL® Multi-Paired, Foil Shielded

UL 2464, NEC Type CM (UL), CSA CMG

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart C for 24 AWG and 22 AWG on page 97
- Color per Chart D for 20 AWG and larger on page 97

Shield:

- 100% Flexfoil® aluminum/polyester, foil facing in
- Stranded tinned copper drain wire

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

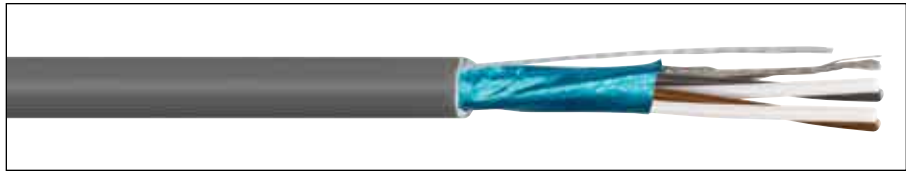
Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2464 (UL: 80°C, 300 V, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.



| PART NUMBER | PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9400A | 1 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.157 | 3.99 |
| C9401A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.215 | 5.47 |
| C9402A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.226 | 5.74 |
| C9403A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.246 | 6.24 |
| C9404A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.266 | 6.75 |
| C9405A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.287 | 7.30 |
| C9406A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.331 | 8.42 |
| C9407A | 11 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.359 | 9.13 |
| C9408A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.410 | 10.41 |
| C9410A | 1 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.169 | 4.29 |
| C9411A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.235 | 5.98 |
| C9412A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.248 | 6.29 |
| C9413A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.270 | 6.85 |
| C9414A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.293 | 7.44 |
| C9415A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.318 | 8.06 |
| C9416A | 9 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.368 | 9.34 |
| C9417A | 11 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.400 | 10.15 |
| C9418A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.457 | 11.61 |
| C9420A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.299 | 7.60 |
| C9421A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.316 | 8.03 |
| C9422A | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.413 | 10.49 |
| C9423A | 9 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.483 | 12.26 |
| C9424A | 12 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.544 | 13.82 |
| C9426A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.352 | 8.95 |
| C9427A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.463 | 11.77 |

EXZEL® Multi-Paired, Foil/Braid Shielded

UL 2464, NEC Type CM (UL), CSA CMG



| PART NUMBER | PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9500A | 1 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.184 | 4.67 |
| C9501A | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.242 | 6.10 |
| C9502A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.253 | 6.40 |
| C9503A | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.273 | 6.88 |
| C9504A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.293 | 7.42 |
| C9505A | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.314 | 7.98 |
| C9506A | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.358 | 9.14 |
| C9507A | 11 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.386 | 9.78 |
| C9508A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.437 | 10.90 |
| C9510A | 1 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.196 | 4.98 |
| C9511A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.262 | 6.60 |
| C9512A | 3 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.275 | 6.93 |
| C9513A | 4 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.297 | 7.49 |
| C9514A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.320 | 8.10 |
| C9515A | 6 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.345 | 8.74 |
| C9516A | 9 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.395 | 10.06 |
| C9517A | 11 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.427 | 10.77 |
| C9518A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.032 | 0.81 | 0.484 | 12.07 |
| C9520A | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.326 | 8.28 |
| C9521A | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.343 | 8.74 |
| C9522A | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.440 | 11.25 |
| C9523A | 9 | 20 | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.510 | 13.08 |
| C9525A | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.360 | 9.02 |
| C9526A | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.379 | 9.55 |
| C9527A | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.032 | 0.81 | 0.490 | 12.40 |
| C9528A | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.053 | 1.35 | 0.612 | 15.52 |

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart C for 24 AWG and 22 AWG on page 97
- Color per Chart D for 20 AWG and larger on page 97

Shield:

- Dual foil with overall braided shield
- Aluminum/polyester/aluminum foil with 100% coverage
- Stranded tinned copper drain wire
- Tinned copper braided shield, 70% min coverage

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2464 (UL: 80°C, 300 V, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

EXZEL® Multi-Conductor, Unshielded, Heavy Duty

UL 2343, NEC Type CM (UL), CSA CMG

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart A on page 97

Shield:

- Unshielded

Jacket:

- Premium PVC
- Operating temperature range:
-30°C to +105°C (Type CM)
-30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

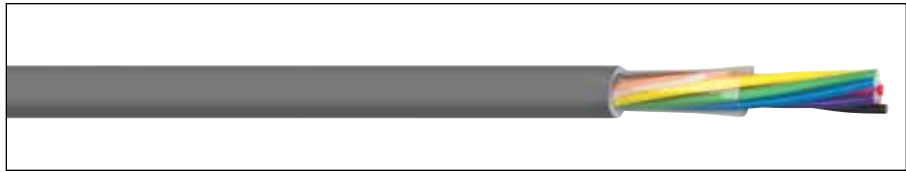
Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2343 (UL: 80°C, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

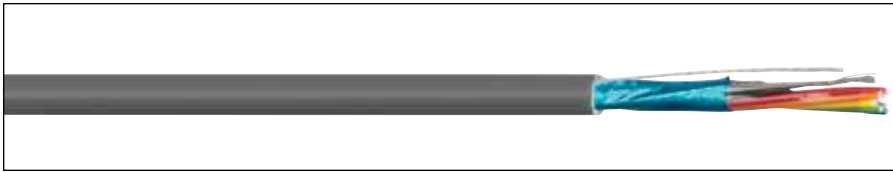
Data subject to change.



| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|-----|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9058A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.260 | 6.60 |
| C9059A | 12 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.309 | 7.86 |
| C9060A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.333 | 8.46 |
| C9061A | 19 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.346 | 8.79 |
| C9062A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.229 | 5.82 |
| C9063A | 7 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.278 | 7.06 |
| C9064A | 12 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.334 | 8.49 |
| C9065A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.361 | 9.18 |
| C9066A | 19 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.376 | 9.55 |
| C9067A | 25 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.425 | 10.80 |
| C9068A | 2 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.243 | 6.17 |
| C9069A | 5 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.282 | 7.17 |
| C9070A | 7 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.299 | 7.59 |
| C9071A | 12 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.363 | 9.23 |
| C9072A | 15 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.394 | 10.01 |
| C9073A | 19 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.411 | 10.44 |
| C9074A | 25 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.467 | 11.86 |

EXZEL® Multi-Conductor, Foil Shielded, Heavy Duty

UL 2343, NEC Type CM (UL), CSA CMG



Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart A on page 97

Shield:

- 100% Flexfoil® aluminum/polyester, foil facing in
- Stranded tinned copper drain wire

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2343 (UL: 80°C, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|-----|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9158A | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.225 | 5.73 |
| C9159A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.249 | 6.33 |
| C9160A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.262 | 6.65 |
| C9161A | 12 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.311 | 7.91 |
| C9162A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.335 | 8.51 |
| C9163A | 19 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.348 | 8.84 |
| C9164A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.231 | 5.87 |
| C9165A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.265 | 6.74 |
| C9166A | 7 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.280 | 7.11 |
| C9167A | 12 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.336 | 8.54 |
| C9168A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.363 | 9.23 |
| C9169A | 19 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.378 | 9.60 |
| C9170A | 2 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.245 | 6.22 |
| C9171A | 5 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.284 | 7.22 |
| C9172A | 7 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.301 | 7.65 |
| C9173A | 12 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.365 | 9.28 |
| C9174A | 15 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.396 | 10.06 |
| C9175A | 19 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.413 | 10.49 |



EXZEL® Multi-Conductor, Foil/Braid Shielded, Heavy Duty

UL 2343, NEC Type CM (UL), CSA CMG

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart A on page 97

Shield:

- Dual foil with overall braided shield
- Aluminum/polyester/aluminum foil with 100% coverage
- Stranded tinned copper drain wire
- Tinned copper braided shield, 70% min coverage

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C (Type CM) -30°C to +80°C (AWM)

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

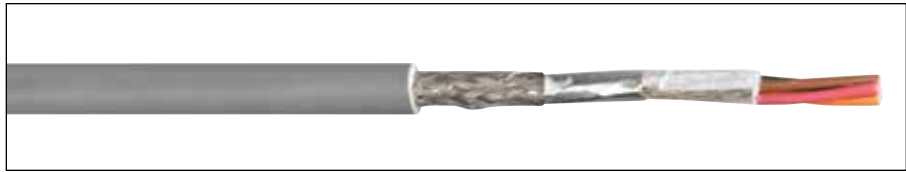
Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2343 (UL: 80°C, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

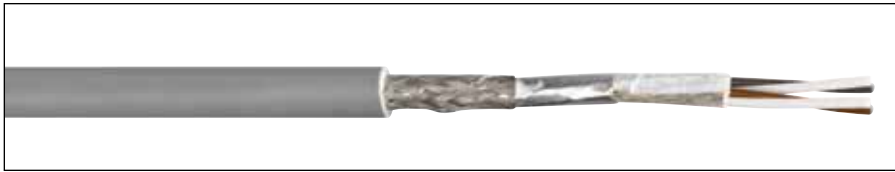
Data subject to change.



| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|-----|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9258A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.276 | 7.01 |
| C9259A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.289 | 7.34 |
| C9260A | 12 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.338 | 8.60 |
| C9261A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.362 | 9.20 |
| C9262A | 19 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.375 | 9.53 |
| C9263A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.292 | 7.42 |
| C9264A | 7 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.307 | 7.80 |
| C9265A | 12 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.363 | 9.23 |
| C9266A | 15 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.390 | 9.91 |
| C9267A | 19 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.405 | 10.29 |
| C9268A | 4 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.296 | 7.51 |
| C9269A | 5 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.311 | 7.90 |
| C9270A | 7 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.328 | 8.33 |
| C9271A | 12 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.392 | 9.97 |
| C9272A | 15 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.423 | 10.75 |
| C9273A | 19 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.440 | 11.18 |

EXZEL® Multi-Paired, Foil/Braid Shielded, Heavy Duty

UL 2343, NEC Type CM (UL), CSA CMG



| PART NUMBER | PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|-----|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9538A | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.355 | 9.01 |
| C9539A | 7 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.376 | 9.56 |
| C9540A | 12 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.459 | 11.67 |
| C9541A | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.063 | 1.6 | 0.499 | 12.67 |
| C9543A | 2 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.324 | 8.24 |
| C9544A | 5 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.382 | 9.70 |
| C9545A | 7 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.407 | 10.33 |
| C9546A | 12 | 22 | 7/30 | 0.010 | 0.25 | 0.063 | 1.6 | 0.501 | 12.73 |
| C9548A | 4 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.387 | 9.84 |
| C9549A | 5 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.414 | 10.50 |
| C9550A | 7 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.442 | 11.22 |
| C9551A | 9 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.499 | 12.68 |
| C9552A | 15 | 20 | 7/28 | 0.010 | 0.25 | 0.063 | 1.6 | 0.601 | 15.28 |

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Color per Chart C on page 97

Shield:

- Dual foil with overall braided shield
- Aluminum/polyester/aluminum foil with 100% coverage
- Stranded tinned copper drain wire
- Tinned copper braided shield, 70% min coverage

Jacket:

- Premium PVC
- Operating temperature range: -30°C to +105°C

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant per UL Oil Res I and Class 43
- Sunlight-resistant
- Nylon ripcord

Compliances:

- NEC Article 800 Type CM (UL: 105°C)
- UL Style 2343 (UL: 80°C, VW-1)
- CSA Type CMG (CSA: 105°C, FT4)
- CE: Low-Voltage Directive (LVD) 2006/95/EC
- RoHS Compliant Directive 2011/65/EU
- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

EXZEL® LSZH Multi-Conductor, Unshielded

NEC Type CM, CMG, CL2 or PLTC-ER (UL)

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded LSZH
- Color per Chart A for 24 AWG and 22 AWG on page 97
- Color per Chart B for 20 AWG and larger on page 97
- International colors per IEC Color Chart on page 97

Shield:

- Unshielded

Jacket:

- Premium FR-LSZH (Thermoplastic Polyolefin)
- Operating temperature range: -40°C to +105°C

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant (OIL RES I)
- Sunlight-resistant (SUN RES)
- Nylon ripcord
- UV-resistant

Compliances:

- NEC Article 725 Type PLTC-ER (22 AWG and larger, UL: 105°C, 300 V)
- (-ER): approved for Exposed Run as defined per NEC Article 725
- NEC Article 725 Type CL2 (UL: 105°C, 150 V)
- NEC Article 800 Type CM/CMG (UL: 105°C, 300 V)
- CE Compliant to IEC Directive 93/68/EEC
- RoHS Compliant Directive 2011/65/EU

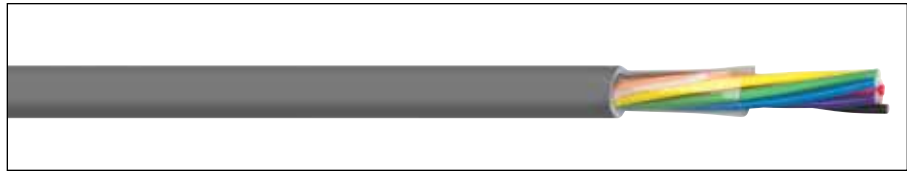
Compliances: Flame & Smoke

- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)
- CSA FT4/IEEE 1202 flame test per UL 1685
- IEC 60332-1, 3, Cat A: Flammability
- IEC 61034-1, 2 and Mil-DTL-24643B and NES 711: Smoke Index Emission
- IEC 60754-1, 2 and Mil-DTL-24643B: Halogen Content and Acid Gas Generation

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

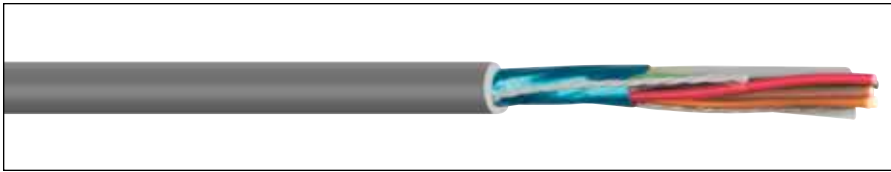


| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9000ZH | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.160 | 4.06 |
| C9001ZH | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.167 | 4.23 |
| C9002ZH | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.178 | 4.53 |
| C9003ZH | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.204 | 5.18 |
| C9004ZH | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.218 | 5.53 |
| C9005ZH | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.248 | 6.30 |
| C9006ZH | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.289 | 7.34 |
| C9007ZH | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.316 | 8.02 |
| C9008ZH | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.346 | 8.79 |
| C9009ZH | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.182 | 4.62 |
| C9010ZH | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.190 | 4.81 |
| C9011ZH | 4 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.203 | 5.16 |
| C9012ZH | 6 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.232 | 5.89 |
| C9013ZH | 8 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.248 | 6.29 |
| C9014ZH | 10 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.292 | 7.42 |
| C9015ZH | 15 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.327 | 8.31 |
| C9016ZH | 20 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.358 | 9.08 |
| C9017ZH | 25 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.412 | 10.46 |
| C9018ZH | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.222 | 5.64 |
| C9019ZH | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.233 | 5.91 |
| C9020ZH | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.251 | 6.39 |
| C9021ZH | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.302 | 7.67 |
| C9022ZH | 8 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.324 | 8.22 |
| C9023ZH | 10 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.372 | 9.45 |
| C9024ZH | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.441 | 11.20 |
| C9025ZH | 20 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.484 | 12.29 |
| C9026ZH | 25 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.532 | 13.51 |
| C9027ZH* | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.238 | 6.05 |
| C9028ZH | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.238 | 6.05 |
| C9029ZH* | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.250 | 6.34 |
| C9030ZH | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.250 | 6.34 |
| C9031ZH | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.271 | 6.88 |
| C9032ZH | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.326 | 8.28 |
| C9033ZH | 8 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.350 | 8.89 |
| C9034ZH | 10 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.424 | 10.77 |
| C9035ZH | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.479 | 12.16 |
| C9036ZH | 20 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.526 | 13.36 |
| C9037ZH | 25 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.580 | 14.73 |
| C9038ZH* | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.262 | 6.65 |
| C9039ZH | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.262 | 6.65 |
| C9040ZH* | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.276 | 7.00 |
| C9041ZH | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.276 | 7.00 |
| C9042ZH | 4 | 16 | 19/0.117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.310 | 7.87 |
| C9043ZH | 6 | 16 | 19/0.117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.362 | 9.19 |
| C9044ZH | 8 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.410 | 10.41 |
| C9045ZH | 10 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.472 | 11.99 |
| C9046ZH | 15 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.535 | 13.59 |
| C9047ZH | 20 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.590 | 14.98 |
| C9048ZH | 25 | 16 | 19/0.117 | 0.016 | 0.41 | 0.062 | 1.57 | 0.672 | 17.07 |

* IEC Color Code: Brown, Blue, Green/Yellow.

EXZEL® LSZH Multi-Conductor, Foil Shielded

NEC Type CM, CMG, CL2 or PLTC-ER (UL)



Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded LSZH (Thermoplastic Polyolefin)
- Color per Chart A for 24 AWG and 22 AWG on page 97
- Color per Chart B for 20 AWG and larger on page 97
- International colors per IEC Color Chart on page 97

Shield:

- 100% Flexfoil®, aluminum/polyester/aluminum, foil facing in
- Stranded tinned copper drain wire

Jacket:

- Premium FR-LSZH (Thermoplastic Polyolefin)
- Operating temperature range: -40°C to +105°C

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant (OIL RES I)
- Sunlight-resistant (SUN RES)
- Nylon ripcord
- UV-resistant

Compliances:

- NEC Article 725 Type PLTC-ER (22 AWG and larger, UL: 105°C, 300 V)
- (-ER): approved for Exposed Run as defined per NEC Article 725
- NEC Article 725 Type CL2 (UL: 105°C, 150 V)
- NEC Article 800 Type CM/CMG (UL: 105°C, 300 V)
- CE Compliant to IEC Directive 93/68/EEC
- RoHS Compliant Directive 2011/65/EU

Compliances: Flame & Smoke

- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)
- CSA FT4/IEEE 1202 flame test per UL 1685
- IEC 60332-1, 3, Cat A: Flammability
- IEC 61034-1, 2 and Mil-DTL-24643B and NES 711: Smoke Index Emission
- IEC 60754-1, 2 and Mil-DTL-24643B: Halogen Content and Acid Gas Generation

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9100ZH | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.165 | 4.19 |
| C9101ZH | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.172 | 4.36 |
| C9102ZH | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.183 | 4.66 |
| C9103ZH | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.209 | 5.31 |
| C9104ZH | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.223 | 5.66 |
| C9105ZH | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.253 | 6.43 |
| C9106ZH | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.294 | 7.46 |
| C9107ZH | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.321 | 8.14 |
| C9108ZH | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.351 | 8.92 |
| C9109ZH | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.187 | 4.75 |
| C9110ZH | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.195 | 4.94 |
| C9111ZH | 4 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.208 | 5.28 |
| C9112ZH | 6 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.237 | 6.02 |
| C9113ZH | 8 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.253 | 6.41 |
| C9114ZH | 10 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.297 | 7.54 |
| C9115ZH | 15 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.332 | 8.43 |
| C9116ZH | 20 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.363 | 9.21 |
| C9117ZH | 25 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.417 | 10.59 |
| C9118ZH | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.227 | 5.77 |
| C9119ZH | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.238 | 6.03 |
| C9120ZH | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.256 | 6.51 |
| C9121ZH | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.307 | 7.80 |
| C9122ZH | 8 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.329 | 8.35 |
| C9123ZH | 10 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.377 | 9.58 |
| C9124ZH | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.446 | 11.33 |
| C9125ZH | 20 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.489 | 12.41 |
| C9126ZH | 25 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.537 | 13.64 |
| C9127ZH | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.243 | 6.17 |
| C9128ZH* | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.243 | 6.17 |
| C9129ZH | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.255 | 6.47 |
| C9130ZH* | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.255 | 6.47 |
| C9131ZH | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.276 | 7.00 |
| C9132ZH | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.331 | 8.41 |
| C9133ZH | 8 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.355 | 9.02 |
| C9134ZH | 10 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.429 | 10.90 |
| C9135ZH | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.484 | 12.28 |
| C9136ZH | 20 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.531 | 13.49 |
| C9137ZH | 25 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.585 | 14.86 |
| C9138ZH | 2 | 16 | 19/0117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.267 | 6.78 |
| C9139ZH* | 2 | 16 | 19/0117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.267 | 6.78 |
| C9140ZH | 3 | 16 | 19/0117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.281 | 7.12 |
| C9141ZH* | 3 | 16 | 19/0117 | 0.016 | 0.41 | 0.037 | 0.94 | 0.281 | 7.12 |
| C9142ZH | 4 | 16 | 19/0117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.315 | 8.00 |
| C9143ZH | 6 | 16 | 19/0117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.367 | 9.32 |
| C9144ZH | 8 | 16 | 19/0117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.415 | 10.54 |
| C9145ZH | 10 | 16 | 19/0117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.477 | 12.12 |
| C9146ZH | 15 | 16 | 19/0117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.540 | 13.72 |
| C9147ZH | 20 | 16 | 19/0117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.595 | 15.11 |
| C9148ZH | 25 | 16 | 19/0117 | 0.016 | 0.41 | 0.062 | 1.57 | 0.677 | 17.20 |

* IEC Color Code: Brown, Blue, Green/Yellow.



EXZEL® LSZH Multi-Conductor, Foil/Braid Shielded

NEC Type CM, CMG, CL2 or PLTC-ER (UL)

Product Construction:

Conductor:

- Full annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded LSZH (Thermoplastic Polyolefin)
- Color per Chart A for 24 AWG and 22 AWG on page 97
- Color per Chart B for 20 AWG and larger on page 97
- International colors per IEC Color Chart on page 97

Shield:

- Dual foil with overall braided shield
- Aluminum/polyester/aluminum foil with 100% coverage
- Stranded tinned copper drain wire
- Tinned copper braided shield, 85% min. coverage

Jacket:

- Premium FR-LSZH (Thermoplastic Polyolefin)
- Operating temperature range: -40°C to +105°C

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant (OIL RES I)
- Sunlight-resistant (SUN RES)
- Nylon ripcord
- UV-resistant

Compliances:

- NEC Article 725 Type PLTC-ER (22 AWG and larger, UL: 105°C, 300 V)
- (-ER): approved for Exposed Run as defined per NEC Article 725
- NEC Article 725 Type CL2 (UL: 105°C, 150 V)
- NEC Article 800 Type CM/CMG (UL: 105°C, 300 V)
- CE Compliant to IEC Directive 93/68/EEC
- RoHS Compliant Directive 2011/65/EU

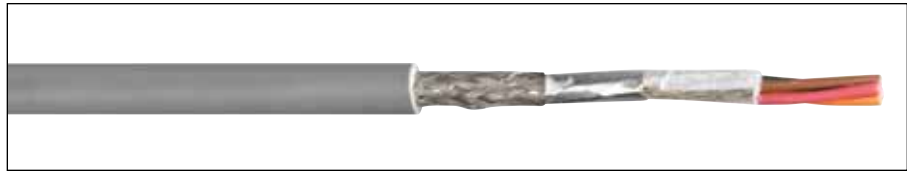
Compliances: Flame & Smoke

- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)
- CSA FT4/IEEE 1202 flame test per UL 1685
- IEC 60332-1, 3, Cat A: Flammability
- IEC 61034-1, 2 and Mil-DTL-24643B and NES 711: Smoke Index Emission
- IEC 60754-1, 2 and Mil-DTL-24643B: Halogen Content and Acid Gas Generation

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.



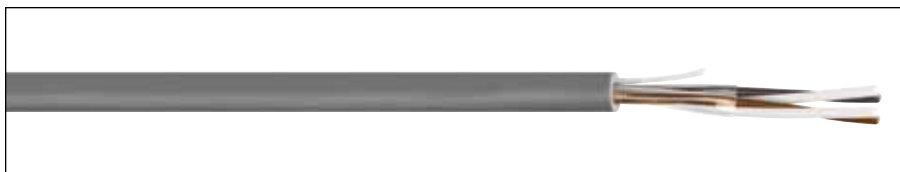
| PART NUMBER | COND. | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9200ZH | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.187 | 4.75 |
| C9201ZH | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.194 | 4.92 |
| C9202ZH | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.205 | 5.22 |
| C9203ZH | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.231 | 5.87 |
| C9204ZH | 8 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.245 | 6.21 |
| C9205ZH | 10 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.285 | 7.24 |
| C9206ZH | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.316 | 8.02 |
| C9207ZH | 20 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.343 | 8.70 |
| C9208ZH | 25 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.373 | 9.47 |
| C9209ZH | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.209 | 5.31 |
| C9210ZH | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.217 | 5.50 |
| C9211ZH | 4 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.230 | 5.84 |
| C9212ZH | 6 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.259 | 6.58 |
| C9213ZH | 8 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.275 | 6.97 |
| C9214ZH | 10 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.319 | 8.10 |
| C9215ZH | 15 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.354 | 8.99 |
| C9216ZH | 20 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.385 | 9.77 |
| C9217ZH | 25 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.444 | 11.28 |
| C9218ZH | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.249 | 6.32 |
| C9219ZH | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.260 | 6.59 |
| C9220ZH | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.278 | 7.07 |
| C9221ZH | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.329 | 8.36 |
| C9222ZH | 8 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.351 | 8.91 |
| C9223ZH | 10 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.419 | 10.64 |
| C9224ZH | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.473 | 12.01 |
| C9225ZH | 20 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.516 | 13.10 |
| C9226ZH | 25 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.564 | 14.33 |
| C9227ZH* | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.265 | 6.73 |
| C9228ZH | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.265 | 6.73 |
| C9229ZH* | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.277 | 7.03 |
| C9230ZH | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.277 | 7.03 |
| C9231ZH | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.308 | 7.82 |
| C9232ZH | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.353 | 8.97 |
| C9233ZH | 8 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.377 | 9.58 |
| C9234ZH | 10 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.456 | 11.58 |
| C9235ZH | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.511 | 12.97 |
| C9236ZH | 20 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.558 | 14.18 |
| C9237ZH | 25 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.632 | 16.05 |
| C9238ZH* | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.299 | 7.59 |
| C9239ZH | 2 | 16 | 19/0.117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.299 | 7.59 |
| C9240ZH* | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.313 | 7.94 |
| C9241ZH | 3 | 16 | 19/0.117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.313 | 7.94 |
| C9242ZH | 4 | 16 | 19/0.117 | 0.016 | 0.41 | 0.042 | 1.07 | 0.337 | 8.55 |
| C9243ZH | 6 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.409 | 10.39 |
| C9244ZH | 8 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.437 | 11.10 |
| C9245ZH | 10 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.504 | 12.80 |
| C9246ZH | 15 | 16 | 19/0.117 | 0.016 | 0.41 | 0.052 | 1.32 | 0.567 | 14.40 |
| C9247ZH | 20 | 16 | 19/0.117 | 0.016 | 0.41 | 0.062 | 1.57 | 0.642 | 16.30 |
| C9248ZH | 25 | 16 | 19/0.117 | 0.016 | 0.41 | 0.062 | 1.57 | 0.704 | 17.88 |

* IEC Color Code: Brown, Blue, Green/Yellow



EXZEL® LSZH Multi-Paired, Unshielded

NEC Type CM, CMG, CL2 or PLTC-ER (UL)



| PART NUMBER | PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9300ZH | 1 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.160 | 4.06 |
| C9301ZH | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.220 | 5.58 |
| C9302ZH | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.231 | 5.87 |
| C9303ZH | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.251 | 6.37 |
| C9304ZH | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.282 | 7.15 |
| C9305ZH | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.304 | 7.72 |
| C9306ZH | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.350 | 8.88 |
| C9307ZH | 11 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.378 | 9.59 |
| C9308ZH | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.047 | 1.19 | 0.449 | 11.42 |
| C9309ZH | 1 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.182 | 4.62 |
| C9310ZH | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.250 | 6.35 |
| C9311ZH | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.263 | 6.67 |
| C9312ZH | 4 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.295 | 7.50 |
| C9313ZH | 5 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.319 | 8.10 |
| C9314ZH | 6 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.344 | 8.74 |
| C9326ZH | 9 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.416 | 10.57 |
| C9327ZH | 12 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.461 | 11.70 |
| C9315ZH | 15 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.507 | 12.87 |
| C9328ZH | 1 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.222 | 5.64 |
| C9316ZH | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.327 | 8.31 |
| C9317ZH | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.345 | 8.76 |
| C9329ZH | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.377 | 9.57 |
| C9330ZH | 5 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.430 | 10.91 |
| C9318ZH | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.465 | 11.81 |
| C9319ZH | 9 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.538 | 13.66 |
| C9320ZH | 12 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.600 | 15.24 |
| C9331ZH | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.062 | 1.57 | 0.685 | 17.39 |
| C9332ZH | 1 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.238 | 6.05 |
| C9321ZH | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.354 | 8.99 |
| C9322ZH | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.374 | 9.49 |
| C9333ZH | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.429 | 10.90 |
| C9334ZH | 5 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.466 | 11.83 |
| C9323ZH | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.505 | 12.83 |
| C9324ZH | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.586 | 14.89 |
| C9325ZH | 12 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.656 | 16.67 |
| C9335ZH | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.748 | 19.00 |

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded LSZH (Thermoplastic Polyolefin)
- Color per Chart C for 24 AWG and 22 AWG on page 97
- Color per Chart D for 20 AWG and larger on page 97

Shield:

- Unshielded

Jacket:

- Premium FR-LSZH (Thermoplastic Polyolefin)
- Operating temperature range: -40°C to +105°C

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant (OIL RES I)
- Sunlight-resistant (SUN RES)
- Nylon ripcord
- UV-resistant

Compliances:

- NEC Article 725 Type PLTC-ER (22 AWG and larger, UL: 105°C, 300 V)
- (-ER): approved for Exposed Run as defined per NEC Article 725
- NEC Article 725 Type CL2 (UL: 105°C, 150 V)
- NEC Article 800 Type CM/CMG (UL: 105°C, 300 V)
- CE Compliant to IEC Directive 93/68/EEC
- RoHS Compliant Directive 2011/65/EU

Compliances: Flame & Smoke

- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)
- CSA FT4/IEEE 1202 flame test per UL 1685
- IEC 60332-1, 3, Cat A: Flammability
- IEC 61034-1, 2 and Mil-DTL-24643B and NES 711: Smoke Index Emission
- IEC 60754-1, 2 and Mil-DTL-24643B: Halogen Content and Acid Gas Generation

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.



EXZEL® LSZH Multi-Paired, Foil Shielded

NEC Type CM, CMG, CL2 or PLTC-ER (UL)

Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded LSZH (Thermoplastic Polyolefin)
- Color per Chart C for 24 AWG and 22 AWG on page 97
- Color per Chart D for 20 AWG and larger on page 97

Shield:

- 100% Flexfoil®, aluminum/polyester/aluminum, foil facing in
- Stranded tinned copper drain wire

Jacket:

- Premium FR-LSZH (Thermoplastic Polyolefin)
- Operating temperature range: -40°C to +105°C

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant (OIL RES I)
- Sunlight-resistant (SUN RES)
- Nylon ripcord
- UV-resistant

Compliances:

- NEC Article 725 Type PLTC-ER (22 AWG and larger, UL: 105°C, 300 V)
- (-ER): approved for Exposed Run as defined per NEC Article 725
- NEC Article 725 Type CL2 (UL: 105°C, 150 V)
- NEC Article 800 Type CM/CMG (UL: 105°C, 300 V)
- CE Compliant to IEC Directive 93/68/EEC
- RoHS Compliant Directive 2011/65/EU

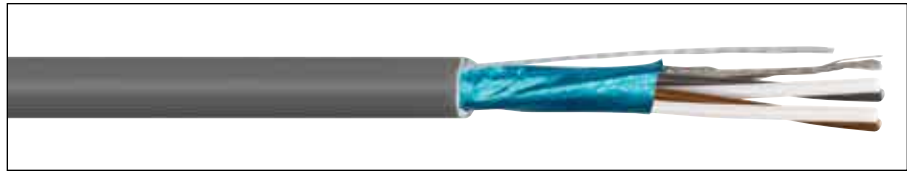
Compliances: Flame & Smoke

- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)
- CSA FT4/IEEE 1202 flame test per UL 1685
- IEC 60332-1, 3, Cat A: Flammability
- IEC 61034-1, 2 and Mil-DTL-24643B and NES 711: Smoke Index Emission
- IEC 60754-1, 2 and Mil-DTL-24643B: Halogen Content and Acid Gas Generation

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.



| PART NUMBER | PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9400ZH | 1 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.165 | 4.19 |
| C9401ZH | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.225 | 5.71 |
| C9402ZH | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.236 | 5.99 |
| C9403ZH | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.256 | 6.50 |
| C9404ZH | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.287 | 7.28 |
| C9405ZH | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.309 | 7.84 |
| C9406ZH | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.355 | 9.01 |
| C9407ZH | 11 | 24 | 7/32 | 0.010 | 0.25 | 0.047 | 1.19 | 0.403 | 10.23 |
| C9408ZH | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.047 | 1.19 | 0.454 | 11.54 |
| C9410ZH | 1 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.187 | 4.75 |
| C9411ZH | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.255 | 6.48 |
| C9412ZH | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.268 | 6.80 |
| C9413ZH | 4 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.300 | 7.63 |
| C9414ZH | 5 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.324 | 8.22 |
| C9415ZH | 6 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.349 | 8.86 |
| C9416ZH | 9 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.421 | 10.70 |
| C9417ZH | 11 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.453 | 11.51 |
| C9418ZH | 15 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.512 | 13.00 |
| C9450ZH | 1 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.227 | 5.77 |
| C9420ZH | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.332 | 8.44 |
| C9421ZH | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.350 | 8.89 |
| C9451ZH | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.382 | 9.69 |
| C9452ZH | 5 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.435 | 11.04 |
| C9422ZH | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.470 | 11.93 |
| C9423ZH | 9 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.543 | 13.78 |
| C9424ZH | 12 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.587 | 14.92 |
| C9453ZH | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.062 | 1.57 | 0.690 | 17.52 |
| C9454ZH | 1 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.243 | 6.17 |
| C9455ZH | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.359 | 9.12 |
| C9426ZH | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.379 | 9.62 |
| C9456ZH | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.434 | 11.03 |
| C9457ZH | 5 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.471 | 11.96 |
| C9427ZH | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.510 | 12.96 |
| C9458ZH | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.591 | 15.02 |
| C9459ZH | 12 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.681 | 17.29 |
| C9460ZH | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.753 | 19.12 |

EXZEL® LSZH Multi-Paired, Foil/Braid Shielded

NEC Type CM, CMG, CL2 or PLTC-ER (UL)



Product Construction:

Conductor:

- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded LSZH (Thermoplastic Polyolefin)
- Color per Chart C for 24 AWG and 22 AWG on page 97
- Color per Chart D for 20 AWG and larger on page 97

Shield:

- Dual foil with overall braided shield
- Aluminum/polyester/aluminum foil with 100% coverage
- Stranded tinned copper drain wire
- Tinned copper braided shield, 85% min. coverage

Jacket:

- Premium FR-LSZH (Thermoplastic Polyolefin)
- Operating temperature range: -40°C to +105°C

Applications:

- Advanced signal transmission in controlled environments
- Medical instrumentation and equipment
- Consumer electronic peripherals
- Industrial process control systems
- Suitable for EIA RS-232 applications

Features:

- Oil-resistant (OIL RES I)
- Sunlight-resistant (SUN RES)
- Nylon ripcord
- UV-resistant

Compliances:

- NEC Article 725 Type PLTC-ER (22 AWG and larger, UL: 105°C, 300 V)
- (-ER): approved for Exposed Run as defined per NEC Article 725
- NEC Article 725 Type CL2 (UL: 105°C, 150 V)
- NEC Article 800 Type CM/CMG (UL: 105°C, 300 V)
- CE Compliant to IEC Directive 93/68/EEC
- RoHS Compliant Directive 2011/65/EU

Compliances: Flame & Smoke

- Vertical Tray Cable Flame Test per UL 1581 and IEEE 383 (70,000 BTU)
- CSA FT4/IEEE 1202 flame test per UL 1685
- IEC 60332-1, 3, Cat A: Flammability
- IEC 61034-1, 2 and Mil-DTL-24643B and NES 711: Smoke Index Emission
- IEC 60754-1, 2 and Mil-DTL-24643B: Halogen Content and Acid Gas Generation

Packaging

- Please contact Customer Service for packaging and color options

Data subject to change.

| PART NUMBER | PAIRS | AWG SIZE | COND. STRAND | NOMINAL INSULATION THICKNESS | | NOMINAL JACKET THICKNESS | | NOMINAL CABLE DIAMETER | |
|-------------|-------|----------|--------------|------------------------------|------|--------------------------|------|------------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C9500ZH | 1 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.187 | 4.75 |
| C9501ZH | 2 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.247 | 6.27 |
| C9502ZH | 3 | 24 | 7/32 | 0.010 | 0.25 | 0.032 | 0.81 | 0.258 | 6.55 |
| C9503ZH | 4 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.288 | 7.31 |
| C9504ZH | 5 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.309 | 7.84 |
| C9505ZH | 6 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.331 | 8.40 |
| C9506ZH | 9 | 24 | 7/32 | 0.010 | 0.25 | 0.037 | 0.94 | 0.377 | 9.57 |
| C9507ZH | 11 | 24 | 7/32 | 0.010 | 0.25 | 0.047 | 1.19 | 0.425 | 10.79 |
| C9508ZH | 15 | 24 | 7/32 | 0.010 | 0.25 | 0.047 | 1.19 | 0.476 | 12.10 |
| C9510ZH | 1 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.209 | 5.31 |
| C9511ZH | 2 | 22 | 7/30 | 0.013 | 0.33 | 0.037 | 0.94 | 0.277 | 7.04 |
| C9512ZH | 3 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.300 | 7.61 |
| C9513ZH | 4 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.322 | 8.19 |
| C9514ZH | 5 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.346 | 8.78 |
| C9515ZH | 6 | 22 | 7/30 | 0.013 | 0.33 | 0.042 | 1.07 | 0.371 | 9.42 |
| C9516ZH | 9 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.443 | 11.25 |
| C9517ZH | 11 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.480 | 12.19 |
| C9518ZH | 15 | 22 | 7/30 | 0.013 | 0.33 | 0.052 | 1.32 | 0.539 | 13.69 |
| C9529ZH | 1 | 20 | 7/28 | 0.016 | 0.41 | 0.037 | 0.94 | 0.249 | 6.32 |
| C9530ZH | 2 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.354 | 9.00 |
| C9521ZH | 3 | 20 | 7/28 | 0.016 | 0.41 | 0.042 | 1.07 | 0.372 | 9.44 |
| C9531ZH | 4 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.424 | 10.76 |
| C9532ZH | 5 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.457 | 11.60 |
| C9522ZH | 6 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.497 | 12.62 |
| C9523ZH | 9 | 20 | 7/28 | 0.016 | 0.41 | 0.052 | 1.32 | 0.570 | 14.47 |
| C9533ZH | 12 | 20 | 7/28 | 0.016 | 0.41 | 0.062 | 1.57 | 0.652 | 16.56 |
| C9534ZH | 15 | 20 | 7/28 | 0.016 | 0.41 | 0.062 | 1.57 | 0.717 | 18.20 |
| C9535ZH | 1 | 18 | 16/30 | 0.016 | 0.41 | 0.037 | 0.94 | 0.265 | 6.73 |
| C9525ZH | 2 | 18 | 16/30 | 0.016 | 0.41 | 0.042 | 1.07 | 0.381 | 9.68 |
| C9526ZH | 3 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.421 | 10.69 |
| C9536ZH | 4 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.461 | 11.71 |
| C9537ZH | 5 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.498 | 12.64 |
| C9527ZH | 6 | 18 | 16/30 | 0.016 | 0.41 | 0.052 | 1.32 | 0.537 | 13.64 |
| C9528ZH | 9 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.638 | 16.21 |
| C9538ZH | 12 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.708 | 17.98 |
| C9539ZH | 15 | 18 | 16/30 | 0.016 | 0.41 | 0.062 | 1.57 | 0.780 | 19.81 |



Color Code Charts

Multi-Conductor Cables

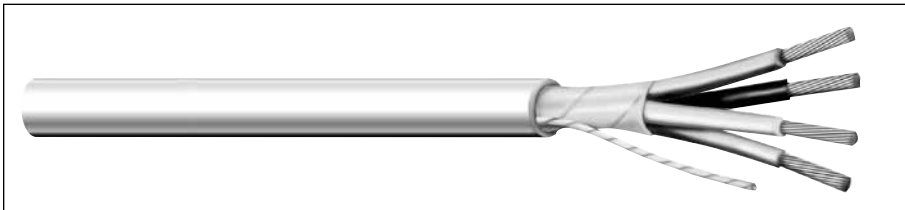
| NO. OF CONDUCTORS | Color Chart A 24 AWG & 22 AWG | Color Chart B 20 AWG and Larger |
|-------------------|----------------------------------|------------------------------------|
| | COLOR | COLOR |
| 1 | Black | Black |
| 2 | Brown | Red |
| 3 | Red | White |
| 4 | Orange | Green |
| 5 | Yellow | Orange |
| 6 | Green | Blue |
| 7 | Blue | Brown |
| 8 | Purple | Yellow |
| 9 | Slate | Purple |
| 10 | White | Slate |
| 11 | White/Black | Pink |
| 12 | White/Brown | Tan |
| 13 | White/Red | Red/Green |
| 14 | White/Orange | Red/Yellow |
| 15 | White/Yellow | Red/Black |
| 16 | White/Green | White/Black |
| 17 | White/Blue | White/Red |
| 18 | White/Purple | White/Green |
| 19 | White/Slate | White/Yellow |
| 20 | White/Black/Brown | White/Blue |
| 21 | White/Black/Red | White/Brown |
| 22 | White/Black/Orange | White/Orange |
| 23 | White/Black/Yellow | White/Slate |
| 24 | White/Black/Green | White/Purple |
| 25 | White/Black/Blue | White/Black/Red |

Multi-Pair Cables

| NO. OF PAIRS | Color Chart C 24 AWG & 22 AWG | Color Chart D 20 AWG and Larger |
|--------------|----------------------------------|------------------------------------|
| | COLOR | COLOR |
| 1 | White-Black | Black-Red |
| 2 | White-Brown | Black-White |
| 3 | White-Red | Black-Green |
| 4 | White-Orange | Black-Blue |
| 5 | White-Yellow | Black-Brown |
| 6 | White-Green | Black-Yellow |
| 7 | White-Blue | Black-Orange |
| 8 | White-Purple | Red-Green |
| 9 | White-Slate | Red-White |
| 10 | Black-Brown | Red-Blue |
| 11 | Black-Red | Red-Yellow |
| 12 | Black-Orange | Red-Brown |
| 13 | Black-Yellow | Red-Orange |
| 14 | Black-Green | Green-Blue |
| 15 | Black-Blue | Green-White |

IEC Color Chart

| NO. OF CONDUCTORS | COLOR |
|-------------------|--------------|
| 1 | Brown |
| 2 | Blue |
| 3 | Green/Yellow |



Fire alarm systems have expanded from a rather simple and unsophisticated business configured upon large, electro-mechanical devices to one relying upon the most modern technologies of microprocessor and chip technology.

More and more end users— industrial, commercial as well as consumer—are relying upon these emerging systems to protect both property and life. These systems are only as good as their weakest component, whether that component be a processor or interconnecting wire and cable.

It is General Cable’s charter that all products supplied for use in these and any other systems shall be constructed of only the finest available materials, and provide the service and assurance that the end user not only needs, but requires.

Aside from the quality materials used in these designs, specifiers and end users of Carol® Brand wire and cable products have come to expect that these cables are registered and certified with the leading regulatory agencies such as Underwriters Laboratories ... and we haven’t let you down!

These designs have proven themselves in the area of fire system security over time; all are fabricated with solid, bare copper conductors and insulations and jackets of premium-grade PVC. Offered both with and without shields, the former to protect these critical circuits from noise, these cables will provide the latest in available technology for the system installer and contractor.

General Cable Carol Brand products are conveniently packaged in 1000' or 500' lengths to assist the installer.

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| Multi-Conductor, Unshielded, Non-Plenum | 99 |
| Multi-Conductor, Unshielded, Non-Plenum (CSA) | 100 |
| Multi-Conductor, Shielded, Non-Plenum | 101 |
| Multi-Conductor, Shielded, Non-Plenum (CSA) | 102 |
| Multi-Conductor, Unshielded, Plenum | 103-104 |
| Multi-Conductor, Shielded, Plenum | 105-106 |
| Mid-Capacitance, Unshielded, Non-Plenum | 107 |
| Mid-Capacitance, Shielded, Non-Plenum | 108 |
| Mid-Capacitance, Unshielded, Plenum | 109 |
| Mid-Capacitance, Shielded, Plenum | 110 |
| Multi-Paired, Unshielded, Non-Plenum (CSA) | 111 |

Multi-Conductor, Unshielded, Non-Plenum

NEC Type FPLR and CL3R, NEC/CEC Type CMR

Product Construction:

Conductor:

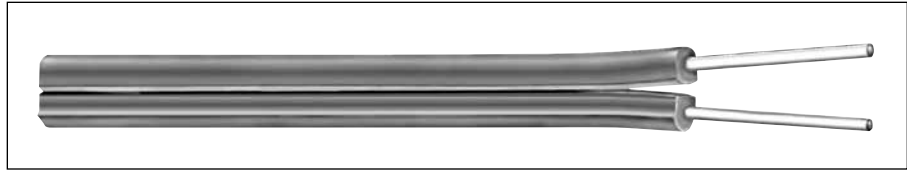
- 22 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Jacket:

- Premium-grade PVC, red
- Suitable for use from -20°C to +75°C
- Round constructions have sequential footage markings to facilitate installation
- Includes ripcord on round constructions



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|---------------|-------------|
| | | | | INCHES | mm | INCHES | mm |
| E2402S | 2 | 18 | Solid | 0.032 | 0.81 | 0.105 x 0.210 | 2.67 x 5.33 |
| E2404S | 2 | 16 | Solid | 0.032 | 0.81 | 0.115 x 0.230 | 2.92 x 5.84 |
| E2406S | 2 | 14 | Solid | 0.032 | 0.81 | 0.126 x 0.260 | 3.20 x 6.60 |

Applications:

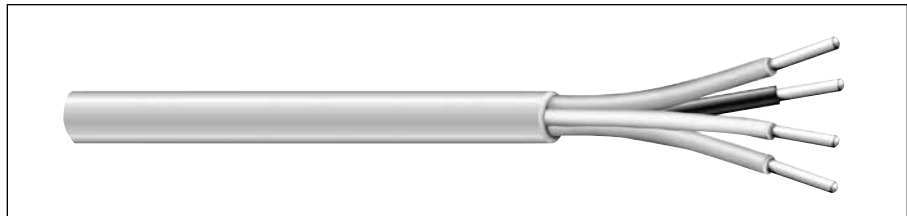
- Wiring of fire alarms
- Smoke detectors
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLR (UL: 75°C, 300 V)
- NEC Article 725 Type CL3R (UL: 75°C, 300 V)
- NEC Article 800 Type CMR (UL: 75°C, 300 V)
- Suitable for use in the State of California
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 1666 Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E1482S | 2 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.121 | 3.07 |
| E1484S | 4 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.140 | 3.56 |
| E1486S | 6 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.168 | 4.27 |
| E1502S | 2 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.150 | 3.81 |
| E1503S | 3 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.160 | 4.06 |
| E1504S | 4 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.175 | 4.45 |
| E1505S | 5 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.193 | 4.90 |
| E1506S | 6 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.210 | 5.33 |
| E1508S | 8 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.230 | 5.84 |
| E1512S | 2 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.172 | 4.37 |
| E1514S | 4 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.202 | 5.13 |
| E1522S* | 2 | 14 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.210 | 5.33 |
| E1524S* | 4 | 14 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.248 | 6.30 |
| E1532S* | 2 | 12 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.244 | 6.20 |
| E1534S* | 4 | 12 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.288 | 7.32 |

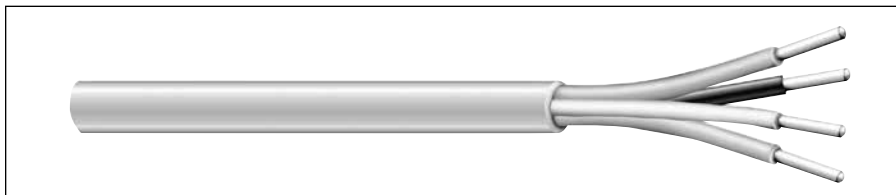
* NEC FPLR/CL3R only. Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |
| 5 | Orange |
| 6 | Yellow |
| 7 | Purple |
| 8 | Gray |

Multi-Conductor, Unshielded, Non-Plenum

CSA FAS105, FPL (UL), NEC Type PLTC



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C4300A | 6 | 22 | Solid | 0.012 | 0.30 | 0.042 | 1.07 | 0.232 | 5.89 |
| C4301A | 15 | 22 | Solid | 0.012 | 0.30 | 0.042 | 1.07 | 0.316 | 8.03 |
| C4302A | 20 | 22 | Solid | 0.012 | 0.30 | 0.042 | 1.07 | 0.346 | 8.79 |
| C4304A | 2 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.225 | 5.71 |
| C4305A | 3 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.236 | 5.99 |
| C4306A | 4 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.255 | 6.47 |
| C4307A | 5 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.274 | 6.96 |
| C4308A | 6 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.296 | 7.52 |
| C4309A | 7 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.296 | 7.52 |
| C4310A | 8 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.317 | 8.05 |
| C4312A | 9 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.339 | 8.61 |
| C4313A | 10 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.366 | 9.30 |
| C4314A | 11 | 18 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.366 | 9.30 |
| C4315A | 15 | 18 | Solid | 0.015 | 0.38 | 0.053 | 1.35 | 0.437 | 11.10 |
| C4316A | 20 | 18 | Solid | 0.015 | 0.38 | 0.053 | 1.35 | 0.480 | 12.19 |
| C4317A | 21 | 18 | Solid | 0.015 | 0.38 | 0.053 | 1.35 | 0.480 | 12.19 |
| C4318A | 30 | 18 | Solid | 0.015 | 0.38 | 0.053 | 1.35 | 0.558 | 14.17 |
| C4321A | 2 | 16 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.246 | 6.25 |
| C4322A | 3 | 16 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.258 | 6.55 |
| C4323A | 4 | 16 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.280 | 7.11 |
| C4349A | 5 | 16 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.302 | 7.67 |
| C4324A | 2 | 14 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.272 | 6.91 |
| C4325A | 3 | 14 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.286 | 7.26 |
| C4326A | 4 | 14 | Solid | 0.015 | 0.38 | 0.042 | 1.07 | 0.311 | 7.90 |
| C4327A | 2 | 12 | Solid | 0.020 | 0.51 | 0.042 | 1.07 | 0.326 | 8.28 |

Data subject to change.

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade PVC
- Color code: See page 229 for the CSA Fire Alarm Color Code Chart

Jacket:

- Premium-grade PVC, red
- Temperature range: -20°C to +105°C
- TRU-Mark® print legend contains footage markings from 1000' to 0'

Applications:

- Wiring of fire alarms
- Smoke alarms
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 PLTC (UL: 105°C, 300 V)
- NEC Article 760 Type FPL (UL: 105°C, 300 V)
- CSA FAS105 (CSA: 105°C, 300 V)
- C22.2 No. 208-03 (R2008) Weather (Sunlight) Resistant (1,000 HR)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Multi-Conductor, Shielded, Non-Plenum

NEC Type FPLR and CL3R, NEC/CEC Type CMR

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade PVC, red
- Temperature range: -20°C to +75°C
- Sequential footage markings to facilitate installation
- Includes ripcord

Applications:

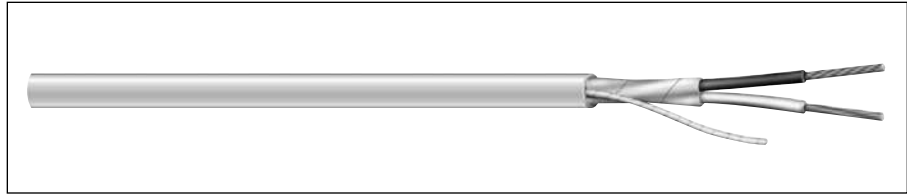
- Wiring of fire alarms
- Smoke alarms
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLR (UL: 75°C, 300 V)
- NEC Article 725 Type CL3R (UL: 75°C, 300 V)
- NEC Article 800 Type CMR (UL: 75°C, 300 V)
- Suitable for use in the State of California
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 1666 Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E2482S | 2 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.126 | 3.20 |
| E2484S | 4 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.145 | 3.68 |
| E2502S | 2 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.158 | 4.01 |
| E2503S | 3 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.165 | 4.19 |
| E2504S | 4 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.183 | 4.65 |
| E2506S | 6 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.216 | 5.49 |
| E2508S | 8 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.235 | 5.97 |
| E2522S | 2 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.180 | 4.57 |
| E2524S | 4 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.210 | 5.33 |
| E2532S* | 2 | 14 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.218 | 5.54 |
| E2534S* | 4 | 14 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.253 | 6.43 |
| E2542S* | 2 | 12 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.252 | 6.40 |
| E2544S* | 4 | 12 | Solid | 0.013 | 0.33 | 0.015 | 0.38 | 0.293 | 7.44 |

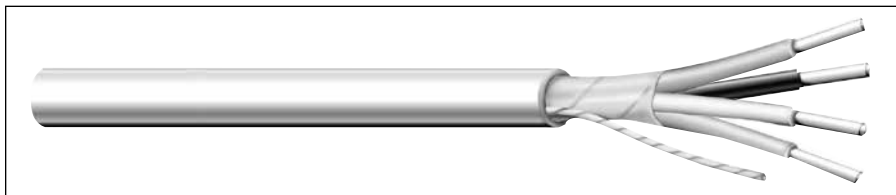
* NEC FPLR/CL3R only.
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |
| 5 | Orange |
| 6 | Yellow |
| 7 | Purple |
| 8 | Gray |

Multi-Conductor, Shielded, Non-Plenum

CSA FAS105, FPL (UL), NEC Type PLTC



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | DRAIN WIRE AWG | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|----------------|---------------------------|------|-----------------------|------|--------------|-------|
| | | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C4334A | 2 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.230 | 5.84 |
| C4335A | 3 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.241 | 6.12 |
| C4336A | 4 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.260 | 6.60 |
| C4337A | 5 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.279 | 7.09 |
| C4338A | 6 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.301 | 7.65 |
| C4339A | 7 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.301 | 7.65 |
| C4340A | 8 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.322 | 8.18 |
| C4341A | 9 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.344 | 8.74 |
| C4342A | 10 | 18 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.371 | 9.42 |
| C4343A | 30 | 18 | Solid | 22 | 0.015 | 0.38 | 0.053 | 1.35 | 0.563 | 14.30 |
| C4344A | 2 | 16 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.251 | 6.37 |
| C4345A | 3 | 16 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.263 | 6.68 |
| C4346A | 4 | 16 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.285 | 7.24 |
| C4350A | 5 | 16 | Solid | 22 | 0.015 | 0.38 | 0.042 | 1.07 | 0.307 | 7.80 |
| C4347A | 2 | 14 | Solid | 16 | 0.015 | 0.38 | 0.042 | 1.07 | 0.277 | 7.04 |
| C4348A | 2 | 12 | Solid | 16 | 0.020 | 0.51 | 0.042 | 1.07 | 0.331 | 8.41 |

Data subject to change.

Product Construction:

Conductor:

- 18-12 AWG fully annealed, solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded PVC
- Color code: See page 229 for the CSA Fire Alarm Color Code Chart

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- Premium-grade PVC, red
- Temperature range: -20°C to +105°C
- TRU-Mark® print legend contains footage markings from 1000' to 0'

Applications:

- Wiring of fire alarms
- Smoke alarms
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 PLTC (UL: 105°C, 300 V)
- NEC Article 760 Type FPL (UL: 105°C, 300 V)
- CSA FAS105 (CSA: 105°C, 300 V)
- C22.2 No. 208-03 (R2008) Weather (Sunlight) Resistant (1,000 HR)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



Multi-Conductor, Unshielded, Plenum

NEC Type FPLP and CL3P, NEC/CEC Type CMP

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color code: See chart below

Jacket:

- Premium-grade Flexguard® PVC, red
- Temperature range: 0°C to +75°C
- Sequential footage markings to facilitate installation
- Includes ripcord

Applications:

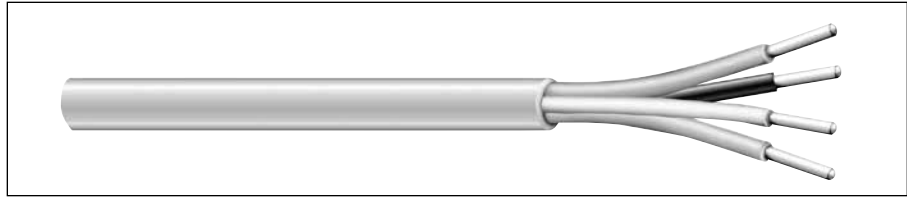
- Wiring of fire alarms
- Smoke detectors
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLP (UL: 75°C, 300 V)
- NEC Article 725 Type CL3P (UL: 75°C, 300 V)
- NEC Article 800 Type CMP (UL: 75°C, 300 V)
- Suitable for use in the State of California
- RoHS Compliant Directive 2011/65/EU
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E3482S | 2 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.121 | 3.07 |
| E3484S | 4 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.137 | 3.47 |
| E3502S | 2 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.155 | 3.81 |
| E3503S | 3 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.160 | 4.06 |
| E3504S | 4 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.175 | 4.45 |
| E3506S | 6 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.211 | 5.36 |
| E3512S | 2 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.172 | 4.37 |
| E3514S | 4 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.202 | 5.13 |
| E3522S* | 2 | 14 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.205 | 5.21 |
| E3524S* | 4 | 14 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.243 | 6.17 |
| E3532S* | 2 | 12 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.244 | 6.20 |
| E3534S* | 4 | 12 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.284 | 7.21 |

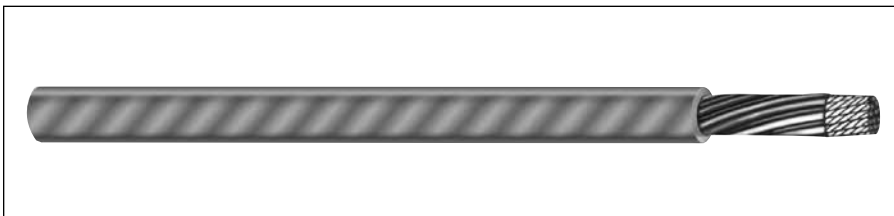
* NEC FPLP/CL3P only.
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |
| 5 | Orange |
| 6 | Yellow |

Multi-Conductor, Unshielded, Plenum

NEC Type FPLP, PVDF Jacketed



Product Construction

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper to ASTM B3

Insulation:

- Premium-grade, color-coded ECTFE (Halar)
- Color code: See chart below

Jacket:

- PVDF, red
- Abrasion-, chemical- and water-resistant
- Temperature range: -30°C to +150°C
- Includes ripcord

Applications:

- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLP (UL: 125°C, 300 V)
- Suitable for use in the State of California
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Features:

- Sequential footage marking

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM.* C-C CAP. pF/ft |
|----------------|-------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|
| | | | | IN | mm | IN | mm | IN | mm | |
| C3200 | 2 | 18 | Solid | 0.010 | 0.23 | 0.010 | 0.25 | 0.140 | 3.56 | 29.0 |
| C3201 | 4 | 18 | Solid | 0.010 | 0.23 | 0.010 | 0.25 | 0.156 | 3.96 | 29.0 |
| C3210 | 2 | 16 | Solid | 0.010 | 0.23 | 0.010 | 0.25 | 0.133 | 3.38 | 31.0 |
| C3211 | 4 | 16 | Solid | 0.010 | 0.23 | 0.010 | 0.25 | 0.186 | 4.72 | 31.0 |
| C3220 | 2 | 14 | Solid | 0.013 | 0.31 | 0.010 | 0.25 | 0.170 | 4.32 | 31.0 |
| C3223 | 4 | 14 | Solid | 0.013 | 0.31 | 0.010 | 0.25 | 0.224 | 5.69 | 31.0 |
| C3224 | 2 | 12 | Solid | 0.013 | 0.31 | 0.010 | 0.25 | 0.194 | 4.93 | 35.0 |
| C3225 | 4 | 12 | Solid | 0.013 | 0.31 | 0.010 | 0.25 | 0.261 | 6.63 | 35.0 |

*Capacitance between conductors
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Conductor, Shielded, Plenum

NEC Type FPLP

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color code: See chart below

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade Flexguard® PVC, red
- Suitable for use from 0°C to +75°C
- Sequential footage markings to facilitate installation
- Includes ripcord

Applications:

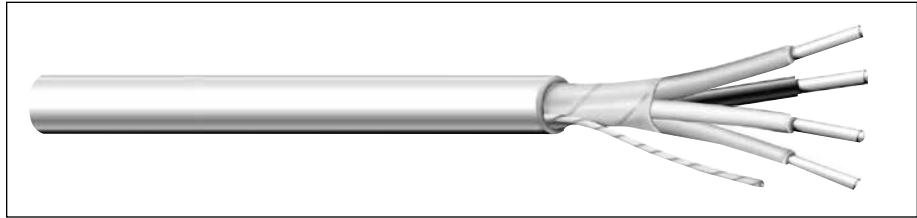
- Wiring of fire alarms
- Smoke detectors
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLP (UL: 75°C, 300 V)
- NEC Article 725 Type CL3P (UL: 75°C, 300 V)
- NEC Article 800 Type CMP (UL: 75°C, 300 V)
- Suitable for use in the State of California
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E3542S | 2 | 22 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.126 | 3.20 |
| E3602S | 2 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.158 | 4.01 |
| E3603S | 3 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.165 | 4.19 |
| E3604S | 4 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.183 | 4.65 |
| E3606S | 6 | 18 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.216 | 5.49 |
| E3612S | 2 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.180 | 4.57 |
| E3614S | 4 | 16 | Solid | 0.010 | 0.25 | 0.015 | 0.38 | 0.210 | 5.33 |
| E3622S | 2 | 14 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.210 | 5.33 |
| E3624S | 4 | 14 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.248 | 6.30 |
| E3632S | 2 | 12 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.252 | 6.40 |
| E3634S | 4 | 12 | Solid | 0.012 | 0.30 | 0.015 | 0.38 | 0.300 | 7.62 |

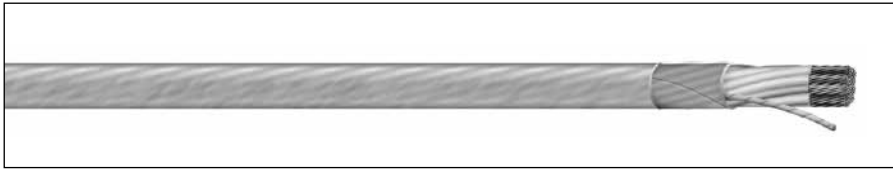
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |
| 5 | Orange |
| 6 | Yellow |

Multi-Conductor, Shielded, Plenum

NEC Type FPLP, PVDF Jacketed



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP. * pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C3260 | 2 | 18 | Solid | 0.010 | 0.25 | 0.010 | 0.25 | 0.149 | 3.78 | 50.5 | 90.8 |
| C3261 | 4 | 18 | Solid | 0.010 | 0.25 | 0.010 | 0.25 | 0.168 | 4.27 | 44.5 | 80.0 |
| C3270 | 2 | 16 | Solid | 0.010 | 0.25 | 0.010 | 0.25 | 0.169 | 4.29 | 58.0 | 104.0 |
| C3271 | 4 | 16 | Solid | 0.010 | 0.25 | 0.010 | 0.25 | 0.194 | 4.93 | 50.0 | 90.0 |
| C3280 | 2 | 14 | Solid | 0.013 | 0.33 | 0.010 | 0.25 | 0.214 | 5.44 | 55.5 | 100.0 |
| C3284 | 4 | 14 | Solid | 0.013 | 0.33 | 0.010 | 0.25 | 0.245 | 6.22 | 48.0 | 87.0 |
| C3282 | 2 | 12 | Solid | 0.013 | 0.33 | 0.010 | 0.25 | 0.234 | 5.94 | 65.0 | 116.0 |
| C3283 | 4 | 12 | Solid | 0.013 | 0.33 | 0.010 | 0.25 | 0.284 | 7.21 | 55.0 | 99.0 |

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |

Product Construction

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded ECTFE (Halar)
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, red
- Abrasion-, chemical-resistant
- Temperature range: -40°C to +150°C
- Includes ripcord
- Sequential footage markings to facilitate installation

Applications:

- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLP (UL: 150°C, 300 V)
- Suitable for use in the State of California

Packaging:

- Please contact Customer Service for packaging and color options



Mid-Capacitance, Unshielded, Non-Plenum

NEC Type FPL for Microprocessor-Controlled Systems

Product Construction:

Conductor:

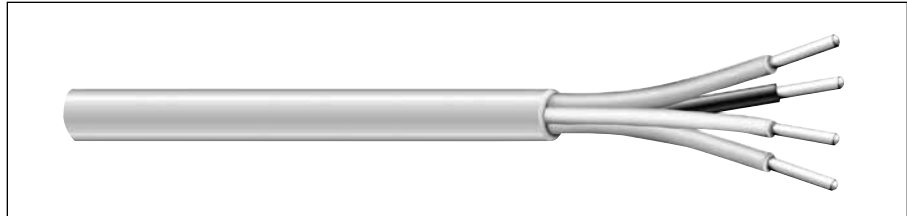
- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded polypropylene
- Color code: See chart below

Jacket:

- PVC, red
- Temperature range: -20°C to +75°C



Applications:

- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPL (UL: 60°C, 300 V)
- Suitable for use in the State of California
- RoHS Compliant Directive 2011/65/EU
- Passes UL 70,000 BTU Vertical Tray Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM.* C-C CAP. pF/ft |
|----------------|-------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|
| | | | | IN | mm | IN | mm | IN | mm | |
| C0471 | 2 | 18 | Solid | 0.014 | 0.36 | 0.020 | 0.51 | 0.177 | 4.50 | 16.5 |
| C0485 | 4 | 18 | Solid | 0.014 | 0.36 | 0.020 | 0.51 | 0.205 | 5.21 | 16.5 |
| C0473 | 2 | 16 | Solid | 0.016 | 0.41 | 0.020 | 0.51 | 0.206 | 5.23 | 17.5 |
| C0486 | 4 | 16 | Solid | 0.016 | 0.41 | 0.020 | 0.51 | 0.240 | 6.10 | 17.5 |
| C0491 | 2 | 14 | Solid | 0.018 | 0.46 | 0.020 | 0.51 | 0.240 | 6.10 | 18.0 |
| C0492 | 2 | 12 | Solid | 0.020 | 0.51 | 0.020 | 0.51 | 0.282 | 7.16 | 19.0 |

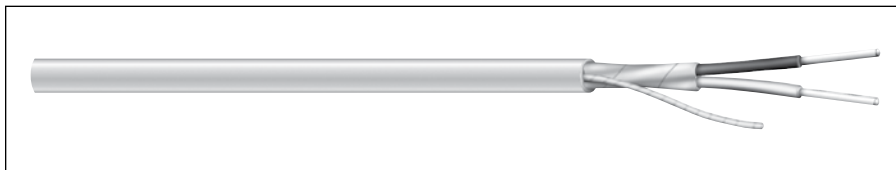
*Capacitance between conductors
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |

Mid-Capacitance, Shielded, Non-Plenum

NEC Type FPL for Microprocessor-Controlled Systems



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP. * pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C0472 | 2 | 18 | Solid | 0.014 | 0.36 | 0.020 | 0.51 | 0.182 | 4.88 | 27.0 | 49.0 |
| C0494 | 4 | 18 | Solid | 0.014 | 0.36 | 0.020 | 0.51 | 0.210 | 5.33 | 24.5 | 44.0 |
| C0474 | 2 | 16 | Solid | 0.016 | 0.41 | 0.020 | 0.51 | 0.214 | 5.44 | 29.0 | 52.0 |
| C0495 | 4 | 16 | Solid | 0.016 | 0.41 | 0.020 | 0.51 | 0.246 | 6.25 | 26.0 | 46.5 |
| C0475 | 2 | 14 | Solid | 0.018 | 0.46 | 0.020 | 0.51 | 0.245 | 6.22 | 31.0 | 55.5 |
| C0496 | 4 | 14 | Solid | 0.018 | 0.46 | 0.020 | 0.51 | 0.287 | 7.29 | 27.5 | 49.5 |
| C0476 | 2 | 12 | Solid | 0.020 | 0.51 | 0.020 | 0.51 | 0.287 | 7.29 | 33.0 | 60.0 |
| C0497 | 4 | 12 | Solid | 0.020 | 0.51 | 0.020 | 0.51 | 0.337 | 8.56 | 29.0 | 52.5 |

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |

Product Construction:

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded polypropylene
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- PVC, red
- Temperature range: 0°C to +75°C

Applications:

- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPL (UL: 60°C, 300 V)
- Suitable for use in the State of California
- RoHS Compliant Directive 2011/65/EU
- Passes UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Mid-Capacitance, Unshielded, Plenum

NEC Type FPLP for Microprocessor-Controlled Systems

Product Construction:

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color code: See chart below

Jacket:

- Premium-grade Flexguard® PVC, red
- Temperature range: 0°C to +75°C
- Includes ripcord

Applications:

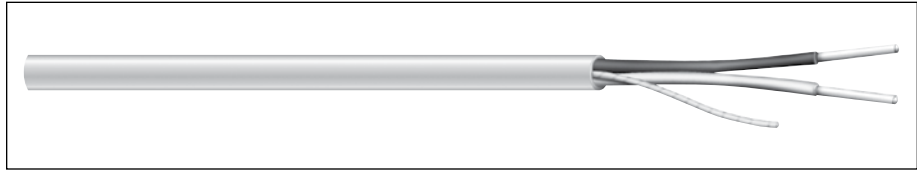
- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLP (UL: 75°C, 300 V)
- Suitable for use in the State of California
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM.* C-C CAP. pF/ft |
|----------------|-------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|
| | | | | IN | mm | IN | mm | IN | mm | |
| C3240 | 2 | 18 | Solid | 0.014 | 0.36 | 0.015 | 0.38 | 0.172 | 4.37 | 19.0 |
| C3242 | 4 | 18 | Solid | 0.014 | 0.36 | 0.015 | 0.38 | 0.195 | 4.95 | 19.0 |
| C3241 | 2 | 16 | Solid | 0.016 | 0.41 | 0.015 | 0.38 | 0.196 | 4.98 | 20.0 |
| C3243 | 4 | 16 | Solid | 0.016 | 0.41 | 0.015 | 0.38 | 0.231 | 5.87 | 20.0 |
| C3244 | 2 | 14 | Solid | 0.018 | 0.46 | 0.020 | 0.51 | 0.242 | 6.15 | 20.0 |
| C3245 | 4 | 14 | Solid | 0.018 | 0.46 | 0.020 | 0.51 | 0.286 | 7.26 | 20.0 |
| C3246 | 2 | 12 | Solid | 0.020 | 0.51 | 0.020 | 0.51 | 0.282 | 7.16 | 22.0 |
| C3247 | 4 | 12 | Solid | 0.020 | 0.51 | 0.020 | 0.51 | 0.333 | 8.45 | 22.0 |

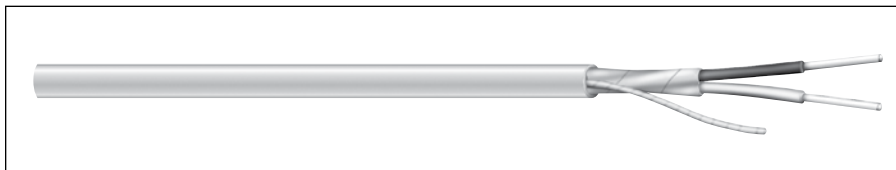
*Capacitance between conductors
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |

Mid-Capacitance, Shielded, Plenum

NEC Type FPLP for Microprocessor-Controlled Systems



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOMINAL CAP. * pF/ft | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|----------------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| C3167 | 2 | 18 | Solid | 0.014 | 0.36 | 0.015 | 0.38 | 0.172 | 4.37 | 31.0 | 56.0 |
| C3170 | 4 | 18 | Solid | 0.014 | 0.36 | 0.015 | 0.38 | 0.202 | 5.13 | 28.0 | 50.0 |
| C3169 | 2 | 16 | Solid | 0.016 | 0.41 | 0.015 | 0.38 | 0.203 | 5.16 | 33.0 | 59.0 |
| C3171 | 4 | 16 | Solid | 0.016 | 0.41 | 0.015 | 0.38 | 0.238 | 6.05 | 29.0 | 53.0 |
| C3172 | 2 | 14 | Solid | 0.018 | 0.46 | 0.020 | 0.51 | 0.247 | 6.27 | 35.0 | 63.0 |
| C3173 | 4 | 14 | Solid | 0.018 | 0.46 | 0.020 | 0.51 | 0.289 | 7.34 | 30.0 | 56.0 |
| C3174 | 2 | 12 | Solid | 0.020 | 0.51 | 0.020 | 0.51 | 0.289 | 7.34 | 38.0 | 68.0 |
| C3175 | 4 | 12 | Solid | 0.020 | 0.51 | 0.020 | 0.51 | 0.340 | 8.64 | 33.0 | 60.0 |

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | Black |
| 2 | Red |
| 3 | Brown |
| 4 | Blue |

Product Construction

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Premium-grade Flexguard® PVC, red
- Temperature range: 0°C to +75°C
- Includes ripcord

Applications:

- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 760 Type FPLP (UL: 75°C, 300 V)
- Suitable for use in the State of California
- Designed to meet NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications

Packaging:

- Please contact Customer Service for packaging and color options



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Multi-Paired, Unshielded, Non-Plenum

CSA FAS105, FPL (UL), NEC Type PLTC

Product Construction

Conductor:

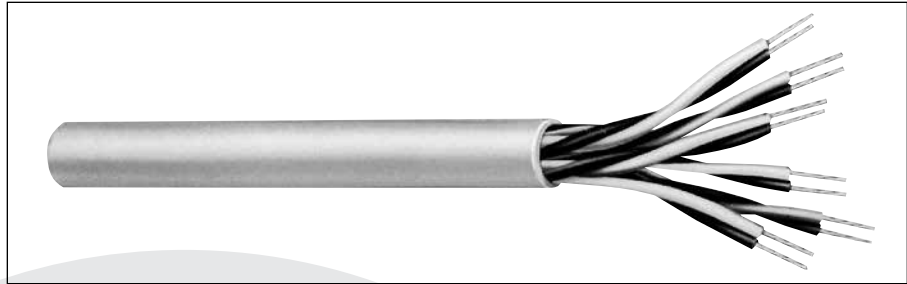
- 22 and 18 AWG fully annealed solid bare copper per ASTM B3
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color code: See page 229 for the CSA Fire Alarm Color Code Chart

Jacket:

- Premium-grade PVC, red
- Temperature range: -20°C to +105°C
- TRU-Mark® print legend contains footage markings from 1000' to 0'



Applications:

- Wiring of fire alarms
- Smoke alarms
- Voice communications
- Burglar alarms
- Fire protection circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 PLTC (UL: 105°C, 300 V)
- NEC Article 760 Type FPL (UL: 105°C, 300 V)
- CSA FAS105 (CSA: 105°C, 300 V)
- C22.2 No. 208-03 (R2008) Weather (Sunlight) Resistant (1,000 HR)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- CE: Low Voltage Directive (LVD) 2006/95/EC

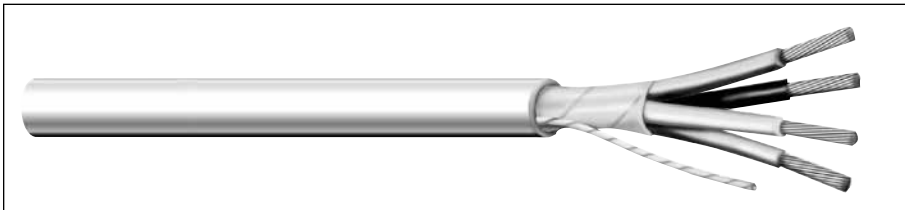
Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|-------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C4328A | 3 | 22 | Solid | 0.012 | 0.30 | 0.042 | 1.07 | 0.279 | 7.09 |
| C4329A | 6 | 22 | Solid | 0.012 | 0.30 | 0.042 | 1.07 | 0.350 | 8.89 |
| C4330A | 12 | 22 | Solid | 0.012 | 0.30 | 0.053 | 1.35 | 0.474 | 12.04 |
| C4331A | 15 | 22 | Solid | 0.012 | 0.30 | 0.053 | 1.35 | 0.523 | 13.28 |
| C4332A | 27 | 22 | Solid | 0.012 | 0.30 | 0.063 | 1.60 | 0.672 | 17.07 |
| C4333A | 6 | 18 | Solid | 0.015 | 0.38 | 0.053 | 1.35 | 0.487 | 12.37 |

Data subject to change.

Sound, Alarm & Security Cable



The sound and security industry in the United States has grown from a simple and unsophisticated business, begun some 45 years ago, to one which has developed technology to the degree that specialized wires and cables are now much in demand.

No longer are the security and sound industries characterized by large electromechanical relays and large contactors; today these circuits incorporate the latest in microprocessors and solid state devices to not only improve functionality but also to guarantee performance.

As a major wire producer, our role is to ensure that the wires and cables that go into these systems are as reliable as the other components ... the net result is a fully integrated system which will provide peace of mind to the system user.

Also in this section are General Cable's Carol® Brand wire and cable designs suitable for a variety of applications, both in industrial and commercial

environments, including telephone systems, intercoms, burglar alarms, business machines and thermostats.

Aside from the quality materials used in these designs, specifiers and users of Carol Brand wire and cable products have come to expect that these cables are registered and certified with the leading regulatory agencies such as Underwriters Laboratories ... and we haven't let you down!

Carol Brand designs have proven themselves in the area of sound and security over time; most are fabricated with solid or stranded, bare copper conductors with insulations and jackets of premium grades of PVC. We offer both parallel and cabled designs both with and without shields. Sequential footage markings on the jackets are offered on all products.

General Cable Carol Brand products are conveniently packaged in 1000' or 500' lengths to assist the installer.

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Composite Access Control Cable, Plenum

NEC Type CMP, (UL), c(UL)

Product Construction:

Conductor:

- Stranded bare copper

Jacket:

- Flexguard® PVC
- Temperature range: 0°C to +60°C
- Individual elements marked for application (see diagram below)
- Yellow overall jacket

Shields:

- Choice between all 4 elements shielded or just the 3-pair element shielded

Applications:

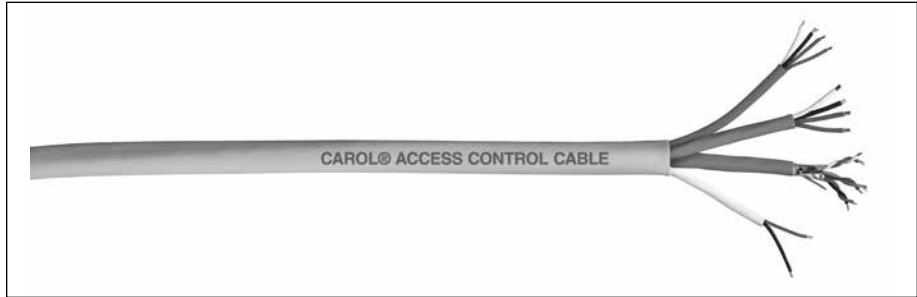
- Security systems
- Access control
- Card reader
- Door control
- REX
- Power-limited controls

Compliances:

- NEC Article 800 Type CMP (UL), c(UL)
- RoHS Compliant Directive 2011/65/EU

Packaging:

- 500' and 1000' reels

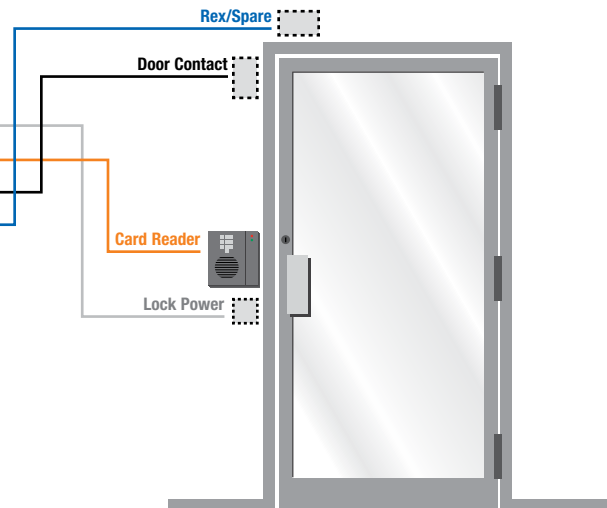


| CATALOG NUMBER | OVERALL NOMINAL O.D. INCH (MM) | COMPONENT NO. | COMPONENT DESCRIPTIONS | CONDUCTORS COLOR CODE | COMPONENT NOMINAL O.D. INCH (MM) | INSULATION THICKNESS INCH (MM) |
|----------------|--------------------------------|---------------|----------------------------|--|----------------------------------|--------------------------------|
| 4EPL4S | 0.430 | 1 | 4 Cond, 18 AWG, Shielded | White, Black, Red, Green | 0.180 (4.572) | 0.008 (0.2032) |
| | | 2 | 3 Pair, 22 AWG, Shielded | White & Green, Orange & Brown, Red & Black | 0.195 (4.593) | 0.008 (0.2032) |
| | | 3 | 2 Cond, 22 AWG, Shielded | Red, Black | 0.125 (3.175) | 0.008 (0.2032) |
| | | 4 | 4 Cond, 22 AWG, Shielded | White, Black, Red, Green | 0.145 (3.683) | 0.008 (0.2032) |
| 4EPL1S | 0.420 | 1 | 4 Cond, 18 AWG, Unshielded | White, Black, Red, Green | 0.180 (4.572) | 0.008 (0.2032) |
| | | 2 | 3 Pair, 22 AWG, Shielded | White & Green, Orange & Brown, Red & Black | 0.195 (4.593) | 0.008 (0.2032) |
| | | 3 | 2 Cond, 22 AWG, Unshielded | Red, Black | 0.125 (3.175) | 0.008 (0.2032) |
| | | 4 | 4 Cond, 22 AWG, Unshielded | White, Black, Red, Green | 0.145 (3.683) | 0.008 (0.2032) |

Data subject to change.

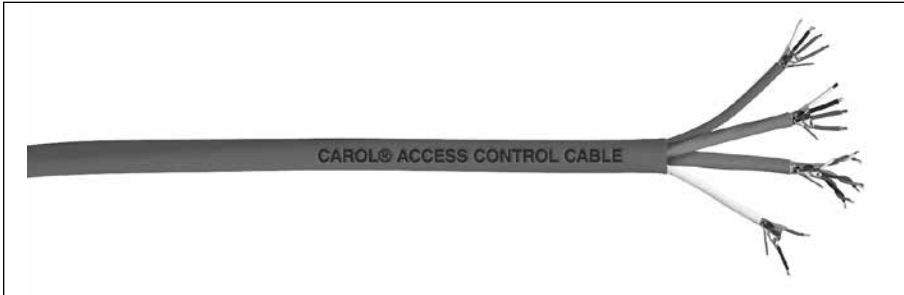
Jacket Color Coding & Component Application

| Jacket Color | Component | Cable Type | Application |
|--------------|-----------|---------------------|--------------|
| Gray | 1 | 4 Conductor, 18 AWG | Lock Power |
| Orange | 2 | 3 Pair, 22 AWG | Card Reader |
| White | 3 | 2 Conductor, 22 AWG | Door Contact |
| Blue | 4 | 4 Conductor, 22 AWG | Rex/Spare |



Composite Access Control Cable, Riser

NEC Type CMR, (UL), c(UL)



Product Construction:

Conductor:

- Stranded bare copper

Jacket:

- PVC
- Temperature range: -20°C to +60°C
- Individual elements marked for application (see diagram below)
- Blue overall jacket

Shields:

- Choice between all 4 elements shielded or just the 3-pair shielded

Applications:

- Security systems
- Access control
- Card reader
- Door control
- REX
- Power-limited controls

Compliances:

- NEC Article 800 Type CMR (UL), c(UL)
- RoHS Compliant Directive 2011/65/EU

Packaging:

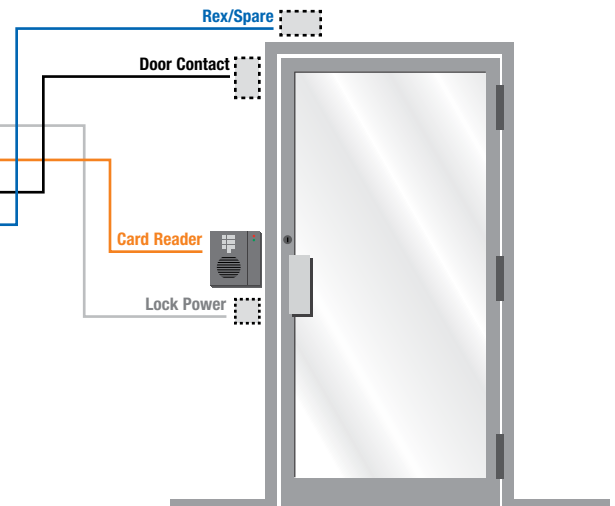
- 500' and 1000' reels

| CATALOG NUMBER | OVERALL NOMINAL O.D. INCH (MM) | COMPONENT NO. | COMPONENT DESCRIPTIONS | CONDUCTORS COLOR CODE | COMPONENT NOMINAL O.D. INCH (MM) | INSULATION THICKNESS INCH (MM) |
|----------------|--------------------------------|---------------|----------------------------|--|----------------------------------|--------------------------------|
| 4ERS4S | 0.430 | 1 | 4 Cond, 18 AWG, Shielded | White, Black, Red, Green | 0.180 (4.572) | 0.008 (0.2032) |
| | | 2 | 3 Pair, 22 AWG, Shielded | White & Green, Orange & Brown, Red & Black | 0.195 (4.993) | 0.008 (0.2032) |
| | | 3 | 2 Cond, 22 AWG, Shielded | Red, Black | 0.125 (3.175) | 0.008 (0.2032) |
| | | 4 | 4 Cond, 22 AWG, Shielded | White, Black, Red, Green | 0.145 (3.683) | 0.008 (0.2032) |
| 4ERS1S | 0.420 | 1 | 4 Cond, 18 AWG, Unshielded | White, Black, Red, Green | 0.180 (4.572) | 0.008 (0.2032) |
| | | 2 | 3 Pair, 22 AWG, Shielded | White & Green, Orange & Brown, Red & Black | 0.195 (4.993) | 0.008 (0.2032) |
| | | 3 | 2 Cond, 22 AWG, Unshielded | Red, Black | 0.125 (3.175) | 0.008 (0.2032) |
| | | 4 | 4 Cond, 22 AWG, Unshielded | White, Black, Red, Green | 0.145 (3.683) | 0.008 (0.2032) |

Data subject to change.

Jacket Color Coding & Component Application

| Jacket Color | Component | Cable Type | Application |
|--------------|-----------|---------------------|--------------|
| Gray | 1 | 4 Conductor, 18 AWG | Lock Power |
| Orange | 2 | 3 Pair, 22 AWG | Card Reader |
| White | 3 | 2 Conductor, 22 AWG | Door Contact |
| Blue | 4 | 4 Conductor, 22 AWG | Rex/Spare |



Multi-Conductor, Unshielded, Riser

NEC/CEC Type CMR and/or NEC Type CL3R and FPLR

Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B3, B8 and B286

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Jacket:

- Premium-grade PVC, gray
- Sequential footage markings to facilitate installation
- Temperature range: -20°C to +75°C
- Includes ripcord

Applications:

- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

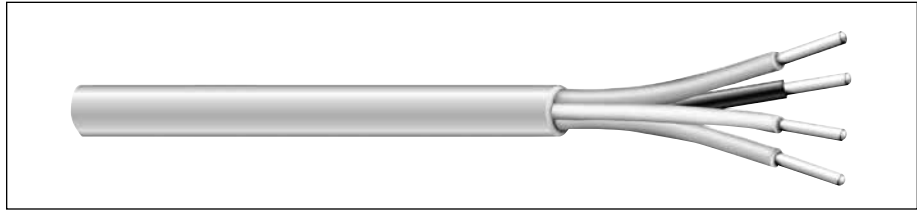
- NEC Article 725 Type CL3R (UL: 75°C, 150 V)
- NEC Article 800 Type CMR (UL: 75°C, 300 V)
- NEC Article 760 Type FPLR (UL: 75°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Suitable for use in the State of California

Packaging:

- Please contact Customer Service for packaging and color options

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 7 | Orange |
| 2 | Red | 8 | Yellow |
| 3 | White | 9 | Purple |
| 4 | Green | 10 | Gray |
| 5 | Brown | 11 | Pink |
| 6 | Blue | 12 | Tan |

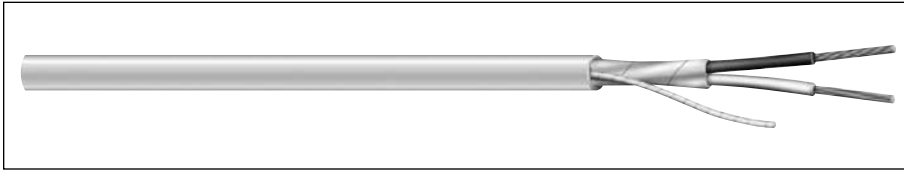


| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E1000S | 2 | 22 | Solid | 0.007 | 0.20 | 0.015 | 0.38 | 0.118 | 3.00 |
| E1001S | 4 | 22 | Solid | 0.007 | 0.20 | 0.015 | 0.38 | 0.126 | 3.20 |
| E1002S | 2 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.122 | 3.10 |
| E1003S | 3 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.141 | 3.58 |
| E1004S | 4 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.141 | 3.66 |
| E1006S | 6 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.164 | 4.17 |
| E1008S | 8 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.180 | 4.57 |
| E1010S | 10 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.212 | 5.38 |
| E1012S | 12 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.219 | 5.56 |
| E1022S | 2 | 20 | 7/28 | 0.007 | 0.18 | 0.008 | 0.20 | 0.134 | 3.40 |
| E1023S | 3 | 20 | 7/28 | 0.008 | 0.20 | 0.015 | 0.38 | 0.142 | 3.61 |
| E1024S | 4 | 20 | 7/28 | 0.008 | 0.20 | 0.015 | 0.38 | 0.156 | 3.96 |
| E1030S | 2 | 18 | Solid | 0.008 | 0.20 | 0.015 | 0.38 | 0.144 | 3.66 |
| E1032S | 2 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.154 | 3.91 |
| E1033S | 3 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.163 | 4.14 |
| E1034S | 4 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.180 | 4.57 |
| E1036S | 6 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.216 | 5.49 |
| E1038S | 8 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.245 | 6.22 |
| E1040S | 10 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.282 | 7.16 |
| E1041S | 12 | 18 | 7/26 | 0.009 | 0.23 | 0.015 | 0.38 | 0.291 | 7.39 |
| E1042S | 2 | 16 | 19/.0117 | 0.009 | 0.25 | 0.015 | 0.38 | 0.178 | 4.52 |
| E1043S | 3 | 16 | 19/.0117 | 0.009 | 0.25 | 0.015 | 0.38 | 0.193 | 4.90 |
| E1044S | 4 | 16 | 19/.0117 | 0.009 | 0.25 | 0.015 | 0.38 | 0.210 | 5.33 |
| E1052S* | 2 | 14 | 19/.0147 | 0.013 | 0.33 | 0.015 | 0.38 | 0.224 | 5.69 |
| E1054S* | 4 | 14 | 19/.0147 | 0.013 | 0.33 | 0.015 | 0.38 | 0.264 | 6.71 |
| E1062S* | 2 | 12 | 19/.0185 | 0.013 | 0.33 | 0.015 | 0.38 | 0.260 | 6.60 |
| E1064S* | 4 | 12 | 19/.0185 | 0.013 | 0.33 | 0.015 | 0.38 | 0.312 | 7.92 |

* NEC CL3R/FPLR only
Data subject to change.

Multi-Conductor, Shielded, Riser

NEC/CEC Type CMR and/or NEC Type CL3R and FPLR



Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B3, B8 and B286

Insulation:

- Premium-grade, color-coded S-R PVC
- Color code: See chart below

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade PVC, gray
- Sequential footage markings to facilitate installation
- Temperature range: -20°C to +75°C
- Includes ripcord

Applications:

- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3R (UL: 75°C, 300 V)
- NEC Article 800 Type CMR (UL: 75°C, 300 V)
- NEC Article 760 Type FPLR (UL: 75°C, 300 V)
- RoHS Compliant Directive 2011/65/EU
- Suitable for use in the State of California

Packaging:

- Please contact Customer Service for packaging and color options

Color Code Chart 5

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 7 | Orange |
| 2 | Red | 8 | Yellow |
| 3 | White | 9 | Purple |
| 4 | Green | 10 | Gray |
| 5 | Brown | 11 | Pink |
| 6 | Blue | 12 | Tan |

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E2000S | 2 | 22 | Solid | 0.008 | 0.20 | 0.015 | 0.38 | 0.117 | 2.97 |
| E2002S | 2 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.132 | 3.35 |
| E2003S | 3 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.135 | 3.43 |
| E2004S | 4 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.147 | 3.73 |
| E2006S | 6 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.173 | 4.39 |
| E2008S | 8 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.195 | 4.95 |
| E2010S | 10 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.218 | 5.54 |
| E2012S | 12 | 22 | 7/30 | 0.010 | 0.25 | 0.008 | 0.20 | 0.222 | 5.64 |
| E2022S | 2 | 20 | 7/28 | 0.007 | 0.18 | 0.008 | 0.20 | 0.142 | 3.61 |
| E2023S | 3 | 20 | 7/28 | 0.007 | 0.18 | 0.008 | 0.20 | 0.151 | 3.84 |
| E2024S | 4 | 20 | 7/28 | 0.007 | 0.18 | 0.008 | 0.20 | 0.161 | 4.09 |
| E2030S | 2 | 18 | Solid | 0.009 | 0.20 | 0.008 | 0.20 | 0.147 | 3.73 |
| E2032S | 2 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.159 | 4.04 |
| E2033S | 3 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.168 | 4.27 |
| E2034S | 4 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.184 | 4.67 |
| E2036S | 6 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.221 | 5.61 |
| E2038S | 8 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.240 | 6.10 |
| E2040S | 10 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.287 | 7.29 |
| E2041S | 12 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.296 | 7.52 |
| E2042S | 2 | 16 | 19/.0117 | 0.009 | 0.23 | 0.015 | 0.38 | 0.189 | 4.80 |
| E2043S | 3 | 16 | 19/.0117 | 0.009 | 0.23 | 0.015 | 0.38 | 0.198 | 5.03 |
| E2044S | 4 | 16 | 19/.0117 | 0.009 | 0.23 | 0.015 | 0.38 | 0.219 | 5.56 |
| E2052S* | 2 | 14 | 19/.0147 | 0.013 | 0.33 | 0.015 | 0.38 | 0.245 | 6.22 |
| E2054S* | 4 | 14 | 19/.0147 | 0.013 | 0.33 | 0.015 | 0.38 | 0.269 | 6.83 |
| E2062S* | 2 | 12 | 19/.0185 | 0.013 | 0.33 | 0.015 | 0.38 | 0.281 | 7.14 |
| E2064S* | 4 | 12 | 19/.0185 | 0.013 | 0.33 | 0.015 | 0.38 | 0.312 | 7.92 |

* NEC CL3R/FPLR only
Data subject to change.

Multi-Conductor, Unshielded, Plenum

NEC/CEC Type CMP and/or NEC Type CL3P and FPLP

Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B3, B8 and B286

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color code: See chart below

Jacket:

- Premium-grade Flexguard® PVC, natural
- Sequential footage markings to facilitate installation
- Temperature range: 0°C to +75°C

Applications:

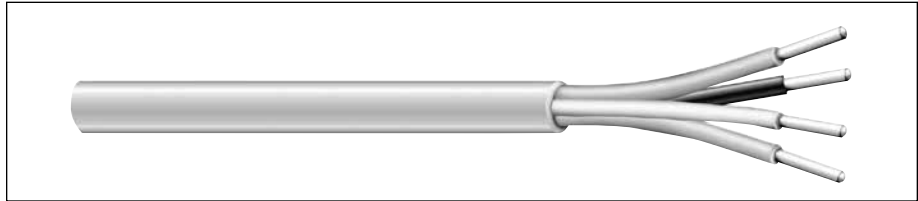
- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3P (UL: 75°C, 150 V)
- NEC Article 800 Type CMP (UL: 75°C, 300 V)
- NEC Article 760 Type FPLP (UL: 75°C, 300 V)
- Designed to meet NFPA 262 Flame Test
- Suitable for use in the State of California

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E3000S | 2 | 22 | Solid | 0.007 | 0.18 | 0.015 | 0.38 | 0.108 | 2.74 |
| E3001S | 4 | 22 | Solid | 0.007 | 0.18 | 0.015 | 0.38 | 0.124 | 3.15 |
| E3002S | 2 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.120 | 3.05 |
| E3003S | 3 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.127 | 3.23 |
| E3004S | 4 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.139 | 3.53 |
| E3006S | 6 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.164 | 4.17 |
| E3008S | 8 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.178 | 4.52 |
| E3010S | 10 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.194 | 4.92 |
| E3012S | 12 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.211 | 5.36 |
| E3022S | 2 | 20 | 7/28 | 0.009 | 0.23 | 0.008 | 0.20 | 0.134 | 3.40 |
| E3023S | 3 | 20 | 7/28 | 0.009 | 0.23 | 0.008 | 0.20 | 0.142 | 3.61 |
| E3024S | 4 | 20 | 7/28 | 0.009 | 0.23 | 0.008 | 0.20 | 0.156 | 3.96 |
| E3030S | 2 | 18 | Solid | 0.008 | 0.20 | 0.015 | 0.38 | 0.142 | 3.61 |
| E3032S | 2 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.156 | 3.96 |
| E3033S | 3 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.166 | 4.22 |
| E3034S | 4 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.187 | 4.75 |
| E3036S | 6 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.216 | 5.49 |
| E3038S | 8 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.235 | 5.97 |
| E3042S | 2 | 16 | 19/.0117 | 0.008 | 0.20 | 0.015 | 0.38 | 0.174 | 4.42 |
| E3043S | 3 | 16 | 19/.0117 | 0.008 | 0.20 | 0.015 | 0.38 | 0.185 | 4.70 |
| E3044S | 4 | 16 | 19/.0117 | 0.009 | 0.23 | 0.008 | 0.20 | 0.205 | 5.21 |
| E3052S* | 2 | 14 | 19/.0147 | 0.011 | 0.28 | 0.015 | 0.38 | 0.216 | 5.49 |
| E3054S* | 4 | 14 | 19/.0147 | 0.011 | 0.28 | 0.015 | 0.38 | 0.255 | 6.48 |
| E3062S* | 2 | 12 | 19/.0185 | 0.011 | 0.28 | 0.015 | 0.38 | 0.252 | 6.40 |
| E3064S* | 4 | 12 | 19/.0185 | 0.011 | 0.28 | 0.015 | 0.38 | 0.298 | 7.57 |

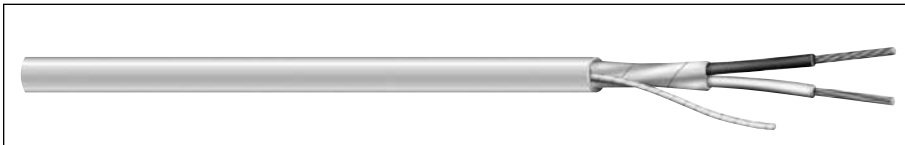
* NEC CL3P/FPLP only
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Black | 7 | Orange |
| 2 | Red | 8 | Yellow |
| 3 | White | 9 | Purple |
| 4 | Green | 10 | Gray |
| 5 | Brown | 11 | Pink |
| 6 | Blue | 12 | Tan |

Multi-Conductor, Shielded, Plenum

NEC/CEC Type CMP and/or NEC Type CL3P and FPLP



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET WALL | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| E2100S | 2 | 22 | Solid | 0.007 | 0.18 | 0.015 | 0.38 | 0.116 | 2.95 |
| E2102S | 2 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.128 | 3.25 |
| E2103S | 3 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.131 | 3.33 |
| E2104S | 4 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.147 | 3.73 |
| E2106S | 6 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.176 | 4.47 |
| E2108S | 8 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.184 | 4.67 |
| E2110S | 10 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.215 | 5.46 |
| E2112S | 12 | 22 | 7/30 | 0.008 | 0.20 | 0.015 | 0.38 | 0.222 | 5.64 |
| E2122S | 2 | 20 | 7/28 | 0.009 | 0.23 | 0.008 | 0.20 | 0.139 | 3.53 |
| E2123S | 3 | 20 | 7/28 | 0.009 | 0.23 | 0.008 | 0.20 | 0.147 | 3.73 |
| E2124S | 4 | 20 | 7/28 | 0.009 | 0.23 | 0.008 | 0.20 | 0.161 | 4.09 |
| E2200S | 2 | 18 | Solid | 0.008 | 0.20 | 0.015 | 0.38 | 0.148 | 3.76 |
| E2202S | 2 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.164 | 4.17 |
| E2203S | 3 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.169 | 4.29 |
| E2204S | 4 | 18 | 7/26 | 0.008 | 0.20 | 0.015 | 0.38 | 0.185 | 4.70 |
| E2206S | 6 | 18 | 7/26 | 0.010 | 0.25 | 0.008 | 0.20 | 0.218 | 5.54 |
| E2208S | 8 | 18 | 7/26 | 0.010 | 0.25 | 0.008 | 0.20 | 0.237 | 6.02 |
| E2242S | 2 | 16 | 19/.0117 | 0.008 | 0.20 | 0.015 | 0.38 | 0.179 | 4.55 |
| E2243S | 3 | 16 | 19/.0117 | 0.008 | 0.20 | 0.015 | 0.38 | 0.190 | 4.83 |
| E2244S | 4 | 16 | 19/.0117 | 0.008 | 0.20 | 0.015 | 0.38 | 0.209 | 5.31 |
| E2252S* | 2 | 14 | 19/.0147 | 0.008 | 0.20 | 0.011 | 0.28 | 0.235 | 5.97 |
| E2254S* | 4 | 14 | 19/.0147 | 0.008 | 0.20 | 0.011 | 0.28 | 0.260 | 6.60 |
| E2262S* | 2 | 12 | 19/.0185 | 0.008 | 0.20 | 0.011 | 0.28 | 0.257 | 6.53 |
| E2264S* | 4 | 12 | 19/.0185 | 0.008 | 0.20 | 0.011 | 0.28 | 0.303 | 7.70 |

* NEC CL3P/FPLP only
Data subject to change.

Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B3, B8 and B286

Insulation:

- Premium-grade, color-coded Flexguard® PVC

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade Flexguard® PVC, natural
- Sequential footage markings to facilitate installation
- Temperature range: 0°C to +75°C

Applications:

- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3P (UL: 75°C, 150 V)
- NEC Article 800 Type CMP (UL: 75°C, 300 V)
- NEC Article 760 Type FPLP (UL: 75°C, 300 V)
- Designed to meet NFPA 262 Flame Test
- Suitable for use in the State of California

Packaging:

- Please contact Customer Service for packaging and color options

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|--------|
| 1 | Black |
| 2 | Red |
| 3 | White |
| 4 | Green |
| 5 | Brown |
| 6 | Blue |
| 7 | Orange |
| 8 | Yellow |
| 9 | Purple |
| 10 | Gray |
| 11 | Pink |
| 12 | Tan |



Telephone Station/Intercom & Speaker/Burglar Alarm

NEC Types CMR or CM/CL2 and CMX-Outdoor

Product Construction:

Conductor:

- Solid or stranded bare copper per ASTM B3

Insulation:

- Semi-rigid, flame-retardant PVC
- Color code: See chart below

Core:

- Conductors in a quad configuration (C4412)

Jacket:

- Low-temperature, flame-retardant beige PVC (-20°C to +60°C)
- Sequential footage markings
- Cables are suitable for installation with T-18 staples

Applications:

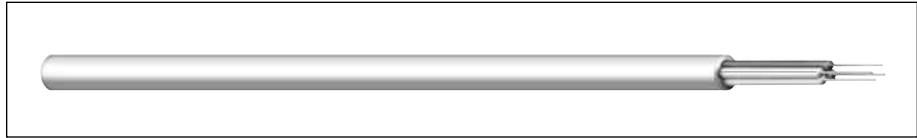
- Intercom systems and speaker extension service
- Suggested voltage rating: 300 volts
- **C4413 only:** Product is in conformance with TIA 568C, TIA 570B standards and the FCC Part 68 ruling which requires telephone system cables for voice and data services into homes to be at minimum category 3, 2 pr. 22 AWG solid

Compliances:

- NEC Article 800 Type CMR/CMX-Indoor/Outdoor; UL Listed (60°C, 300 V)
- C4413 only, Category 3
- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |

INTERCOM, SPEAKER AND BURGLAR ALARM

| | | | | | | | | | |
|-----------------|---|----|---------|-------|------|-------|------|-------|------|
| C4408* | 2 | 22 | Solid | 0.007 | 0.18 | 0.020 | 0.51 | 0.115 | 2.92 |
| C4408ST* | 2 | 22 | 7/.0096 | 0.007 | 0.18 | 0.020 | 0.51 | 0.125 | 3.18 |
| C4410 | 3 | 22 | Solid | 0.007 | 0.18 | 0.016 | 0.41 | 0.118 | 3.00 |
| C4412* | 4 | 22 | Solid | 0.007 | 0.18 | 0.015 | 0.38 | 0.125 | 3.18 |
| C4412ST* | 4 | 22 | 7/.0096 | 0.007 | 0.18 | 0.015 | 0.38 | 0.135 | 3.43 |

Color Code Chart

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|-------|--------------|--------|
| 1 | Red | 3 | Yellow |
| 2 | Green | 4 | Black |

TELEPHONE STATION CATEGORY 3

| CATALOG NUMBER | NO. OF PAIRS | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|---------------|-------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm |
| C4413 | 2 | 24 | Solid | 0.007 | 0.18 | 0.015 | 0.38 | 0.145 x 0.095 | 3.68 x 2.41 |

Note: Outdoor rating allows cable to be exposed for short distances from the network interface device on the outside of the house to the point where the cable enters the house. This type of cable is not to be buried or direct buried.

Data subject to change.

Color Code Chart (Bandmarked)

| NO. OF COND. | COLOR | NO. OF COND. | COLOR |
|--------------|----------------------|--------------|--------------------------|
| 1 | White-Blue Band Blue | 2 | White-Orange Band Orange |

Low-Voltage Sprinkler Wire

60°C 30 Volts UL



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | LENGTH OF CORD (FEET) | PACKAGE TYPE | POWER RATING ⁽¹⁾ | | | PKG PER CTN. | APPROX. WEIGHT PER CTN (LBS) ^(S) | CARTON DIMENSIONS (H x W x D) | UPC NUMBER |
|----------------|--------------|----------|-----------------------|--------------|-----------------------------|------|-------|--------------|---|-------------------------------|------------|
| | | | | | VOLTS | AMPS | WATTS | | | | |

LOW VOLTAGE SPRINKLER WIRE - 30 VOLTS - UL

| | | | | | | | | | | | |
|-------------|----|----|-----|-------|----|----|-----|---|----|-------------------------|--------------|
| 23824.60.01 | 4 | 18 | 100 | Cuff | 30 | 15 | 450 | 6 | 22 | 8.5 x 12.25 x 14 | 079407238248 |
| 23804.18.01 | 4 | 18 | 500 | Spool | 30 | 15 | 450 | 1 | 18 | 10.625 x 10.625 x 6.313 | 079407908047 |
| 23815.60.01 | 5 | 18 | 50 | Cuff | 30 | 15 | 450 | 6 | 13 | 8.5 x 12.25 x 14 | 079407238156 |
| 23825.60.01 | 5 | 18 | 100 | Cuff | 30 | 15 | 450 | 6 | 27 | 9.5 x 14 x 17 | 079407238255 |
| 23805.18.01 | 5 | 18 | 500 | Spool | 30 | 15 | 450 | 1 | 22 | 10.625 x 10.625 x 6.313 | 079407908054 |
| 23817.60.01 | 7 | 18 | 50 | Cuff | 30 | 15 | 450 | 6 | 18 | 8.5 x 12.25 x 14 | 079407238170 |
| 23827.60.01 | 7 | 18 | 100 | Cuff | 30 | 15 | 450 | 6 | 36 | 9.5 x 14 x 17 | 079407238279 |
| 23807.18.01 | 7 | 18 | 500 | Spool | 30 | 15 | 450 | 1 | 31 | 10.625 x 10.625 x 6.313 | 079407908078 |
| 23810.18.01 | 10 | 18 | 500 | Reel | 30 | 15 | 450 | 1 | 44 | — | 079407908108 |

(1) Amps and watts are offered ONLY as a guide to the end user.

(S) Actual shipping weight may vary.
Data subject to change.

Color Code Chart

| NO. OF CONDUCTORS | COLOR |
|-------------------|--------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Orange |
| 6 | Yellow |
| 7 | Blue |
| 8 | Brown |
| 9 | Gray |
| 10 | Purple |

Product Construction:

Conductor:

- 18 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded PVC
- Premium-grade PE jacket, black
- Nylon rip cord to facilitate jacket removal
- Temperature range: -20°C to +60°C
- Color code: See chart at left

Jacket Marking:

- CAROL (SIZE) 30 V SPRINKLER SYSTEMS WIRE - DIRECT BURIAL E54567 (UL)

Applications:

- Low-voltage golf course satellite sprinkler control
- Residential sprinkler solenoid control

Compliances:

- UL Listed under a UL Miscellaneous Wire file
- UL Listed for outdoors applications
- UL Listed for direct burial applications

Packaging:

- See tabular data above
- Please contact Customer Service for packaging and color options



Thermostat Wire

60°C 30 Volt CSA Type LVT

Product Construction:

Conductors:

- 18 AWG annealed solid bare copper per ASTM B3

Insulation:

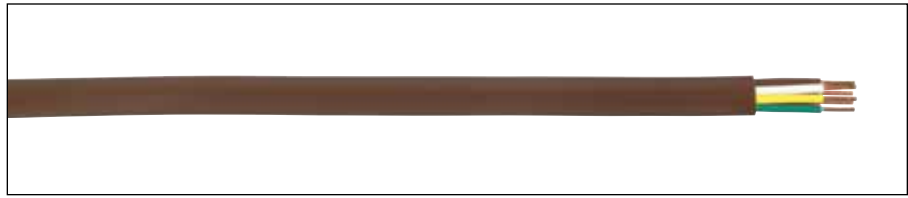
- Premium-grade, color-coded PVC
- Color code: See chart below

Jacket:

- Polyvinylchloride (PVC), brown
- Temperature range: -20°C to +60°C

Jacket Marking:

- CAROL (SIZE) CSA LL# TYPE LVT FT4



18 AWG THERMOSTAT WIRE – 30 VOLT – CSA TYPE LVT

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INS. THICKNESS | | NOMINAL O.D. | | APPROX. NET WEIGHT LBS/M ⁽⁶⁾ | STD. CTN. |
|----------------|--------------|----------|--------------|------------------------|------|--------------|------|---|-----------|
| | | | | INCHES | mm | INCHES | mm | | |
| 05092 | 2 | 18 | Solid | 0.016 | 0.41 | 0.210 | 5.33 | 25 | 2000' |
| 05093* | 3 | 18 | Solid | 0.016 | 0.41 | 0.220 | 5.59 | 33 | 500' |
| 05094 | 4 | 18 | Solid | 0.016 | 0.41 | 0.242 | 6.15 | 41 | 1000' |
| 05095 | 5 | 18 | Solid | 0.016 | 0.41 | 0.262 | 6.65 | 50 | 1000' |
| 05096* | 6 | 18 | Solid | 0.016 | 0.41 | 0.280 | 7.11 | 60 | 1000' |
| 05097* | 7 | 18 | Solid | 0.016 | 0.41 | 0.285 | 7.24 | 65 | 1000' |
| 05098 | 8 | 18 | Solid | 0.016 | 0.41 | 0.304 | 7.75 | 74 | 1000' |
| 05099* | 9 | 18 | Solid | 0.016 | 0.41 | 0.328 | 8.33 | 83 | 1000' |
| 05091* | 10 | 18 | Solid | 0.016 | 0.41 | 0.360 | 9.14 | 92 | 250' |

Applications:

- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Industry Approvals:

- CSA Type LVT

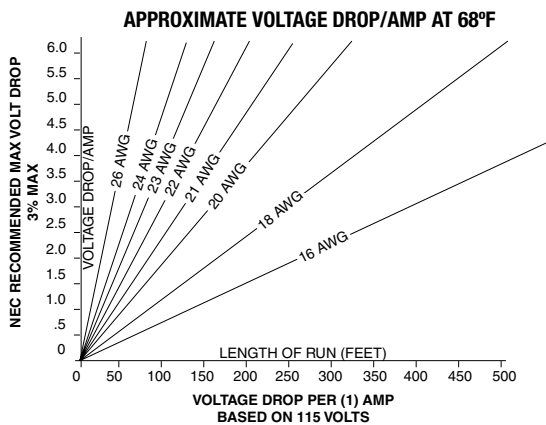
Packaging:

- 4- through 10-conductor available on 250' (76.2 m) spools
- 2- and 3-conductor available on 500' (152.4 m) spools
- Other put-ups available on special order

* Non-stock item; minimum quantity purchase required.
 (6) Actual shipping weight may vary.
 Data subject to change.

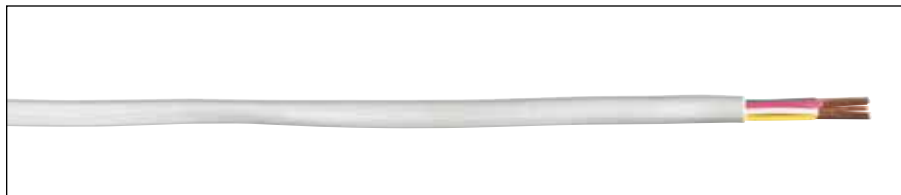
COLOR CODE CHART

| NO. OF CONDUCTORS | COLOR |
|-------------------|---|
| 2 | White, Red |
| 3 | White, Red, Green |
| 4 | White, Red, Green, Blue |
| 5 | White, Red, Green, Blue, Yellow |
| 6 | White, Red, Green, Blue, Yellow, Brown |
| 7 | White, Red, Green, Blue, Yellow, Brown, Orange |
| 8 | White, Red, Green, Blue, Yellow, Brown, Orange, Black |
| 9 | White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple |
| 10 | White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple, Gray |



Thermostat Wire

105°C 150 Volt UL Type CL2



20 AWG THERMOSTAT WIRE – 150 VOLT – UL TYPE CL2

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INS. THICKNESS | | NOMINAL O.D. | | APPROX. NET WEIGHT LBS/M ^(S) | STD. CTN. |
|----------------|--------------|----------|--------------|------------------------|-------|--------------|------|---|-----------|
| | | | | INCHES | mm | INCHES | mm | | |
| 05482 | 2 | 20 | Solid | 0.008 | 0.203 | 0.126 | 3.20 | 11 | 1000' |
| 05483 | 3 | 20 | Solid | 0.008 | 0.203 | 0.133 | 3.38 | 16 | 1000' |
| 05484 | 4 | 20 | Solid | 0.008 | 0.203 | 0.142 | 3.61 | 19 | 500' |
| 05485 | 5 | 20 | Solid | 0.008 | 0.203 | 0.160 | 4.06 | 24 | 500' |
| 05486 | 6 | 20 | Solid | 0.008 | 0.203 | 0.175 | 4.45 | 27 | 500' |
| 05487 | 7 | 20 | Solid | 0.008 | 0.203 | 0.175 | 4.45 | 31 | 500' |
| 05488 | 8 | 20 | Solid | 0.008 | 0.203 | 0.189 | 4.80 | 35 | 500' |
| 05489* | 9 | 20 | Solid | 0.008 | 0.203 | 0.204 | 5.18 | 40 | 500' |
| 05481* | 10 | 20 | Solid | 0.008 | 0.203 | 0.222 | 5.64 | 45 | 250' |

18 AWG THERMOSTAT WIRE – 150 VOLT – UL TYPE CL2

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INS. THICKNESS | | NOMINAL O.D. | | APPROX. NET WEIGHT LBS/M ^(S) | STD. CTN. |
|----------------|--------------|----------|--------------|------------------------|-------|--------------|------|---|-----------|
| | | | | INCHES | mm | INCHES | mm | | |
| 05582 | 2 | 18 | Solid | 0.008 | 0.203 | 0.142 | 3.61 | 16 | 1000' |
| 05583 | 3 | 18 | Solid | 0.008 | 0.203 | 0.150 | 3.81 | 22 | 1000' |
| 05584 | 4 | 18 | Solid | 0.008 | 0.203 | 0.165 | 4.19 | 28 | 500' |
| 05585 | 5 | 18 | Solid | 0.008 | 0.203 | 0.181 | 4.60 | 36 | 500' |
| 05586 | 6 | 18 | Solid | 0.008 | 0.203 | 0.208 | 5.28 | 42 | 500' |
| 05587 | 7 | 18 | Solid | 0.008 | 0.203 | 0.208 | 5.28 | 48 | 500' |
| 05588 | 8 | 18 | Solid | 0.008 | 0.203 | 0.225 | 5.72 | 54 | 500' |
| 05589* | 9 | 18 | Solid | 0.008 | 0.203 | 0.243 | 6.17 | 61 | 500' |
| 05581 | 10 | 18 | Solid | 0.008 | 0.203 | 0.264 | 6.71 | 69 | 250' |

^(S) Actual shipping weight may vary.
Data subject to change.

COLOR CODE CHART

| NO. OF CONDUCTORS | COLOR |
|-------------------|---|
| 2 | White, Red |
| 3 | White, Red, Green |
| 4 | White, Red, Green, Blue |
| 5 | White, Red, Green, Blue, Yellow |
| 6 | White, Red, Green, Blue, Yellow, Brown |
| 7 | White, Red, Green, Blue, Yellow, Brown, Orange |
| 8 | White, Red, Green, Blue, Yellow, Brown, Orange, Black |
| 9 | White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple |
| 10 | White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple, Gray |

Product Construction:

Conductors:

- 20 and 18 AWG annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded PVC
- Color code: See chart below

Jacket:

- Polyvinylchloride (PVC), white
- Temperature range: -20°C to +105°C

Jacket Marking:

- CAROL AWG TYPE CL2 E# (UL) 105°C SUNLIGHT RESISTANT - MADE IN USA

Applications:

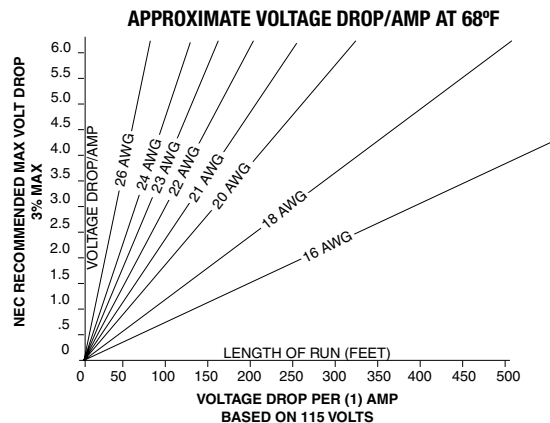
- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Industry Approvals:

- UL Listed Type CL2
- RoHS Compliant

Packaging:

- 4- through 10-conductor available on 250' (76.2 m) spools
- 2- and 3-conductor available on 500' (152.4 m) spools
- Other put-ups available on special order



Thermostat Wire, Unjacketed

60°C Low Voltage and Intercom Cable

Product Construction:

Conductors:

- 20 AWG annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded PVC
- Temperature range: -20°C to +60°C
- Color code: See chart below

Jacket:

- This product is unjacketed

Applications:

- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Packaging:

- 4- through 8-conductor available on 250' (76.2 m) spools
- 2- and 3-conductor available on 500' (152.4 m) spools
- Other put-ups available on special order



20 AWG – TWISTED CONDUCTORS – NO JACKET

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOMINAL INS. THICKNESS | | NOMINAL O.D. | | APPROX. NET WEIGHT LBS/M ^(S) | STD. CTN. |
|----------------|--------------|----------|--------------|------------------------|-------|--------------|------|---|-----------|
| | | | | INCHES | mm | INCHES | mm | | |
| 05782 | 2 | 20 | Solid | 0.008 | 0.203 | 0.096 | 2.44 | 7.5 | 4000' |
| 05783 | 3 | 20 | Solid | 0.008 | 0.203 | 0.104 | 2.64 | 11.0 | 2000' |
| 05784* | 4 | 20 | Solid | 0.008 | 0.203 | 0.116 | 2.95 | 15.0 | 2000' |
| 05785* | 5 | 20 | Solid | 0.008 | 0.203 | 0.130 | 3.30 | 18.5 | 1000' |
| 05786* | 6 | 20 | Solid | 0.008 | 0.203 | 0.144 | 3.66 | 22.0 | 1000' |
| 05788* | 8 | 20 | Solid | 0.008 | 0.203 | 0.159 | 4.04 | 30.0 | 1000' |

* Non-stock item; minimum quantity purchase required.

^(S) Actual shipping weight may vary.

Data subject to change.

COLOR CODE CHART

| NO. OF CONDUCTORS | COLOR |
|-------------------|---|
| 2 | White, Red |
| 3 | White, Red, Green |
| 4 | White, Red, Green, Blue |
| 5 | White, Red, Green, Blue, Yellow |
| 6 | White, Red, Green, Blue, Yellow, Brown |
| 8 | White, Red, Green, Blue, Yellow, Brown, Orange, Black |

Category 6 Cable

Standard-Compliant Solution



PART NUMBERS

| JACKET COLOR | PULL-PAC® II | | SPOOL-PAC® | |
|--------------|------------------|--------------|------------------|--------------|
| | CMR (NON-PLENUM) | CMP (PLENUM) | CMR (NON-PLENUM) | CMP (PLENUM) |
| Blue | CR6.30.07 | CP6.30.07 | CR6.A3.07 | CP6.A3.07 |
| White | CR6.30.02 | CP6.30.02 | CR6.A3.02 | CP6.A3.02 |
| Gray | CR6.30.10 | CP6.30.10 | CR6.A3.10 | CP6.A3.10 |
| Green | CR6.30.06 | CP6.30.06 | CR6.A3.06 | CP6.A3.06 |
| Yellow | CR6.30.05 | CP6.30.05 | CR6.A3.05 | CP6.A3.05 |
| Red | CR6.30.03 | CP6.30.03 | CR6.A3.03 | CP6.A3.03 |

ELECTRICAL PERFORMANCE

| FREQUENCY MHZ | PSACR (MIN) | ACR (MIN) | ATTENUATION (MAX) | PSNEXT (MIN) | NEXT (MIN) | PSELFEXT (MIN) | ELFEXT (MIN) | RETURN LOSS (MIN) | LCL (MIN) | ELTCTL (MIN) |
|---------------|-------------|-----------|-------------------|--------------|------------|----------------|--------------|-------------------|-----------|--------------|
| 1 | 70.3 | 72.3 | 2.0 | 72.3 | 74.3 | 64.8 | 67.8 | 20.0 | 40.0 | 35.0 |
| 4 | 59.3 | 61.5 | 3.8 | 63.3 | 65.3 | 52.8 | 55.7 | 23.0 | 40.0 | 23.0 |
| 10 | 51.3 | 53.3 | 6.0 | 57.3 | 59.3 | 44.8 | 47.8 | 25.0 | 40.0 | 15.0 |
| 16 | 46.7 | 48.7 | 7.6 | 54.2 | 56.2 | 40.7 | 43.7 | 25.0 | 38.0 | 10.9 |
| 20 | 44.3 | 46.3 | 8.5 | 52.8 | 54.8 | 38.8 | 41.7 | 25.0 | 37.0 | 9.0 |
| 31.25 | 39.2 | 41.2 | 10.7 | 49.9 | 51.9 | 34.9 | 37.9 | 23.6 | 35.1 | 5.1 |
| 62.5 | 29.9 | 32.0 | 15.4 | 45.4 | 47.4 | 28.9 | 31.8 | 21.5 | 32.0 | 5.0 |
| 100 | 22.5 | 24.5 | 19.8 | 42.3 | 44.3 | 24.8 | 27.8 | 20.1 | 30.0 | 5.0 |
| 150 | 14.9 | 16.9 | 24.7 | 39.7 | 41.7 | 21.3 | 24.3 | 18.9 | 28.2 | 5.0 |
| 200 | 8.8 | 10.8 | 29.0 | 37.8 | 39.8 | 18.8 | 21.8 | 18.0 | 27.0 | 5.0 |
| 250 | 3.5 | 5.5 | 32.8 | 36.3 | 38.3 | 16.8 | 19.8 | 17.3 | 26.0 | 5.0 |
| 350 | — | — | 39.8 | 34.1 | 36.1 | 13.9 | 16.9 | 16.3 | — | — |
| 400 | — | — | 43.0 | 33.3 | 35.3 | 12.8 | 15.8 | 15.9 | — | — |
| 500 | — | — | 48.9 | 31.8 | 33.8 | 10.8 | 13.8 | 15.2 | — | — |

Notes: Values are expressed in dB per 100m (328ft.) length. Values above 250 MHz are for informational purposes only.

PHYSICAL DATA

| | CMR (NON-PLENUM) | CMP (PLENUM) |
|-----------------------------------|------------------|--------------|
| Nominal Cable Diameter (in) | 0.205 | 0.200 |
| Nominal Cable Weight (lbs/1000ft) | 28 | 28 |
| Minimum Bend Radius (in) | 1.0 | 1.0 |
| Maximum Pulling Force (lbs) | 32 | 32 |
| Temperature Rating (°C) | | |
| Installation: | 0 to +60 | 0 to +60 |
| Operation: | -20 to +75 | -20 to +75 |

ELECTRICAL CHARACTERISTICS

| | |
|---|--------------------|
| DC Resistance (max) Ohms/100m (328ft) @ 20°C | 9.38 |
| DC Resistance Unbalance (max) Individual Pair % | 4.0 |
| Delay Skew (max) ns/100m | 45 |
| Nom. Velocity of Propagation % Speed of Light | CMR: 70 CMP: 68 |
| Characteristic Impedance | Ohms |
| Frequency (f): 1-250 MHz | 100 ± 15 |
| Input Impedance | Ohms |
| Frequency (f): 1-100 MHz | 100 ± 15 |
| Frequency (f): 100-250 MHz | 100 ± 22 |

Data subject to change.



Designed to Meet
NFPA 262 and CSA FT6
Steiner Tunnel Fire Tests
for Plenum Applications

Underwriters Laboratories Inc.



Product Construction:

Conductors:

- 23 AWG solid bare annealed copper

Separator

- Tape

Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

Rip Cord

- Applied longitudinally under jacket

Jacket

- Non-Plenum: flame-retardant PVC
- Plenum: low-smoke, flame-retardant PVC
- TRU-Mark® print legend contains footcage markings from 1000' to 0'

Applications:

- IEEE 802.3: 1000 BASE-T (Gigabit Ethernet), 100 BASE-TX, 10 BASE-T
- ANSI/TIA/EIA 854: 1000 BASE-TX
- 155 Mp/s, 1.2 Gb/s ATM
- ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (PoE)
- Digital video

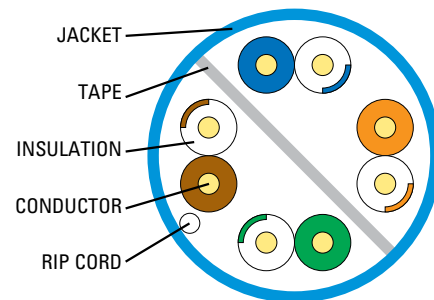
Compliances:

- ANSI/TIA/EIA 568 B.2-1 (Category 6)
- ANSI/TIA/EIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class E)
- ICEA S-102-700 (Category 6)
- UL & c(UL) Type CMP (NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications)
- UL 444
- RoHS Compliant Directive 2011/65/EU
- Third-party verified for guaranteed performance

Packaging:

- 1000' Pull-Pac® II
- 1000' Spool-Pac®

CATEGORY 6 CROSS-SECTION



Category 5e Cable

Enhanced Transmission Throughput

Product Construction:

Conductors:

- 24 AWG solid bare annealed copper

Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

Rip Cord

- Applied longitudinally under jacket

Jacket

- Non-Plenum: flame-retardant PVC
- Plenum: low-smoke, flame-retardant PVC
- TRU-Mark® print legend contains footage markings from 1000' to 0'

Applications:

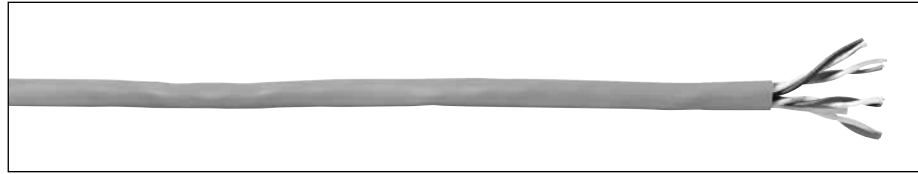
- IEEE 802.3: 1000 BASE-T (Gigabit Ethernet), 100 BASE-TX, 10 BASE-T
- 52/155 Mp/s ATM
- ANSI X3.263: 100 Mb/s
- 4/16 Mp/s token ring

Compliances:

- ANSI/TIA/EIA 568 B.2 (Category 5e)
- ICEA S-90-661 (Category 5e)
- UL & c(UL) Type CMR (UL 1666) for Non-Plenum
- UL & c(UL) Type CMP (NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests for Plenum Applications)
- UL 444
- RoHS Compliant Directive 2011/65/EU
- Third-party verified for guaranteed performance

Packaging:

- 1000' Pull-Pac® II
- 1000' Spool-Pac®



PART NUMBERS

| JACKET COLOR | PULL-PAC® II | | SPOOL-PAC® | |
|--------------|------------------|--------------|------------------|--------------|
| | CMR (NON-PLENUM) | CMP (PLENUM) | CMR (NON-PLENUM) | CMP (PLENUM) |
| Blue | CR5.30.07 | CP5.30.07 | CR5.A3.07 | CP5.A3.07 |
| White | CR5.30.02 | CP5.30.02 | CR5.A3.02 | CP5.A3.02 |
| Gray | CR5.30.10 | CP5.30.10 | CR5.A3.10 | CP5.A3.10 |
| Green | CR5.30.06 | CP5.30.06 | CR5.A3.06 | CP5.A3.06 |
| Yellow | CR5.30.05 | CP5.30.05 | CR5.A3.05 | CP5.A3.05 |
| Red | CR5.30.03 | CP5.30.03 | CR5.A3.03 | CP5.A3.03 |

ELECTRICAL PERFORMANCE

| FREQUENCY MHZ | PSAGR (MIN) | AGR (MIN) | ATTENUATION (MAX) | PSNEXT (MIN) | NEXT (MIN) | PSELFEXT (MIN) | ELFEXT (MIN) | RETURN LOSS (MIN) |
|---------------|-------------|-----------|-------------------|--------------|------------|----------------|--------------|-------------------|
| 1 | 60.3 | 63.3 | 2.0 | 62.3 | 65.3 | 60.8 | 63.8 | 20.0 |
| 4 | 49.2 | 52.2 | 4.1 | 53.3 | 56.3 | 48.7 | 51.7 | 23.0 |
| 10 | 40.8 | 43.8 | 6.5 | 47.3 | 50.3 | 40.8 | 43.8 | 25.0 |
| 16 | 36.0 | 39.0 | 8.2 | 44.2 | 47.2 | 36.7 | 39.7 | 25.0 |
| 20 | 33.5 | 36.5 | 9.3 | 42.8 | 45.8 | 34.7 | 37.7 | 25.0 |
| 25 | 30.9 | 33.9 | 10.4 | 41.3 | 44.3 | 32.8 | 35.8 | 24.3 |
| 31.25 | 28.2 | 31.2 | 11.7 | 39.9 | 42.9 | 30.9 | 33.9 | 23.6 |
| 62.5 | 18.4 | 21.4 | 17.0 | 35.4 | 38.4 | 24.8 | 27.8 | 21.5 |
| 100 | 10.3 | 13.3 | 22.0 | 32.3 | 35.3 | 20.8 | 23.8 | 20.1 |
| 155 | 1.4 | 4.4 | 28.1 | 29.4 | 32.4 | 16.9 | 19.9 | — |
| 200 | — | — | 32.4 | 27.8 | 30.8 | 14.7 | 17.7 | — |
| 250 | — | — | 36.9 | 26.3 | 29.3 | 12.8 | 15.8 | — |
| 350 | — | — | 44.9 | 24.1 | 27.1 | 9.9 | 12.9 | — |

Notes: Values are expressed in dB per 100m (328 ft.) length. Values above 250 MHz are for informational purposes only.

PHYSICAL DATA

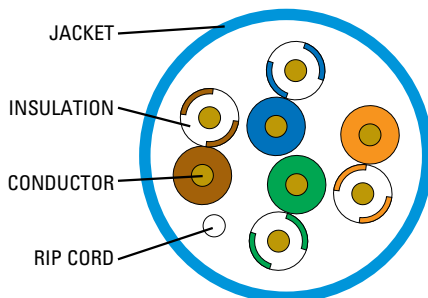
| | CMR (NON-PLENUM) | CMP (PLENUM) |
|-----------------------------------|------------------|--------------|
| Nominal Cable Diameter (in) | 0.200 | 0.180 |
| Nominal Cable Weight (lbs/1000ft) | 21 | 19 |
| Minimum Bend Radius (in) | 1.0 | 1.0 |
| Maximum Pulling Force (lbs) | 25 | 25 |
| Temperature Rating (°C) | | |
| Installation: | 0 to +60 | 0 to +60 |
| Operation: | -10 to +60 | -10 to +60 |

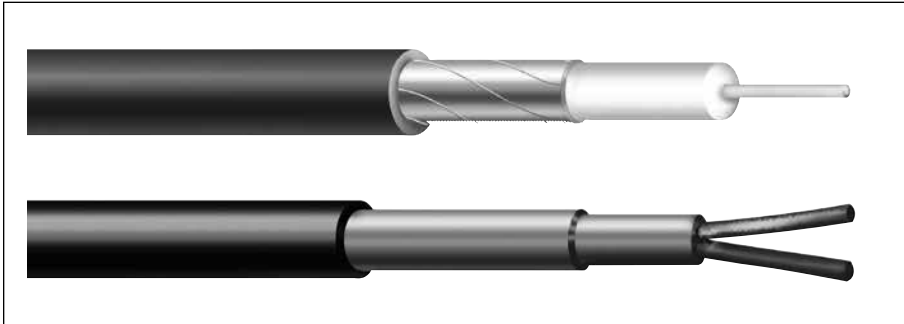
ELECTRICAL CHARACTERISTICS

| | |
|---|-------------------------------|
| DC Resistance (max) Ohms/100m (328ft) @ 20°C | 8.9 |
| DC Resistance Unbalance (max) Individual Pair % | 3.0 |
| Mutual Capacitance (nom) pF/ft @ 1 KHz | 14 |
| Delay Skew (max) ns/100m | 45 |
| Nom. Velocity of Propagation % Speed of Light | CMR: 72 CMP: 70 |
| Characteristic Impedance Frequency (f): | Ohms 1-100 MHz 100 ± 15 |

Data subject to change.

CATEGORY 5e CROSS-SECTION





To meet the needs of today's sophisticated, high-speed, wide bandwidth electronics over long distances, with minimum signal loss or degradation, General Cable Carol® Brand offers a wide range of coaxial and twinaxial designs in both unbalanced arrays and precision-balanced pairs. This offers the system designer a wide choice of cost-effective products that reflect the most recent changes in the standards set by UL, CSA and/or the FCC.

Included in this section are recommended Carol Brand coaxial products for the CATV market. However, these constructions may differ in certain parts of the country.

Unlike other products in the electronic market, coaxial cable does not have one accepted standard construction.







General Cable recommends, in order to avoid installing an unacceptable coaxial cable for the CATV application in your area, the local CATV company should be consulted.

General Cable's Carol Brand product mix encompasses standard RG/U-type coaxial constructions in the more popular 50, 75 and 93 ohm designs and miniature coaxial products for smaller high-speed applications.

The twinaxial products meet or exceed the stringent demands of today's precision-balanced pair systems. The minimization of capacitance unbalance is a necessary requirement for long distance data transmission.







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DBRF Coaxial

| CATALOG NUMBER | COND. SIZE | INSULATION MATERIAL | | SHIELD COVERAGE NOM. SHLD. DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | | |
|--|----------------------------------|---------------------|------|--|----------------------|------|---------------------|--------|-------------------------------|-------------------------|---------------------|---------|-----|------|-----|------|-----|------|-----|-------|------|-------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | | |
| DBRF100  | .018" Solid Copper Covered Steel | Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 30.80 | 101.10 | 66 | 50 | 30 | 3.9 | | | | | | | | | | | |
| | | 0.060 | 1.52 | | 0.110 | 2.79 | | | | | 50 | 5.1 | 150 | 8.9 | 220 | 10.9 | 450 | 15.8 | 900 | 22.8 | 1500 | 30.1 | 1800 |
| DBRF100HF  | .018" Solid Copper Covered Steel | Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant LSZH | | 30.80 | 101.10 | 66 | 50 | 30 | 3.9 | | | | | | | | | | | |
| | | 0.060 | 1.52 | | 0.110 | 2.79 | | | | | 50 | 5.1 | 150 | 8.9 | 220 | 10.9 | 450 | 15.8 | 900 | 22.8 | 1500 | 30.1 | 1800 |
| DBRF100R NEC Type CMR and CSA CMG c(ETL)us  | .018" Solid Copper Covered Steel | Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 30.80 | 101.10 | 66 | 50 | 30 | 3.9 | | | | | | | | | | | |
| | | 0.060 | 1.52 | | 0.110 | 2.79 | | | | | 50 | 5.1 | 150 | 8.9 | 220 | 10.9 | 450 | 15.8 | 900 | 22.8 | 1500 | 30.1 | 1800 |
| DBRF195  | .037" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 25.40 | 83.30 | 78 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.110 | 2.79 | | 0.195 | 4.95 | | | | | 50 | 2.34 | 150 | 4.13 | 220 | 5.05 | 450 | 7.39 | 900 | 10.79 | 1500 | 14.38 | 1800 |
| DBRF195FL Flooded Outdoor  | .037" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 25.40 | 83.30 | 78 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.110 | 2.79 | | 0.195 | 4.95 | | | | | 50 | 2.34 | 150 | 4.13 | 220 | 5.05 | 450 | 7.39 | 900 | 10.79 | 1500 | 14.38 | 1800 |
| DBRF195HF NEC Type CMR-LS and CSA CMG c(ETL)us  | .037" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant LSZH | | 25.40 | 83.30 | 78 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.110 | 2.79 | | 0.195 | 4.95 | | | | | 50 | 2.34 | 150 | 4.13 | 220 | 5.05 | 450 | 7.39 | 900 | 10.79 | 1500 | 14.38 | 1800 |

Data subject to change.







DBRF Coaxial

| CATALOG NUMBER | COND. SIZE | INSULATION MATERIAL | | SHIELD COVERAGE NOM. SHLD. DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | | |
|--|----------------------------|---------------------|------|--|----------------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|-----|------|-----|------|-----|------|-----|-------|------|-------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | | |
| DBRFR195R NEC Type CMR and CSA CMG c(ETL)us  | .037" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 25.40 | 83.30 | 78 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.110 | 2.79 | | 0.195 | 4.95 | | | | | 50 | 2.34 | 150 | 4.13 | 220 | 5.05 | 450 | 7.39 | 900 | 10.79 | 1500 | 14.38 | 1800 |
| DBRF195P NEC Type CMP and CSA c(ETL)us  | .037" Solid Bare Copper | Foam FEP | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 25.00 | 82.00 | 80 | 50 | 30 | 2.0 | | | | | | | | | | | |
| | | 0.110 | 2.79 | | 0.175 | 4.45 | | | | | 50 | 2.5 | 150 | 4.4 | 220 | 5.3 | 450 | 7.8 | 900 | 10.90 | 1500 | 14.89 | 1800 |
| DBRF200  | .044" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 24.50 | 80.40 | 83 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.116 | 2.95 | | 0.195 | 4.95 | | | | | 50 | 2.3 | 150 | 3.9 | 220 | 4.8 | 450 | 6.9 | 900 | 9.9 | 1500 | 12.9 | 1800 |
| DBRF200FL Water Block  | .044" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 24.50 | 80.40 | 83 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.116 | 2.95 | | 0.195 | 4.95 | | | | | 50 | 2.3 | 150 | 3.9 | 220 | 4.8 | 450 | 6.9 | 900 | 9.9 | 1500 | 12.9 | 1800 |
| DBRF200HF NEC CMR-LS, c(ETL)us  | .044" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant LSZH | | 24.50 | 80.40 | 83 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.116 | 2.95 | | 0.195 | 4.95 | | | | | 50 | 2.3 | 150 | 3.9 | 220 | 4.8 | 450 | 6.9 | 900 | 9.9 | 1500 | 12.9 | 1800 |
| DBRF200R NEC Type CMR and CSA CMG c(ETL)us  | .044" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 24.50 | 80.40 | 83 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.116 | 2.95 | | 0.195 | 4.95 | | | | | 50 | 2.3 | 150 | 3.9 | 220 | 4.8 | 450 | 6.9 | 900 | 9.9 | 1500 | 12.9 | 1800 |

Data subject to change.









DBRF Coaxial

| CATALOG NUMBER | COND. SIZE | INSULATION MATERIAL | | SHIELD COVERAGE NOM. SHLD. DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | | |
|---|----------------------------|---------------------|------|--|----------------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|-----|-----|-----|-----|-----|-----|-----|------|------|-------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | | |
| DBRF200P NEC CMP and CSA c(ETL)us  | .040" Solid Bare Copper | Foam FEP | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Low Smoke Plenum PVC | | 25.00 | 82.00 | 80 | 50 | 30 | 1.8 | | | | | | | | | | | |
| | | 0.118 | 2.99 | | 0.180 | 4.57 | | | | | 50 | 2.3 | 150 | 4.1 | 220 | 4.9 | 450 | 7.1 | 900 | 10.0 | 1500 | 14.47 | 1800 |
| DBRF240  | .056" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 24.30 | 79.72 | 84 | 50 | 30 | 1.3 | | | | | | | | | | | |
| | | 0.150 | 3.81 | | 0.240 | 6.10 | | | | | 50 | 1.7 | 150 | 2.9 | 220 | 3.7 | 450 | 5.3 | 900 | 7.6 | 1500 | 9.9 | 1800 |
| DBRF240FL Water Blocked  | .056" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 24.30 | 79.72 | 84 | 50 | 30 | 1.3 | | | | | | | | | | | |
| | | 0.150 | 3.81 | | 0.240 | 6.10 | | | | | 50 | 1.7 | 150 | 2.9 | 220 | 3.7 | 450 | 5.3 | 900 | 7.6 | 1500 | 9.9 | 1800 |
| DBRF240HF NEC CMR-LS and CSA CMG c(ETL)us  | .056" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant LSZH | | 24.30 | 79.72 | 84 | 50 | 30 | 1.3 | | | | | | | | | | | |
| | | 0.150 | 3.81 | | 0.240 | 6.10 | | | | | 50 | 1.7 | 150 | 2.9 | 220 | 3.7 | 450 | 5.3 | 900 | 7.6 | 1500 | 9.9 | 1800 |
| DBRF240R  | .056" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 24.30 | 79.72 | 84 | 50 | 30 | 1.3 | | | | | | | | | | | |
| | | 0.150 | 3.81 | | 0.240 | 6.10 | | | | | 50 | 1.7 | 150 | 2.9 | 220 | 3.7 | 450 | 5.3 | 900 | 7.6 | 1500 | 9.9 | 1800 |
| DBRF240P NEC CMP and CSA c(ETL)us  | .051" Solid Bare Copper | Foam FEP | | 100% Dual Foil Bonded + 90% Tin Copper Braid | LS Plenum PVC | | 25.00 | 82.00 | 80 | 50 | 30 | 1.4 | | | | | | | | | | | |
| | | 0.150 | 3.81 | | 0.214 | 5.44 | | | | | 50 | 1.8 | 150 | 3.1 | 220 | 3.7 | 450 | 5.4 | 900 | 7.6 | 1500 | 11.72 | 1800 |

Data subject to change.





DBRF Coaxial

| CATALOG NUMBER | COND. SIZE | INSULATION MATERIAL | | SHIELD COVERAGE NOM. SHLD. DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | | |
|--|---------------------------------|---------------------|------|--|----------------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | | |
| DBRF300  | .070" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 24.00 | 78.80 | 85 | 50 | 30 | 1.1 | | | | | | | | | | | |
| | | 0.190 | 4.83 | | 0.300 | 7.62 | | | | | 50 | 1.4 | 150 | 2.4 | 220 | 2.9 | 450 | 4.2 | 900 | 9.1 | 1500 | 7.9 | 1800 |
| DBRF300FL Water Blocked  | .070" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 24.00 | 78.80 | 85 | 50 | 30 | 1.1 | | | | | | | | | | | |
| | | 0.190 | 4.83 | | 0.300 | 7.62 | | | | | 50 | 1.4 | 150 | 2.4 | 220 | 2.9 | 450 | 4.2 | 900 | 9.1 | 1500 | 7.9 | 1800 |
| DBRF300HF NEC Type CMR-LS and CSA CMG c(ETL)us  | .070" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant LSZH | | 24.00 | 78.80 | 85 | 50 | 30 | 1.1 | | | | | | | | | | | |
| | | 0.190 | 4.83 | | 0.300 | 7.62 | | | | | 50 | 1.4 | 150 | 2.4 | 220 | 2.9 | 450 | 4.2 | 900 | 9.1 | 1500 | 7.9 | 1800 |
| DBRF300R NEC Type CMR and CSA CMG c(ETL)us  | .070" Solid Bare Copper | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 24.00 | 78.80 | 85 | 50 | 30 | 1.1 | | | | | | | | | | | |
| | | 0.190 | 4.83 | | 0.300 | 7.62 | | | | | 50 | 1.4 | 150 | 2.4 | 220 | 2.9 | 450 | 4.2 | 900 | 9.1 | 1500 | 7.9 | 1800 |
| DBRF300P NEC CMP and CSA c(ETL)us  | .064" Solid Bare Copper | Foam FEP | | 100% Dual Foil Bonded + 90% Tin Copper Braid | LS Plenum PVC | | 25.00 | 82.00 | 85 | 50 | 30 | 1.1 | | | | | | | | | | | |
| | | 0.190 | 4.83 | | 0.260 | 6.60 | | | | | 50 | 1.4 | 150 | 2.5 | 220 | 3.0 | 450 | 4.3 | 900 | 7.16 | 1500 | 10.0 | 1800 |
| DBRF400  | .108" Bare Copper-Clad Aluminum | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 23.50 | 77.10 | 85 | 50 | 30 | 0.7 | | | | | | | | | | | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | 50 | 0.9 | 150 | 1.5 | 220 | 1.9 | 450 | 2.7 | 900 | 3.9 | 1500 | 5.2 | 1800 |

Data subject to change.



DBRF Coaxial

| CATALOG NUMBER | COND. SIZE | INSULATION MATERIAL | | SHIELD COVERAGE NOM. SHLD. DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | | |
|--|--|----------------------|------|--|-------------------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|-----|------|-----|------|-----|------|-----|-----|------|-----|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | | |
| DBRF400FL Flooded Outdoor  | .108" Bare Copper- Clad Aluminum | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Polyethylene | | 23.50 | 77.10 | 85 | 50 | 30 | 0.7 | | | | | | | | | | | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | 50 | 0.9 | 150 | 1.5 | 220 | 1.9 | 450 | 2.7 | 900 | 3.9 | 1500 | 5.2 | 1800 |
| DBRF400HF NEC Type CMR-LS and CSA CMG c(ETL)us  | .108" Bare Copper- Clad Aluminum | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant LSZH | | 23.50 | 77.10 | 85 | 50 | 30 | 0.7 | | | | | | | | | | | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | 50 | 0.9 | 150 | 1.5 | 220 | 1.9 | 450 | 2.7 | 900 | 3.9 | 1500 | 5.2 | 1800 |
| DBRF400R NEC Type CMR and CSA CMG c(ETL)us  | .108" Bare Copper- Clad Aluminum | Foam Polyethylene | | 100% Dual Foil Bonded + 90% Tin Copper Braid | Flame-Retardant PVC | | 23.50 | 77.10 | 85 | 50 | 30 | 0.7 | | | | | | | | | | | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | 50 | 0.9 | 150 | 1.5 | 220 | 1.9 | 450 | 2.7 | 900 | 3.9 | 1500 | 5.2 | 1800 |
| DBRF400P NEC Type CMP and CSA c(ETL)us/150C  | .108" Bare Copper- Clad Aluminum | Foam FEP | | 100% Dual Foil Bonded + 90% Tin Copper Braid | PVDF - Copolymer | | 24.50 | 80.36 | 85 | 50 | 30 | 0.8 | | | | | | | | | | | |
| | | 0.285 | 7.24 | | 0.350 | 8.89 | | | | | 50 | 1.01 | 150 | 1.80 | 220 | 2.20 | 450 | 3.30 | 900 | 4.7 | 1500 | 6.8 | 1800 |

Data subject to change.

RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B3
- Copper-clad steel per ASTM B869

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Bare copper or aluminum braid
- Flexfoil® shield

Jacket:






- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CATV
- CCTV†
- HDTV
- Digital video
- Drop cable
- FM broadcast

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION P | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|--|--------------|------|--|--------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C5760 RG 6/U Type  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | 100% Flexfoil® 30 Ga. CCS Spiral Served Shield 30.0 Ω/Mft. | PVC | | 16.20 | 53.15 | 82 | 75 | 1 | 0.26 |
| | | 0.180 | 4.57 | | 0.240 | 6.10 | | | | | 10 | 0.81 |
| C5761† RG 6/U Type UL CL2, CM c(UL) CM, (UL) or (ETL)  | 18 Ga. Solid Bare Copper 6.5 Ω/Mft. | Foam PE | | 100% Flexfoil® +95% Bare Copper Braid 2.6 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 |
| | | 0.180 | 4.57 | | 0.275 | 6.98 | | | | | 10 | 0.81 |
| C5775 RG 6/U Type UL CL2, CATV, CM c(UL) CM, (UL) or (ETL)  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +60% Aluminum Braid 9.0 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 |
| | | 0.180 | 4.57 | | 0.275 | 6.98 | | | | | 10 | 0.81 |
| C5886 RG 6/U Type Riser UL CL2R, CATVR, CMR c(UL) CMR, c(UL) CM (UL) or (ETL)  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +60% Aluminum Braid 9.0 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 |
| | | 0.180 | 4.57 | | 0.275 | 6.98 | | | | | 10 | 0.81 |
| C5776 RG 6/U Type UL CL2, CATV, CM c(UL) CM, (UL) or (ETL)  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +95% Aluminum Braid 10.5 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 |
| | | 0.180 | 4.57 | | 0.275 | 6.98 | | | | | 10 | 0.81 |

Data subject to change.



RG 6/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B869

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:





- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- CATV
- Direct burial

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | | |
|---|--|---------------------|------|---|--------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|----|------|-----|------|-----|------|-----|------|------|------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | | |
| C5785 RG 6/U Type Quad-Shield UL CL2, CATV, CM c(UL) CM  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | (2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.7 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 | | | | | | | | | | | |
| | | 0.180 | 4.57 | | 0.292 | 7.42 | | | | | 10 | 0.81 | 50 | 1.46 | 100 | 2.05 | 200 | 2.83 | 500 | 4.53 | 1000 | 6.59 | 1450 |
| C5889 RG 6/U Type Riser Quad-Shield UL CL2R, CATVR, CMR c(UL) CM  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | (2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.7 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 | | | | | | | | | | | |
| | | 0.180 | 4.57 | | 0.292 | 7.42 | | | | | 10 | 0.81 | 50 | 1.46 | 100 | 2.05 | 200 | 2.83 | 500 | 4.53 | 1000 | 6.59 | 1450 |
| C5777 RG 6/U Type UL CL2, CATV, CM c(UL) CM  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +61% Tinned Copper Braid 6.5 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 | | | | | | | | | | | |
| | | 0.180 | 4.57 | | 0.275 | 6.98 | | | | | 10 | 0.81 | 50 | 1.46 | 100 | 2.05 | 200 | 2.83 | 500 | 4.53 | 1000 | 6.59 | 1450 |
| C5804 RG 6/U Type MoistureGuard™ Direct Burial, Flooded  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +60% Aluminum Braid w/water block 9.0 Ω/Mft. | Black PE | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 | | | | | | | | | | | |
| | | 0.180 | 4.57 | | 0.275 | 6.98 | | | | | 10 | 0.81 | 50 | 1.46 | 100 | 2.05 | 200 | 2.83 | 500 | 4.53 | 1000 | 6.59 | |

Data subject to change.

RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B3
- Copper-clad steel per ASTM B869

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Tinned copper or aluminum braid
- Flexfoil® shield

Jacket:


- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- LAN cable
- CATV
- Direct broadcast satellite

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|--|---------------------|------|--|--------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C5822 RG 6/U Dual-Type DBS UL CL2, CATV, CM c(UL) CM  | 18 Ga. Solid Copper-Clad Steel 28.9 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +60% Aluminum Braid 9.0 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 |
| | | 0.180 | 4.57 | | 0.267 | 6.86 | | | | | x | x |
| | | | | | | | | | | | 50 | 1.46 |
| | | | | | | | | | | | 100 | 2.05 |
| | | | | | | | | | | | 200 | 2.83 |
| | | | | | | | | | | | 500 | 4.53 |
| | | | | | | | | | | | 1000 | 6.59 |
| | | | | | | | | | | | 1450 | 8.10 |
| | | | | | | | | | | | 1800 | 8.80 |
| | | | | | | | | | | | 2200 | 10.10 |
| | | | | | | | | | | | 3000 | 11.79 |

Data subject to change.



RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B3 or copper-clad steel per ASTM B869
- Twisted pair color code: black and red

Insulation/Core:

- Foam polyethylene (PE)
- Foam fluoropolymer (FEP)

Shield:

- Tinned copper or aluminum braid
- Flexfoil® shield

Jacket:








- Premium-grade PVC compound
- Flexguard® PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- CATV
- CCTV†
- DBS
- Drop cable
- FM broadcast
- HDTV
- Digital video

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|--|---------------------|-------|--|----------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C5778 RG 6/U Type UL CL2, CATV, CM c(UL) CM  | 18 Ga. Solid Bare Copper 6.5 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +61% Tinned Copper Braid 6.5 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.26 |
| | | 0.180 | 4.57 | | 0.275 | 6.98 | | | | | 10 | 0.81 |
| C3523 RG 6/U Type Plenum UL CL2P, CMP c(UL) CMP  | 18 Ga. Solid Bare Copper 6.5 Ω/Mft. | Fluoropolymer | | 100% Flexfoil® +80% Tinned Copper Braid 2.3 Ω/Mft. | Flexguard® PVC | | 16.40 | 52.50 | 83 | 75 | 1 | 0.30 |
| | | 0.170 | 4.32 | | 0.232 | 5.89 | | | | | 10 | 0.66 |
| C3521 RG 6/U Type Plenum UL CL2P, CMP c(UL) CMP  | 18 Ga. Solid Bare Copper 6.5 Ω/Mft. | Fluoropolymer | | Flexfoil® Bonded +95% Tinned Copper Braid 2.3 Ω/Mft. | Flexguard® PVC | | 16.00 | 52.50 | 83 | 75 | 1 | 0.30 |
| | | 0.170 | 4.32 | | 0.232 | 5.89 | | | | | 10 | 0.66 |
| C3524 RG 6/U Type Plenum UL CL2P, CMP c(UL) CMP  | 18 Ga. Solid Copper-Clad Steel 28.6 Ω/Mft. | Fluoropolymer | | Flexfoil® Bonded +80% Aluminum Braid 9.0 Ω/Mft. | Flexguard® PVC | | 16.00 | 52.50 | 83 | 75 | 1 | 0.30 |
| | | 0.170 | 4.32 | | 0.232 | 5.89 | | | | | 10 | 0.66 |
| C3525 RG 6/U Type Quad Shield Plenum UL CL2P, CMP c(UL) CMP  | 18 Ga. Solid Copper-Clad Steel 28.6 Ω/Mft. | Fluoropolymer | | (2) 100% Flexfoil® (1) 60% (2) 40% Aluminum Braids 5.3 Ω/Mft. | Flexguard® PVC | | 16.00 | 52.50 | 83 | 75 | 1 | 0.30 |
| | | 0.170 | 4.32 | | 0.264 | 6.70 | | | | | 10 | 0.66 |
| C8029+ RG 6/U Type +18 AWG Unshielded Pair UL CL2, CM c(UL) CM  | 18 Ga. Solid Bare Copper Coax | Foam PE | | 100% Flexfoil® 95% Bare Copper Braid 1.9 Ω/Mft. | PVC | | 16.20 | 53.15 | 83 | 75 | 1 | 0.20 |
| | | 0.180 | 4.57 | | 0.270 | 6.86 | | | | | 10 | 0.72 |
| | 18 AWG (7/26) Unshielded Pair | Premium PVC | | Unshielded Pair | 0.493 | 12.52 | 50 | 1.48 | | | | |
| 0.010 | 0.25 | 200 | 2.70 | | | | | | | | | |
| C8031+ RG 6/U Type +18 AWG Unshielded Pair UL CMP c(UL) CMP  | 18 AWG Solid Bare Copper Coax | Fluoropolymer | | 95% Bare Copper Braid 3.5 Ω/Mft. | Flexguard® PVC | | 16.30 | 53.48 | 83 | 75 | 1 | 0.30 |
| | | 0.170 | 0.432 | | 0.232 | 5.89 | | | | | 10 | 0.66 |
| | 18 AWG (7/26) Unshielded Pair | Halar | | Unshielded Pair | 0.416 | 10.57 | 50 | 1.50 | | | | |
| 0.006 | 0.15 | 200 | 3.10 | | | | | | | | | |
| | | | | | | | | | | | 500 | 5.00 |
| | | | | | | | | | | | 1000 | 7.30 |

Data subject to change.



RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:






- Premium-grade PVC compound
- Flexguard® PVC compound or PVDF

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Broadcast grade headend
- Serial Digital Interface (SDI)
- CATV
- DBS
- Drop cable
- HDTV
- CCTV†
- Digital video

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|---|---------------------|------|---|------------------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| 395011 UL CMR c(UL) CMG  | 18 Ga. Solid Bare Copper 6.5 Ω/Mft. | Foam PE | | Dual Foil + 95% Tinned Copper Braid Shield 2.8 Ω/Mft. | Flame-Retardant PVC | | 16.20 | 53.10 | 83 | 75 | 1 | 0.24 |
| | | 0.180 | 4.57 | | 0.275 | 6.91 | | | | | 3.6 | 0.45 |
| 495035† UL CMP c(UL) CMP 75°C  | 18 Ga. Solid Bare Copper 6.7 Ω/Mft. | Fluoropolymer | | 95% Bare Copper Braid 2.0 Ω/Mft. | Flexguard® PVC | | 16.20 | 52.50 | 83 | 75 | 1 | 0.21 |
| | | 0.170 | 4.32 | | 0.232 | 5.89 | | | | | 10 | 0.65 |
| 495036† UL CMP c(UL) CMP 105°C  | 18 Ga. Solid Bare Copper 6.7 Ω/Mft. | Fluoropolymer | | 95% Bare Copper Braid 2.0 Ω/Mft. | PVDF | | 16.10 | 53.00 | 83 | 75 | 1 | 0.21 |
| | | 0.170 | 4.32 | | 0.232 | 5.89 | | | | | 10 | 0.65 |
| 495025 UL CMP c(UL) CMP  | 18 Ga. Solid Bare Copper 6.5 Ω/Mft. | Fluoropolymer | | Dual Foil + 95% Tinned Copper Braid Shield 2.8 Ω/Mft. | Flexguard® PVC | | 16.10 | 53.00 | 83 | 75 | 1 | 0.24 |
| | | 0.170 | 4.32 | | 0.227 | 5.77 | | | | | 3.6 | 0.45 |
| C3531 UL CMP, CL2P, 75°C  | 18 Ga. Solid Bare Copper 28.9 Ω/Mft. | Fluoropolymer | | Dual Foil + 77% Aluminum Braid Shield 5.0 Ω/Mft. | Flexguard® PVC | | 15.5 | 51.02 | 83 | 75 | 1 | 0.35 |
| | | 0.170 | 4.32 | | 0.238 | 6.05 | | | | | 10 | 0.66 |

Data subject to change.



RG 6/U Multi-Channel Digital/Precision, Riser Rated

75 Ohm High-End Coaxial Cables for Exacting Video, Analog, Digital & Monitor Applications

Product Construction:

Conductors:

- Copper per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Dual Flexfoil® shield
- Tinned copper braid

Jacket:




- Outer jacket: black matte finish thermoplastic elastomer (TPE)
- Inner jacket: flame-retardant PVC; see color codes below

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Analog/Digital Video Broadcast-Grade Monitor
- HDTV

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|---|---------------------|------|--|---|-------|---------------------|-------|-------------------------------|-------------------------|--|--|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| 395011-3 UL CMR c(UL) CMG  | 18 Ga. 3/Cond. Solid Bare Copper 6.5 Ω/Mft. | Foam PE | | Bi-Metal Foil + 95% Tinned Copper Braid Shield (2.8 Ohm) | Inner: Flame-Retardant PVC Outer: TPE matte | | 16.20 | 53.20 | 83 | 75 | 1 3.6 71.5 270 540 1500 | 0.24 0.45 1.60 2.97 4.25 7.33 |
| | | 0.180 | 4.57 | | 0.685 | 17.40 | | | | | | |
| 395011-4 UL CMR c(UL) CMG  | 18 Ga. 4/Cond. Solid Bare Copper 6.5 Ω/Mft. | Foam PE | | Bi-Metal Foil + 95% Tinned Copper Braid Shield (2.8 Ohm) | Inner: Flame-Retardant PVC Outer: TPE matte | | 16.20 | 53.20 | 83 | 75 | 1 3.6 71.5 270 540 1500 | 0.24 0.45 1.60 2.97 4.25 7.33 |
| | | 0.180 | 4.57 | | 0.755 | 19.18 | | | | | | |
| 395011-5 UL CMR c(UL) CMG  | 18 Ga. 5/Cond. Solid Bare Copper 6.5 Ω/Mft. | Foam PE | | Bi-Metal Foil + 95% Tinned Copper Braid Shield (2.8 Ohm) | Inner: Flame-Retardant PVC Outer: TPE matte | | 16.20 | 53.20 | 83 | 75 | 1 3.6 71.5 270 540 1500 | 0.24 0.45 1.60 2.97 4.25 7.33 |
| | | 0.180 | 4.57 | | 0.860 | 21.85 | | | | | | |

Data subject to change.

Inner Jacket Color Code Chart

| Ordering Suffix | COLOR |
|-----------------|--------|
| 1 | Red |
| 2 | Green |
| 3 | Blue |
| 4 | White |
| 5 | Yellow |

Note: 395011-3 will have the first three colors, 395011-4 will have the first four colors and 395011-5 will have all five colors.

RG 8/U Type

Product Construction:

Conductors:

- Copper per ASTM B3

Insulation/Core:

- Solid and cellular polyethylene

Shield:

- Tinned or bare copper braid
- Flexfoil® shield

Jacket:





- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|---|---------------------|------|--|--------------|-------|---------------------|------|-------------------------------|--|---|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C1108A RG 8/U Mini Type UL CL2, CM CSA CMG 1354  | 16 Ga. (19/28) Bare Copper 4.2 Ω/Mft. | Foam PE | | 95% Bare Copper Braid 3.3 Ω/Mft. | PVC | | 25.30 83.01 | 80 | 50 | 1 10 50 100 200 500 1000 | 0.26 0.98 2.30 3.30 4.90 8.50 14.30 | |
| | | 0.155 | 3.94 | | 0.242 | 6.15 | | | | | | |
| C1154 RG 8/U Type JAN-C-17A TYPE 1354  | 13 Ga. (7/21) Bare Copper 1.9 Ω/Mft. | Solid PE | | 95% Bare Copper Braid 1.2 Ω/Mft. | PVC | | 29.50 96.79 | 66 | 52 | 1 10 50 100 200 500 1000 | 0.16 0.56 1.30 1.90 2.80 4.70 7.40 | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | | |
| C1198 RG 8/U Type 1354  | 11 Ga. (19/24) Bare Copper 1.9 Ω/Mft. | Foam PE | | 95% Bare Copper Braid 1.1 Ω/Mft. | PVC | | 26.00 85.31 | 78 | 50 | 1 10 50 100 200 500 1000 | 0.17 0.57 1.20 1.80 2.70 4.70 7.10 | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | | |
| C1180 RG 8/U Type Air Core  | 9½ Ga. Solid Bare Copper 0.90 Ω/Mft. | Semi-Solid PE | | 100% Flexfoil® Bonded +88% Tinned Copper Braid 1.8 Ω/Mft. | PVC | | 24.60 80.71 | 84 | 50 | 1 10 50 100 200 500 1000 | 0.13 0.40 0.90 1.30 1.80 3.00 4.50 | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | | |

Data subject to change.



RG 8/U Type Thicknet/Trunk Cable

50 Ohm IEEE 802.3 and ISO/IEC 8802.3 10 Base 5 LAN and Computer Cables

Product Construction:

Conductors:

- Copper per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)
- Foam fluoropolymer (FEP)

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:



- Premium PVC compound
- Premium PVDF compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- LAN & data transmission computer cables
- Thicknet/trunk cable – IEEE 802.3 and ISO/IEC 8802.3 10 base 5 LAN computer cables

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|---|---------------------|------|--|----------------------------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| 397001 RG 8/U Type THICKNET DEC 17-000451-00 UL CM c(UL)  | 12 Ga. Solid Bare Copper 1.42 Ω/Mft. | Foam PE | | Quad Shield Dual Flexfoil® 94% Tinned Copper Braid + Dual Flexfoil® 94% Tinned Copper Braid 1.52 Ω/Mft. | Yellow Flame-Retardant PVC | | 26.00 | 85.30 | 78 | 50 | 1 | 0.17 |
| | | 0.245 | 6.22 | | 0.405 | 10.29 | | | | | 5 | 0.37 |
| 497001 RG 8/U Type THICKNET DEC 17-000324-00 UL CMP c(UL)  | 12 Ga. Solid Bare Copper 1.42 Ω/Mft. | Fluoropolymer | | Quad Shield Dual Flexfoil® 94% Tinned Copper Braid + Dual Flexfoil® 94% Tinned Copper Braid 1.52 Ω/Mft. | Orange PVDF | | 25.00 | 82.00 | 84 | 50 | 1 | 0.16 |
| | | 0.245 | 6.22 | | 0.375 | 9.53 | | | | | 5 | 0.35 |
| | | | | | | | | | | | 10 | 0.51 |
| | | | | | | | | | | | 50 | 1.19 |
| | | | | | | | | | | | 100 | 1.75 |
| | | | | | | | | | | | 200 | 2.61 |
| | | | | | | | | | | | 400 | 3.97 |
| | | | | | | | | | | | 700 | 5.65 |
| | | | | | | | | | | | 900 | 6.67 |
| | | | | | | | | | | | 1000 | 7.14 |

Data subject to change.

RG 11/U Type

Product Construction:

Conductors:

- Copper per ASTM B3
- Copper-clad steel per ASTM B869

Insulation/Core:

- Solid and foam polyethylene (PE)

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:





- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast digital video
- MATV
- CATV
- Drop cable
- Outdoor use

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | | |
|--|--|---------------------|------|--|--------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|----|------|-----|------|-----|------|-----|------|------|------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | | |
| C1160 RG 11/U Type JAN-C-17A Type  | 18 Ga. (7/26) Tinned Copper 6.1 Ω/Mft. | Solid PE | | 95% Bare Copper Braid 1.2 Ω/Mft. | PVC | | 20.50 | 67.26 | 66 | 75 | 1 | 0.20 | | | | | | | | | | | |
| | | 0.285 | 6.55 | | 0.400 | 10.16 | | | | | 10 | 0.70 | 50 | 1.30 | 100 | 2.00 | 200 | 2.90 | 500 | 4.70 | 1000 | 7.10 | |
| C5025 RG 11/U Type  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Foam PE | | 97% Bare Copper Braid 1.2 Ω/Mft. | Black PE | | 16.20 | 53.15 | 83 | 75 | 1 | 0.30 | | | | | | | | | | | |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | 10 | 0.70 | 50 | 1.00 | 100 | 1.50 | 200 | 2.20 | 500 | 3.70 | 1000 | 5.30 | 1450 |
| C5029 RG 11/U Type UL CL2, CM c(UL) CM  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +61% Tinned Copper Braid 3.0 Ω/Mft. | PVC | | 16.20 | 53.15 | 85 | 75 | 1 | 0.30 | | | | | | | | | | | |
| | | 0.280 | 7.11 | | 0.395 | 10.03 | | | | | 10 | 0.70 | 50 | 0.90 | 100 | 1.30 | 200 | 1.90 | 500 | 3.00 | 1000 | 4.40 | 1450 |
| C5034 RG 11/U Type 1354  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +40% Aluminum Braid 5.3 Ω/Mft. | PVC | | 16.20 | 53.15 | 85 | 75 | 1 | 0.30 | | | | | | | | | | | |
| | | 0.280 | 7.11 | | 0.395 | 10.03 | | | | | 10 | 0.70 | 50 | 0.90 | 100 | 1.30 | 200 | 1.90 | 500 | 3.00 | 1000 | 4.40 | |

Data subject to change.



RG 11/U Type

Product Construction:

Conductor:

- Copper per ASTM B3
- Copper-clad steel per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)
- Foam fluoropolymer (FEP)

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:




- Premium PVC compound or PVDF compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast digital video
- MATV
- CATV
- Drop cable

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|--|---------------------|------|---|--------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C5039 RG 11/U Type UL CL2, CATV, CM CSA CMG 1354  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +60% Aluminum Braid 4.6 Ω/Mft. | PVC | | 16.20 | 53.15 | 85 | 75 | 1 | 0.30 |
| | | 0.280 | 7.11 | | 0.395 | 10.03 | | | | | 10 | 0.70 |
| C5044 RG 11/U Type Quad-Shield UL CL2, CATV, CM CSA CMG 1354  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Foam PE | | (2) 100% Flexfoil® 1st Bonded (1) 61% (2) 40% Aluminum Braids 3.4 Ω/Mft. | PVC | | 16.20 | 53.15 | 85 | 75 | 1 | 0.30 |
| | | 0.280 | 7.11 | | 0.405 | 10.29 | | | | | 10 | 0.70 |
| C3528 RG 11/U Type Plenum UL CL2P, CMP c(UL) CMP CATVP  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Fluoropolymer | | 100% Flexfoil® +60% Aluminum Braids 4.6 Ω/Mft. | PVDF | | 16.00 | 52.50 | 82 | 75 | 1 | 0.15 |
| | | 0.280 | 7.11 | | 0.351 | 8.92 | | | | | 10 | 0.47 |

Data subject to change.

RG 11/U Type

Product Construction:

Conductor:

- Stranded or solid copper per ASTM B3
- Copper-clad steel per ASTM B869

Insulation/Core:

- Foam polyethylene (PE)
- Foam fluoropolymer (FEP)

Shield:

- Bare copper or aluminum braid
- Flexfoil® shield

Jacket:


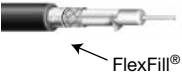
- Premium fluoropolymer (PVDF) compound or premium polyethylene (PE) compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast/digital video
- MATV
- CATV
- Drop cable
- HDTV
- Direct burial

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|--|---------------------|------|---|--------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C3529 RG 11/U Type Quad-Shield Plenum UL CL2P, CMP c(UL) CMP CATVP  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Fluoropolymer | | (2) 100% Flexfoil® (1) 60% (2) 40% Aluminum Braids 3.4 Ω/Mft. | PVDF | | 16.00 | 52.50 | 82 | 75 | 1 | 0.15 |
| | | 0.280 | 7.11 | | 0.372 | 9.45 | | | | | | 10 |
| C5043 RG 11/U Type MoistureGuard™ Direct Burial, Flooded  | 14 Ga. Solid Copper-Clad Steel 11.4 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded +60% Aluminum Braid w/water block 5.3 Ω/Mft. | Black PE | | 16.20 | 53.15 | 85 | 75 | 1 | 0.30 |
| | | 0.280 | 7.11 | | 0.395 | 10.03 | | | | | | 10 |
| | | | | | | | | | | | 50 | 0.90 |
| | | | | | | | | | | | 100 | 1.30 |
| | | | | | | | | | | | 200 | 1.90 |
| | | | | | | | | | | | 500 | 3.00 |
| | | | | | | | | | | | 1000 | 4.40 |

Data subject to change.



RG 11/U Type Serial Digital Interface (SDI) Precision Cable

Extended-Distance, 75 Ohm High-End Coaxial Cables for Exacting Video, Analog & Digital Applications

Product Construction:

Conductor:

- Copper per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)
- Foam fluoropolymer (FEP)

Shield:

- Bare copper or tinned copper
- Flexfoil® shield

Jacket:






- Premium PVC compound or fluoropolymer

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast-grade Serial Digital Interface (SDI)
- Analog/digital video
- MATV
- CATV
- CCTV†
- Drop cable
- HDTV

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|--|---------------------|------|--|------------------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| 395058† RG 11/U Type UL CM c(UL) CMG  | 14 Ga. Solid Bare Copper 2.6 Ω/Mft. | Foam PE | | 95% Bare Copper Braid 1.2 Ω/Mft. | Flame-Retardant PVC | | 16.20 | 52.50 | 84 | 75 | 1 | 0.17 |
| | | 0.285 | 7.24 | | 0.405 | 10.29 | | | | | 10 | 0.35 |
| 395029 RG 11/U Type UL CMR c(UL) CMG  | 14 Ga. Solid Bare Copper 2.6 Ω/Mft. | Foam PE | | Dual Flexfoil® + 95% Tinned Copper Braid 1.5 Ω/Mft. | Flame-Retardant PVC | | 16.20 | 53.10 | 83 | 75 | 1 | 0.15 |
| | | 0.280 | 7.11 | | 0.405 | 10.29 | | | | | 3.6 | 0.28 |
| 495015† RG 11/U Type UL CMP c(UL) CMP  | 14 Ga. Solid Bare Copper 2.6 Ω/Mft. | Fluoropolymer | | 95% Bare Copper Braid 1.2 Ω/Mft. | PVDF | | 16.20 | 52.50 | 84 | 75 | 1 | 0.17 |
| | | 0.280 | 7.11 | | 0.351 | 8.92 | | | | | 10 | 0.35 |
| 495016† RG 11/U Type UL CMP c(UL) CMP  | 14 Ga. Solid Bare Copper 2.6 Ω/Mft. | Fluoropolymer | | Dual Flexfoil® + 60% AL Braid 3.0 Ω/Mft. | PVDF | | 16.20 | 53.10 | 84 | 75 | 1 | 0.15 |
| | | 0.280 | 7.11 | | 0.351 | 8.92 | | | | | 10 | 0.40 |
| 495027 RG 11/U Type UL CMP c(UL) CMP  | 14 Ga. Solid Bare Copper 2.6 Ω/Mft. | Fluoropolymer | | Dual Flexfoil® + 95% Tinned Copper Braid Shield 1.5 Ω/Mft. | PVDF | | 16.20 | 53.10 | 84 | 75 | 1 | 0.12 |
| | | 0.280 | 7.11 | | 0.348 | 8.84 | | | | | 3.6 | 0.24 |

Data subject to change.

RG 58/U Type

Product Construction:

Conductors:

- Copper per ASTM B3
- Tinned copper per ASTM B33

Insulation/Core:

- Solid and foam polyethylene (PE)
- Solid and foam fluoropolymer (FEP)

Shield:

- Tinned copper braid

Jacket:





- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast
- LAN & data transmission

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|---|---------------------|------|--|--------------------------|------|---------------------|------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C1155 RG 58 C/U Type MIL-C-17G Type  | 20 Ga. (19/.0071) Tinned Copper 10.8 Ω/Mft. | Solid PE | | 95% Tinned Copper Braid 4.3 Ω/Mft. | Non-Contaminating PVC | | 30.80 101.05 | | 66 | 50 | 1 | 0.42 |
| | | 0.116 | 2.95 | | 0.195 | 4.95 | | | | | 10 | 1.50 |
| C1166 RG 58/U Type JAN-C-17A Type 1354  | 20 Ga. Solid Bare Copper 10.1 Ω/Mft. | Solid PE | | 95% Tinned Copper Braid 4.3 Ω/Mft. | PVC | | 30.00 98.43 | | 66 | 50 | 1 | 0.40 |
| | | 0.116 | 2.95 | | 0.195 | 4.95 | | | | | 10 | 1.20 |
| C1188 RG 58 A/U Type UL CL2, CM CSA CMG 1354  | 20 Ga. (19/32) Tinned Copper 9.5 Ω/Mft. | Foam PE | | 95% Tinned Copper Braid 4.3 Ω/Mft. | PVC | | 26.00 85.31 | | 78 | 50 | 1 | 0.45 |
| | | 0.114 | 2.90 | | 0.195 | 4.95 | | | | | 10 | 1.42 |
| C3519 RG 58/U Type Plenum UL CL2P, CMP c(UL) CMP  | 19 Ga. Solid Bare Copper 8.1 Ω/Mft. | Fluoropolymer | | 95% Tinned Copper Braid 5.5 Ω/Mft. | Flexguard® PVC | | 25.00 82.00 | | 82 | 50 | 1 | 0.40 |
| | | 0.102 | 2.59 | | 0.161 | 4.09 | | | | | 10 | 1.30 |

Data subject to change.



RG 59/U Type

Product Construction:

Conductors:

- Copper per ASTM B3
- Copper-clad steel per ASTM B869
- Twisted pair color code: black and red

Insulation/Core:

- Solid and cellular polyethylene (PE) or foam fluoropolymer (FEP)

Shield:

- Bare copper braid

Jacket:








- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- CATV
- MATV
- CCTV†
- Local Area Network
- Digital video
- Monitor/VDT display

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|---|---------------------|------|-------------------------------------|-----------------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C1102 RG 59/U Type  | 20 Ga. Solid Copper-Clad Steel 45.9 Ω/Mft. | Foam PE | | 95% Bare Copper Braid 3.5 Ω/Mft. | Black PE | | 17.30 | 56.76 | 82 | 75 | 1 | 0.26 |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | 10 | 0.82 |
| C1104 RG 59/U Type 1354  | 22 Ga. Solid Copper-Clad Steel 73.4 Ω/Mft. | Solid PE | | 95% Bare Copper Braid 2.6 Ω/Mft. | PVC | | 20.50 | 67.26 | 66 | 73 | 1 | 0.41 |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | 10 | 0.99 |
| C1135 RG 59/U Type UL CL2, CATV, CM CSA CMG 1354  | 22 Ga. Solid Copper-Clad Steel 73.4 Ω/Mft. | Foam PE | | 95% Bare Copper Braid 2.6 Ω/Mft. | PVC | | 16.30 | 53.48 | 78 | 80 | 1 | 0.42 |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | 10 | 0.92 |
| C1103† RG 59/U Type UL CL2, CATV, CM CSA CMG 1354  | 22 Ga. (7/30) Bare Copper 14.8 Ω/Mft. | Foam PE | | 95% Bare Copper Braid 2.6 Ω/Mft. | PVC | | 17.00 | 55.78 | 78 | 76 | 1 | 0.26 |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | 10 | 0.91 |
| C1142† RG 59/U Type UL CL2, CATV, CM CSA CMG 1354  | 20 Ga. Solid Bare Copper 10.1 Ω/Mft. | Foam PE | | 95% Bare Copper Braid 2.6 Ω/Mft. | PVC | | 16.20 | 53.15 | 78 | 71 | 1 | 0.25 |
| | | 0.146 | 3.71 | | 0.234 | 5.94 | | | | | 10 | 0.78 |
| C1106 RG 59/U Type MIL-C-17D Type 1354  | 23 Ga. Solid Copper-Clad Steel 68.5 Ω/Mft. | Solid PE | | 95% Bare Copper Braid 2.6 Ω/Mft. | Non-Contaminating PVC | | 21.00 | 68.90 | 66 | 73 | 1 | 0.44 |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | 10 | 1.02 |
| C8030† RG 59/U Type +18 AWG Unshielded Pair UL CMP c(UL) CMP  | 20 AWG Solid BC Coax 18 AWG (7/26) Unshielded Pair | FEP | | 95% Bare Copper Braid | Flexguard® PVC | | 16.30 | 53.48 | 83 | 75 | 1 | 0.78 |
| | | 0.135 | 3.43 | | 0.200 | 5.08 | | | | | 10 | 1.90 |
| | | PVC | | Unshielded Pair | X | X | | | | | 100 | 2.80 |
| | | 0.006 | 0.15 | | 0.383 | 9.73 | | | | | 200 | 4.10 |
| | | | | | | | | | | | 500 | 6.82 |
| | | | | | | | | | | | 1000 | 9.64 |

Data subject to change.



RG 59/U Type

Product Construction:

Conductors:

- Copper per ASTM B3
- Copper-clad steel per ASTM B869
- Twisted pair color code: black and red

Insulation/Core:

- Solid and foam polyethylene (PE)

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:



- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CATV
- CCTV†
- Local Area Network
- Monitor/VDT display
- Analog video
- Digital video

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|--|---------------------|------|--|--------------|-------|---------------------|----------|-------------------------------|--|---|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C1110 RG 59/U Type  | 22 Ga. Solid Copper-Clad Steel 73.4 Ω/Mft. | Solid PE | | 70% Bare Copper Braid 4.5 Ω/Mft. | PVC | | 22.00 72.18 | 66 73 | 73 | 1 10 50 100 200 500 1000 1450 1800 2200 3000 | 0.41 0.99 2.38 3.49 5.09 8.43 13.03 15.69 17.48 19.33 22.57 | |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | | |
| C8025† RG 59/U Type +22 AWG Shielded Pair UL CL2, CM c(UL) CM  | 22 AWG (7/30) Bare Copper Coax 22 AWG (7/30) Shielded Pair | Foam PE | | 95% Bare Copper Braid 100% Flexfoil® Al/PP Shielded | PVC | | 17.00 57.78 | 78 76 | 76 | 1 10 50 100 200 500 1000 | 0.26 0.91 2.90 3.00 4.33 7.03 10.64 | |
| | | 0.144 | 3.66 | | 0.242 | 6.147 | | | | | | |
| | | Premium PVC | | | 0.445 | 11.30 | | | | | | |
| | | 0.013 | 0.33 | | | | | | | | | |

Data subject to change.



RG 59/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B869

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Aluminum braid
- Flexfoil® shield

Jacket:





- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- CATV
- MATV
- Drop cable
- Local Area Network
- Monitor/VDT display

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|--|---------------------|------|--|--------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C5770 RG 59/U Type UL CL2, CM CSA CMG   | 22 Ga. Solid Copper-Clad Steel 73.4 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded + 40% Aluminum Braid 11.0 Ω/Mft. | PVC | | 16.00 | 52.50 | 78 | 80 | 1 | 0.50 |
| | | 0.144 | 3.66 | | 0.231 | 5.87 | | | | | 10 | 1.00 |
| C5780 RG 59/U Type MATV UL CL2, CM CSA CMG   | 20 Ga. Solid Copper-Clad Steel 45.9 Ω/Mft. | Foam PE | | 100% Flexfoil® Bonded + 40% Aluminum Braid 11.0 Ω/Mft. | PVC | | 16.20 | 53.15 | 85 | 75 | 1 | 0.60 |
| | | 0.144 | 3.66 | | 0.234 | 5.94 | | | | | 10 | 1.20 |
| | | | | | | | | | | | 50 | 1.95 |
| | | | | | | | | | | | 100 | 2.70 |
| | | | | | | | | | | | 200 | 3.70 |
| | | | | | | | | | | | 500 | 5.70 |
| | | | | | | | | | | | 1000 | 8.12 |
| | | | | | | | | | | | 1450 | 9.78 |
| | | | | | | | | | | | 1800 | 10.89 |
| | | | | | | | | | | | 2200 | 12.04 |
| | | | | | | | | | | | 3000 | 14.06 |

Data subject to change.

RG 59/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B869
- Copper per ASTM B3
- Twisted pair color code: black and red

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Bare copper or aluminum braid
- Flexfoil® shield

Jacket:





- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CCTV†
- Local Area Network
- Monitor/VDT display
- Direct burial

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | | |
|---|---|---------------------|-------|---|----------------------------------|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|------|------|------|------|------|------|------|------|------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | | |
| C3526 RG 59/U Type Plenum UL CL2P, CMP c(UL) CMP  | 20 Ga. Solid Copper-Clad Steel 45.9 Ω/Mft. | Fluoropolymer | | 100% Flexfoil® +80% Aluminum Braid 10.7 Ω/Mft. | Flexguard® PVC | | 16.00 | 52.50 | 84 | 75 | 1 | 0.34 | | | | | | | | | | |
| | | 0.135 | 3.429 | | 0.202 | 5.13 | | | | | 10 | 1.07 | 50 | 1.77 | 100 | 2.50 | 200 | 3.53 | 500 | 5.98 | 1000 | 8.45 |
| C3500 RG 59/U Type Plenum UL CL2P, CMP c(UL) CMP  | 20 Ga. Solid Copper-Clad Steel 45.9 Ω/Mft. | Fluoropolymer | | 95% Bare Copper Braid 1.9 Ω/Mft. | Flexguard® PVC | | 16.50 | 54.14 | 83 | 75 | 1 | 0.78 | | | | | | | | | | |
| | | 0.135 | 3.429 | | 0.201 | 5.11 | | | | | 10 | 1.90 | 50 | 1.98 | 100 | 2.80 | 200 | 4.10 | 500 | 6.82 | 1000 | 9.64 |
| C8027† RG 59/U Type +18 AWG Shielded Pair UL CL2, CM c(UL) CM  | 22 AWG (7/30) Bare Copper Coax 18 AWG (16/30) Shielded Pair | Foam PE | | 95% Bare Copper Braid | PVC | | 17.00 | 55.78 | 78 | 76 | 1 | 0.26 | | | | | | | | | | |
| | | 0.144 | 3.66 | | 125% Flexfoil® Al/PP Shielded | 0.242 | | | | | 6.15 | 10 | 0.91 | 50 | 2.09 | 100 | 3.00 | 200 | 4.33 | 500 | 7.03 | 1000 |
| | | Premium PVC | | 0.480 | | 12.19 | | | | | 1000 | 10.64 | | | | | | | | | | |
| | | 0.016 | 0.41 | | | | | | | | | | | | | | | | | | | |
| C8028† RG 59/U Type +18 AWG Unshielded Pair UL CL2, CM c(UL) CM  | 20 AWG Solid Bare Copper Coax 18 AWG (7/26) Unshielded Pair | Foam PE | | 95% Bare Copper Braid | PVC | | 16.20 | 53.15 | 78 | 71 | 1 | 0.25 | | | | | | | | | | |
| | | 0.144 | 3.66 | | Unshielded Pair | 0.238 | | | | | 6.05 | 10 | 0.78 | 50 | 1.97 | 100 | 2.70 | 200 | 3.97 | 500 | 6.35 | 1000 |
| | | Premium PVC | | 0.440 | | 11.18 | | | | | 1000 | 9.15 | | | | | | | | | | |
| | | 0.010 | 0.25 | | | | | | | | | | | | | | | | | | | |

Data subject to change.



RG 59/U Serial Digital Interface Cable

75 Ohm High-End Coaxial Cables for Video, Analog & Digital Applications

Product Construction:

Conductors:

- Copper per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)
- Foam fluoropolymer (FEP)

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:




- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast-grade
- MATV
- CATV
- Precision video-analog/digital
- Serial digital interface cable (SDI)

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | | | | | | | | | | |
|---|---|---------------------|------|--|------------------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|-----|------|-----|------|------|------|------|-------|------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' | | | | | | | | | |
| 395025 RG 59/U Type UL CMR c(UL) CMG  | 20 Ga. Solid Bare Copper 10.5 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 3.5 Ω/Mft. | Flame-Retardant PVC | | 16.30 | 53.40 | 83 | 75 | 1 | 0.29 | | | | | | | | | |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | 135 | 2.70 | 270 | 3.80 | 540 | 5.47 | 1500 | 9.30 | 2250 | 11.51 | 3000 |
| 495023 RG 59/U Type UL CMP c(UL) CMP  | 20 Ga. Solid Bare Copper 10.5 Ω/Mft. | Fluoropolymer | | Bi-Metal Foil +95% Tinned Copper Braid Shield 3.2 Ω/Mft. | Flexguard® PVC | | 16.10 | 53.00 | 84 | 75 | 1 | 0.29 | | | | | | | | | |
| | | 0.135 | 3.43 | | 0.199 | 5.05 | | | | | 10 | 1.03 | 50 | 1.88 | 100 | 2.50 | 200 | 3.85 | 400 | 5.53 | 540 |
| 495028+ RG 59/U Type UL CMP c(UL) CMP  | 20 Ga. Solid Bare Copper 10.5 Ω/Mft. | Fluoropolymer | | 95% Bare Copper Braid Shield 2.7 Ω/Mft. | Flexguard® PVC | | 16.00 | 52.50 | 84 | 75 | 1 | 0.24 | | | | | | | | | |
| | | 0.139 | 3.43 | | 0.197 | 5.00 | | | | | 10 | 1.41 | 50 | 1.83 | 100 | 2.64 | 200 | 3.84 | 400 | 5.64 | |

Data subject to change.

RG 59/U (RGB) Multi-Channel Digital/Precision Cable

75 Ohm High-End Coaxial Cables for Video, Analog & Monitor Applications

Product Construction:

Conductors:

- Solid bare copper per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:





- Outer jacket: matte finish thermoplastic elastomer (TPE)
- Inner jacket: flame-retardant PVC

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast
- HDTV
- Video-analog/digital
- Monitor applications

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|---|---------------------|------|--|---|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| RG 59/U SERIAL DIGITAL INTERFACE (SDI), PRECISION COAX, RISER RATED | | | | | | | | | | | | |
| 395025-3 RG 59/U Type UL CMR c(UL) CMG  | 20 Ga. 3/Cond. Solid Bare Copper 10.5 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 3.5 Ω/Mft. | Inner: Flame-Retardant PVC Outer: TPE Matte | | 16.30 | 52.40 | 83 | 75 | 1 | 0.29 |
| | | 0.146 | 3.71 | | 0.610 | 15.49 | | | | | 71.5 | 2.10 |
| 395025-4 RG 59/U Type UL CMR c(UL) CMG  | 20 Ga. 4/Cond. Solid Bare Copper 10.5 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 3.5 Ω/Mft. | Inner: Flame-Retardant PVC Outer: TPE Matte | | 16.30 | 52.40 | 83 | 75 | 1 | 0.29 |
| | | 0.146 | 3.71 | | 0.670 | 17.04 | | | | | 71.5 | 2.10 |
| 395025-5 RG 59/U Type UL CMR c(UL) CMG  | 20 Ga. 5/Cond. Solid Bare Copper 10.5 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 3.5 Ω/Mft. | Inner: Flame-Retardant PVC Outer: TPE Matte | | 16.30 | 52.40 | 83 | 75 | 1 | 0.29 |
| | | 0.146 | 3.71 | | 0.745 | 18.87 | | | | | 71.5 | 2.10 |
| 395025-10 RG 59/U Type UL CMR c(UL) CMG  | 20 Ga. 10/Cond. Solid Bare Copper 10.5 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 3.5 Ω/Mft. | Inner: Flame-Retardant PVC Outer: TPE Matte | | 16.30 | 52.40 | 83 | 75 | 1 | 0.29 |
| | | 0.146 | 3.71 | | 1.110 | 28.19 | | | | | 71.5 | 2.10 |

Data subject to change.



RG 59/U (RGB) Miniature Multi-Channel Precision Cable

75 Ohm High-End Coaxial Cables for Video, Analog & Monitor Applications

Product Construction:

Conductors:

- Solid bare copper per ASTM B3

Insulation/Core:

- Foam polyethylene (PE)

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:




- Outer jacket: matte finish thermoplastic elastomer (TPE)
- Inner jacket: flame-retardant PVC

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast
- HDTV
- Video-analog/digital
- Monitor applications

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|---|---------------------|------|--|---|-------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| RG 59/U (RGB) RISER RATED | | | | | | | | | | | | |
| 395035-3 RG 59/U Type UL CMR c(UL) CMG  | 26 Ga. 3/Cond. Stranded (7/34) Bare Copper 39.7 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 8.6 Ω/Mft. | Inner: Flame-Retardant PVC Outer: TPE Matte | | 17.30 | 56.74 | 78 | 75 | 1 | 0.56 |
| | | 0.089 | 2.26 | | 0.435 | 11.05 | | | | | 10 | 1.48 |
| 395035-4 RG 59/U Type UL CMR c(UL) CMG  | 26 Ga. 4/Cond. Stranded (7/34) Bare Copper 39.7 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 8.6 Ω/Mft. | Inner: Flame-Retardant PVC Outer: TPE Matte | | 17.30 | 56.74 | 78 | 75 | 1 | 0.56 |
| | | 0.089 | 2.26 | | 0.460 | 11.70 | | | | | 10 | 1.48 |
| 395035-5 RG 59/U Type UL CMR c(UL) CMG  | 26 Ga. 5/Cond. Stranded (7/34) Bare Copper 39.7 Ω/Mft. | Foam PE | | Bi-Metal Foil +95% Tinned Copper Braid Shield 8.6 Ω/Mft. | Inner: Flame-Retardant PVC Outer: TPE Matte | | 17.30 | 56.74 | 78 | 75 | 1 | 0.56 |
| | | 0.089 | 2.26 | | 0.480 | 12.19 | | | | | 10 | 1.48 |

Data subject to change.

RG 62/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B869

Insulation/Core:

- Semi-solid polyethylene (PE)
- Foam fluoropolymer (FEP)

Shield:

- Bare copper braid

Jacket:




- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Computer/networks

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|--|---------------------|------|--|--------------------------|------|---------------------|------|-------------------------------|--|--|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C1162 RG 62A/U Type MIL-C-17G Type 1354  | 22 Ga. Solid Copper-Clad Steel 73.4 Ω/Mft. | Semi-Solid PE | | 95% Bare Copper Braid 2.6 Ω/Mft. | Non-Contaminating PVC | | 13.60 44.62 | 84 | 93 | 1 10 50 100 200 500 1000 | 0.38 0.85 1.90 2.70 3.80 5.90 8.70 | |
| | | 0.146 | 3.71 | | 0.242 | 6.15 | | | | | | |
| C1164 RG 62/U Type Computer Cable JAN-C-17A Type UL CL2, CM CSA CMG 1354  | 22 Ga. Solid Copper-Clad Steel 73.4 Ω/Mft. | Semi-Solid PE | | 95% Bare Copper Braid 2.6 Ω/Mft. | PVC | | 13.60 44.62 | 84 | 93 | 1 10 50 100 200 500 1000 | 0.38 0.85 1.90 2.70 3.80 5.90 8.70 | |
| | | 0.146 | 3.66 | | 0.242 | 6.15 | | | | | | |
| C3520 RG 62/U Type Plenum UL CL2P, CMP c(UL) CMP  | 22 Ga. Solid Copper-Clad Steel 54.7 Ω/Mft. | Fluoropolymer | | 95% Bare Copper Braid 1.9 Ω/Mft. | Flexguard® PVC | | 13.00 42.65 | 84 | 93 | 1 10 50 100 200 500 1000 | 0.30 0.90 1.90 2.70 3.80 5.90 8.34 | |
| | | 0.145 | 3.56 | | 0.201 | 5.11 | | | | | | |

Data subject to change.



RG 174/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B869

Insulation/Core:

- Solid polyethylene (PE)

Shield:

- Tinned or bare copper braid

Jacket:


- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|--|---|---------------------|------|---|--------------|------|---------------------|--------|-------------------------------|--------------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C1156 RG 174/U Type  1354 | 26 Ga. (7/34) Copper-Clad Steel 97.0 Ω /Mft. | Solid PE | | 88% Tinned Copper Braid 10.3 Ω /Mft. | PVC | | 30.80 | 101.05 | 66 | 50 | 1 | 1.90 |
| | | 0.060 | 1.52 | | 0.103 | 2.62 | | | | | 10 | 3.30 |
| | | | | | | | | | | | 50 | 5.80 |
| | | | | | | | | | | | 100 | 8.40 |
| | | | | | | | | | | | 200 | 12.50 |
| | | | | | | | | | | | 500 | 21.21 |
| | | | | | | | | | | | 1000 | 34.00 |

Data subject to change.

RG 213/U Type

Product Construction:

Conductors:

- Copper per ASTM B3

Insulation/Core:

- Solid polyethylene (PE)

Shield:

- Bare copper braid

Jacket:


- Premium non-contaminating black PVC

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|---|---------------------|------|--|--------------|------|---------------------|--------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C1176A RG 213/U Type MIL-C-17G Type  | 13 Ga. (7/21) Bare Copper 1.7 Ω/Mft. | Solid PE | | 95% Bare Copper Braid 1.2 Ω/Mft. | PVC | | 30.80 | 101.05 | 66 | 50 | 1 | 0.18 |
| | | | | | | | | | | | 0.285 | 7.24 |
| | | 200 | 3.00 | | 500 | 5.03 | | | | | | |
| | | | | | 1000 | 8.20 | | | | | | |

Data subject to change.



Twinaxial Cables

Product Construction:

Conductors:

- Copper per ASTM B3
- Tinned copper per ASTM B33

Insulation/Core:

- Solid and foam polyethylene (PE)
- Lo-Cap® polypropylene (PPE)

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:

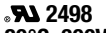

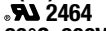

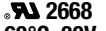

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Programmable Logic Controllers (PLC)
- Data transmission
- Broadcast
- Computer

| CATALOG NUMBER | AWG SIZE NOM. DCR | INSULATION MATERIAL | | SHIELD COVERAGE NOM SHLD DCR | NOMINAL O.D. | | NOMINAL CAPACITANCE | | VELOCITY OF PROPAGATION, % | NOMINAL IMPEDANCE, Ω | NOMINAL ATTENUATION | |
|---|---|--|------|--|--------------|------|---------------------|-------|-------------------------------|-------------------------|---------------------|---------|
| | | INCHES | mm | | INCHES | mm | pF/ft | pF/m | | | MHz | dB/100' |
| C8000 UL CL2  80°C, 300V  | 20 Ga. (7/28) (1) Tinned Copper, (1) Bare Copper 9.5 Ω/Mft. | Solid PE Coded: Natural, Natural | | 100% Flexfoil® +90% Tinned Copper Braid 2.5 Ω/Mft. | PVC | | 15.50 | 50.86 | 66 | 100 | 1 | 0.40 |
| | | 0.022 | 0.56 | | 0.330 | 8.38 | | | | | 10 | 1.10 |
| C8001 UL CL2, CM C(UL) CM  60°C, 300V  | 20 Ga. (7/28) Tinned Copper 9.5 Ω/Mft. | Solid PE Coded: Natural, Blue | | 100% Flexfoil® +57% Tinned Copper Braid 4.1 Ω/Mft. | PVC | | 19.17 | 62.90 | 66 | 78 | 1 | 0.60 |
| | | 0.020 | 0.51 | | 0.242 | 6.15 | | | | | 10 | 2.10 |
| C8014  60°C, 30V  | 22 Ga. (19/34) Tinned Copper 15.0 Ω/Mft. | Lo-Cap® FPE Coded: Black, Yellow | | 100% Flexfoil® +22 AWG Tinned Copper Drain Wire 6.3 Ω/Mft. | PVC | | 8.80 | 28.87 | 78 | 150 | 1 | 0.40 |
| | | 0.051 | 1.30 | | 0.360 | 9.14 | | | | | 10 | 1.20 |

Data subject to change.

Commercial Audio/Video & Home Entertainment Cable 8



General Cable offers a variety of Gepco® and Carol® Brand wire and cable for audio/video and direct burial applications. From field production cable to microphone, snake, guitar and speaker cable, General Cable supports the increasingly demanding entertainment industry.

For extreme hard service, General Cable’s rubber microphone cables offer the ultimate in performance and service life. The rubber designs are highly flexible and designed to lie flat on studio floors, as well as provide high impact and abrasion resistance.

For outdoor and cold weather applications, microphone cable jacketed with Carolprene® provides the ultimate protection against ozone, oil and ultraviolet radiation.

These technically sophisticated cables are required to contain sources of interference and to protect against difficulties where they are unavoidable. In addition to providing the needed electrical characteristics, the cables are properly designed to handle demanding conditions, such as microphone hum, handling noise, crosstalk, electrostatic hum, SCR noise and common ground noise—either on stage, in a studio or at a remote venue.

For more information on these cables or for other special applications, please contact your General Cable sales representative.

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Commercial A/V Solutions

Since 1981, Gepco® has been committed to the development and manufacture of cable and connectivity products for the broadcast and professional A/V markets. Through continual involvement in technology and by listening closely to its customers, Gepco has developed a collection of unique and innovative solutions for the professional broadcast market. Now, Gepco extends this exceptional quality and excellence—that has delivered confidence and performance to the broadcast industry—into commercial applications.

Excellence starts with innovative design. Produced with the same technology and process control utilized in the manufacture of cables for broadcast applications, the **Gepco® Brand Commercial A/V** line provides an unrivaled level of performance to the Commercial A/V Market. With integrated design, manufacturing, and quality control, Gepco delivers exceptional electrical and mechanical specifications to meet or exceed the requirements for the leading-edge audio, video, data and control formats found in Commercial A/V systems.

When demanding Commercial A/V applications require a pure, undiluted signal for exceptional results, Gepco Brand is the solution.



Custom Assembly Capabilities

Gepco's complete range of cable assemblies are made from an extensive line of Gepco Brand audio and video products. Gepco Audio, Video and Custom Assemblies are hand-terminated in the U.S.A. with premium connectors and may be produced in standard or custom configurations.



Cable Types for Almost Any Application

Our audio and video assemblies can be manufactured from almost any of Gepco's broad range of cables and industry-standard connectors. From microphone cables to component video snakes, Gepco provides cable assembly solutions for almost any commercial audio or video application.



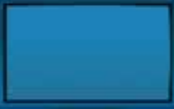
Standard and Custom Capabilities

Each assembly is built to order, therefore, cable assemblies may easily be produced in custom configurations. Custom pin-outs and lengths can be made just as easily as standard configurations. This allows for proper interfacing with a variety of connector options while providing a clean installation devoid of excess cable.



Video Cable

The visual image is the core of any video system. Modern high resolution and High Definition video formats now demand an even greater degree of quality and bandwidth from the cable interconnect system. To bring a higher level of performance to commercial video applications, the Gepco® Brand commercial line of video cables are made using the same techniques and materials used in professional, studio-grade video coax. Every Gepco Brand video cable is built to exacting electrical and mechanical specifications then comprehensively tested and verified. As a result, the video image is transmitted with minimal loss or errors, delivering exceptionally true and clear images. Through precision, Gepco Brand video cables deliver your clearest vision.



| Plenum Cable Solution | Non-Plenum Cable Solution | Description |
|--|---------------------------|--|
| Broadband Coax - CATV - MATV - DBS (Color Code Chart A) | | |
| C3524 | C5886 | RG 6 18 AWG Solid CCS, Bonded Foil, 80% AL Braid CMP/60% AL Braid CMR, PVC Natural CMP/Black CMR |
| C3525 | C5889 | RG 6 18 AWG Solid CCS, Quad-Shield Dual Foil, 60%/40% AL Braid, PVC Natural CMP/Black CMR |
| 495027 | 395029 | RG 11 14 AWG Solid BC, Dual Foil, 95% TC Braid, PVDF Natural CMP/PVC Black or White CMR |
| C3529 | C5044 | RG 11 14 AWG Solid CCS, Quad-Shield Dual Foil, 60%/40% AL Braid, PVDF White CMP/PVC Black CM |
| High Definition Coax - HDTV - Serial Digital Interface - SDI (Color Code Chart B) | | |
| VSD2001TS | VSD2001 | RG 6 18 AWG Solid BC, Foil, 95% TC Braid, PVC White CMP/Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray or White CMR |
| VHD1100TK | VHD1100 | RG 11 14 AWG Solid BC, Foil, 95% TC Braid, PVDF White CMP/PVC Black CMR |
| VPM2000TS | VPM2000 | RG 59 20 AWG Solid BC, Foil, 95% TC Braid, PVC White CMP/Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray or White CMR |
| VDM230TS | VDM230 | Mini 23 AWG Solid BC, Foil, 95% TC Braid, PVC Black or White CMP/Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray or White CMR |
| | VDM250 | Mini 25 (7x33) AWG BC, Foil, 95% TC Braid, PVC Black CMR |
| | VDM250D* | Dual Coax Mini 25 (7x33) AWG BC, Foil, 95% TC Braid, PVC Black (*Not UL Rated) |
| Component Video RGB Coax Cable (Color Code Chart B) | | |
| SV253SP | SV253SR | 3 Coax Mini 25 AWG Solid BC, Foil, 95% TC Braid, Red, Green Blue, Outer Jacket PVC White CMP/Black CMR |
| SV254SP | SV254SR | 4 Coax Mini 25 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, Outer Jacket PVC White CMP/Black CMR |
| SV255SP | SV255SR | 5 Coax Mini 25 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Outer Jacket PVC White CMP/Black CMR |
| | SV256SR | 6 Coax Mini 25 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Black, Outer Jacket PVC Black CMR |
| | SV253STR | 3 Coax Mini 25 (7x33) AWG BC, Foil, 95% TC Braid, Red, Green, Blue, Outer Jacket TPE Black CM |
| | SV254STR | 4 Coax Mini 25 (7x33) AWG BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, Outer Jacket TPE Black CM |
| | SV255STR | 5 Coax Mini 25 (7x33) AWG BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Outer Jacket TPE Black CM |
| | SV256STR | 6 Coax Mini 25 (7x33) AWG BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Black, Outer Jacket TPE Black CM |
| | VS32001 | 3 Coax RG 6 18 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Outer Jacket TPE Black CMR |
| | VS42001 | 4 Coax RG 6 18 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, Outer Jacket TPE Black CMR |
| | VS52001 | 5 Coax RG 6 18 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Outer Jacket TPE Black CMR |
| | VS62001* | 6 Coax RG 6 18 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Black, Outer Jacket TPE Black (*Not UL Rated) |
| Composite Cable - Video + Audio or Data (Color Code Chart B) | | |
| RGB62TS | | 6 Coax Mini 26 (7x34) AWG TC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Black + 22 (7x30) AWG TC 2 Pr, Outer Jacket PVC White CL2P |
| | RGB62 | 6 Coax Mini 26 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Black + 24 (7x32) AWG TC 2 Pr, Outer Jacket Flexible TPE Black CM |
| RGB644TS | | 6 Coax Mini 26 (7x34) AWG TC, Foil, 95% TC Serve, Red, Green, Blue, Yellow, White, Black + 26 (7x34) AWG TC 4 Pr + 4 Power 20 (7x28) AWG TC, Outer Jacket PVC White CL2P |
| | RGB644 | 6 Coax Mini 26 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Black + 26 (7x34) AWG TC 4 Pr + 4 Power 20 (7x28) AWG TC, Outer Jacket Flexible TPE Black CM |
| | 256VT9C5 | 6 Coax Mini 25 AWG Solid BC, Foil, 95% TC Braid, Red, Green, Blue, Yellow, White, Black + 1 Cat 5e, Outer Jacket TPE Black CM |
| | VA2/2TP* | 2 Coax Mini 25 (7x33) BC, Foil, 95% TC Braid, Black, White + 22 (7x30) AWG TC 2 Pr, Outer Jacket TPE Black (*Not UL Rated) |
| | VA2/3TP* | 2 Coax Mini 25 (7x33) BC, Foil, 95% TC Braid, Black, White + 22 (7x30) AWG TC 3 Pr, Outer Jacket TPE Black (*Not UL Rated) |
| | VA2/3* | 2 Coax 20 AWG Solid BC, Foil, 95% TC Braid, Black, White + 22 (7x30) AWG TC 3 Pr, Outer Jacket TPE Black (*Not UL Rated) |
| | VA2/4* | 2 Coax 20 AWG Solid BC, Foil, 95% TC Braid, Black, White + 22 (7x30) AWG TC 4 Pr, Outer Jacket TPE Black (*Not UL Rated) |
| | VA2/5* | 2 Coax 20 AWG Solid BC, Foil, 95% TC Braid, Black, White + 22 (7x30) AWG TC 5 Pr, Outer Jacket TPE Black (*Not UL Rated) |
| Low Skew Video Cable (Color Code Chart A) | | |
| E3842S | E1842S | 4 UTP 24 AWG Solid BC 2.2nS/100m, PVC Green CMP/Maroon CMR |
| E3843S | E1843S | 4 UTP 23 AWG Solid BC 2.2nS/100m, PVC Green CMP/Maroon CMR |
| CCTV - Coax (Color Code Chart A) | | |
| 495035 | 395011 | RG 6 18 AWG Solid BC, 95% BC Braid, PVC Natural CMP/Black or White CMR |
| 495028 | C1142 | RG 59 20 AWG Solid BC, 95% BC Braid, PVC Natural CMP/Black CM |
| | C8025 | Siamese RG 59 22 AWG BC, 95% BC Braid + 22 (7x30) AWG, Foil, PVC Black CM |
| C8030 | C8028 | Siamese RG 59 20 AWG Solid BC, 95% BC Braid + 18 (7x26) AWG UTP, PVC Natural CMP/Black CM |
| 50 Ω Coax (Color Code Chart A) | | |
| | C5779 | 50 Ω RG 58 20 (19x32) AWG TC, Bonded Foil, 81% TC Braid, PVC Gray CM |



Every component in an audio system is crucial, especially for the integrity and quality of the cable interconnections. The audio cable directly affects the power distribution, imaging and response of the audio signal. Through utilization of premium-grade compounds, high-purity copper conductors and precision tolerances, the Gepco® Brand commercial line of audio cables reduces loss, minimizes noise and ensures a true, clear and accurate signal transfer from microphone signal inputs all the way through to speaker outputs.

Cable Solution Description

Microphone Cable (Color Code Chart B)

| | |
|---------|--|
| MM1024* | 26 (30x40) AWG TC 4 Cond, 95% TC Braid, Quad Star, PVC Black (*Not UL Rated) |
| MP1201* | 24 (41x40) AWG BC 4 Cond, 95% TC Braid, Quad Star, PVC Black (*Not UL Rated) |
| MP1022* | 24 (41x40) AWG TC 2 Cond, 95% TC Braid, PVC Black (*Not UL Rated) |
| M1042* | 20 (26x34) AWG TC 2 Cond 95% TC Braid, TPE Black (*Not UL Rated) |

Guitar/Musical Instruments Cables - Low Capacitance (Color Code Chart B)

| | |
|--------|--|
| GLC20* | 20 (41x36) AWG BC 1 Cond 95% BC Braid, PVC Black (*Not UL Rated) |
|--------|--|

| Plenum Cable Solution | Non-Plenum Cable Solution | Description |
|-----------------------|---------------------------|-------------|
|-----------------------|---------------------------|-------------|

High-Grade Line Level Audio (Color Code Chart A)

| | | |
|---------|---------|--|
| SSS222P | SSS222R | 22 (7x30) AWG BC 1 Pr, Foil Shield, PVC Natural CMP/Gray CMR |
| SSS202P | SSS202R | 20 (7x28) AWG BC 1 Pr, Foil Shield, PVC Natural CMP/Gray CMR |

Premium Line Level Audio (Color Code Chart B)

| | | |
|---------|--|---|
| 72401EZ | 24 (7x32) AWG TC 1 Pr, Foil Shield, PVC Multiple Colors CM | |
| 61801HS | 61801EZ | 22 (7x30) AWG TC 1 Pr, Foil Shield, PVC White CMP/Multiple Colors CMR |

Line Level Audio Snake (Color Code Chart B)

| | | |
|------------|--|--|
| GA72402GFC | 24 (7x32) AWG TC 2 Pr, Ind Shielded, TPE Black CM | |
| GA72404GFC | 24 (7x32) AWG TC 4 Pr, Ind Shielded, TPE Black CM | |
| GA72408GFC | 24 (7x32) AWG TC 8 Pr, Ind Shielded, TPE Black CM | |
| GA72412GFC | 24 (7x32) AWG TC 12 Pr, Ind Shielded, TPE Black CM | |
| GA72416GFC | 24 (7x32) AWG TC 16 Pr, Ind Shielded, TPE Black CM | |
| GA72426GFC | 24 (7x32) AWG TC 26 Pr, Ind Shielded, TPE Black CM | |
| GA72432GFC | 24 (7x32) AWG TC 32 Pr, Ind Shielded, TPE Black CM | |
| GA61802GFC | 22 (7x30) AWG TC 2 Pr, Ind Shielded, TPE Blue CMR | |
| 6604HS | GA61804GFC | 22 (7x30) AWG TC 4 Pr, Ind Shielded, PVC White CMP/TPE Blue CMR |
| 6606HS | GA61806GFC | 22 (7x30) AWG TC 6 Pr, Ind Shielded, PVC White CMP/TPE Blue CMR |
| 6608HS | GA61808GFC | 22 (7x30) AWG TC 8 Pr, Ind Shielded, PVC White CMP/TPE Blue CMR |
| 6612HS | GA61812GFC | 22 (7x30) AWG TC 12 Pr, Ind Shielded, PVC White CMP/TPE Blue CMR |
| | GA61816GFC | 22 (7x30) AWG TC 16 Pr, Ind Shielded, TPE Blue CMR |
| | GA61820GFC | 22 (7x30) AWG TC 20 Pr, Ind Shielded, TPE Blue CMR |
| | GA61826GFC | 22 (7x30) AWG TC 26 Pr, Ind Shielded, TPE Blue CMR |
| | GA61832GFC | 22 (7x30) AWG TC 32 Pr, Ind Shielded, TPE Blue CMR |

AES EBU Digital Audio (Color Code Chart B)

| | | |
|---------|---|--|
| DS601 | 26 (7x34) AWG TC 1 Pr, Foil Shield, PVC Black CM | |
| DS601D | 26 (7x34) AWG TC 2 Pr Zip, Foil Shield, PVC Black/Red Stripe CM | |
| DS604 | 26 (7x34) AWG TC 4 Pr, Foil Shield, Outer Jacket TPE Black CM | |
| DS608 | 26 (7x34) AWG TC 8 Pr, Foil Shield, Outer Jacket TPE Black CM | |
| DS612 | 26 (7x34) AWG TC 12 Pr, Foil Shield, Outer Jacket TPE Black CM | |
| DS616 | 26 (7x34) AWG TC 16 Pr, Foil Shield, Outer Jacket TPE Black CM | |
| DS624 | 26 (7x34) AWG TC 24 Pr, Foil Shield, Outer Jacket TPE Black CM | |
| DS401TS | DS401 | 24 (7x32) AWG TC 1 Pr, Foil Shield, PVC White CMP/Black or Violet CMR |
| | DS401D | 24 (7x32) AWG TC 2 Pr, Zip Foil Shield, PVC Violet with Red Stripe CMR |
| | DS404 | 24 (7x32) AWG TC 4 Pr, Foil Shield, Outer Jacket TPE Violet CMR |
| | DS408 | 24 (7x32) AWG TC 8 Pr, Foil Shield, Outer Jacket TPE Violet CMR |
| | DS412 | 24 (7x32) AWG TC 12 Pr, Foil Shield, Outer Jacket TPE Violet CMR |

| Plenum Cable Solution | Riser Cable Solution | Description |
|-----------------------|----------------------|-------------|
|-----------------------|----------------------|-------------|

Speaker and Control Cable - Unshielded (Color Code Chart A)

| | | |
|---------|---------|--|
| SSU182P | SSU182R | 18 (7x26) AWG BC 2 Cond, PVC Natural or Gray CMP/Gray CMR |
| SSU162P | SSU162R | 16 (19x29) AWG BC 2 Cond, PVC Natural or Gray CMP/Gray CMR |
| SSU142P | SSU142R | 14 (19x27) AWG BC 2 Cond, PVC Natural or Gray CL3P/Gray CL3R |
| SSU122P | SSU122R | 12 (19x25) AWG BC 2 Cond, PVC Natural or Gray CL3P/Gray CL3R |
| SSU102P | SSU102R | 10 (65x28) AWG BC 2 Cond, PVC Natural or Gray CL3P/Gray CL2R |
| SSU224P | SSU224R | 22 (7x30) AWG BC 4 Cond, PVC Natural or Gray CMP/Gray CMR |
| SSU204P | SSU204R | 20 (7x28) AWG BC 4 Cond, PVC Natural or Gray CMP/Gray CMR |
| SSU184P | SSU184R | 18 (7x26) AWG BC 4 Cond, PVC Natural or Gray CMP/Gray CMR |
| SSU164P | SSU164R | 16 (19x29) AWG BC 4 Cond, PVC Natural or Gray CMP/Gray CMR |
| SSU144P | SSU144R | 14 (19x27) AWG BC 4 Cond, PVC Natural or Gray CL3P/Gray CL3R |
| SSU124P | SSU124R | 12 (19x25) AWG BC 4 Cond, PVC Natural or Gray CL3P/Gray CL3R |
| SSU226P | SSU226R | 22 (7x30) AWG BC 6 Cond, PVC Natural or Gray CMP/Gray CMR |

Speaker and Control Cable - Shielded (Color Code Chart A)

| | | |
|---------|---------|---|
| SSS182P | SSS182R | 18 (7x26) AWG BC 2 Cond, Foil Shield, PVC Natural or Gray CMP/Gray CMR |
| SSS162P | SSS162R | 16 (19x29) AWG BC 2 Cond, Foil Shield, PVC Natural or Gray CMP/Gray CMR |
| SSS142P | SSS142R | 14 (19x27) AWG BC 2 Cond, Foil Shield, PVC Nat or Gray CL3P/Gray CL3R |
| SSS122P | SSS122R | 12 (19x25) AWG BC 2 Cond, Foil Shield, PVC Nat or Gray CL3P/Gray CL3R |
| SSS224P | SSS224R | 22 (7x30) AWG BC 4 Cond, Foil Shield, PVC Natural or Gray CMP/Gray CMR |
| SSS204P | SSS204R | 20 (7x28) AWG BC 4 Cond, Foil Shield, PVC Natural or Gray CMP/Gray CMR |
| SSS184P | SSS184R | 18 (7x26) AWG BC 4 Cond, Foil Shield, PVC Natural or Gray CMP/Gray CMR |
| SSS164P | SSS164R | 16 (19x29) AWG BC 4 Cond, Foil Shield, PVC Natural or Gray CMP/Gray CMR |
| SSS144P | SSS144R | 14 (19x27) AWG BC 4 Cond, Foil Shield, PVC Nat or Gray CL3P/Gray CL3R |
| SSS124P | SSS124R | 12 (19x27) AWG BC 4 Cond, Foil Shield, PVC Nat or Gray CL3P/Gray CL3R |
| SSS226P | SSS226R | 22 (7x30) AWG BC 6 Cond, Foil Shield, PVC Natural or Gray CMP/Gray CMR |

| Cable Solution | Description |
|----------------|-------------|
|----------------|-------------|

Speaker Cable - Unshielded Indoor/Outdoor Direct Burial - OFC (Color Code Chart A)

| | |
|----------|--|
| SSPUB162 | 16 (65x34) AWG OFC BC 2 Cond, PVC White or Black CM/CL3/PLTC |
| SSPUB142 | 14 (105x34) AWG OFC BC 2 Cond, PVC White, Violet or Black CL3/PLTC |
| SSPUB164 | 16 (65x34) AWG OFC BC 4 Cond, PVC Teal CM/CL3/PLTC |
| SSPUB144 | 14 (105x34) AWG OFC BC 4 Cond, PVC Blue CL3/PLTC |

Speaker Cable - Unshielded Indoor/Outdoor Direct Burial (Color Code Chart A)

| | |
|---------|---|
| SSUB162 | 16 (65x34) AWG BC 2 Cond, PVC White or Black CM/CL3 |
| SSUB142 | 14 (41x30) AWG BC 2 Cond, PVC White or Black CL3 |
| SSUB122 | 12 (105x32) AWG BC 2 Cond, PVC White or Black CL3 |
| SSUB164 | 16 (65x34) AWG BC 4 Cond, PVC White or Black CL3 |
| SSUB144 | 14 (41x30) AWG BC 4 Cond, PVC White or Black CL3 |
| SSUB124 | 12 (105x32) AWG BC 4 Cond, PVC White or Black CL3 |

| Cable Solution | Description |
|----------------|-------------|
|----------------|-------------|

Speaker Cable - High Definition - OFC (Color Code Chart B)

| | |
|------------|---|
| GSC1220FC* | 12 (259x36) AWG OFC BC, Zip, PVC Transparent (*Not UL Rated. Not for use within walls.) |
| GSC1020FC* | 10 (423x36) AWG OFC BC, Zip, PVC Transparent (*Not UL Rated. Not for use within walls.) |

Automation & Lighting Control Cable

The cabling backbone of any automation and lighting control system must meet an exceptionally high performance level to ensure that the system operates reliably and at full data rates. Produced in a variety of specialized and general purpose designs, Gepco® Brand automation and lighting control cables deliver solutions for a multitude of cross-platform and manufacturer-specific standards and systems. As with all other Gepco Brand cables, each cable is a leading-edge design and features comprehensive quality verification to deliver the foundation and bandwidth for commercial automation and control system integration.

| Plenum Cable Solution | Non-Plenum Cable Solution | Description |
|-----------------------|---------------------------|-------------|
|-----------------------|---------------------------|-------------|

Digital Media Cables

| | | |
|------------|-----------|---|
| CT504/SDMP | CT504/SDM | Multimedia Cat 5e Cable for Use with Crestron® Systems - 24 AWG BC 4 Pr, Foil Shield, PVC Blue, White or Black CMP/PVC Blue, White or Black CMR |
| CT104/SDMP | CT104/SDM | Multimedia Cat 6A Cable for Use with Crestron® Systems - 23 AWG BC 4 Pr, Foil Shield, PVC Blue, White or Black CMP/PVC Blue, White or Black CMR |

Automation Control Cables

| | | |
|-----------|----------|---|
| 18/22AXLP | 18/22AXL | For Use with AMX® Systems - 22 (7x30) AWG BC 1 Pr, Foil Shield +18 (7x26) AWG BC 1 Pr, Unshielded, PVC Black CMP/Black CL3R/FT-4 |
| 18/22CRTP | 18/22CRT | For Use with Crestron® Systems - 22 (7x30) AWG BC 1 Pr, Foil Shield +18 (7x26) AWG BC 1 Pr, Unshielded, PVC Blue with Yellow Stripe CMP/CL3R,FT-4 |
| | 18/22CCT | Hybrid Cables for Use with Crestron® Systems - 1 18/22CRT + 1 Cat 5e, PVC Teal with Red Stripe CL3/FT-4 |
| | 18/22CCD | Hybrid Cables for Use with Crestron® Systems - 1 18/22CRT + 2 Cat 5e, PVC Teal with Black Stripe CL3/FT-4 |
| | 18/22CCQ | Hybrid Cables for Use with Crestron® Systems - 1 18/22CRT + 4 Cat 5e, PVC Teal with White Stripe CL3/FT-4 |
| | 18/22CDC | Hybrid Cables for Use with Crestron® Systems - 1 18/22CRT + 2 Cat 5e + 2 RG 6 Quad Coax, PVC Teal with Orange Stripe CL3/FT-4 |
| | 164NCAT | Keypad Volume Control - 16 (65x34) AWG BC 4 Cond + 1 Cat 5e, PVC Teal with Gray Stripe CM/CL3 |
| | 144NCAT | Keypad Volume Control - 14 AWG (105x34) BC 4 Cond + 1 Cat 5e, PVC Blue with Gray Stripe CM/CL3 |

Lighting Control Cables

| | | |
|--|-----------|---|
| | 164LTCH | Control Station Cable for Use with LiteTouch® Systems - 16 (65x34) AWG BC 4 Cond, PVC Orange CL3/PLTC |
| | 224SLTCH | Enclosure & Module Cable for Use with LiteTouch® Systems - 22 (7x30) AWG BC 4 Cond, Foil Shield, PVC Green CM/CL3 |
| | 182LUTDS | Power Cable for Use with Lutron® Homeworks® Systems - 18 (7x26) AWG BC 2 Cond, Foil Shield, PVC Blue with Pink Stripe TC |
| | 184LUTDS | Power Cable for Use with Lutron® Homeworks® Systems - 18 (7x26) AWG BC 4 Cond, Foil Shield, PVC Blue with White Stripe TC |
| | 18/22KYP | Keypad Cable for Use with Lutron® Homeworks® Systems - 22 (7x30) AWG BC 1 Pr, Foil Shield + 18 (16x30) AWG BC 1 Pr, PVC Blue with Yellow Stripe CM/CL3 |
| | 12/22LGRX | Control Cable for Use with Lutron® GRAFIK Eye® Systems - 22 (7x30) AWG BC 1 Pr, Foil Shield +12 (19x25) AWG BC 1 Pr +Ground, PVC Blue with Blue Stripe CM/CL3 |
| | 18/22GFE | Control Cable for Use with Lutron® GRAFIK Eye® Systems - 22 (7x30) AWG BC 1 Pr, Foil Shield + 18 (16x30) AWG BC 1 Pr, PVC Blue with Green Stripe CM/CL3 |
| | 16/18SVA | Hybrid Cable for Use with Lutron® Sivoia® Systems - 18 (16x30) AWG BC 4 Cond, Foil Shield +16 (26x30) AWG BC 2 Cond +Ground, PVC Blue with Red Stripe CM/CL3 |
| | 16/18SVAP | Hybrid Cable for Use with Lutron® Sivoia® Systems - 18 (16x30) AWG BC 4 Cond, Foil Shield +16 (26x30) AWG BC 2 Cond +Ground, PVC Natural with Red Stripe CL3P/CMP |
| | 162VANT65 | Power & Data Cable for Use with Vantage® Systems - 16 (65x34) AWG BC 2 Cond, PVC Violet with Yellow Stripe CL3/CM/TC |

DMX Lighting Control Cables

| | | |
|--|--------|--|
| | DLC124 | DMX Lighting Control - 24 (7x32) AWG TC 1 Pr, Foil, 90% TC Braid, TPE Black |
| | DLC224 | DMX512 Lighting Control - 24 (7x32) AWG TC 2 Pr, Foil, 90% TC Braid, TPE Black |
| | DLC122 | DMX Lighting Control - 22 (7x30) AWG TC 1 Pr, Foil, 90% TC Braid, PU Black |
| | DLC222 | DMX512 Lighting Control - 22 (7x30) AWG TC 2 Pr, Foil, 90% TC Braid, PU Black |

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Special constructions and technical data sheets available by request.

Put-Ups and Jacket Color Codes

Example: SAPS124.XX.YY (XX= Put Up and YY=Jacket Color)

| Put-Up Codes | | Jacket Color Code A | | Jacket Color Code B | |
|--------------|-------------------|---------------------|---------|---------------------|--------|
| 25 | 500 Ft. Pull Pac | 01 | Black | 0 | Black |
| 30 | 1000 Ft. Pull Pac | 02 | White | 1 | Brown |
| 38 | 500 Ft. Reel | 06 | Green | 2 | Red |
| 41 | 1000 Ft. Reel | 14 | Blue | 3 | Orange |
| 99 | Bulk | 19 | Violet | 4 | Yellow |
| | | 86 | Natural | 5 | Green |
| | | B9 | Teal | 6 | Blue |
| | | | | 7 | Violet |
| | | | | 8 | Gray |
| | | | | 9 | White |

*Put-up and jacket color code options vary by part number.

**Refer to Cable Chart Headers to determine Color Code A, B or none.

Powered Cable

Through research and technology, Gepco provides a portable, all-in-one solution for applications requiring audio or data along with power while protecting the signal from noise. Gepco® Brand RunONE™ Powered Cables combine audio and power, along with optional data, under a single durable, yet flexible jacket. Saving time and hassle by allowing the user to replace multiple cables with a single, neat solution, each RunONE cable combines power with two, eight or 12 channels of 110 Ω balanced audio for line level, mic level or digital AES signals and can be used for self-powered speakers, staging applications and DMX lighting control.

Cable Solution Description

| Powered Cable - Bulk | |
|----------------------------|--|
| PA2 | 14 (41x30) AWG BC Power + 2 Pr 24 (7x32) AWG TC AES/EBU Audio, PVC Black AWM 2464 |
| PA8 | 14 (41x30) AWG BC Power + 8 Pr 24 (7x32) AWG TC AES/EBU Audio, PVC Black AWM 2464 |
| PA12 | 14 (41x30) AWG BC Power + 12 Pr 24 (7x32) AWG TC AES/EBU Audio, PVC Black AWM 2464 |
| PA2C | 14 (41x30) AWG BC Power + 2 Pr 24 (7x32) AWG TC AES/EBU Audio + 2 Cat 5e, PVC Black AWM 2464 |
| PA12C | 14 (41x30) AWG BC Power + 12 Pr 24 (7x32) AWG TC AES/EBU Audio + 2 Cat 5e, PVC Black AWM 2464 |
| PA2T | 12 (105x32) AWG BC Power + 2 Pr 24 (7x32) AWG TC AES/EBU Audio, PVC Black AWM 2464 |
| Powered Cable - Assemblies | |
| PA01###EMIF | NEMA 5-15 Plug with 1 Male XLR to IEC with 1 Female XLR - (14 AWG Power) |
| PA02###EMPF | NEMA 5-15 Plug with 2 Male XLRs to Neutrik® powerCON® with 2 Female XLRs - (14 AWG Power) |
| PA08###EMEF | NEMA 5-15 Plug with 8 Male XLR's to NEMA 5-15 Connector with 8 Female XLRs - (14 AWG Power) |
| C08###EMREFR | NEMA 5-15 Plug with 2 Male XLRs and 2 RJ45s to NEMA 5-15 Connector with 2 Female XLRs and 2 RJ45s - (14 AWG Power) |
| T02###EMFIFM | NEMA 5-15 Plug with 1 Male & 1 Female XLR to IEC with 1 Female & 1 Male XLR - (12 AWG Power) |

- indicates length in feet. Other assembly configurations available upon request.

CAROL BRAND

In addition to the full Gepco® Brand commercial A/V wire and cable solutions, General Cable also provides a complementary line of **Carol® Brand Portable Power and Control Cable Solutions** manufactured for use in the Entertainment industry. They are designed to deliver temporary power to television and theater sets, mobile broadcast trucks, concerts, sporting events and other sites with the lowest possible electrical loss and failures.

Carol Brand power cord and lighting cables are flexible, durable and suitable for both indoor and outdoor use. Our cables are RoHS Compliant, meet UL requirements and are in compliance with the National Electrical Code® (NEC).

The Carol Brand offering includes:

- Carol Brand Super Vu-Tron® Entertainment & Stage Lighting Cable 105°C 600 Volt, UL Type SC and CSA Type PPC
- Carol Brand Super Vu-Tron Single Conductor Type W Extra-Flex Cable 90°C 2000 Volt, UL and CSA Type W
- Carol Brand Super Vu-Tron Supreme Types SJ00W/SO0W Cord 105°C 300 and 600 Volt, UL/CSA Portable Cord
- Carol Brand Carolprene® Types SJ00W/SO0W Cord 90°C 600 Volt, UL/CSA Portable Cord
- Carol Brand Lighting Cables for Socapex® Connector Applications 105°C 600 Volt, 12 and 14 AWG, 14 or 19 Conductor, UL and CSA AWM
- Carol Brand HMI Lighting Cables

When you require the reliable power to deliver superior signals, lighting and sound, **Demand Better and Expect More** with the broadest line of General Cable Carol Brand portable power and control cable solutions available.

National Electrical Code® and NEC® are registered trademarks of the NFPA. *Socapex is a trademark of Amphenol Corporation.



LEADING-EDGE DESIGNS

Manufactured to industry-leading specifications, Gepco Brand products provides the bandwidth and precision for both current and future signal transmission formats.

100% TESTED AND VERIFIED

Every lot is comprehensively tested and verified to ensure consistent performance and reliability.

LEAN SIX SIGMA

General Cable applies the Lean Six Sigma management philosophy, seeking innovative ways to differentiate our Gepco Brand products and services and to serve as our customers' and suppliers' most valued business partner. Lean focuses on the continuous process of identifying and eliminating waste and non-value-added activities to improve the flow of information and materials and maximizing quality and service to the customer while improving overall value.



PROFESSIONAL CABLING TECHNOLOGY

The Gepco Brand Commercial A/V line is produced with the same manufacturing technologies used to make professional broadcast and studio cabling products.

INSTALLER-FRIENDLY FEATURES

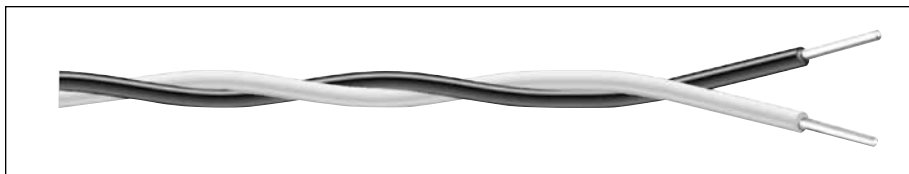
Features such as easy-strip compounds, low-friction jackets, color coding, and versatile packaging simplify cable termination and installation. In addition, General Cable's TRU-Mark® Marking System sequentially marks every two feet of cable in both ascending and descending order from the start of the reel to the core.

ISO CERTIFIED

General Cable manufacturing facilities are certified to the ISO 9001:2008 quality standard. This standard assures that formalized processes are being implemented to ensure efficiency, quality and continuous improvement.

Speaker Wire

UL Listed



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOMINAL O.D. | |
|-------------------------------------|--------------|----------|--------------|---------------------------|------|--------------|------|
| | | | | INCHES | mm | INCHES | mm |
| AWM STYLE 1007 (80°C, 300 V) | | | | | | | |
| C7102A | 2 | 18 | 7/.0152 | 0.020 | 0.51 | 0.172 | 4.37 |

Data subject to change.

Color Code Chart

| ORDERING SUFFIX | STOCK COLOR |
|-----------------|-------------|
| 99 | Black-White |

Product Construction:

Conductor:

- 18 AWG tinned annealed stranded copper
- Stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Temperature range: -30°C to +80°C
- Color code: See chart below

Applications:

- Audio systems
- Not for in-wall use

Compliances:

- UL Style 1007 (UL: 80°C, 300 V)
- AWM Style 1007
- RoHS Compliant Directive 2011/65/EU

Packaging:

- 1000' (305 m) reels

Special Audio, Communication & Instrumentation

UL 2095, 2093

Product Construction:

Conductor:

- 24 thru 20 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded polyethylene (C1333A) or PVC (C1345A)
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Audio
- Communications
- EMI isolated circuits for instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- UL Style 2093 (UL: 60°C, 300 V)
- UL Style 2095 (UL: 80°C, 300 V)
- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|--------------------------------|--------------|----------------------------------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| UL Style 2093, 300 VOLT | | | | | | | | | | | |
| C1333A | 3 | 2-20 Shielded 1-20 Unshielded | 10/30 | 0.015 | 0.38 | 0.028 | 0.71 | 0.206 | 5.23 | 26.0 | 47.0 |
| | | | 7/28 | 0.016 | 0.41 | | | | | | |

*A – Capacitance between conductors

*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|-------------------|---------|
| Shielded | |
| 1 | Black |
| 2 | Red |
| Unshielded | |
| 1 | Natural |



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|--------------------------------|--------------|----------------------------------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------|------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |
| UL Style 2095, 300 VOLT | | | | | | | | | | | |
| C1345A | 6 | 4-24 Shielded 2-22 Unshielded | 7/32 | 0.015 | 0.38 | 0.025 | 0.64 | 0.230 | 5.84 | 32.0 | 57.0 |
| | | | 7/30 | | | | | | | | |

*A – Capacitance between conductors

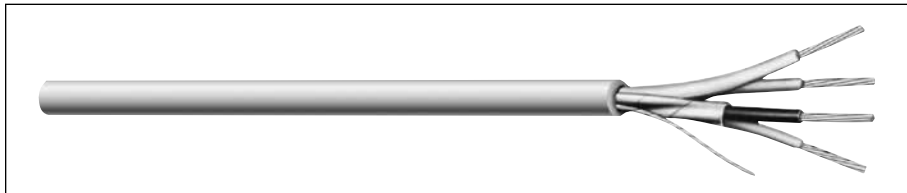
*B – Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|-------------------|--------|
| Shielded | |
| 1 | Black |
| 2 | Red |
| 3 | Green |
| 4 | Yellow |
| Unshielded | |
| 1 | Blue |
| 2 | White |

Special Audio, Communication & Instrumentation

UL 2095, UL 2835, UL 2094, NEC Type CL2



Product Construction:

Conductor:

- 22 thru 18 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- C1331A - Premium-grade, color-coded PVC
- C1340A - Premium-grade, color-coded polypropylene
- C1343A - Premium-grade, color-coded polyethylene
- Color code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester over two conductors, 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Audio
- Communications
- EMI isolated circuits for instrumentation

Compliances:

- NEC Article 725 Type CL2 (UL: 75°C, 150 V)
- C1331A - UL Style 2095 (UL: 80°C)
- C1340A - UL Style 2835 (UL: 60°C)
- C1343A - UL Style 2094 (UL: 60°C)
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------|----|--------------|----|------------|---|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | A | B |

UL Style 2095, NEC Type CL2

| | | | | | | | | | | | |
|---------------|---|----------------------------------|------|-------|------|-------|------|-------|------|------|------|
| C1331A | 4 | 2-20 Shielded 2-20 Unshielded | 7/28 | 0.016 | 0.41 | 0.032 | 0.81 | 0.230 | 5.84 | 41.0 | 74.0 |
|---------------|---|----------------------------------|------|-------|------|-------|------|-------|------|------|------|

UL Style 2835

| | | | | | | | | | | | |
|---------------|---|----------------------------------|------|-------|------|-------|------|-------|------|------|------|
| C1340A | 4 | 2-22 Shielded 2-22 Unshielded | 7/30 | 0.008 | 0.20 | 0.017 | 0.43 | 0.161 | 4.09 | 29.0 | 52.0 |
|---------------|---|----------------------------------|------|-------|------|-------|------|-------|------|------|------|

UL Style 2094

| | | | | | | | | | | | |
|---------------|---|----------------------------------|---------------|-------|------|-------|------|-------|------|------|------|
| C1343A | 4 | 2-20 Shielded 2-18 Unshielded | 7/28 16/30 | 0.018 | 0.46 | 0.032 | 0.81 | 0.259 | 6.58 | 27.0 | 49.0 |
|---------------|---|----------------------------------|---------------|-------|------|-------|------|-------|------|------|------|

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|-------------------|-------|
| Shielded | |
| 1 | Black |
| 2 | Red |
| Unshielded | |
| 1 | Green |
| 2 | White |



Underwriters Laboratories Inc.



Microphone Cable, Multi-Conductor, Carolprene®

High and Low Impedance

Product Construction:

Conductor:

- 18 and 16 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded rubber
- Color code: See chart below

Shield:

- 80% braid tinned copper

Jacket:

- Carolprene®, black
- Temperature range: -20°C to +60°C

Applications:

C1201:

- High-impedance microphones
- Broadcast and studio use
- Communication and audio systems
- Suggested voltage rating: 300 volts

C1202, C1602:

- Low-impedance microphones
- Studio use
- Control circuits
- Video and interconnecting cables
- Shielded power supplies
- Suggested voltage rating: 300 volts

Features:

- Precision engineered to transmit clear, noise-free signals
- Minimizes electrical “hum”
- Resistant to oil, acid, sunlight, abrasion and aging
- Excellent noise rejection

Compliances:

- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options

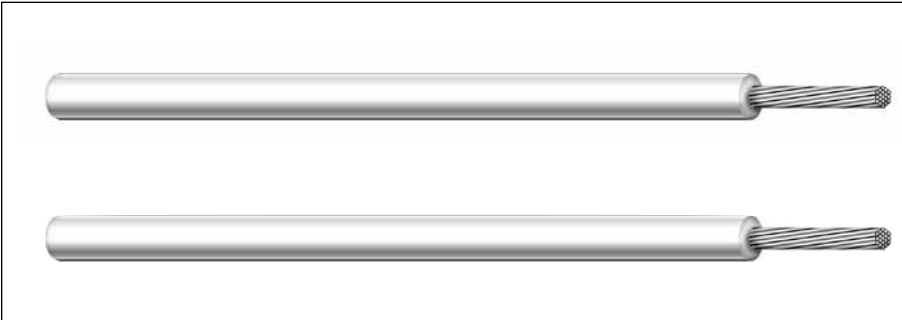


| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOM. JACKET THICKNESS | | NOMINAL O.D. | | NOM. CAP.* pF/ft |
|----------------|--------------|----------|--------------|---------------------------|------|-----------------------|------|--------------|------|------------------|
| | | | | INCHES | mm | INCHES | mm | INCHES | mm | |
| C1201 | 1 | 18 | 41/34 | 0.040 | 1.02 | 0.035 | 0.89 | 0.240 | 6.10 | 46.0 |
| C1202 | 2 | 18 | 41/34 | 0.020 | 0.51 | 0.035 | 0.89 | 0.295 | 7.49 | 61.0 |
| C1602 | 2 | 16 | 65/34 | 0.025 | 0.64 | 0.035 | 0.89 | 0.335 | 8.51 | 55.0 |

*Capacitance between one conductor and other conductors connected to shield
Data subject to change.

Color Code Chart

| NO. OF COND. | COLOR |
|--------------|-------|
| 1 | White |
| 2 | Black |



Most applications of hook-up and lead wire for board-to-board or point-to-point wiring rely on PVC-insulated designs.

General Cable's Carol® Brand products offer both electrical and electronic designers a vast array of quality PVC hook-up wire to meet the specific technical demands of today, with "off-the-shelf" distributor inventoried products.

Hook-up wire is also available in special colors and/or stripe combinations with a minimum of lead time. In addition, General Cable offers a variety of put-ups to meet individual customer requirements.

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| UL 1007, UL 1569, CSA TR-64 | 167 |
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UL 1007, UL 1569, CSA TR-64

Product Construction:

Conductor:

- 24 thru 16 AWG
- Fully annealed tinned copper per ASTM B33
- Solid or stranded

Insulation:

- Premium-grade, color-coded PVC
- Temperature range: -20°C to +105°C
- Color code: See chart below

Applications:

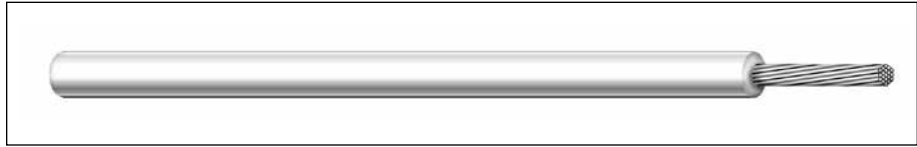
- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring
- Suggested voltage rating: 300 volts

Compliances:

- UL Style 1569 (UL: 105°C, 300 V)
- CSA TR-64: 90°C, 300 V
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL VW-1 Vertical Wire Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOMINAL O.D. | |
|----------------|----------|--------------|---------------------------|----|--------------|----|
| | | | INCHES | mm | INCHES | mm |

SOLID CONDUCTORS

| | | | | | | |
|---------------|----|-------|-------|------|-------|------|
| C2003A | 24 | Solid | 0.016 | 0.41 | 0.052 | 1.32 |
| C2004A | 22 | Solid | 0.016 | 0.41 | 0.057 | 1.45 |
| C2028A | 20 | Solid | 0.016 | 0.41 | 0.064 | 1.63 |
| C2052A | 18 | Solid | 0.016 | 0.41 | 0.072 | 1.83 |
| C2053A | 16 | Solid | 0.016 | 0.41 | 0.083 | 2.11 |

STRANDED CONDUCTORS

| | | | | | | |
|---------------|----|-------|-------|------|-------|------|
| C2015A | 24 | 7/32 | 0.016 | 0.41 | 0.056 | 1.42 |
| C2016A | 22 | 7/30 | 0.016 | 0.41 | 0.062 | 1.57 |
| C2040A | 20 | 10/30 | 0.016 | 0.41 | 0.070 | 1.78 |
| C2064A | 18 | 16/30 | 0.016 | 0.41 | 0.080 | 2.03 |
| C2065A | 16 | 26/30 | 0.016 | 0.41 | 0.092 | 2.34 |

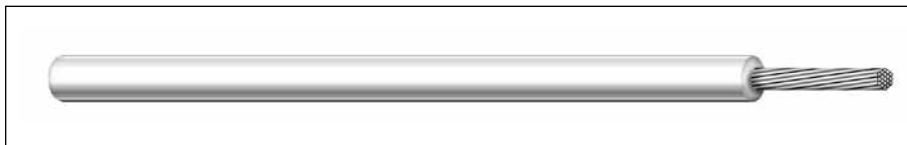
Data subject to change.

Color Code Chart

| ORDERING SUFFIX | COLORS | ORDERING SUFFIX | COLORS |
|-----------------|--------|-----------------|--------|
| 01 | Black | 06 | Green |
| 02 | White | 07 | Blue |
| 03 | Red | 08 | Brown |
| 04 | Orange | 10 | Gray |
| 05 | Yellow | 19 | Purple |

Striped combinations available upon request; consult Customer Service.

UL 1015, CSA TEW



Product Construction:

Conductor:

- 24 thru 10 AWG
- Fully annealed tinned copper per ASTM B33
- Solid or stranded

Insulation:

- Premium-grade, color-coded PVC
- Temperature range: -30°C to +105°C
- Color code: See chart below

Applications:

- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring
- Suggested voltage rating: 600 volts

Compliances:

- UL Style 1015 (UL: 105°C, 600 V)
- CSA Type TEW: 105°C, 600 V
- RoHS Compliant Directive 2011/65/EU
- Designed to meet UL VW-1 Vertical Wire Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

| CATALOG NUMBER | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOMINAL O.D. | |
|----------------|----------|--------------|---------------------------|----|--------------|----|
| | | | INCHES | mm | INCHES | mm |

SOLID CONDUCTORS

| | | | | | | |
|---------------|----|-------|-------|------|-------|------|
| C2117A | 22 | Solid | 0.032 | 0.81 | 0.089 | 2.26 |
| C2118A | 20 | Solid | 0.032 | 0.81 | 0.096 | 2.44 |
| C2119A | 18 | Solid | 0.032 | 0.81 | 0.104 | 2.64 |

STRANDED CONDUCTORS

| | | | | | | |
|---------------|----|--------|-------|------|-------|------|
| C2100A | 24 | 7/32 | 0.032 | 0.81 | 0.088 | 2.24 |
| C2101A | 22 | 7/30 | 0.032 | 0.81 | 0.094 | 2.39 |
| C2102A | 20 | 10/30 | 0.032 | 0.81 | 0.102 | 2.59 |
| C2103A | 18 | 16/30 | 0.032 | 0.81 | 0.112 | 2.84 |
| C2104A | 16 | 26/30 | 0.032 | 0.81 | 0.124 | 3.15 |
| C2105A | 14 | 41/30 | 0.032 | 0.81 | 0.141 | 3.58 |
| C2106A | 12 | 65/30 | 0.032 | 0.81 | 0.160 | 4.06 |
| C2107A | 10 | 105/30 | 0.033 | 0.84 | 0.184 | 4.67 |

Data subject to change.

Color Code Chart

| ORDERING SUFFIX | COLORS | ORDERING SUFFIX | COLORS |
|-----------------|--------|-----------------|--------|
| 01 | Black | 06 | Green |
| 02 | White | 07 | Blue |
| 03 | Red | 08 | Brown |
| 04 | Orange | 10 | Gray |
| 05 | Yellow | 19 | Purple |

Striped combinations available upon request; consult Customer Service.



Designed to Meet
UL VW-1 Vertical
Wire Flame Test

Underwriters Laboratories Inc.



MIL-W-76B

Type MW

Product Construction:

Conductor:

- 24 thru 12 AWG
- Fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded PVC
- Type MW: Medium wall
- Temperature range: -12°C to +90°C
- Color code: See chart below

Applications:

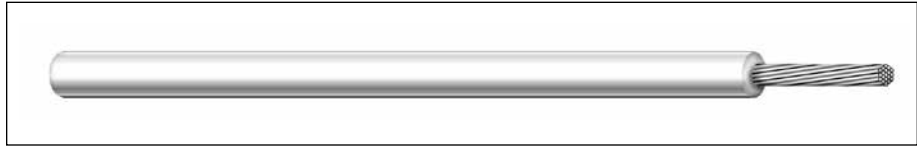
- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring
- Suggested voltage rating: 1000 volts (MIL-W-76B)
- Non QPL

Compliances:

- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options



| CATALOG NUMBER | TYPE DESIGNATION | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOMINAL O.D. | |
|----------------|------------------|----------|--------------|---------------------------|----|--------------|----|
| | | | | INCHES | mm | INCHES | mm |

MIL-W-76B TYPE MW (MEDIUM WALL)

| | | | | | | | |
|----------------|-------------|----|-------|-------|------|-------|------|
| C7600A | MW-C24(7)U | 24 | 7/32 | 0.016 | 0.41 | 0.056 | 1.42 |
| C7602A | MW-C22(7)U | 22 | 7/30 | 0.016 | 0.41 | 0.062 | 1.57 |
| C7604A | MW-C20(10)U | 20 | 10/30 | 0.016 | 0.41 | 0.070 | 1.78 |
| C7606A | MW-C18(16)U | 18 | 16/30 | 0.016 | 0.41 | 0.080 | 2.03 |
| C7608A* | MW-C16(26)U | 16 | 26/30 | 0.016 | 0.41 | 0.092 | 2.34 |
| C7610A* | MW-C14(41)U | 14 | 41/30 | 0.016 | 0.41 | 0.109 | 2.77 |
| C7611A* | MW-C12(65)U | 12 | 65/30 | 0.016 | 0.41 | 0.128 | 3.25 |

*-25°C to +105°C
Data subject to change.

Color Code Chart

| ORDERING SUFFIX | COLORS | ORDERING SUFFIX | COLORS |
|-----------------|--------|-----------------|--------|
| 01 | Black | 06 | Green |
| 02 | White | 07 | Blue |
| 03 | Red | 08 | Brown |
| 04 | Orange | 10 | Gray |
| 05 | Yellow | 19 | Purple |

Striped combinations available upon request; consult Customer Service.

UL Types MTW, TFF, AWM & CSA TEW

90°C 600 Volt MTW, TFF 105°C 600 Volt AWM/TEW



| CATALOG NUMBER | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOMINAL O.D. | | STOCK COLORS | APPROX. NET WEIGHT LBS/M ⁽⁹⁾ |
|---|----------|--------------|---------------------------|------|--------------|------|--------------|---|
| | | | INCHES | mm | INCHES | mm | | |
| UL TYPE MTW, AWM, TFF, CSA TYPE TEW-600 VOLT | | | | | | | | |
| 76502 | 18 | 16/30 | 0.032 | 0.81 | 0.110 | 2.79 | 1-12 | 10 |
| 76512 | 16 | 26/30 | 0.032 | 0.81 | 0.123 | 3.12 | 1-12 | 14 |
| 76812 | 14 | 19/.0159 | 0.032 | 0.81 | 0.136 | 3.40 | 1-12 | 20 |
| 76822 | 12 | 19/.0185 | 0.032 | 0.81 | 0.155 | 3.91 | 1-7 | 28 |
| 76832 | 10 | 19/.0234 | 0.032 | 0.81 | 0.179 | 4.55 | 1-5 | 42 |
| 76843 | 8 | 19/.0295 | 0.047 | 1.19 | 0.242 | 6.15 | 1-5 | 72 |

⁽⁹⁾ Actual shipping weight may vary.
Data subject to change.

Color Code Chart

| ORDERING SUFFIX | COLORS | ORDERING SUFFIX | COLORS |
|-----------------|--------|-----------------|--------|
| 01 | Black | 04 | Orange |
| 02 | White | 08 | Brown |
| 03 | Red | 19 | Purple |
| 07 | Blue | 10 | Gray |
| 06 | Green | 13 | Pink |

Product Construction:

Conductor:

- 18 through 8 AWG fully annealed stranded bare copper per ASTM B8

Insulation:

- Premium-grade, color-coded PVC
- Temperature range:
MTW: -40°C to +90°C
AWM: -40°C to +105°C
TEW: -30°C to +105°C
- Color code: See chart below

Jacket Marking:

- 18 and 16 AWG:
CAROL (SIZE) 600 V E# MTW (UL) OR TFF OR 1000 V AWM VW-1 --- CSA TEW 105°C FT1 ROHS MADE IN USA
- 14 through 8 AWG:
CAROL (SIZE) 600 V E# MTW (UL) OR 1000 V AWM VW-1 --- CSA TEW 105°C FT1 ROHS MADE IN USA

Applications:

- Motor and transformer lead
- External wiring of machinery
- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring

Features:

- Outstanding oil, flame and moisture resistance
- Extra flexible

Compliances:

- UL and NMTBA Type MTW/AWM
- CSA TEW
- RoHS Compliant Directive 2011/65/EU
- Passes VW-1 Vertical Flame Test
- AWM Style 1015 – 18-8 AWG
- AWM Style 1335 – 18-10 AWG
- AWM Style 1336 – 8 AWG
- UL 1032 1000 V

Packaging:

- Please contact Customer Service for packaging and color options



Canadian Standard Association

Designed to Meet
UL VW-1 Vertical
Wire Flame Test

Underwriters Laboratories Inc.



Heavy Wall UL Types MTW, AWM, NEC Type THW and CSA TEW 90°C 600 Volts

Product Construction:

Conductor:

- 6 and 4 AWG fully annealed stranded bare copper per ASTM B8

Insulation:

- Premium-grade, color-coded PVC, black
- Temperature range:
MTW: -40°C to +90°C
AWM: -40°C to +105°C
TEW: -30°C to +105°C

Jacket Marking:

- CAROL (SIZE) 600 V E# MTW OR THW (UL) OR 1000 V AWM VW-1 --- CSA TEW 105°C FT1 ROHS MADE IN USA



| CATALOG NUMBER | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | NOMINAL O.D. | | APPROX. NET WEIGHT LBS/m [®] |
|--------------------------------------|----------|--------------|---------------------------|------|--------------|------|---------------------------------------|
| | | | INCHES | mm | INCHES | mm | |
| AWM, MTW, THW – 600 VOLT – UL | | | | | | | |
| 76954 | 6 | 19/.0372 | 0.064 | 1.63 | 0.315 | 8.00 | 110 |
| 76994 | 4 | 19/.0469 | 0.065 | 1.65 | 0.365 | 9.27 | 150 |

[®]Actual shipping weight may vary.
Data subject to change.

Applications:

- Motor and transformer lead
- External wiring of machinery

Features:

- Outstanding oil, flame and moisture resistance
- Extra flexible

Compliances:

- UL Type AWM
- UL and NMTBA Type MTW
- NEC Type THW
- CSA TEW
- RoHS Compliant Directive 2011/65/EU
- Passes UL VW-1 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

Rubber/PVC/Polyethylene



| CATALOG NUMBER | NO. OF COND. | AWG SIZE | COND. STRAND | NOM. INSULATION THICKNESS | | BREAKDOWN VOLTAGE (AC, rms) | WORKING VOLTAGE* | NOMINAL O.D. | |
|----------------|--------------|----------|--------------|---------------------------|----|-----------------------------|------------------|--------------|----|
| | | | | INCHES | mm | | | INCHES | mm |

RUBBER TEST LEAD

| | | | | | | | | | |
|--------------|---|----|-------|-------|------|---------|---------|-------|------|
| C1326 | 1 | 20 | 41/36 | 0.040 | 1.02 | 6,000V | 1,500V | 0.125 | 3.18 |
| C1319 | 1 | 20 | 41/36 | 0.047 | 1.19 | 12,000V | 3,000V | 0.140 | 3.56 |
| C1321 | 1 | 18 | 65/36 | 0.045 | 1.14 | 20,000V | 5,000V | 0.145 | 3.68 |
| C1318 | 1 | 18 | 65/36 | 0.088 | 2.24 | 29,000V | 10,000V | 0.230 | 5.84 |

PVC TEST LEAD

| | | | | | | | | | |
|---------------|---|----|-------|-------|------|---------|--------|-------|------|
| C1320A | 1 | 18 | 65/36 | 0.047 | 1.19 | 20,000V | 5,000V | 0.140 | 3.56 |
|---------------|---|----|-------|-------|------|---------|--------|-------|------|

POLYETHYLENE TEST LEAD

| | | | | | | | | | |
|---------------|---|----|--------|-------|------|--------|------|-------|------|
| C7108A | 1 | 14 | 105/34 | 0.032 | 0.81 | 4,000V | 600V | 0.140 | 3.56 |
|---------------|---|----|--------|-------|------|--------|------|-------|------|

*For intermittent duty only.
Data subject to change.

Color Code Chart

| ORDERING SUFFIX | COLORS |
|-----------------|--------|
| 01 | Black |
| 03 | Red |
| 06 | Green |

Product Construction:

Conductor:

- 20, 18 and 14 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded rubber, PVC or polyethylene
- Temperature range:
 - 40°C to +90°C rubber
 - 30°C to +105°C PVC
 - 60°C to +80°C polyethylene
- Color code: See chart below

Applications:

- Test equipment
- Oscilloscopes

Compliances:

- RoHS Compliant Directive 2011/65/EU

Packaging:

- Please contact Customer Service for packaging and color options

As technology becomes more complex, specifying wire and cable products to meet system performance demands becomes more time-consuming and complex.

Today's system designer must be aware not only of the general transmission line types, but also of the myriad of materials available to meet specific environmental or electrical performance criteria.

This technical section is presented to aid in the selection of materials and designs which will best suit the combination of hardware and transmission media.

For technical questions regarding specific transmission designs or applications, please contact General Cable's Engineering Department.

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Insulation & Jacket Properties

TYPICAL PROPERTIES OF COMMON INSULATING MATERIALS

| PARAMETER | PVC | PE | PP | XLPE | NYLON | FEP | TFE | BUTYL RUBBER | SILICONE RUBBER | TPR |
|--|--------------------|----------------|----------------|------------|--------------------|---------------|---------------|--------------|----------------------|------------|
| Specific Gravity | 1.37 | 0.92 | 0.89 | 0.93-1.18 | 1.09 | 2.16 | 2.17 | 1.40 | 1.24 | 1.16-1.20 |
| Dielectric Constant (a) 60 Hz (b) 1000 Hz | 6.0 5.0 | 2.26 2.26 | 2.6 | 3.0 3.0 | 4.6 4.5 | 2.15 2.15 | 2.1 2.1 | 4.1 4.0 | 3.3 3.1 | 2.8 2.8 |
| Dielectric Strength, v/mil (a) 0.010" wall (b) 0.040" wall | 1800 800 | 2100 1050 | 850 450 | - 700 | 1000 470 | 2000 950 | 2000 950 | 700 500 | 600 400 | 625 |
| Tensile Strength, PSI x 1000 | 1.5-3.8 | 1.4-2.4 | 2.9-4.5 | 1.8-2.5 | 8.8-11.9 | 2.3-3.1 | 2.0-6.0 | 0.5-1.5 | 0.6-1.2 | 2.3 |
| Service Temp, Range, °C | -55/+105 | -90/+90 | -40/+105 | -80/+75 | -55/+105 | -90/+200 | -90/+260 | -40/+90 | -80/+200 | -55/+90 |
| Elongation, % | 200-375 | 350-550 | 700 | 250-400 | 150-380 | 200-330 | 200-500 | 200-400 | 125-400 | 500 |
| Water Absorption, % in 24 hr | <0.75 | <0.02 | <0.02 | <0.01 | 2.5 | <0.01 | <0.01 | <1.0 | <1.0 | <0.6 |
| Flame Resistance | Self Extinguishing | Supports Flame | Supports Flame | Slow Flame | Self Extinguishing | Non-Flammable | Non-Flammable | Slow Burning | Slow (Non-Cond. Ash) | Flammable |
| Ozone Resistance | Excellent | Good | Excellent | Good | Good | Excellent | Excellent | Excellent | Excellent | Excellent |
| Flexibility | Good | Good | Good | Good-Fair | Good-Fair | Good | Good | Excellent | Excellent | Excellent |
| Abrasion Resistance | Good | Good | Fair | Excellent | Excellent | Excellent | Excellent | Poor | Poor | Good-Fair |
| Acid Resistance | Excellent | Excellent | Excellent | Excellent | Excellent | Poor | Excellent | Excellent | Good | Excellent |
| Base Resistance | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Good | Good | Excellent |
| Hydraulic Fluid Resistance | Good-Fair | Fair-Poor | Fair | Good-Fair | Good-Fair | Excellent | Excellent | Poor | Fair-Poor | Poor |
| Organic Solvent Resistance | Fair-Poor | Poor | Fair | Fair | Good-Fair | Excellent | Excellent | Good-Fair | Poor | Poor |

NOTE: The above is representative of performance. For specific compound performance, consult Customer Service.

TYPICAL PROPERTIES OF COMMON JACKETING MATERIALS

| PARAMETER | PVC | PE | NYLON | FEP | TFE | SILICONE RUBBER | NEOPRENE | POLY-URETHANE | TPR |
|------------------------------|--------------------|----------------|-----------|---------------|---------------|---------------------------|--------------------|---------------|-----------|
| Specific Gravity | 1.37 | 0.92 | 1.09 | 2.16 | 2.17 | 1.24 | 1.52 | 1.3 | 1.16-1.20 |
| Tensile Strength, PSI x 1000 | 1.5-3.8 | 1.4-2.4 | 8.8-11.9 | 2.3-3.1 | 2.0-6.0 | 0.6-1.2 | 2.5-4.0 | >3.5 | 2.3 |
| Elongation, % | 200-375 | 350-550 | 150-380 | 200-330 | 200-500 | 125-400 | 300-500 | 540-700 | 500 |
| Service Temp, Range, °C | -55/+105 | -80/+75 | -55/+105 | -90/+200 | -90/+200 | -80/+200 | -65/+90 | -65/+75 | -55/+90 |
| Ozone Resistance | Excellent | Good | Good | Excellent | Excellent | Excellent | Excellent | Good | Excellent |
| Weatherability | Good-Fair | Excellent-Good | Fair-Poor | Excellent | Excellent | Excellent | Good | Good | Excellent |
| Flame Resistance | Self Extinguishing | Supports Flame | Flammable | Non-Flammable | Non-Flammable | Slow-Burn (Non-Cond. Ash) | Self Extinguishing | Slow Burn | Flammable |
| Flexibility | Good | Good | Good-Fair | Good | Good | Excellent | Excellent | Excellent | Excellent |
| Abrasion Resistance | Good | Good | Excellent | Excellent | Excellent | Poor | Excellent | Excellent | Good-Fair |
| Acid Resistance | Excellent | Excellent | Poor | Excellent | Excellent | Poor | Good | Fair | Excellent |
| Base Resistance | Excellent | Excellent | Excellent | Excellent | Excellent | Good | Good | Fair | Excellent |
| Hydraulic Fluid Resistance | Good-Fair | Fair-Poor | Good-Fair | Excellent | Excellent | Fair-Poor | Good | Poor | Good |
| Organic Solvent Resistance | Fair-Poor | Poor | Good-Fair | Excellent | Excellent | Poor | Good | Poor | Poor |
| Resistance to Tearing | Good | Good | Excellent | Good | Good | Fair | Good | Excellent | Good-Fair |

NOTE: The above is representative of performance. For specific compound performance, consult Customer Service.

Decimal Conversion Factors

FRACTIONS, DECIMALS AND MILLIMETER CONVERSION CHART

| FRACTIONS OF AN INCH | | | | | | EQUIVALENTS | | FRACTIONS OF AN INCH | | | | | | EQUIVALENTS | |
|----------------------|----|----|---|---|---|-------------|-------|----------------------|----|----|---|---|---|-------------|-------|
| 64 | 32 | 16 | 8 | 4 | 2 | DECIMALS | mm | 64 | 32 | 16 | 8 | 4 | 2 | DECIMALS | mm |
| 1 | | | | | | 0.016 | 0.40 | 33 | | | | | | 0.516 | 13.10 |
| 2 | 1 | | | | | 0.031 | 0.79 | 34 | 17 | | | | | 0.531 | 13.49 |
| 3 | | | | | | 0.047 | 1.19 | 35 | | | | | | 0.547 | 13.89 |
| 4 | 2 | 1 | | | | 0.063 | 1.59 | 36 | 18 | 9 | | | | 0.563 | 14.29 |
| 5 | | | | | | 0.078 | 1.98 | 37 | | | | | | 0.578 | 14.68 |
| 6 | 3 | | | | | 0.094 | 2.38 | 38 | 19 | | | | | 0.594 | 15.08 |
| 7 | | | | | | 0.109 | 2.78 | 39 | | | | | | 0.609 | 15.48 |
| 8 | 4 | 2 | 1 | | | 0.125 | 3.18 | 40 | 20 | 10 | 5 | | | 0.625 | 15.88 |
| 9 | | | | | | 0.141 | 3.57 | 41 | | | | | | 0.641 | 16.27 |
| 10 | 5 | | | | | 0.156 | 3.97 | 42 | 21 | | | | | 0.656 | 16.67 |
| 11 | | | | | | 0.172 | 4.37 | 43 | | | | | | 0.672 | 17.07 |
| 12 | 6 | 3 | | | | 0.188 | 4.76 | 44 | 22 | 11 | | | | 0.688 | 17.46 |
| 13 | | | | | | 0.203 | 5.16 | 45 | | | | | | 0.703 | 17.86 |
| 14 | 7 | | | | | 0.219 | 5.56 | 46 | 23 | | | | | 0.719 | 18.26 |
| 15 | | | | | | 0.234 | 5.95 | 47 | | | | | | 0.734 | 18.65 |
| 16 | 8 | 4 | 2 | 1 | | 0.250 | 6.35 | 48 | 24 | 12 | 6 | 3 | | 0.750 | 19.05 |
| 17 | | | | | | 0.266 | 6.75 | 49 | | | | | | 0.766 | 19.45 |
| 18 | 9 | | | | | 0.281 | 7.14 | 50 | 25 | | | | | 0.781 | 19.84 |
| 19 | | | | | | 0.297 | 7.54 | 51 | | | | | | 0.797 | 20.24 |
| 20 | 10 | 5 | | | | 0.313 | 7.94 | 52 | 26 | 13 | | | | 0.813 | 20.64 |
| 21 | | | | | | 0.328 | 8.33 | 53 | | | | | | 0.828 | 21.03 |
| 22 | 11 | | | | | 0.344 | 8.73 | 54 | 27 | | | | | 0.844 | 21.43 |
| 23 | | | | | | 0.359 | 9.13 | 55 | | | | | | 0.859 | 21.83 |
| 24 | 12 | 6 | 3 | | | 0.375 | 9.53 | 56 | 28 | 14 | 7 | | | 0.875 | 22.23 |
| 25 | | | | | | 0.391 | 9.92 | 57 | | | | | | 0.891 | 22.62 |
| 26 | 13 | | | | | 0.406 | 10.32 | 58 | 29 | | | | | 0.906 | 23.02 |
| 27 | | | | | | 0.422 | 10.72 | 59 | | | | | | 0.922 | 23.42 |
| 28 | 14 | 7 | | | | 0.438 | 11.11 | 60 | 30 | 15 | | | | 0.938 | 23.81 |
| 29 | | | | | | 0.453 | 11.51 | 61 | | | | | | 0.953 | 24.21 |
| 30 | 15 | | | | | 0.469 | 11.91 | 62 | 31 | | | | | 0.969 | 24.61 |
| 31 | | | | | | 0.484 | 12.30 | 63 | | | | | | 0.984 | 25.00 |
| 32 | 16 | 8 | 4 | 2 | 1 | 0.500 | 12.70 | 64 | 32 | 16 | 8 | 4 | 2 | 1.000 | 25.40 |

Unit Conversion Factors

CONVERSION FACTORS

| UNIT | X | CONSTANT | = | UNIT | UNIT | X | CONSTANT | = | UNIT |
|-------------------------------------|---|--------------|---|--|--|---|-----------------|---|--|
| British Thermal Unit (BTU) | | 778.0 | | foot-pound (ft-lb) | gallons (gal) | | 3.785411 | | liters (l) |
| British Thermal Unit (BTU) | | 1054.35 | | joules (j) | gallons (gal) | | 0.13368 | | cubic foot (ft ³) |
| British Thermal Unit (BTU) | | 0.293 | | watt-hours (w-hr) | gallons (gal) | | 231.0 | | cubic inch (in ³) |
| centimeters (cm) | | 0.032808 | | feet (ft) | gallons (gal) | | 3785.411 | | cubic centimeter (cm ³) |
| centimeters (cm) | | 0.3937 | | inches (in) | grams (g) | | 15.432 | | grains |
| centimeters (cm) | | 0.00001 | | kilometers (km) | gram/centimeter ³ (gm/cm ³) | | 0.0361275 | | pounds/in ³ (lb/in ³) |
| centimeters (cm) | | 0.010 | | meters (m) | horsepower (hp) | | 33013.26 | | ft-lb/min |
| centimeters (cm) | | 10.0 | | millimeters (mm) | horsepower (hp) | | 550.0 | | ft-lb/sec |
| circular mils (cmil) | | 0.00064516 | | circular millimeters | horsepower (hp) | | 745.7 | | watts (w) |
| circular mils (cmil) | | 0.0000007854 | | inches ² (in ²) | inch (in) | | 0.027178 | | yards (yd) |
| circular mils (cmil) | | 0.00050671 | | square millimeters (mm ²) | inch (in) | | 0.083333 | | feet (ft) |
| circular mils (cmil) | | 0.7854 | | mils ² | inch (in) | | 0.00002540 | | kilometer (km) |
| cubic centimeter (cm ³) | | 0.000035314 | | cubic foot (ft ³) | inch (in) | | 0.025400 | | meter (m) |
| cubic centimeter (cm ³) | | 0.061023 | | cubic inch (in ³) | inch (in) | | 2.54000514 | | centimeter (cm) |
| cubic centimeter (cm ³) | | 0.000001 | | cubic meter (m ³) | inch (in) | | 25.4000514 | | millimeter (mm) |
| cubic centimeter (cm ³) | | 0.00026417 | | gallons (gal) | inch (in) | | 1000.0 | | mils |
| cubic foot (ft ³) | | 1728.0 | | cubic in (in ³) | joules (j) | | 0.000948 | | British Thermal Unit (BTU) |
| cubic foot (ft ³) | | 28317.847 | | cubic centimeter (cm ³) | joules (j) | | 10 ⁷ | | ergs |
| cubic inch (in ³) | | 0.00057870 | | cubic feet (ft ³) | liters (l) | | 61.02374 | | cubic inch (in ³) |
| cubic inch (in ³) | | 0.000016387 | | cubic meter (m ³) | meters (m) | | 1.093611 | | yard (yd) |
| cubic inch (in ³) | | 16.387064 | | cubic centimeter (cm ³) | meters (m) | | 3.2808333 | | feet (ft) |
| cubic meter (m ³) | | 1000000.0 | | centimeter (cm) | meters (m) | | 39.37 | | inch (in) |
| cubic meter (m ³) | | 35.314666 | | cubic foot (ft ³) | meters (m) | | 100.0 | | centimeter (cm) |
| cubic meter (m ³) | | 264.17 | | gallons (gal) | miles (mi) | | 1760.0 | | yards (yd) |
| feet (ft) | | 0.00018939 | | miles (mi) | miles (mi) | | 5280.0 | | feet (ft) |
| feet (ft) | | 0.33333 | | yards (yd) | miles (mi) | | 1.6093 | | kilometer (km) |
| feet (ft) | | 12 | | inches (in) | millimeters (mm) | | 0.0032808 | | feet (ft) |
| feet (ft) | | 0.00030480 | | kilometer (km) | millimeters (mm) | | 0.03937 | | inch (in) |
| feet (ft) | | 0.30480 | | meters (m) | millimeters (mm) | | 0.001 | | meters (m) |
| feet (ft) | | 30.480 | | centimeters (cm) | millimeters (mm) | | 0.01 | | centimeters (cm) |
| feet (ft) | | 304.80 | | millimeters (mm) | millimeters (mm) | | 39.3701 | | mils |
| feet/pound (ft/lb) | | 0.00067197 | | meters/grams (m/g) | millimeters (mm) | | 1000.0 | | microns (μ) |
| foot-pound (ft-lb) | | 0.001285 | | British Thermal Unit (BTU) | watts (w) | | 44.25 | | ft-lb/minute |
| foot-pound (ft-lb) | | 1.356 | | joules (j) | watts (w) | | 0.737562 | | ft-lb/sec |
| foot-pound (ft-lb) | | 0.1383 | | kilogram/meter (kg/m) | watts (w) | | 0.001341 | | horsepower |
| | | | | | watt-hours (w-hr) | | 3.414462 | | British Thermal Unit (BTU) |

Temperature Conversion Chart

To use this chart, find your known temperature (°F) in the shaded column.

| °C | °F | °C | °F | °C | °F | °C | °F | °C | °F |
|-------|-------|-------|------|------|-------|------|-------|------|-------|
| -45.0 | -49.0 | -17.2 | 1.0 | 10.6 | 51.0 | 38.3 | 101.0 | 66.1 | 151.0 |
| -44.4 | -48.0 | -16.7 | 2.0 | 11.1 | 52.0 | 38.9 | 102.0 | 66.7 | 152.0 |
| -43.9 | -47.0 | -16.1 | 3.0 | 11.7 | 53.0 | 39.4 | 103.0 | 67.2 | 153.0 |
| -43.3 | -46.0 | -15.6 | 4.0 | 12.2 | 54.0 | 40.0 | 104.0 | 67.8 | 154.0 |
| -42.8 | -45.0 | -15.0 | 5.0 | 12.8 | 55.0 | 40.6 | 105.0 | 68.3 | 155.0 |
| -42.2 | -44.0 | -14.4 | 6.0 | 13.3 | 56.0 | 41.1 | 106.0 | 68.9 | 156.0 |
| -41.7 | -43.0 | -13.9 | 7.0 | 13.9 | 57.0 | 41.7 | 107.0 | 69.4 | 157.0 |
| -41.1 | -42.0 | -13.3 | 8.0 | 14.4 | 58.0 | 42.2 | 108.0 | 70.0 | 158.0 |
| -40.6 | -41.0 | -12.8 | 9.0 | 15.0 | 59.0 | 42.8 | 109.0 | 70.6 | 159.0 |
| -40.0 | -40.0 | -12.2 | 10.0 | 15.6 | 60.0 | 43.3 | 110.0 | 71.1 | 160.0 |
| -39.4 | -39.0 | -11.7 | 11.0 | 16.1 | 61.0 | 43.9 | 111.0 | 71.7 | 161.0 |
| -38.9 | -38.0 | -11.1 | 12.0 | 16.7 | 62.0 | 44.4 | 112.0 | 72.2 | 162.0 |
| -38.3 | -37.0 | -10.6 | 13.0 | 17.2 | 63.0 | 45.0 | 113.0 | 72.8 | 163.0 |
| -37.8 | -36.0 | -10.0 | 14.0 | 17.8 | 64.0 | 45.6 | 114.0 | 73.3 | 164.0 |
| -37.2 | -35.0 | -9.4 | 15.0 | 18.3 | 65.0 | 46.1 | 115.0 | 73.9 | 165.0 |
| -36.7 | -34.0 | -8.9 | 16.0 | 18.9 | 66.0 | 46.7 | 116.0 | 74.4 | 166.0 |
| -36.1 | -33.0 | -8.3 | 17.0 | 19.4 | 67.0 | 47.2 | 117.0 | 75.0 | 167.0 |
| -35.6 | -32.0 | -7.8 | 18.0 | 20.0 | 68.0 | 47.8 | 118.0 | 75.6 | 168.0 |
| -35.0 | -31.0 | -7.2 | 19.0 | 20.6 | 69.0 | 48.3 | 119.0 | 76.1 | 169.0 |
| -34.4 | -30.0 | -6.7 | 20.0 | 21.1 | 70.0 | 48.9 | 120.0 | 76.7 | 170.0 |
| -33.9 | -29.0 | -6.1 | 21.0 | 21.7 | 71.0 | 49.4 | 121.0 | 77.2 | 171.0 |
| -33.3 | -28.0 | -5.6 | 22.0 | 22.2 | 72.0 | 50.0 | 122.0 | 77.8 | 172.0 |
| -32.8 | -27.0 | -5.0 | 23.0 | 22.8 | 73.0 | 50.6 | 123.0 | 78.3 | 173.0 |
| -32.2 | -26.0 | -4.4 | 24.0 | 23.3 | 74.0 | 51.1 | 124.0 | 78.9 | 174.0 |
| -31.7 | -25.0 | -3.9 | 25.0 | 23.9 | 75.0 | 51.7 | 125.0 | 79.4 | 175.0 |
| -31.1 | -24.0 | -3.3 | 26.0 | 24.4 | 76.0 | 52.2 | 126.0 | 80.0 | 176.0 |
| -30.6 | -23.0 | -2.8 | 27.0 | 25.0 | 77.0 | 52.8 | 127.0 | 80.6 | 177.0 |
| -30.0 | -22.0 | -2.2 | 28.0 | 25.6 | 78.0 | 53.3 | 128.0 | 81.1 | 178.0 |
| -29.4 | -21.0 | -1.7 | 29.0 | 26.1 | 79.0 | 53.9 | 129.0 | 81.7 | 179.0 |
| -28.9 | -20.0 | -1.1 | 30.0 | 26.7 | 80.0 | 54.4 | 130.0 | 82.2 | 180.0 |
| -28.3 | -19.0 | -0.6 | 31.0 | 27.2 | 81.0 | 55.0 | 131.0 | 82.8 | 181.0 |
| -27.8 | -18.0 | 0.0 | 32.0 | 27.8 | 82.0 | 55.6 | 132.0 | 83.3 | 182.0 |
| -27.2 | -17.0 | 0.6 | 33.0 | 28.3 | 83.0 | 56.1 | 133.0 | 83.9 | 183.0 |
| -26.7 | -16.0 | 1.1 | 34.0 | 28.9 | 84.0 | 56.7 | 134.0 | 84.4 | 184.0 |
| -26.1 | -15.0 | 1.7 | 35.0 | 29.4 | 85.0 | 57.2 | 135.0 | 85.0 | 185.0 |
| -25.6 | -14.0 | 2.2 | 36.0 | 30.0 | 86.0 | 57.8 | 136.0 | 85.6 | 186.0 |
| -25.0 | -13.0 | 2.8 | 37.0 | 30.6 | 87.0 | 58.3 | 137.0 | 86.1 | 187.0 |
| -24.4 | -12.0 | 3.3 | 38.0 | 31.1 | 88.0 | 58.9 | 138.0 | 86.7 | 188.0 |
| -23.9 | -11.0 | 3.9 | 39.0 | 31.7 | 89.0 | 59.4 | 139.0 | 87.2 | 189.0 |
| -23.3 | -10.0 | 4.4 | 40.0 | 32.2 | 90.0 | 60.0 | 140.0 | 87.8 | 190.0 |
| -22.8 | -9.0 | 5.0 | 41.0 | 32.8 | 91.0 | 60.6 | 141.0 | 88.3 | 191.0 |
| -22.2 | -8.0 | 5.6 | 42.0 | 33.3 | 92.0 | 61.1 | 142.0 | 88.9 | 192.0 |
| -21.7 | -7.0 | 6.1 | 43.0 | 33.9 | 93.0 | 61.7 | 143.0 | 89.4 | 193.0 |
| -21.1 | -6.0 | 6.7 | 44.0 | 34.4 | 94.0 | 62.2 | 144.0 | 90.0 | 194.0 |
| -20.6 | -5.0 | 7.2 | 45.0 | 35.0 | 95.0 | 62.8 | 145.0 | 90.6 | 195.0 |
| -20.0 | -4.0 | 7.8 | 46.0 | 35.6 | 96.0 | 63.3 | 146.0 | 91.1 | 196.0 |
| -19.4 | -3.0 | 8.3 | 47.0 | 36.1 | 97.0 | 63.9 | 147.0 | 91.7 | 197.0 |
| -18.9 | -2.0 | 8.9 | 48.0 | 36.7 | 98.0 | 64.4 | 148.0 | 92.2 | 198.0 |
| -18.3 | -1.0 | 9.4 | 49.0 | 37.2 | 99.0 | 65.0 | 149.0 | 92.8 | 199.0 |
| -17.8 | 0.0 | 10.0 | 50.0 | 37.8 | 100.0 | 65.6 | 150.0 | 93.3 | 200.0 |

TEMPERATURE CONVERSION FORMULA

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32) \qquad ^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$$

Conduit Capacity Chart

| Conduit Trade Size | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 3 1/2 | 4 | |
|--------------------------------|----------------------------|---|-------|-------|-------|-------|-------|-------|--------|--------|-----|
| I.D. Inches | 0.622 | 0.824 | 1.049 | 1.380 | 1.610 | 2.067 | 2.731 | 3.356 | 3.834 | 4.334 | |
| Internal Area, In ² | 0.304 | 0.533 | 0.864 | 1.496 | 2.036 | 3.356 | 5.858 | 8.846 | 11.545 | 14.753 | |
| 1 Conductor (53% fill) | 0.161 | 0.283 | 0.458 | 0.793 | 1.079 | 1.778 | 3.105 | 4.688 | 6.119 | 7.819 | |
| 2 Conductors (31% fill) | 0.094 | 0.165 | 0.268 | 0.464 | 0.631 | 1.040 | 1.816 | 2.742 | 3.579 | 4.573 | |
| Conductors (40% fill) | 0.122 | 0.213 | 0.346 | 0.598 | 0.814 | 1.342 | 2.343 | 3.538 | 4.618 | 5.901 | |
| Cable OD Inches | Cable Area In ² | Numbers listed below are based on the 2008 NEC (40% fill) for 3 or more non-lead covered cables. | | | | | | | | | |
| 0.100 | 0.008 | 15 | 26 | 43 | 76 | 104 | 170 | 244 | 375 | 504 | 648 |
| 0.125 | 0.012 | 9 | 17 | 27 | 48 | 66 | 109 | 156 | 240 | 322 | 414 |
| 0.150 | 0.018 | 6 | 11 | 19 | 33 | 46 | 75 | 108 | 166 | 224 | 288 |
| 0.175 | 0.024 | 5 | 8 | 14 | 24 | 34 | 55 | 79 | 122 | 164 | 211 |
| 0.200 | 0.031 | 3 | 6 | 10 | 19 | 26 | 42 | 81 | 93 | 126 | 162 |
| 0.225 | 0.040 | 3 | 5 | 8 | 15 | 20 | 33 | 48 | 74 | 99 | 128 |
| 0.250 | 0.049 | 1 | 4 | 6 | 12 | 16 | 27 | 39 | 60 | 80 | 103 |
| 0.275 | 0.059 | 1 | 3 | 5 | 10 | 13 | 22 | 32 | 49 | 66 | 85 |
| 0.300 | 0.071 | 1 | 2 | 4 | 8 | 11 | 18 | 27 | 41 | 56 | 72 |
| 0.325 | 0.083 | 1 | 1 | 4 | 7 | 9 | 16 | 23 | 35 | 47 | 61 |
| 0.350 | 0.096 | 1 | 1 | 3 | 6 | 8 | 13 | 19 | 30 | 41 | 52 |
| 0.375 | 0.110 | 1 | 1 | 3 | 5 | 7 | 12 | 17 | 26 | 35 | 46 |
| 0.400 | 0.126 | 1 | 1 | 2 | 4 | 6 | 10 | 15 | 23 | 31 | 40 |
| 0.425 | 0.142 | 1 | 1 | 1 | 4 | 5 | 9 | 13 | 20 | 27 | 35 |
| 0.450 | 0.159 | 1 | 1 | 1 | 3 | 5 | 8 | 12 | 18 | 24 | 32 |
| 0.475 | 0.177 | 0 | 1 | 1 | 3 | 4 | 7 | 10 | 17 | 22 | 28 |
| 0.500 | 0.196 | 0 | 1 | 1 | 3 | 4 | 6 | 9 | 15 | 20 | 25 |
| 0.525 | 0.216 | 0 | 1 | 1 | 2 | 3 | 6 | 8 | 13 | 18 | 23 |
| 0.550 | 0.238 | 0 | 1 | 1 | 1 | 3 | 5 | 8 | 12 | 16 | 21 |
| 0.575 | 0.260 | 0 | 1 | 1 | 1 | 3 | 5 | 7 | 11 | 15 | 19 |
| 0.600 | 0.283 | 0 | 0 | 1 | 1 | 2 | 4 | 6 | 10 | 14 | 18 |
| 0.625 | 0.307 | 0 | 0 | 1 | 1 | 2 | 4 | 6 | 9 | 12 | 16 |
| 0.650 | 0.332 | 0 | 0 | 1 | 1 | 1 | 4 | 5 | 8 | 11 | 15 |
| 0.675 | 0.358 | 0 | 0 | 1 | 1 | 1 | 3 | 5 | 8 | 11 | 14 |
| 0.700 | 0.385 | 0 | 0 | 1 | 1 | 1 | 3 | 5 | 7 | 10 | 13 |
| 0.725 | 0.413 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 7 | 9 | 12 |
| 0.750 | 0.442 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 6 | 8 | 11 |
| 0.775 | 0.472 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 6 | 8 | 10 |
| 0.800 | 0.503 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 7 | 10 |
| 0.825 | 0.535 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 5 | 7 | 9 |
| 0.850 | 0.567 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 5 | 6 | 8 |
| 0.875 | 0.601 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 6 | 8 |
| 0.900 | 0.636 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 6 | 8 |
| 0.925 | 0.672 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 5 | 7 |
| 0.950 | 0.709 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 5 | 7 |
| 0.975 | 0.747 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 5 | 6 |
| 1.000 | 0.785 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 5 | 6 |
| 1.025 | 0.825 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 6 |
| 1.050 | 0.866 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 5 |
| 1.075 | 0.908 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 5 |

Notice: 1. The reader is cautioned to consult the NEC for specific information regarding conduit fill.
 2. This Conduit Capacity Chart should only be used as a guide when attempting to estimate conduit fill.
 3. For additional information, the reader should refer to the National Electrical Code.

AWG Conductor Chart

COPPER CONDUCTOR DATA

The conductors used by General Cable meet the applicable requirements of ASTM specifications B-3, B-33, B-172, B-173, B-174 and B-286 and Federal Specification QQ-W-343.

The following data covers the more commonly used conductor constructions in the electrical and electronics industry. Special constructions, not shown, are available or can be designed to meet specific requirements. It is suggested that the General Cable Product Engineering Department be contacted before a specification is finalized.

| AWG | STRANDING | TYPE STRANDING ⁽¹⁾ | DIAMETER ⁽⁴⁾ | | AREA | | WEIGHT | | D.C. RESISTANCE 20°C ⁽²⁾ | | | | BREAK STR. LBS |
|-----|--|-------------------------------|-------------------------|-------|------------|--------|---------|--------|-------------------------------------|--------|------------------------|--------|----------------|
| | | | in | mm | circ. mils | sq. mm | lbs/Mft | kg/km | TIN COATING ⁽³⁾ | | BARE OF SILVER COATING | | |
| | | | | | | | | | Ω/Mft | Ω/km | Ω/Mft | Ω/km | |
| 32 | 7/40 | Co or Bu | .0096 | .254 | 100 | .051 | .21 | .31 | 176.00 | 577.00 | 164.00 | 538.00 | 1.986 |
| 30 | Solid 7/38 | - | .010 | .254 | 100 | .051 | .30 | .45 | 113.00 | 371.00 | 104.00 | 340.00 | 3.157 |
| | | Bu | .012 | .305 | 112 | .057 | .35 | .52 | 106.00 | 348.00 | 92.60 | 303.00 | |
| 28 | Solid 7/36 | - | .01264 | .321 | 159 | .081 | .48 | .72 | 70.80 | 232.00 | 65.30 | 214.00 | 5.020 |
| | | Co | .015 | .381 | 175 | .089 | .55 | .82 | 67.50 | 221.00 | 59.30 | 194.00 | |
| 27 | Solid 7/35 | - | .0142 | .361 | 202 | .102 | .61 | .91 | 55.60 | 182.00 | 51.40 | 169.00 | 6.331 |
| | | Co or Bu | .017 | .432 | 220 | .111 | .69 | 1.04 | 53.80 | 176.00 | - | - | |
| 26 | Solid 7/34 10/36 19/38 | - | .016 | .404 | 253 | .128 | .77 | 1.14 | 44.50 | 146.00 | 41.00 | 135.00 | 7.983 |
| | | Co or Bu | .019 | .483 | 278 | .141 | .87 | 1.29 | 42.50 | 139.00 | 37.30 | 122.00 | |
| | | Bu or Co | .021 | .533 | 304 | .154 | .97 | 1.44 | 38.90 | 128.00 | 34.10 | 112.00 | |
| 24 | Solid 7/32 16/36 19/36 | - | .0201 | .511 | 404 | .205 | 1.22 | 1.82 | 27.20 | 89.20 | 25.70 | 84.20 | 12.690 |
| | | Co or Bu | .024 | .610 | 448 | .227 | 1.38 | 2.05 | 25.70 | 84.20 | 23.10 | 75.90 | |
| | | Bu | .024 | .610 | 400 | .201 | 1.25 | 1.64 | 29.50 | 96.80 | 27.50 | 90.20 | |
| | | Co or Bu | .025 | .635 | 475 | .241 | 1.48 | 2.20 | 24.90 | 81.70 | 21.80 | 71.60 | |
| 22 | Solid 7/30 19/34 | - | .025 | .643 | 643 | .324 | 1.94 | 2.89 | 16.70 | 54.80 | 16.20 | 53.20 | 19.430 |
| | | Co or Bu | .030 | .762 | 700 | .355 | 2.19 | 3.26 | 16.60 | 54.40 | 14.80 | 48.60 | |
| | | Bu or Eq | .0315 | .800 | 754 | .382 | 2.35 | 3.50 | 15.50 | 50.80 | 13.80 | 45.10 | |
| 20 | Solid 7/28 10/30 19/32 26/34 | - | .032 | .813 | 1,020 | .519 | 3.10 | 4.61 | 10.50 | 34.40 | 10.10 | 33.20 | 30.890 |
| | | Co or Bu | .038 | .965 | | .562 | 3.49 | 5.19 | 10.30 | 33.80 | 9.33 | 30.60 | |
| | | Bu | .037 | .940 | 1,111 | .507 | 3.14 | 4.67 | 11.40 | 37.40 | 10.40 | 34.00 | |
| | | Co, Bu or Eq | .040 | 1.02 | 1,000 | .616 | 3.84 | 5.71 | 9.48 | 31.10 | 8.53 | 28.00 | |
| | | Bu | .039 | .940 | 1,216 | .523 | 3.28 | 4.88 | 11.30 | 37.10 | - | - | |
| 19 | Solid 7/26 16/30 19/30 41/34 | - | .0359 | .912 | 1,032 | .653 | 3.90 | 5.80 | - | - | 8.05 | 26.40 | 38.950 |
| | | Co or Bu | .0403 | 1.024 | 1,290 | .823 | 4.92 | 7.32 | 6.77 | 22.20 | 6.39 | 21.00 | |
| | | Bu | .048 | 1.22 | 1,620 | .897 | 5.55 | 8.26 | 6.45 | 21.20 | 5.55 | 19.20 | |
| | | Co, Bu or Eq | .0475 | 1.207 | 1,770 | .810 | 5.01 | 7.45 | 7.15 | 23.40 | 6.48 | 21.30 | |
| | | Bu | .050 | 1.27 | 1,600 | .963 | 5.95 | 8.85 | 6.10 | 20.00 | 5.46 | 17.90 | |
| 16 | Solid 19/29 19/0117 26/30 65/34 | - | .0508 | 1.29 | 1,627 | 1.31 | 7.81 | 11.60 | 4.47 | 14.70 | 4.16 | 13.60 | 78.100 |
| | | Bu or Eq | .057 | 1.45 | 2,580 | 1.23 | 7.52 | 11.20 | 4.82 | 15.80 | 4.27 | 14.00 | |
| | | Bu | .0585 | 1.50 | 2,426 | 1.32 | 8.02 | 11.90 | 4.39 | 14.40 | 4.13 | 13.50 | |
| | | Bu | .0606 | 1.54 | 2,601 | 1.32 | 8.15 | 12.10 | 4.39 | 14.40 | 3.99 | 13.10 | |
| | | Bu | .060 | 1.52 | 2,600 | 1.31 | 8.20 | 11.90 | 4.47 | 14.70 | 4.16 | 13.60 | |
| 14 | Solid 7/0242 19/27 19/0147 41/30 | - | .0641 | 1.63 | 2,581 | 2.08 | 12.4 | 18.50 | 2.68 | 8.79 | 2.52 | 8.28 | 124.200 |
| | | Co | .073 | 1.85 | 4,110 | 2.08 | 12.7 | 18.90 | - | - | 2.61 | 8.56 | |
| | | Co, Eq or Un | .071 | 1.80 | 4,100 | 1.94 | 12.1 | 18.00 | 3.05 | 10.00 | 2.71 | 8.88 | |
| | | Bu | .074 | 1.88 | 3,831 | 2.08 | 12.7 | 18.90 | - | - | 2.61 | 8.56 | |
| | | Bu | .077 | 1.96 | 4,106 | 2.08 | 12.9 | 19.20 | 2.81 | 9.22 | 2.53 | 8.30 | |
| 12 | Solid 7/0305 19/25 19/0185 65/30 | - | .0808 | 2.05 | 4,100 | 3.31 | 19.8 | 29.50 | 1.69 | 5.54 | 1.59 | 5.21 | 197.500 |
| | | Bu | .092 | 2.34 | 6,530 | 3.30 | 20.2 | 30.10 | - | - | 1.64 | 5.38 | |
| | | Co, Eq or Un | .0905 | 2.299 | 6,512 | 3.08 | 19.4 | 28.90 | 1.87 | 6.13 | 1.70 | 5.59 | |
| | | Cu | .0925 | 2.35 | 6,088 | 3.30 | 20.2 | 30.10 | - | - | 1.64 | 5.25 | |
| | | Bu | .094 | 2.388 | 6,503 | 3.29 | 20.8 | 31.10 | 1.82 | 5.97 | 1.64 | 5.25 | |
| 10 | Solid 7/0385 19/0234 37/0169 105/30 | - | .1019 | 2.588 | 6,500 | 5.26 | 31.4 | 46.80 | - | - | 1.00 | 3.28 | 314.500 |
| | | Co | .116 | 2.95 | 10,380 | 5.25 | 32.0 | 47.60 | - | - | 1.00 | 3.28 | |
| | | Bu | .117 | 2.97 | 10,376 | 5.27 | 32.0 | 47.60 | - | - | .98 | 3.21 | |
| | | Co | .112 | 2.84 | 10,404 | 4.74 | 29.2 | 43.40 | - | - | 1.25 | 4.10 | |
| | | Bu | .126 | 3.20 | 9,361 | 5.32 | 33.8 | 49.20 | 1.10 | 3.61 | .99 | 3.24 | |
| 8 | 7/0486 19/0295 133/29 168/30 | Bu | .146 | 3.71 | 10,500 | 8.38 | 50.1 | 74.50 | - | - | .65 | 2.13 | |
| | | Bu or Eq | .144 | 3.66 | 16,534 | 8.38 | 50.0 | 74.40 | - | - | .65 | 2.13 | |
| | | Ro 19 x 7/29 | .169 | 4.293 | 16,535 | 8.61 | 54.0 | 80.40 | .71 | 2.33 | - | - | |
| | | Ro 7 x 24/30 | .174 | 4.42 | 16,983 | 8.51 | 53.4 | 79.00 | .70 | 2.30 | - | - | |
| 6 | 19/0374 133/27 266/30 | Bu | .188 | 4.775 | 16,800 | 13.33 | 81.1 | 121.00 | - | - | .40 | 1.30 | |
| | | Ro 19 x 7/27 | .213 | 5.41 | 26,576 | 13.60 | 84.1 | 125.00 | .43 | 1.41 | - | - | |
| | | Ro 7 x 38/30 | .222 | 5.64 | 26,818 | 13.49 | 83.2 | 124.00 | .44 | 1.44 | - | - | |
| 4 | 133/25 420/30 | Ro 19 x 7/25 | .257 | 6.53 | 26,600 | 21.61 | 135.0 | 201.00 | .29 | .95 | - | - | |
| | | Ro 7 x 60/30 | .270 | 6.850 | 42,615 | 21.29 | 140.0 | 208.00 | .28 | .92 | - | - | |
| 2 | 665/30 | Ro 19 x 35/30 | .338 | 8.59 | 42,000 | 33.72 | 213.0 | 317.00 | .18 | .59 | - | - | |

(1) Bu - Bunched; Co - Concentric; Eq - Equilay; Ro - Rope; Un - Unilay
 (2) Typical DC resistance values for uninsulated wires. Multiply by 1.04 for typical values after insulation
 (3) Values are for tinned, heavy tinned, prefused, overcoated or topcoated conductors
 (4) Does not meet UL conductor stranding requirements

Glossary

- Abrasion Resistance:** Resistance to surface wear.
- AC Alternating Current (a.c.):** Current in which the charge-flow periodically reverses and is represented by: $i = I_m \cos(2\pi f t - \phi)$ where, I is the current, I_m is the amplitude, f the frequency, ϕ the phase angle.
- Accelerated Aging:** A test that attempts to duplicate long-time environmental aging in comparatively short time spans.
- Accelerator:** A chemical additive which hastens a chemical reaction under specific conditions.
- Accordion:** (1) A retractile cable with a series of equally-spaced transverse folds. (2) A connector contact with a "Z" shaped flat spring to permit high deflection without overstress.
- Adapter:** A device that enables any or all of the following 1) different sizes or types of plugs to mate with one another or to fit into a telecommunications outlet/connector; 2) the rearrangement of leads; 3) large cables with numerous wires to fan out into smaller groups of wires, 4) interconnection between cables.
- Adhesive Bonded:** Cables bonded by adding an adhesive coating to the surface of the cable components, then joining and curing the adhesive to form a cable. See *Bonded Cable*.
- Administration:** The method for labeling, identification, documentation and usage needed to implement moves, additions and changes of the telecommunications infrastructure.
- Admittance:** The measure of the ease with which an alternating current flows in a circuit. The reciprocal of impedance.
- Aerial Cable:** A cable suspended in the air on poles or other overhead structure.
- Aging:** The change in properties of a material with time under specific conditions.
- Air Core Cable:** A cable in which the interstices in the cable core are not filled with a moisture barrier.
- Air-Handling Plenum:** A designated area, closed or open, used for environmental air.
- Air Spaced Coaxial Cable:** One in which air is essentially the dielectric material. A spirally wound synthetic filament, beads or braided filaments may be used to center the conductor.
- All-Rubber Cable:** A cable in which all interstices between conductors are filled with rubber compound.
- Alligator Clip:** A mechanical device shaped like alligator jaws used as a temporary connection on the end of interconnections wire.
- Alloy:** A metal formed by combining two or more different metals to obtain desirable properties.
- Aluminum Conductor:** An aluminum wire or group of wires not suitably insulated to carry electrical current.
- Aluminum-Steel Conductor:** A composite conductor made up of a combination of aluminum and steel wires.
- Ambient Temperature:** The temperature of a medium (gas or liquid) surrounding an object.
- American Wire Gauge (AWG):** The standard system used for designating wire diameter. The lower the AWG number, the larger the diameter. Also called the Brown and Sharpe (B&S) wire gauges.
- Ampacity:** See *Current Carrying Capacity*.
- Ampere:** The unit of current. One ampere is the current flowing through one ohm of resistance at one volt potential.
- Analog:** A signaling format that uses continuous physical variables such as voltage amplitude or frequency variations to transmit information.
- Anneal:** Relief of mechanical stress through heat and gradual cooling. Annealing copper renders it less brittle.
- Annular Conductor:** A number of wires stranded in three reversed concentric layers around a core.
- Annunciator:** A signaling device, usually electrically operated, that gives an audible or visual signal (or both) when energized.
- Anti-Oxidant:** A substance which prevents or slows down oxidation of material exposed to air.
- Appliance Wire and Cable:** A classification covering insulated wire and cable for internal wiring of appliances and equipment.
- Arc Resistance:** The time required for an arc to establish a conductive path in a material.
- Armored Cable:** A cable provided with a wrapping of metal for mechanical protection.
- Attenuation:** The decrease in magnitude of the power of a signal in transmission between points. Attenuation is usually measured in decibels per unit length at a specific frequency.
- Attenuation to Crosstalk Ratio (ACR):** The difference between attenuation and crosstalk, measured in dB, at a given frequency. Important characteristic in networking transmission to assure that signal sent down a twisted pair is stronger at the receiving end, after being attenuated, than are any interference signals imposed on that same pair by crosstalk from other pairs, represented by NEXT.
- Audio Frequency:** The range of frequencies audible to the human ear. Usually 20-20,000 Hz.
- Backbone:** A facility (e.g. pathway, cable or conductors) between telecommunications closets or floor distribution terminals, the entrance facilities and the equipment rooms within or between buildings.
- Backbone Cable or Wire:** Cable or wire found in the backbone; see *Backbone*.
- Balanced Line:** A cable having two identical conductors which carry voltages opposite in polarity and equal in magnitude with respect to ground.
- Balun:** A device for matching an unbalanced coaxial transmission line to a balanced two-wire system.
- Band Marking:** A continuous circumferential band applied to a conductor at regular intervals for identification.
- Banded Cable:** Two or more cables banded together by stainless steel strapping.
- Bandwidth:** A continuous range of frequencies extending between two limiting frequencies. Also referred to as a frequency band.
- Barrel-Packed:** Method of coiling into a fiber drum for shipment.
- Baseband:** In data transmission, the use of a dedicated end-to-end connection to carry a single channel only.
- Beaded Coax:** Coaxial cable with a dielectric consisting of beads made of various materials.
- Belt:** Number of layers of insulation on a conductor, or number of layers of jacket on a cable.
- Belted-Type Cable:** Multiple conductor cable having a layer of insulation over the assembled insulated conductors.
- Bend Loss:** A form of increased attenuation caused by (1) having an optical fiber curved around a restrictive radius of curvature or (2) microbends caused by minute distortions in the fiber imposed by externally induced forces.
- Bend Radius:** Radius of curvature that a fiber optic or metallic cable can bend without any adverse effects.
- Bifilar:** A winding made non-inductive by winding together (as one wire) two wires carrying current in opposite directions.
- Billion Conductor Feet (BCF):** A quantity derived by multiplying the number of conductors in a cable by the amount of cable. Usually used to indicate plant capacity or an annual requirement.
- Bimetallic Wire:** A wire formed of two different metals joined together (not alloyed). It can include wire with a steel core clad wire, or plated or coated wire.
- Binder:** A spirally served tape or thread used for holding assembled cable components in place awaiting subsequent manufacturing operations.
- Binding Post:** A device for clamping or holding electrical conductors in a rigid position.
- Bit:** One binary (0 or 1) digit.
- Blown Jacket:** Outer cable covering applied by controlled inflation of the cured jacket tube then pulling the cable through it.
- Bond Strength:** Amount of adhesion between bonded surfaces, e.g. in cemented ribbon cable.
- Bondable Wire:** An insulated wire treated to facilitate adherence to materials such as potting compounds. Also, magnet wires used in making coils when bonding the turns together is desired.
- Bonded Cable:** Cable consisting of pre-insulated conductors or multiconductor components laid-in parallel and bonded into a flat cable. See *Solvent-Bonded*; *Adhesive-Bonded*; *Film-Bonded*.
- Bonded Construction:** An insulation construction in which the glass braid and nylon jacket are bonded together.
- Bonding:** The permanent joining of metallic parts to form an electrically conductive path that will assure electrical continuity and the capacity to conduct safely any current likely to be imposed on it.
- Booster:** A device inserted into a line (or cable) to increase the voltage.
- Boot:** (1) Protective covering over a cable, wire or connector in addition to the normal jacketing or insulation. (2) A form placed around wire termination of a multiple-contact connector to contain the liquid potting compound before it hardens.
- Braid:** A fibrous or metallic group of filaments interwoven in cylindrical form to form a covering over one or more wires.
- Braid Angle:** The smaller of the two angles formed by the shielding strand and in the axis of the cable being shielded.
- Braid Carrier:** A spool or bobbin on a braid which holds one group of strands or filaments consisting of a specific number of ends. The carrier revolves during braiding operations.

Glossary

- Braid Ends:** The number of strands used to make up one carrier. The strands are wound side by side on the carrier bobbin and lie parallel in the finished braid.
- Braiding Machine:** Machine used to apply braids to wire and cable and to produce braided sleeving and braids for tying or lacing purposes. Braiding machines are identified by the number of carriers.
- Breakdown (Puncture):** A disruptive discharge through the insulation.
- Breakdown Voltage:** The voltage at which the insulation between two conductors breaks down.
- Breakout:** The point at which a conductor or group of conductors breaks out from a multiconductor cable to complete circuits at various points along the main cable.
- Bridge:** A device used to expand a local area network by forwarding frames between data link layers.
- Bridged Tap:** The multiple appearances of the same cable pair at several distribution points.
- British Standard Wire Gauge:** A modification of the Birmingham Wire Gauge and the legal standard of Great Britain for all wires. Also known as Standard Wire Gauge (SWG), New British Standard (NBS), English Legal Standard and Imperial Wire Guide.
- Broadband:** In data transmission, the use of a carrier signal, rather than direct modulation, to carry several simultaneous channels.
- Buffer:** (fiber optic) A soft material which mechanically isolates individual fibers in a fiber optic cable or bundle from small geometrical irregularities, distortions or roughness of adjacent surfaces.
- Buffing Stripper:** A motorized device for removing flat cable insulation by means of buffing wheels that melt the insulation and brush it away from the conductors. Also called Abrasion Stripper.
- Building Entrance Area:** See *Entrance Room or Space, Telecommunications*.
- Building Wire:** Wire used for light and power, 600 volts or less, usually not exposed to outdoor environment.
- Bunched Stranding:** A group of strands twisted together in a random manner and the same direction without regard to geometric arrangement of specific strands.
- Buncher:** A machine that twists wires together in random arrangement.
- Bundle:** (fiber optic) A number of fibers grouped together, usually carrying a common signal.
- Buried Cable:** A cable installed directly in the earth without use of underground conduit. Also called "direct burial cable."
- Bus:** Wire used to connect two terminals inside of an electrical unit.
- Bushing:** A mechanical device used as a lining for an opening to prevent abrasion to wire and cable.
- Butt:** Joining of two conductors end-to-end, with no overlap and with the axes in line.
- Butt Splice:** A splice wherein two wires from opposite ends butt against each other, or against a stop, in the center of a splice.
- Butt Wrap:** Tape wrapped around an object or conductor in an edge-to-edge condition.
- Byte:** Typically a group of eight binary digits.
- Cable:** A stranded conductor with or without insulation and other coverings (single-conductor cable), or a combination of conductors (multiple-conductor cable). In fiber optics, a jacketed fiber or jacketed bundle in a form which can be terminated.
- Cable Assembly:** Typically, the cable and associated connectors; ready to install.
- Cable Clamp:** A device used to give mechanical support to the wire bundle or cable at the rear of a plug or receptacle.
- Cable Clamp Adapter:** A mechanical adapter that attaches to the rear of a plug or receptacle to allow the attachment of a cable clamp.
- Cable Core:** The portion of an insulated cable lying under a protective covering.
- Cable Core Binder:** A wrapping of tapes or cords around the conductors of a multiple-conductor cable used to hold them together.
- Cable Filler:** The material used in multiple-conductor cables to occupy the interslices formed by the assembly of the insulated conductors, thus forming a cable core.
- Cable Rack:** The vertical or horizontal open support (usually made of aluminum or steel) that is attached to a ceiling or wall.
- Cable Sheath:** The overall protective covering applied to cables.
- Cable Tray:** A ladder, trough, solid-bottom or channel raceway system intended for, but not limited to, the support of telecommunications media (e.g., cable).
- Cable Vulcanizer:** Compression molding machine used to repair cable jacketing that has had a part removed for splicing, for adding connectors or other devices or for replacing damaged sections.
- Cabling:** (1) A combination of all cables, wire, cords and connecting hardware. (2) Twisting together two or more insulated conductors by machine to form a cable. In fiber optics, a method by which a group or bundle of fibers is mechanically assembled.
- Cabling Factor:** Used in the formula for calculating the diameter of an unshielded, jacketed cable. $D = Kd$, where D is the cable diameter, K is the factor and d is the diameter of one insulated conductor.
- Campus:** The building and grounds of a complex (e.g. a university, college, industrial park or military establishment).
- Canadian Standards Association (CSA):** A non-profit independent organization which operates a listing service for electrical and electronic materials and equipment. The Canadian counterpart of the Underwriter's Laboratories.
- Capacitance:** The ratio of the electrostatic charge on a conductor to the potential difference between the conductors required to maintain that charge.
- Capacitance, Direct:** The capacitance measured from one conductor to another conductor through a single insulating layer.
- Capacitance, Mutual:** The capacitance between two conductors (typically of a pair) with all other conductors, including shield, short circuited to ground.
- Carolprene®:** Proprietary rubber compound.
- Carrier:** The woven element of a braid consisting of one or more ends (strands) which creates the interlaced effect. Also, a spindle, spool, tube, or bobbin (on a braiding machine) containing yarn or wire, employed as a braid.
- Cellular Plastics:** Expanded or "foam," consists of individual closed cells of inert gas suspended in a plastic medium, resulting in a desirable reduction of the dielectric constant.
- Central Office:** The place where communications common carriers terminate customer lines and locate switching equipment that interconnects those lines.
- Certificate of Compliance (C of C):** A written statement; normally generated by a quality control department, which states that the product being shipped meets customer's specifications.
- Certified Test Report (CTR):** A report reflecting actual test data on the cable shipped. Tests are normally conducted by the quality control department, and show that the product being shipped meets the required test specifications.
- Characteristic Impedance:** The impedance that, when connected to the output terminals of a transmission line of any length, makes the line appear indefinitely long.
- Chlorosulfonated Polyethylene (CSPE):** A rubbery polymer used for insulations and jackets. Manufactured by E.I. DuPont under the trade name of Hypalon®.
- Cigarette Wrap:** Tape insulation wrapped longitudinally instead of spirally over a conductor.
- Circuit:** A complete path over which electrons can flow from the negative terminals of a voltage source through parts and wires to the positive terminals of the same voltage source.
- Circuit Sizes:** A popular term for building wire sizes 14 through 10 AWG.
- Circular Mil:** The area of a circle one mil (.001") in diameter; 7.854×10^{-7} sq. in. Used in expressing wire cross sectional area.
- Cladding:** Method of applying a layer of metal over another metal whereby the junction of the two metals is continuously welded. In fiber optics, a sheathing intimately in contact with the core of a higher refractive index material which serves to provide optical insulation and protection to the reflection interface.
- Closed End Splice:** An insulated splice in which two or more wires overlap and enter the splice from the same end of the barrel.
- Closet, Telecommunications:** An enclosed space for housing telecommunications equipment, cable terminations and cross-connect cabling. The closet is the recognized location of the cross-connect between the backbone and horizontal facilities.
- Coaxial Cable:** A cable consisting of two cylindrical conductors with a common axis, separated by a dielectric.
- Coaxial Connector:** A connector that has a coaxial construction and is used with coaxial cable.
- Coherent Source:** (fiber optic) A light source which emits a very narrow, unidirectional beam of light of one wavelength (monochromatic).
- Coil Effect:** The inductive effect exhibited by a spiral-wrapped shield, especially above audio frequencies.

Glossary

Cold Flow: Permanent deformation of the insulation due to mechanical force of pressure (not due to heat softening).

Color Code: A color system for wire or circuit identification by use of solid colors, tracers, braids, surface printing, etc.

Commercial Building: A building or portion thereof, that is intended for office use.

Common Axis Cabling: In multiple cable constructions, a twisting of all conductors about a "common axis" to result in smaller diameter constructions. Tends to result in greater susceptibility to electromagnetic and electrostatic interference.

Compact Conductor: Stranded conductor rolled to deform the round wires to fill the normal interstices between the wires in a strand.

Composite (Clad) Wire: A wire having a core of one metal with a fused outer shell of different metals.

Composite Conductor: Two or more strands of different metals assembled and operated in parallel.

Compound: An insulating or jacketing material made by mixing two or more ingredients.

Compression Cable: A pipe type cable in which the pressure medium is separated from the insulation by a membrane or sheath.

Concentric: A central core surrounded by one or more layers of helically wound strands in a fixed round geometric arrangement.

Concentric-Lay Cable: A concentric-lay conductor, or a multiple-conductor cable composed of a central core surrounded by one or more layers of helically laid insulated conductors.

Concentric Strand: A strand that consists of a central wire or core surrounded by one or more layers of spirally laid wires.

Concentricity: The measurement of the location of the center of the conductor with respect to the geometric center of the circular insulation.

Conductance: The ability of a conductor to carry an electric charge. The ratio of the current flow to the potential difference causing the flow. The reciprocal of resistance.

Conductivity: The capacity of a material to carry electrical current—usually expressed as a percentage of copper conductivity (copper being 100%).

Conductor: A wire (or combination of wires not insulated from one another) suitable for carrying electric current.

Conduit: A rigid or flexible metallic or nonmetallic raceway of circular cross-section through which cables can be pulled or housed.

Connecting Hardware: A device providing mechanical cable terminations.

Connector: A device used to provide rapid connect/disconnect service for electrical cable and wire terminations.

Contact: The part of a connector which actually carries the electrical current, and are touched together or separated to control the flow.

Contact Inspection Hole: A hole in the cylindrical rear portion of contact used to check the depth to which a wire has been inserted.

Contact Size: The largest size wire which can be used with the specific contact. Also, the diameter of the engagement end of the pin.

Continuity Check: A test to determine whether electrical current flows continuously throughout the length of a single wire or individual wires in a cable.

Continuous Vulcanization: Simultaneous extrusion and vulcanization of rubber-like wire coating materials.

Contrahelical: Cable spiralling in an opposite direction than the preceding layer within a wire or cable.

Control Cable: A multi-conductor cable made for operation in control of signal circuits.

Controlled Impedance Cable: Package of two or more insulated conductors where impedance measurements between respective conductors are kept essentially constant throughout the entire length.

Copolymer: A compound resulting from the polymerization of two different monomers.

Copper-Clad: Steel with a coating of copper welded to it before drawing as opposed to copper-plated. Synonymous with Copperweld.

Copperweld: The trade name of Flexo Wire Division (Copperweld Steel Corp.) for their copper-clad steel conductors.

Cord: A small, flexible insulated cable.

Cord Set: Portable cords fitted with a wiring device at one or both ends.

Cord, Telecommunications: A cable using stranded conductors for flexibility, as in distribution cords or line cords. Line cords can also use tinsel conductors.

Core: In cables, a component or assembly of components over which other materials are applied, such as additional components, shield, sheath or armor. In fiber optics, the transparent glass or plastic section with a high refractive index through which the light travels by internal reflections.

Corona: A discharge due to ionization of air around a conductor due to a potential gradient exceeding a certain critical value.

Corona Resistance: The time that the insulation will withstand a specified level of field-intensified ionization that does not result in the immediate complete breakdown of the insulation.

Corrosion: The destruction of the surface of a metal by chemical reaction.

Coupling Loss: (fiber optic) Signal losses due to small differences in numerical aperture, core diameter, core concentricity and tolerances in splicing connectors when two fibers are aligned. Also known as Splicing Loss and Transfer Loss.

Coupling Ring: A device used on cylindrical connectors to lock plug and receptacle together.

Coverage: The calculated percentage which defines the completeness with which a metal braid covers the underlying surface. The higher percentage of coverage, the greater the protection against external interference.

Covering: Textile braid or jacket of rubber, plastics or other materials applied over wire and cables to provide mechanical protection and identification.

Crazing: The minute cracks on the surface of plastic materials.

Creep: The dimensional change with time of a material under load.

Creepage: The conduction of electricity across the surface of a dielectric.

Creepage Path: The path across the surface of a dielectric between two conductors.

Creepage Surface: An insulating surface which provides physical separation as a form of insulation between two electrical conductors of different potential.

Crimp: Act of compressing a connector barrel around a cable in order to make an electrical connection.

Crimp Termination: Connection in which a metal sleeve is secured to a conductor by mechanically crimping the sleeve with pliers, presses or automated crimping machines.

Cross-Connect: A facility enabling the termination of cable elements and their interconnection, and/or cross-connection, primarily by means of a patch cord or jumper.

Cross-Linked: Inter-molecular bonds between long-chain thermoplastic polymers by chemical or electron bombardment means. The properties of the resulting thermosetting material are usually improved.

Crosstalk: Undesired electrical currents in conductors caused by electromagnetic or electrostatic coupling from other conductors or from external sources. Also, leakage of optical power from one optical conductor to another.

CSA: Canadian Standards Association.

C-SJ: Same as SJ except extra-flexible conductor.

C-SJO: Same as SJO except extra-flexible conductor.

Cure: To change the physical properties of a material by chemical reaction.

Curing Cycle: The time, temperature and pressure required for curing.

Curl: The degree to which a wire tends to form a circle after removal from a spool. An indication of the ability of the wire to be wrapped around posts in long runs.

Current: The rate of transfer of electricity. Practical unit is the ampere which represents the transfer of one coulomb per second. In a simple circuit, current (I) produced by a cell or electromotive force (E) when there is an external resistance (R) and internal resistance (r) is:

$$I = \frac{E}{R + r}$$

Current Carrying Capacity: The maximum current an insulated conductor can safely carry without exceeding its insulation and jacket temperature limitations.

Customer Premises: Building(s) with grounds and appurtenances (belongings) under the control of the customer.

Cut-Through Resistance: The ability of a material to withstand mechanical pressure, usually a sharp edge or small radius, without separation.

Cycle: The complete sequence including reversal of the flow of an alternating electric current.

Decibel (dB): A unit to express differences of power level. Used to express power gain in amplifiers or power loss in passive circuits or cables.

Delay Line: A cable made to provide very low velocity of propagation with long electrical delay for transmitted signals.

Demarcation Point: A point where the operational control or ownership changes.

Glossary

- Depth of Crimp:** Thickness of the crimped portion of a connector measured between two opposite points on the crimped surface.
- Derating Factor:** A factor used to reduce the current carrying capacity of a wire when used in environments other than that for which the value was established.
- Detector:** (fiber optic) A device that picks up light from fiber and converts the information into an electrical signal.
- Device, As Related to a Work Station:** An item such as a telephone, personal computer or graphic or video terminal.
- Device, As Related to Protection:** A protector, a protector mount, a protector unit or a protector module.
- Dielectric:** An insulating medium which intervenes between two conductors and permits electrostatic attraction and repulsion to take place across it.
- Dielectric Breakdown:** The voltage required to cause an electrical failure or breakthrough of the insulation.
- Dielectric Constant (K):** The ratio of the capacitance of a condenser with dielectric between the electrodes to the capacitance when air is between the electrodes. Also called Permittivity and Specific Inductive Capacity.
- Dielectric Loss:** Power dissipated in an insulating medium as the result of the friction caused by molecular motion when an AC electric field is applied.
- Dielectric Strength:** The voltage which an insulation can withstand before breakdown occurs. Usually expressed as a voltage gradient (such as volts per mil).
- Dielectric Test:** A test in which a voltage higher than the rated voltage is applied for a specified time to determine the adequacy of the insulation under normal conditions.
- Digital:** Transmission data representative by discrete characters.
- Dip Coating:** An insulating coating applied to the conductor by passing the conductor through an applicator containing liquid insulating medium.
- Direct Burial Cable:** A cable installed directly in the earth.
- Direct Capacitance:** The capacitance measured directly from conductor to conductor through a single insulating layer.
- Direct Current (d.c.):** An electric current which flows in only one direction.
- Direct Current Resistance (DCR):** The resistance offered by any circuit to the flow of direct current.
- Direction of Lay:** The lateral direction in which the strands of a conductor run over the top of the cable conductor as they recede from an observer looking along the axis of the conductor or cable. Also applies to twisted cable.
- Discrete Wiring:** Wire or wires having distinct identity and purpose.
- Dispersion:** (fiber optic) The variation of the refractive index of a material with wavelength, causing light of different wavelengths to travel at different velocities in the material.
- Disruptive Discharge:** A sudden, large increase in current through an insulation medium due to the complete failure of the medium under the electrostatic stress.
- Dissipation Factor:** The tangent of the loss angle of the insulating material. (Also referred to as loss tangent, $\tan \delta$, and approximate power factor.)
- Distribution Cable:** In telecommunications and CATV systems, the transmission cable between the distribution amplifier and the drop wire.
- Distribution Frame:** A structure with terminations for connecting the permanent cabling of a facility in such a manner that interconnection or cross-connections may be readily made.
- Disturbed Conductor:** A conductor that receives energy generated by the field of another conductor or an external source such as a transformer.
- Drain Wire:** In a cable, the uninsulated wire laid over the component or components and used as a ground connection.
- Draw Feed Stock:** Rod or wire that is subsequently drawn to a smaller size.
- Drawing:** In wire manufacture, pulling the metal through a die or series of dies to reduce diameter to a specified size.
- Drop Ceiling:** See *False Ceiling*.
- Drop Wire:** In telecommunications and CATV systems, the transmission cable from the distribution cable to a dwelling.
- Dual Coaxial Cable:** Two individually insulated conductors laid parallel or twisted and placed within an overall shield and sheath.
- Duct:** 1) A single enclosed raceway for wires or cables. See also *Conduit*, *Raceway*; 2) a single enclosed raceway for wires or cables usually used in soil or concrete, 3) an enclosure in which air is moved. Generally part of the HVAC system of a building.
- Duplex:** Two way data transmission on a four-wire transmission line or two fiber.
- Duplex Cable:** (1) A cable composed of two insulated single-conductor cables twisted together. (2) A cable composed of two fibers, typically 62.5/125 μm multimode, placed in parallel under a thermoplastic sheath.
- Duplex Parallel:** Typically used in the thermocouple industry to denote two parallel conductors of dissimilar metals insulated in parallel without twist and jacketed. Commonly applied to thermocouple grades and extension wires.
- Eccentricity:** Like concentricity, a measure of the center of a conductor's location with respect to the circular cross section of the insulation. Expressed as a percentage of displacement of one circle within the other.
- Eddy Current:** Circulating currents induced in conducting materials by varying magnetic fields.
- Elastomer:** A rubber or rubber-like material which will stretch repeatedly to 200 percent or more and return rapidly and with force to its approximate original shape.
- Electro-Tinned:** Electrolytic process of tinning wire using pure tin.
- Electrode:** A conductor through which a current enters or leaves a nonmetallic conductor.
- Electromagnetic Coupling:** Energy transfer by means of a varying magnetic field.
- Electromagnetic Field:** A rapidly moving electric field and its associated moving magnetic field.
- Electromagnetic Induction:** The production of a voltage in a coil due to a change in the number of magnetic lines of forces (flux linkages) passing through the coil.
- Electromagnetic Interference (EMI):** The interference in signal transmission or reception resulting from the radiation of electrical and magnetic fields. Synonym: Radio Frequency Interference.
- Electromotive Force (e.m.f.):** Pressure or voltage. The forces which cause current to flow in a circuit.
- Electronic Wire and Cable:** A length of conductive or semiconductive material used in an electronic application.
- Electrostatic:** Pertaining to static electricity, or electricity at rest. An electric charge, for example.
- Elongation:** The fractional increase in the length of a material stressed in tension.
- Embossing:** A marker identification by means of thermal indentation leaving raised lettering on the sheath material of cable.
- Emergency Overload:** Load which occurs when larger than normal currents are carried through a cable or wire over a certain period of time.
- Enameled Wire:** A conductor with a baked-on enamel film insulation. In addition to magnet wire, enameled insulation is used on thermocouple type wires and other wires.
- Ends:** In braiding, the number of essentially parallel wires of threads on a carrier.
- Energize:** To apply rated voltage to a circuit or device in order to activate it.
- Entrance Facility, Telecommunications:** An entrance to a building for both public and private network service cables (including antennae) including the entrance point at the building wall and continuing to the entrance room or space.
- Entrance Point, Telecommunications:** The point of emergence of telecommunications conductors through an exterior wall, a concrete floor slab or from a rigid metal conduit or intermediate metal conduit.
- Entrance Room or Space, Telecommunications:** A space in which the joining of inter- or intra-building telecommunications backbone facilities takes place. An entrance room may also serve as an equipment room.
- Equilay:** More than one layer of helically laid wires with the direction of lay reversed for successive layers, but with the length of lay the same for each layer.
- Equipment Room, Telecommunications:** A centralized space for telecommunications equipment that serves the occupants of the building. An equipment room is considered distinct from a telecommunications closet because of the nature of complexity or the equipment.
- Etched Wire:** A process applied to fluoroplastic wire in which the wire is passed through a sodium bath to create a rough surface to allow epoxy resin to bond the fluoroplastic.
- Exit Angle:** The angle between the output radiation vectors and the axis of the fiber or fiber bundle.
- External Interference:** The effects of electrical waves or fields which cause sounds other than the desired signal. Static.

Glossary

- External Wiring:** Electronic wiring which interconnects subsystems within the system.
- Extruded Cable:** Cable with conductors which are uniformly insulated and formed by applying a homogeneous insulation material in a continuous extrusion process.
- Extrusion:** Method of continuously forcing plastic, rubber, or elastomer material through an orifice to apply insulation or jacketing over a conductor or cable core.
- False Ceiling:** A ceiling that creates an area or space between the ceiling material and the structure above the material. Synonym: *Drop Ceiling, Suspended Ceiling.*
- Farad:** A unit of electrical capacity.
- Fatigue Resistance:** Resistance to metal crystallization which leads to conductors or wires breaking from flexing.
- Feed-Through Insulators:** Insulators that carry a metal conductor through the chassis while preventing the "hot" lead from shorting to the ground chassis.
- Feedback:** Energy that is extracted from a high-level point in a circuit and applied to a lower level. Positive feedback reduces the stability of a device and is used to increase the sensitivity or produce oscillation in a system. Negative feedback, also called inverse feedback, increases the stability of a system as the feedback improves stability and fidelity.
- Feeder Cable:** In telecommunication or CATV systems, the transmission cable from the head end (signal pickup) to the trunk amplifier. Also called a trunk cable.
- Fedthrough:** (1) A conductor that connects patterns on opposite sides of a PCB. Also called Interfacial connection. (2) A connector or terminal block, usually having double-ended terminals which permit simple distribution and bussing of electrical circuits.
- Ferrous:** Composed of and/or containing iron. A ferrous metal exhibits magnetic characteristics.
- Ferrule:** A short tube used to make solderless connections to shielded or coaxial cable.
- Fiber:** A thread or threadlike structure. Also, a single discrete element used to transmit optical (light wave) information.
- Fiber Dispersion:** (fiber optic) Pulse spreading in a fiber caused by differing transit times of various modes.
- Fiber Optics:** A lightwave or optical communications system in which electrical information is converted to light energy, transmitted to another location through optical fibers, and is there converted back into electrical information.
- Fiber Tubing:** A loose, crush-resistant cylinder applied over individual fibers to provide mechanical protection.
- Field:** An area of influence around a magnet or electric charge.
- Field Coil:** A suitable insulated winding to be mounted on a field pole to magnetize it.
- Figure 8 Cable:** An aerial cable configuration in which the conductors and the steel strand which supports the cable are integrally jacketed. A cross-section of the finished cable approximates the figure "eight."
- Filament:** Fiber characterized by extreme length.
- Filled Cable:** A telephone cable construction in which the cable core is filled with a material that will prevent moisture from entering or passing through the cable.
- Filler:** (1) A material used in multiconductor cables to occupy large interstices formed by the assembled conductors. (2) An inert substance added to a compound to improve properties or decrease cost.
- Film:** A thin plastic sheet.
- Fine Stranded Wire:** Stranded wire with component strands of 36 AWG or smaller.
- Firestop:** A material, device or assembly of parts installed in a cable system in a fire-rated wall or floor to prevent passage of flame, smoke or gasses through the rated barrier.
- Flame Resistance:** The ability of a material not to propagate flame once the heat source is removed.
- Flammability:** The measure of the material's ability to support combustion.
- Flashover:** A disruptive discharge around or over the surface of a solid or liquid insulator.
- Flat Braid:** A woven braid of tinned copper strands rolled flat at time of manufacture to a specified width.
- Flat Cable:** A cable with two smooth or corrugated but essentially flat surfaces.
- Flat Conductor:** A wire having a rectangular cross-section as opposed to a round or square conductor.
- Flat Conductor Cable:** A cable with a plurality of flat conductors.
- Flexfoil®:** Proprietary aluminum laminated shielding tapes.
- Flex Life:** The measurement of the ability of a conductor or cable to withstand repeated bending.
- Flexibility:** The ease with which a cable may be bent.
- Flexible:** That quality of a cable or cable component which allows for bending under the influence of outside force, as opposed to limpness which is bending due to the cable's own weight.
- Floating:** Referring to a circuit which has no connection to ground.
- Flux:** (1) The lines of force which make up an electrostatic field. (2) The rate of flow of energy across or through a surface. (3) A substance used to promote or facilitate fusion.
- FNC:** Federal Networking Council (formerly FRICC).
- Foamed Plastics:** See *Cellular Plastic.*
- Foil:** A thin, continuous sheet of metal.
- Free Connector:** A connector for attachment to the free end of a wire or cable.
- Frequency:** The number of times a periodic action occurs in a unit of time. The number of cycles that an electric current completes in one second.
- Frequency Response:** The characteristic of a device denoting the range of frequencies over which it may be used effectively.
- Funnel Entry:** Flared or widened entrance to a terminal or connector wire barrel.
- Fuse Wire:** Wire made from an alloy that melts at a relatively low temperature.
- Fused Coating:** A metallic coating which has been melted and solidified, forming a metallurgical bond to the base material.
- Fused Conductors:** Individual strands of heavy tinned copper wire stranded together and then bonded together by induction heating.
- Fused Spiral Tape:** A PTFE insulated hookup wire. The spiral wrapped conductor is passed through a sintering oven where overlaps are fused together.
- Gain:** The increase of voltage, current or power over a standard or previous reading. Usually expressed in decibels.
- Galvanometer:** An instrument for detecting or measuring small electrical current.
- Gas-Filled Cable:** A self-contained pressure cable in which the pressure medium is an inert gas having access to the insulation.
- Gauge:** A term used to denote the physical size of a wire.
- Giga:** A numerical prefix denoting one billion (10⁹).
- Gigahertz (GHz):** A unit of frequency equal to one billion hertz.
- Gimmick:** A short length of wire soldered onto a circuit component and used as a small adjustable capacitor.
- Graded-Index:** A type of optical fiber in which the refractive index of the core is in the form of a parabolic curve, decreasing toward the cladding. This type of fiber provides high bandwidth capabilities.
- Ground:** A conducting connection, whether intentional or accidental, between an electrical circuit (e.g. telecommunications) or equipment and the earth, or to some conducting body that serves in place of the earth.
- Ground Conductor:** A conductor in a transmission cable or line that is grounded.
- Ground Insulation:** The insulation used between a winding and the magnetic core or other structural parts, usually at ground potential.
- Ground Loop:** The generation of undesirable current flow within a ground conductor, owing to the circulation currents which originate from a second source of voltage.
- Ground Plane:** Expanded copper mesh which is laminated into some flat cable constructions as a shield.
- Ground Potential:** Zero potential with respect to the ground or earth.
- Hard Drawn Copper Wire:** Copper wire that has not been annealed after drawing.
- Harness:** An arrangement of wires and cables usually with many breakouts, which have been tied together or pulled into a rubber or plastic sheath, used to interconnect an electric circuit.
- Hash Mark Stripe:** A non-continuous helical stripe applied to a conductor for identification.
- Heat Distortion:** Distortion of flow of a material or configuration due to the application of heat.
- Heat Seal:** Method of sealing a tape wrap jacket by means of thermal fusion.
- Heater Cord:** Flexible stranded copper conductor, cotton wrapped, with rubber insulation and asbestos roving.
- Helical Stripe:** A continuous, colored, spiral stripe applied to a conductor for circuit identification.
- Helix:** Spiral winding.
- Henry:** The unit of inductance.
- Hertz (Hz):** A term replacing cycles-per-second as an indication of frequency.
- Heterogeneous Insulation:** A cable insulating system composed of two or more layers of different insulating materials.

Glossary

- High-Temperature Wire and Cable:** Electrical wire and cables having thermal operating characteristics of 150°C and higher.
- High Voltage:** Generally, a wire or cable with an operating voltage of over 600 volts.
- Holding Strength:** Ability of a connector to remain assembled to a cable when under tension.
- Homogeneous Insulation:** A complete cable insulation structure whose components cannot be identified as layers of different materials.
- Hook-up Wire:** A wire used for low-current, low-voltage (under 1000 volts) applications within enclosed electronic equipment.
- Horizontal Cabling:** The wiring/cabling between the telecommunications outlet/connector and the horizontal cross-connect.
- Horizontal Cross-Connect:** A cross-connect of horizontal cabling to other cabling, e.g. horizontal, backbone or equipment.
- Hot Stamping:** Method of alpha numerical coding. Identification markings are made by pressing heated type and marking foil into softened insulation surfaces. See Surface Printing.
- Hot Tin Dip:** A process of passing bare wire through a bath of molten tin to provide a coating.
- Hybrid Cable:** An assembly of two or more cables (of the same or different types or categories) covered by one overall sheath.
- Hygroscopic:** Capable of absorbing moisture from the air.
- Hypalon®:** DuPont's trade name for their chlorosulfonated polyethylene, an ozone-resistant synthetic rubber.
- Impact Tool:** Device used to punch new conductor onto IDs. This tool is typically equipped with a cutting blade for either 66 or 110 blocks.
- Impedance:** The total opposition that a circuit offers to the flow of alternating current or any other varying current at a particular frequency. It is a combination of resistance R and reactance X, measured in Ω .
- Impedance-Matching Transformer:** A transformer designed to match the impedance of one circuit to that of another (BALUN).
- Impulse:** A surge of unidirectional polarity.
- Impulse Strength:** The voltage breakdown of insulation under voltage surges on the order of microseconds in duration.
- Impulse Test:** An insulation test in which the voltage applied is an impulse voltage of specified wave shape.
- Incoherent Source:** (fiber optic) A light source which emits wide, diffuse beams of light of many wave lengths.
- Index-Matching Fluid:** (fiber optic) Fluid with refractive index same as fiber core; used to fill air gap between fiber ends at connectors.
- Index of Refraction:** The ratio of light velocity in a vacuum to its velocity in a given transmitting medium.
- Inductance:** The property of a circuit or circuit element that opposes a change in current flow, thus causing current changes to lag behind voltage changes. It is measured in henrys.
- Inductive Coupling:** Crosstalk resulting from the action of the electromagnetic field of one conductor on the other.
- Infrastructure, Telecommunications:** A collection of those telecommunications components, excluding equipment, that together provide the basic support for the distribution of all information within a building or campus.
- Insertion Loss:** As measure of the attenuation of a device by determining the output of a system before and after the device is inserted into the system.
- Insertion Tool:** A small, hand-held tool used to insert contacts into a connector.
- Insulated Wire:** A conductor of electricity covered with a non-conducting material.
- Insulating Joint:** A device which mechanically couples and electrically insulates the sheath and armor of contiguous lengths of cable.
- Insulation:** A material having high resistance to the flow of electric current. Often called a dielectric in radio frequency cable.
- Insulation Adhesion:** The degree of tightness of the insulation over the base conductor, measured in terms of force required to remove a specified length of insulation from the wire.
- Insulation Crimp:** The area of a terminal, splice or contact that has been formed around the insulation of the wire.
- Insulation Grip:** Extended cylinders at the rear of crimp-type contacts designed to accept the bared wire and a small length of its insulation.
- Insulation Piercing:** A method of crimping whereby lances cut the insulation of the wires and enter into the strands to make electrical contact.
- Insulation Resistance:** The ratio of the applied voltage to the total current between two electrodes in contact with a specific insulation, usually expressed in meg Ω -M feet.
- Insulation System:** All of the insulation materials used to insulate a particular electrical or electronic product.
- Integral Belt:** A layer of insulation or semiconductive material applied by extrusion over two or more insulated, twisted or parallel conductors, to form a round, smooth diameter.
- Interconnect:** A connection scheme that provides for the direct connection of individual cables to another cable or to an equipment cable without a patch cord.
- Interconnecting Cable:** The wiring between modules, between units or the larger portions of a system.
- Interconnecting Wire:** The physical wiring between components (outside a module), between modules, between units or between larger portions of a system or systems.
- Interconnection:** Mechanically joining devices together to complete an electrical circuit.
- Interface:** The two surfaces on the contact side of both halves of a multiple-contact connector which face each other when the connector is assembled.
- Intermediate Cross-Connect:** A cross-connect between 1st level and 2nd level backbone cabling.
- Internal Wiring:** Electronic wiring which interconnects components, usually within a sealed subsystem.
- Interstices:** Voids or valleys between individual strands in a conductor or between insulated conductors in a multiconductor cable.
- Ionization Voltage (Corona Level):** The minimum value of falling rms voltage which sustains electrical discharge within the vacuum or gas-filled spaces in the cable construction or insulation.
- Irradiation:** In insulations, the exposure of the material to high energy emissions for the purpose of favorably altering the molecular structure.
- Jack:** A plug-in type terminal widely used in an electronic apparatus for temporary connections.
- Jacket:** An outer protective sheath over primary insulation, braids, shields, cable components or over the cable itself. In fiber optics, a covering, over a fiber, bundle of fibers or cable which protects against the environment.
- JAN Specification:** Joint Army-Navy specification (replaced by current Military Specifications).
- Jumper:** An assembly of twisted pairs without connectors, used to join telecommunications circuits/links at the cross connect.
- Junction:** A point in a circuit where two or more wires are connected.
- Keying:** The mechanical feature of a connector system that guarantees correct orientation of a connection, or prevents the connection to a jack, or to an optical fiber adapter of the same type intended for another purpose.
- Kynar®:** Pennwalt trade name for polyvinylidene fluoride. Typically used as insulation for wire wrap wire.
- Lacing and Harnessing:** A method of grouping wires by securing them in bundles of designated patterns.
- Lacquer:** A liquid resin or compound applied to textile braid to prevent fraying, moisture absorption, etc.
- Laminated Tape:** A tape consisting of two or more layers of different materials bonded together.
- Laser Diode:** (fiber optic) A semiconductor diode that, when pulsed, a laser diode emits coherent light.
- Launch Angle:** (fiber optic) The angle between the radiation vector and the axis of the fiber or fiber bundle.
- Lay:** The length measured along the axis of a wire or cable required for a single strand (in stranded wire) or conductor (in cable) to make one complete turn about the axis of the conductor or cable.
- Layer:** Consecutive turns of a coil lying in a single plane.
- Leaching and Non-Leaching:** In a leaching wire, the plasticizer will migrate when exposed to heat. A non-leaching wire will retain its plasticizer under extreme temperature conditions and remain flexible after baking.
- Lead:** A wire, with or without terminals, that connects two points in a circuit.
- Lead-Cured:** A cable that is cured or vulcanized in a metallic lead mold.
- Lead Dress:** The placement or routing of wire and component leads in an electrical circuit.
- Lead-in:** The conductor or conductors that connect the antenna proper to electronic equipment.
- Leakage Current:** The undesirable flow of current through or over the surface of an insulation.

Glossary

- Life Cycle:** A test to determine the length of time before failure in a controlled, usually accelerated, environment.
- Light Commercial Building:** A building or portion thereof that is intended for use with one to four (1-4) non-residential exchange access lines per tenant.
- Light-Intensity Ratio:** (fiber optic) Ratio of input light intensity to the output light intensity.
- Light Source:** (fiber optic) An object capable of emitting light. In fiber optics, the light source is normally an LED or a laser.
- Lightguide:** (fiber optic) A flexible bundle of fibers used to transmit light.
- Lightwave Communications:** (fiber optic) Communications using light to carry the information.
- Limits of Error:** The maximum deviation (in degrees of percent) of a thermocouple or thermocouple extension wire from standard emf-temperature to be measured.
- Limpness:** The ability of a cable to lay flat or conform to a surface.
- Line Balance:** The degree to which the conductors of a cable are alike in their electrical characteristics with respect to each other, to other conductors and to ground.
- Line Drop:** A voltage loss occurring between any two points in a transmission line, due to the resonance, reactance or leakage of the line.
- Line Loss:** The total of the various energy losses occurring in a transmission line.
- Line Voltage:** Voltage existing in a cable or circuit.
- Link:** An assembly of telecommunications facilities between two points, not including terminal equipment.
- Listed:** Equipment included in a list published by an organization, acceptable to the authority having jurisdiction, that maintains periodic inspection of production of listed equipment, and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.
- Local Area Network (LAN):** A geographically limited communications network intended for the local transport of data, video and voice.
- Longitudinal Shield:** A tape shield, flat or corrugated, applied longitudinally with the axis of the core being shielded.
- Longitudinal Wrap:** Tape applied longitudinally with the axis of the core being covered.
- Loop Resistance:** The total resistance of two conductors measured round-trip from one end. Commonly used term in the thermocouple industry.
- Looping-in:** Wiring method which avoids tee joints by carrying the conductor or cable to and from the point to be supplied.
- Loss:** Energy dissipated without accomplishing useful work.
- Loss Factor:** The product of the dissipation and dielectric constant of an insulating material.
- Lossy Line:** A cable having large attenuation per unit of length.
- Low-Loss Dielectric:** An insulating material that has a relatively low dielectric loss, such as polyethylene or Teflon®.
- Low-Noise Cable:** Cable configuration specially constructed to eliminate spurious electrical disturbances caused by capacitance changes or self-generated noise induced by either physical abuse or adjacent circuitry.
- Low Tension:** Low voltage, as applied to ignition cable.
- Lug:** Termination, usually crimped or soldered to the conductor, with provision for screwing on to the terminal.
- m:** Meter.
- Magnet Wire:** Insulated wire intended for use in windings on motor, transformer and other coils for electromagnetic devices.
- Magnetic Field:** The region within which a body or current experiences magnetic force.
- Magnetic Flux:** The rate of flow of magnetic energy across or through a surface (real or imaginary).
- Magnetic Noise:** Caused by change in current level, e.g. ac powerline (creates magnetic field around the cable) this magnetic field causes the magnetic noise.
- Main Cross-Connect:** A cross-connect for 1st level backbone cables, entrance cables and equipment cables.
- Marker Tape:** A tape laid parallel to the conductors under the sheath in a cable, imprinted with the manufacturer's name and the specification to which the cable is made.
- Master Antenna Television (MATV):** A combination of components providing multiple television receiver operations from one antenna or group of antennas normally on a single building.
- Material Scattering Loss:** (fiber optics) Loss due to fluctuations in the refractive index and to inhomogeneities in material composition and temperature.
- Media, Telecommunications:** Wire, cable or conductors used for telecommunications.
- Megarad:** A unit for measuring radiation dosage.
- Messenger:** Supporting member, usually a high-strength steel wire, used to suspend aerial cable. The messenger may be an integral part of the cable, or exterior to it (lashed messenger).
- Microbending Loss:** (fiber optic) Loss due to small geometrical irregularities along the core-clad interface of the fiber.
- Microfarad:** One-millionth of a farad, commonly abbreviated m-F.
- Micromicrofarad:** One-millionth of a microfarad. (uuf, uufd, mmf, mmfd $\mu''\mu$. F are common abbreviations.)
- Microwave:** A short (usually less than 30 cm.) electrical wave.
- Mil:** A unit used in measuring diameter of a wire or thickness of insulation over a conductor. One-one thousandth of an inch (.001").
- Mineral-Insulated:** Cable and thermocouple wire consisting of one or more conductors surrounded by magnesium oxide insulation and enclosed in a liquid- and gas-tight metallic sheathing.
- Miniature Wire:** Insulated conductors of approximately 20-34 AWG.
- Mis-Match:** A termination having a different impedance than that for which a circuit or cable is designed.
- Mode:** One of the components of a general configuration of a propagating wave front.
- Modem:** Device which places and receives data signals over a common carrier's communication facility.
- Modular Jack:** This term is outmoded; see *Outlet/Connector, Telecommunications*.
- Modular Plug:** A telecommunications connector for wire or cords per the Part 68 Rules. A modular plug can have 6 or 8 contact positions, but not all the positions need be equipped with contacts.
- Modulation:** A process whereby certain characteristics of a wave, often called the carrier, are varied or selected in accordance with a modulating function.
- Modulus of Elasticity:** The ratio of stress to strain in an elastic material.
- Moisture Absorption:** The amount of moisture, in percentage, that a material will absorb under specified conditions.
- Moisture Resistance:** The ability of a material to resist absorbing moisture from the air or when immersed in water.
- Molded Plug:** A connector molded on either end of a cord or cable.
- Monomer:** The basic chemical unit used in building a polymer.
- Motor Lead Wire:** Wire which connects to the fragile magnet wire found in coils, transformers and stator or field windings.
- Multiconductor:** More than one conductor within a single cable complex.
- Multimode Optical Fiber:** An optical fiber that will allow many bound modes to propagate. The fiber may be either a graded-index or step-index fiber. See also: *Optical Fiber Cable*.
- Multiple Conductor Cable:** A combination of two or more conductors cabled together and insulated from one another and from sheath or armor where used.
- Multiple Conductor Concentric Cable:** An insulated central conductor with one or more tubular stranded conductors laid over it concentrically and insulated from one another.
- Multiplexing:** Simultaneous transmission of two or more messages over the same cable pair.
- Mutual Capacitance:** Capacitance between two conductors when all other conductors are connected together to shield and ground.
- Mylar®:** DuPont trademark for polyester film.
- Nanometer (nm):** One billionth of a meter (10^{-9} meter).
- Nanosecond:** One billionth of a second (10^{-9} seconds).
- National Electric Code (NEC):** A set of regulations governing construction and installation of electrical wiring and apparatus in the United States, established by the American National Board of Fire Underwriters.
- Neoprene:** A synthetic rubber with good resistance to oil, chemical and flame. Also called polychloroprene.
- Noise:** In a cable or circuit, any extraneous signal which tends to interfere with the signal normally present in or passing through the system.
- Nomex®:** DuPont trademark for a temperature-resistant, flame-retardant nylon.
- Non-Contaminating:** Type of PVC jacket material whose plasticizer will not migrate into the dielectric of a coaxial cable and thus avoids contaminating and destroying the dielectric.

Glossary

- Nylon:** Thermoplastic with good chemical and abrasion resistance.
- NVP:** Nominal Velocity of Propagation.
- Off Center:** Conductor displaced within the cross-section of its insulation.
- Offgassing:** Percentage of a specified gas released during the combustion of insulation or jacketing material.
- Ohm:** A unit of electrical resistance.
- Oil Aging:** Cable aged in an accelerated manner by placement in an oil bath and heated to a pre-set temperature for a stated time.
- Oil-Filled Cable:** A self-contained pressure cable in which the pressure medium is low viscosity oil having access to the insulation.
- Opaque:** (fiber optic) Not permitting the passage of light.
- Open Cell:** Foamed or cellular material with cells which are generally interconnected.
- Optical Communication Cable:** (fiber optic) Fiber with a protective jacket around it.
- Optical Conductors:** (fiber optic) Materials which offer a low optical attenuation to transmission of light energy.
- Optical Fiber Cable:** An assembly consisting of one or more optical fibers.
- Optical Fiber Duplex Adapter:** A mechanical media termination device designed to align and join two duplex connectors.
- Optical Fiber Duplex Connector:** A mechanical media termination device designed to transfer optical power between two pairs of optical fibers.
- Optical Waveguide:** (fiber optic) A fiber used for optical communications. Analogous to a waveguide used for microwave communications.
- Oscillatory Surge:** A surge which includes both positive and negative polarity values.
- Outgassing:** The dissipation of gas from a dielectric evidencing decomposition.
- Outlet Box, Telecommunications:** A metallic or nonmetallic box mounted within a wall, floor or ceiling and used to hold telecommunications outlet/connectors or transition devices.
- Outlet/Connector, Telecommunications:** A connecting device in the work area on which horizontal cable terminates.
- Overall Diameter:** Finished diameter over wire or cable.
- Overcoat Conductor:** A stranded conductor made from individual strands of tin-coated wire stranded together, and then given an overall tin coat.
- Overlap:** The amount the trailing edge laps over the leading edge of a spiral tape wrap.
- Oxygen Index:** Percentage of oxygen necessary to support combustion in a gas mixture.
- Ozone:** Reactive form of oxygen, typically found around electrical discharges and present in the atmosphere in small quantities.
- Packing Fraction:** (fiber optic) The ratio of active cross-sectional area of fiber core, or cores, to the total end surface of the fiber, or fiber bundle.
- Pair:** Two insulated wires of a single circuit associated together, also known as a "balance" transmission line.
- Parallel Pair:** A duplex construction of two insulated conductors laid parallel and then covered overall with a braid or jacket.
- Parallel Stripe:** A stripe applied longitudinally on a wire or cable parallel to the axis of the conductor.
- Patch Cord:** A length of cable with connectors on one or both ends used to join telecommunications links/circuits at the cross-connect.
- Patch Cord Cable:** Bulk cable used in the manufacture of patch cords.
- Patch Panel:** A cross-connect system of mateable connectors that facilitates administration.
- Pathway:** A facility for the placement of telecommunications cable. Synonym: *Raceway*.
- Pay-Off:** The process of feeding a cable or wire from a bobbin, reel or other package.
- Percent Plating:** Quantity of plating on a conductor expressed as a percentage by weight.
- Percentage Conductivity:** Conductivity of a material expressed as a percentage of that of copper.
- Periodicity:** The uniformly spaced variations in the insulation diameter of a transmission cable that result in reflections of a signal, when its wavelength or a multiple thereof is equal to the distance between two diameter variations.
- Permittivity:** See *Dielectric Constant*.
- Phase:** An angular relationship between waves.
- Phase Shift:** A change in the phase relationship between two alternating quantities.
- Photodetector (Receiver):** Converts light energy to electrical energy.
- Pick:** Distance between two adjacent crossover points of braid filaments. The measurement in picks per inch indicates the degree of coverage.
- Picofarad:** One-millionth of one-millionth of a farad. A micromicrofarad or picofarad (abbreviation pf). (See $\mu\mu\text{F}$).
- Pigtail Wire:** Fine-stranded, extra-flexible, rope-lay lead wire attached to a shield for terminating purposes.
- Pitch:** In flat cable, the nominal distance between the index edges of two adjacent conductors.
- Pitch Diameter:** Diameter of a circle passing through the center of the conductors in any layer of a multiconductor cable.
- Plain Conductor:** A conductor consisting of only one metal.
- Plain Weave:** A weave used on woven cables. Threads between the wires act as binders and give the cable lateral stiffness and linear flexibility. Also called Standard and Square Weave.
- Planetary Cabler:** A cabler capable of laying down any number of shielded, overbraided or jacketed singles, pairs, called groups, or any combination of them in sequence.
- Planetary Twister:** A twisting machine whose payoff spools are mounted in rotating cradles that hold the axis of the spool in a fixed direction as the spools are revolved so no twist is built up in each wire.
- Plastic Deformation:** Change in dimensions under load that is not recovered when the load is removed.
- Plasticizer:** A chemical agent added to plastics to make them softer and more pliable.
- Plenum:** The air return path of a central air handling system, either ductwork or open space over a suspended ceiling.
- Plenum Cable:** Cable approved by a recognized agency such as UL for installation in plenums without the need for conduit.
- Plug:** The part of the two mating halves of a connector which is moveable when not fastened to the other mating half.
- Ply:** The number of individual strands or filaments twisted together to form a single thread.
- Point-to-Point:** A type of connection established between two specific locations, as between two buildings.
- Point-to-Point Wiring:** An interconnecting technique wherein the connections between components are made by wires routed between connecting points.
- Polarization:** The orientation of a flat cable or a rectangular connector.
- Polishing:** (fiber optic) Act of smoothing ends of fibers to an 'optically smooth' finish, generally using abrasive.
- Polyester:** Polyethylene terephthalate, used extensively as a moisture-resistant cable core wrap.
- Polyethylene:** A thermoplastic material having excellent electrical properties.
- Polyhalocarbon:** A general name for polymers containing halogen atoms. The halogens are fluorine, chlorine, bromine and iodine.
- Polymer:** A material of high molecular weight formed by the chemical union of monomers.
- Polyolefin:** Any of the polymers and copolymers of the ethylene family of hydrocarbons.
- Polypropylene:** A thermoplastic similar to polyethylene but stiffer and having higher softening point (temperature); excellent electrical properties.
- Polyurethane:** Class of polymers known for good abrasion and solvent resistance (may be applied in solid or cellular form).
- Porosity:** Multiple voids in an insulation cross-section.
- Potting:** The sealing of a cable termination or other component with a liquid which thermosets into an elastomer.
- Power Cables:** Cables of various sizes, construction and insulation, single or multi-conductor designed to distribute primary power to various types of equipment.
- Power Factor:** The ratio of resistance to impedance. The ratio of the actual power of an alternating current to apparent power. Mathematically, the cosine of the angle between the voltage applied and the current resulting.
- Pre-Bond:** Stranded wire which has been fused, topcoat-tinned or overcoat-tinned.
- Prewiring:** Wiring installed
- Before walls are enclosed or finished.
 - In anticipation of future use or need.
- Primary:** The transformer winding which receives the energy from a supply circuit.
- Primary Insulation:** The first layer of non-conductive material applied over a conductor, whose prime function is to act as electrical insulation.
- Primary Protection:** The minimum protection required on all exposed facilities to comply with NEC requirements.
- Primary Wiring:** A printed circuit intended to provide point-to-point electrical connections.
- Programming:** Ability to select various circuit patterns by interconnecting appropriate contacts on one side of a connector plug or panel.
- Propagation Delay:** Time delay between input and output of signal.

Glossary

- Propagation Time:** Time required for a wave to travel between two points on a transmission line.
- Protocol:** A set of rules for communicating.
- Proximity Effect:** Nonuniform current distribution over the cross-section of a conductor caused by the variation of the current in a neighboring conductor.
- Pull Box:** A device to access a raceway used to facilitate placing of wire or cables.
- Pull Cord/Pull Wire:** Cord or wire placed within a raceway and used to pull wire and cable through the raceway.
- Pull Strength:** See *Pull Tension*.
- Pull Tension:** The maximum pulling force that can be safely applied to a cable without damage.
- Pulling Eye:** A device used to pull cable into or from a duct.
- Pulse:** Energy which changes abruptly from an intensity to another. May be light energy or electrical energy.
- Pulse Cable:** A type of coaxial cable constructed to transmit repeated high-voltage pulses without degradation.
- Polyvinyl Chloride (PVC):** A general-purpose thermoplastic widely used for wire and cable insulations and jackets.
- Quad:** A series of four separately insulated conductors, generally twisted together in pairs. Also, a series-parallel combination of transistors with increased reliability because failure of one transistor will not disable the entire circuit.
- Quadders:** Three-bay machines which can twist four wires together and cable braided and shielded wires with varying lay lengths.
- Raceway:** Any channel designed for holding wires or cables, e.g. conduit, electrical metallic tubing, sleeves, slots, underfloor raceways, cellular floors, surface raceways, lighting fixture raceways, wireways, cable troughs, busways, auxiliary gutters and ventilated flexible cableways. Synonym: *Pathway*.
- Rack:** See: *Cable Rack*.
- Radio Frequency:** The frequencies in the electromagnetic spectrum that are used for radio communications.
- Random Winding:** A winding in rotating equipment wherein the wires do not lie in an even pattern.
- Reactance:** The opposition offered to the flow of alternating current by inductance or capacitance of a compound or circuit.
- Red Plaque:** A powdery, brown-red growth found on silver-coated copper conductors and shield braids.
- Redraw:** The consecutive drawing of wire through a series of dies to reach a desired wire size.
- Reducing Joint:** A joint between two lengths of cable where the conductors are not the same size.
- Reel:** A revoluble flanged device made of wood or metal, used for winding flexible metal wire or cable.
- Reflection:** (fiber optic) Change in direction of a light wave or ray.
- Reflection Loss:** The part of a signal which is lost due to reflection of power at a line discontinuity.
- Refraction:** (fiber optic) The bending of lightwaves or rays as they go from one material to another due to the difference in velocities in the materials.
- Reinforced Sheath:** The outermost covering of a cable that has cable sheath constructed in layers with the addition of a reinforcing material, usually a braided fiber, molded in place between layers.
- Remanence:** The magnetic induction that remains in a magnetic circuit after the removal of an applied magnetomotive force.
- Repeater:** A device which consists of a transmitter and a receiver or transmitter, used to regenerate a signal to increase the system transmission length.
- Resistance:** A measure of the difficulty in moving electrical current through a medium when voltage is applied. It is measured in Ω .
- Resistive Conductor:** A conductor with high electric resistance.
- Retractile Cord:** A cord having specially treated insulation or jacket so that it will retract.
- Return Wire:** A ground wire or the negative wire in a direct-current circuit.
- Ribbon Cable:** A flat cable of individually insulated conductors lying parallel and held together by means of adhesive or woven textile yarn.
- Ridge Marker:** One or more ridges running laterally along the outer surface of a plastic-insulated wire for purposes of identification.
- Rigid Bay:** Cabling equipment that maintains component sequence, and can produce cables with distinct layers.
- Rigid Coaxial Cable:** Nonflexible coaxial cable, usually a metal tube armored coaxial cable.
- Ring Tongue:** A solderless terminal that connects wire to a stud.
- Ringing Out:** Locating or identifying specific conductive paths by passing current through selected conductors.
- Rip-Cord:** 1.) Two or more insulated conductors in a parallel configuration which may be separated to leave the insulation of each conductor intact. 2.) A small filament cord used to rip through the outer cable sheath.
- RoHS (Restriction on Hazardous Substances):** European Union directive that restricts use of heavy metal substances.
- Rope Concentric:** A group of standard conductors assembled in a concentric manner.
- Rope Lay Conductor:** A conductor composed of a central core surrounded by one or more layers of helically laid groups of wires.
- Rope Unilay:** A group of stranded conductors assembled in a unilay manner.
- Round Wire Shields:** Shields constructed from bare, tinned or silver-plated copper wire that include braided, spiral and reverse spiral.
- Routers:** A device that determines how to forward a packet toward its destination, based on tables that indicate the costs, congestion status and other factors associated with possible routes. Also called a level 3 relay or an intermediate system.
- Rubber (Wire Insulation):** Term used to describe wire insulations made of thermosetting elastomers; occurs naturally or may be made synthetically.
- Rulan®:** DuPont's trade name for their flame-retardant polyethylene insulating material.
- Screen:** A shield placed over the entire core.
- Secondary Insulation:** A nonconductive material that protects the conductor against abrasion and provides a second electrical barrier.
- Segmental Conductor:** A stranded conductor consisting of three or more stranded conducting elements, each element having approximately the shape of the sector of a circle, assembled to give a substantially circular cross-section.
- Selenium Cure:** Process used to cure neoprene and rubber jacketed wires and cables.
- Self-Extinguishing:** Characteristic of a material whose flame is extinguished after the igniting flame source is removed.
- Semi-Conducting Jacket:** A jacket having a sufficiently low resistance so that its outer surface can be kept at substantially ground potential.
- Semi-Rigid:** A cable containing a flexible inner core and a relatively inflexible sheathing.
- Semi-Solid:** An insulation cross-section having a partially open space between the conductor and the insulation perimeter.
- Separator:** A layer of insulating material which is placed between a conductor and its dielectric between a cable jacket and the components it covers, or between various components of a multiple-conductor cable.
- Series Circuit:** A circuit in which the components are arranged end to end to form a single path for current.
- Serve:** A filament or group of filaments such as fibers or wires, wound around a central core.
- Serving:** A wrapping applied over the core of a cable or over a wire.
- Sheath:** See *Cable Sheath*.
- Shield:** In cables, a metallic layer placed around a conductor or group of conductors to prevent electrostatic or electromagnetic interference between the enclosed wires or external fields.
- Shield Coverage:** Amount of outer cable covered by the shielding material.
- Shield Effectiveness:** The ability of a shield to screen out undesirable signals.
- Shielded Line:** A transmission line whose elements confine propagated radio waves to an essentially finite space inside a tubular conducting surface called the sheath, thus preventing the line from radiating radio waves.
- Shielded-Type Cable:** A cable in which the surface of the insulation is at ground potential.
- Shunt Wire:** A conductor joining two parts of an electric circuit to divert part of the current.
- Signal:** A current used to convey information, either digital, analog, audio or video.
- Silicone:** A material made from silicon and oxygen. Can be in thermosetting elastomer or liquid form. The thermosetting elastomer form is noted for high heat resistance.
- Silicone Treating:** A silicone liquid treatment applied to insulated conductors to allow for easy jacket stripping.
- Sine Wave:** A wave that can be expressed as the sine of a linear function of time, or space or both.
- Single-ended:** Unbalanced, such as grounding one side of a circuit or transmission line.
- Single-Faced Tape:** Fabric tape finished on one side with a rubber or synthetic compound.
- Singlemode Fiber:** A fiber wave guide in which only one mode will propagate. The fiber has a very small core diameter of approximately 8mm. It permits signal transmission at extremely high bandwidths and is generally used with laser diodes.

Glossary

- Sizing:** Applying a material to a surface to fill pores.
- Skeleton Braid:** Widely separated braid of fiber copper or steel, used to hold core together, for reinforcing jacket or for shielding.
- Skew Rays:** A ray that does not intersect the fiber axis. Generally, a light ray that enters the fiber core at a very high angle.
- Skim Tape:** Filled tape coated on one or both sides with a thin film of uncured rubber or synthetic compound to produce a coating suitable for vulcanization.
- Skin Effect:** The tendency of alternating current, as its frequency increases, to travel only on the surface of a conductor.
- Sleeve:** A braided, knitted or woven tube used over wires or components as insulation tubing. Also called Sleeveing.
- Solid Conductor:** A conductor consisting of a single wire.
- Source Coupling Loss:** (fiber optic) Loss of light intensity as light from source passes into fiber.
- Space, Telecommunications:** An area used for housing the installation and termination of telecommunications equipment and cable, e.g. telecommunications closets, work areas and manhole/handholes.
- Span:** (1.) In flat conductors, distance between the reference edge of the first and the last conductor. (2.) In round conductors, distance between centers of the first and last conductors. (3.) In aerial cable, the distance between poles or support clamps.
- Spark Test:** A test designed to locate pin-holes in the insulation of a wire or cable by application of a voltage for a very short period of time while the wire is being drawn through the electrode field.
- Specific Gravity:** The ratio of the density (mass per unit volume) of a material to that of water.
- Spectral Bandwidth:** The difference between wavelengths at which the radiant intensity of illumination is half its peak intensity.
- Spectral Response:** (fiber optic) The response of a detector (or a system) over different wavelengths.
- Spectrum:** Frequencies that exist in a continuous range and have a common characteristic.
- Speed of Light (c):** 2.998×10^8 meters per second.
- Spiral Shield:** A metallic shield of fine-stranded wires applied spirally rather than braided.
- Spiral Stripe:** A color-coding stripe applied helically to the surface of an insulated wire or cable.
- Spiral Wrap:** The helical wrap of a tape or thread over a core.
- Splice:** A joining of conductors, generally from separate sheaths.
- Splice Closure:** A device used to protect a cable or wire splice.
- Spread Spectrum:** A modulation technique for multiple access, or for increasing immunity to noise and interference.
- Standing Wave:** The stationary pattern of waves produced by two waves of the same frequency traveling in opposite directions on the same transmission line.
- Standing Wave Ratio (SWR):** In a transmission line, waveguide, or analogous system, a figure of merit used to express the efficiency of the system in transmitting power.
- Star Topology:** A topology in which each telecommunications outlet/connector is directly cabled to the distribution device.
- Stay Cord:** A component of a cable used to anchor the cable ends at their points of termination and to keep any pull of the cable from being transferred to the electrical connections.
- Step Index Fiber:** (fiber optic) A multimode fiber consisting of a core of uniform refractive index surrounded by cladding of slightly lower refractive index.
- Strand:** One of the wires of any stranded conductor.
- Strand Lay:** The distance of advance of one strand of a spirally stranded conductor, in one turn, measured axially.
- Stranded Conductor:** A conductor composed of groups of wires twisted together.
- Strap:** Square- or rectangular-section bare conductor manufactured and used in coil form.
- Strip:** To remove insulation from a cable.
- Structural Return Loss:** Backward reflected energies from uneven parts of the cable structure causing impedance variations are termed structural return loss.
- Surface Resistivity:** The resistance of a material between two opposite sides of a unit square of its surface. It is usually expressed in Ω .
- Surge:** A temporary and relatively large increase in the voltage or current in an electric circuit or cable. Also called Transient.
- Suspended Ceiling:** See *False Ceiling*.
- Sweep-test:** Pertaining to cable, the frequency response is verified by generating an rf voltage whose frequency is swept repeatedly through a given frequency range at a rapid constant rate while the cable response is observed.
- Take-Up:** The process of accumulating wire or cable onto a reel, bobbin or some other type of pack. Also, the device for pulling wire or cable through a piece of equipment or machine.
- Tank Test:** A voltage dielectric test in which the test sample is submerged in water and voltage is applied between the conductor and water as ground.
- Tape:** A relatively narrow woven or cut strip of fabric, paper or film material.
- Tape Cable:** A form of multiple conductor consisting of parallel metal strips imbedded in insulating material.
- Tape Wrap:** A spirally applied tape over an insulated or uninsulated wire.
- Taped Insulation:** Insulation of helically wound tapes applied over a conductor or over an assembled group of insulated conductors.
- Taping:** Process of insulating continuous length, large diameter wires with tape of non-extrudable materials.
- TB:** Terminal Block
- Tear Strength:** The force required to initiate or continue a tear in a material under specified conditions.
- Teflon®:** DuPont company trade name for fluorocarbon resins. FEP, PFA and TFE are typical materials.
- Tefzel®:** DuPont trade name for a fluorocarbon material typically used as a wire wrap insulation.
- Telecommunications:** The communication of information over some distance, including interbuilding and intrabuilding distances.
- Telecommunications Closet:** See *Closet, Telecommunications*.
- Telecommunications Entrance Facility:** See *Entrance Facility, Telecommunications*.
- Telecommunications Entrance Point:** See *Entrance Point, Telecommunications*.
- Telecommunications Entrance Room or Space:** See *Entrance Room or Space, Telecommunications*.
- Telecommunications Equipment Room:** See *Equipment Room, Telecommunications*.
- Telecommunications Grounding Busbar:** A common point of connection for telecommunications system and bonding to ground, which is located in the telecommunications closet or equipment room.
- Telecommunications Infrastructure:** See *Infrastructure, Telecommunications*.
- Telecommunications Outlet/Connector:** See *Outlet/Connector, Telecommunications*.
- Telemetry Cable:** Cable used for transmission of information from instruments to the peripheral recording equipment.
- Temperature Rating:** The maximum temperature at which an insulating material may be used in continuous operation without loss of its basic properties.
- Tensile Strength:** The pull stress required to break a given specimen.
- Tension Member:** A member included in a fiber cable to add tensile strength.
- Terminal:** (1) A point at which information may enter or leave a communications network; (2) the input-output associated equipment; or (3) a device by means of which wires may be connected to each other.
- Termination Hardware:** This term is outmoded. See *Connecting Hardware*.
- Test Lead:** A flexible, insulated lead wire used for making tests, connecting instruments to a circuit temporarily or for making temporary electrical connections.
- Textile Braid:** Any braid made from threads of cotton silk, or synthetic fibers.
- Thermal Aging:** Exposure to a thermal condition or programmed series of conditions for predescribed periods of time.
- Thermocouple Lead Wire:** An insulated pair of wires used from the couple to a junction box.
- Thermoplastic:** A material which softens when heated and becomes firm on cooling.
- Thermoset:** A material which hardens or sets when heat is applied, and which, once set, cannot be resoftened by heating. The application of heat is called "curing."
- Three-Phase Current:** Current delivered through three wires, with each wire serving as a return for the other two.
- Three-Phase Three-Wire System:** An alternating current supply system comprising three conductors over which three-phase power is sent.
- Three-Wire System:** A d-c or single-phase a-c system comprising three conductors, one of which is maintained at a potential midway between the potential of the other two.
- Tin Overcoat (TOC):** Tinned copper wire, stranded, then coated with pure tin.

Glossary

- Tinsel Wire:** A low-voltage stranded wire, with each strand a very thin conductor ribbon spirally wrapped around a textile yarn.
- Topcoat:** Bare (untinned) copper wire, stranded then coated with pure tin.
- Topology:** The physical or logical arrangement of a telecommunications system.
- Tracer:** A means of identifying polarity.
- Transducer:** A device for converting mechanical energy to electrical energy.
- Transfer Impedance:** The ratio of the source voltage of the wires inside the cable to the shield current of the cable or connectorized cable assembly.
- Transition Point:** A location in the horizontal cabling where flat undercarpet cable connects to round cable.
- Transmission:** Transfer of electric energy from one location to another through conductors or by radiation or induction fields.
- Transmission Cable:** Two or more transmission lines. See *Transmission Line*.
- Transmission Line:** An arrangement of two or more conductors or a wave guide used to transfer signal energy from one location to another.
- Transmission Loss:** The decrease or loss in power during transmission of energy from one point to another. Usually expressed in decibels.
- Transmission Media:** The various types of wire and optical fiber cable used for transmitting voice or data signals. Typically, wire cable includes twisted pair, coaxial and twinaxial. Optical fiber cable includes single, dual, quad, stranded and ribbon (AI).
- Transmitter:** The electronic package that injects an electrical signal or light signal over the transmission medium.
- Transparent:** (fiber optic) Transmitting rays of light so that objects can be seen through the material.
- Transposition:** Interchanging the relative positions of wires to neutralize the effects of induction to or from other circuits or, to minimize interference pickup by the lead-in during reception.
- Tray Cable:** A factory-assembled multiconductor or multipair control cable approved under the National Electrical Code for installation in trays.
- Triaxial:** A three-conductor cable with one conductor in the center, a second circular conductor shield concentric with the first, and third circular conductor shield insulated from and concentric with the first and second, usually with insulation, and over a braid or impervious sheath overall.
- Triboelectric Noise:** Noise generated in a shielded cable due to variations in capacitance between shielding and conductor as the cable is flexed.
- Triple Cable:** A cable composed of three insulated single conductors and one bare conductor, all twisted together. It may or may not have a common covering of binding.
- True Concentric:** A cable in which each successive layer has a reversed direction of lay from the preceding layer.
- Trunk Cable:** See *Feeder Cable*.
- Tubing:** A tube of extruded non-supported plastic material.
- Twin Cable:** A pair of insulated conductors twisted, sheathed or held together mechanically and not identifiable from each other in a common covering.
- Twin Coaxial:** A configuration containing two separate, complete coaxial cables laid parallel or twisted around each other in one complex.
- Twin Line:** A transmission line which has a solid insulating material, in which the two conductors are placed in parallel to each other.
- Twinner:** A device for twisting together two conductors.
- Twisted Pairs:** A cable composed of two small insulated conductors twisted together without a common covering.
- Unbalanced Line:** A transmission line in which voltages on the two conductors are unequal with respect to ground.
- Unidirectional Concentric Stranding:** A stranding where each successive layer has a different lay length, thereby retaining a circular form without migration of strands from one layer to another.
- Unidirectional Stranding:** A term denoting that in a directed conductor, all layers have the same direction of lay.
- Unilay Strand:** A conductor constructed with a central core surrounded by more than one layer of helically-laid wires, with all layers having a common length and direction of lay.
- Velocity of Propagation (VP):** The speed of an electrical signal down a length of cable compared to speed in free space expressed as a percent. It is the reciprocal of the square root of the dielectric constant of the cable insulation.
- Volt:** A unit of electromotive force.
- Voltage:** The term most often used in place of electromotive force, potential difference or voltage drop to designate the electric pressure that exists between two points and is capable of producing a current when a closed circuit is connected between two points.
- Voltage Drop:** The voltage developed across a component or conductor by the current in the resistance or impedance of the component or conductor.
- Voltage Rating:** The highest voltage that may be continuously applied to a wire in conformance with standards or specifications.
- Voltage Standing Wave Ratio (VSWR):** The ratio of the maximum effective voltage to the minimum effective voltage measured along the length of a mis-matched radio frequency transmission line.
- Volume Resistivity (Specific Insulation Resistance):** The electrical resistance between opposite faces of a 1 cm. cube of insulating material, commonly expressed in Ω /centimeter.
- Vulcanization:** A chemical reaction in which the physical properties of an elastomer are changed by reacting it with sulfur or other cross-linking agents.
- Wall Thickness:** The thickness of the applied insulation or jacket.
- Water Absorption:** A test to determine the water absorbed by a material after a given immersion period.
- Waterblocked Cable:** A cable constructed with no internal voids in order to allow no longitudinal water passage under a given pressure.
- Watt:** A unit of electric power.
- Wave Form:** A graphical representation of a varying quantity. Usually, time is represented on the horizontal axis, and the current or voltage value is represented on the vertical axis.
- Wave Length:** The distance, measured in the direction of propagation, of a repetitive electrical pulse or waveform between two successive points that are characterized by the same phase of vibration.
- Wicking:** The longitudinal flow of a liquid in a wire or cable due to capillary action.
- Wire:** A conductor, either bare or insulated.
- Wire and Cable Marker:** Device for identification marking of wire and cable.
- Wire and Cable Tying, Clamping, and Harnessing Devices:** Tying tapes, lacing cords and flexible sleeveings which are used for wire and cable bundling, harnessing and holding. Other devices include plastic ties or clamps, spiral-cut plastic tubing and plastic U-shaped trays or ducts.
- Wire and Lead Cutters:** Tools for cutting that range from plier-type cutters to semiautomatic or fully automatic machines integrated with other wire processing operations such as stripping, forming and terminating.
- Wire Gauge:** A system of numerical designation of wire sizes.
- Wire Nut:** A closed-end splice that is screwed on instead of crimped.
- Wire Wrapped Connection:** A solderless connection made by wrapping bare wire around a square or rectangular terminal with a power or hand tool.
- Wire Wrapping Tools:** Portable electric tools and automatic stationary machines used to make solderless wrapped connections of wires to terminals.
- Wiring Closet:** See *Telecommunications Closet*.
- Work Area (Work Station):** A building space where the occupants interact with telecommunications terminal equipment.
- Wrapper:** An insulating barrier applied as a sheet or tape wrapped around a coil periphery.
- Yield Strength:** The minimum stress at which a material will start to physically deform without increase in load.
- Zytel®:** DuPont's trade name for nylon resins.

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Abbreviations & Acronyms

| | | |
|---|---|--|
| A-D: Analog to digital conversion | CEN: European Committee for Standardization | E: Symbol for voltage. Usually used to represent direct voltage or the effective (root-mean-square) value of an alternating voltage |
| ac: Alternating current | CENELEC: European Committee for Electrotechnical Standardization | EFTS: Electronic funds transfer system |
| AC: Armored Cable, NEC Article 333 Cable Designation | CFC: Communications Flat Cable | EIA: Electronic Industries Association |
| ACO: Analog Central Office | ckt: Circuit | EMF: Electromotive Force |
| ACR: Attenuation to Crosstalk Ratio | CLT or CLOS: Closet | EMI: Electromagnetic Interference |
| ADO: Auxiliary Disconnect Outlet | CL2: Class 2 Circuit Cable, NEC Article 725 Cable Designation | EMT: Electric Metallic Tubing |
| AER: Aerial | CL2P: Class 2 Circuit Plenum Cable, NEC Article 725 Cable Designation | EP: Entrance point |
| AF: Audio frequency | CL2R: Class 2 Circuit Riser Cable, NEC Article 725 Cable Designation | EPDM: Ethylene-propylene-diene monomer rubber |
| AIA: American Institute of Architects | CL2X: Class 2 Circuit Limited Use Cable, NEC Article 725 Cable Designation | EPOS: Electronic Point-Of-Sale |
| ALPETH: An aerial telephone cable having an aluminum shield and polyethylene jacket | CL3: Class 3 Circuit Cable, NEC Article 725 Cable Designation | EPR: Ethylene-propylene rubber |
| ALS: A type of cable consisting of insulated conductors enclosed in a continuous, closely fitting aluminum tube | CL3P: Class 3 Circuit Plenum Cable, NEC Article 725 Cable Designation | ER: Equipment room |
| ALVYN: An indoor, riser rated telephone cable having an aluminum shield and vinyl jacket (PVC) | CL3R: Class 3 Circuit Riser Cable, NEC Article 725 Cable Designation | ESS: Electronic Switching System |
| AM: Amplitude Modulation | CL3X: Class 3 Circuit Limited Use Cable, NEC Article 725 Cable Designation | ESTA: Australian approval agency; Electricity Trust of South Australia |
| ANSI: American National Standards Institute | CM: Communications Cable, NEC Article 800 Cable Designation | ETPC: Electrolytic Tough Pitch Copper |
| ARPANET: Advanced Research Projects Agency Network | CMA: Circular Mil Area | ETV: Educational Television |
| ASCII: American Standard Code for Information Interchange | CMP: Communication Cable Plenum, NEC Article 800 Cable Designation | E/W: Equipped With |
| ASME: American Society of Mechanical Engineers | CMR: Communications Cable Riser, NEC Article 800 Cable Designation | EX or EXT: Extension |
| ASP: A filled, direct burial telephone cable used in areas subject to rodent attack. It consists of a filled cable core, corrugated aluminum shield, corrugated steel tape, flooding compound and polyethylene jacket. | CMX: Communications Limited Use Cable, NEC Article 800 Cable Designation | EXCH: Exchange |
| ASTA: United Kingdom approval agency | CO: Central Office | f: Frequency |
| ASTM: American Society for Testing and Materials | coddec: Coder decoder | FAA: Federal Aeronautics Administration |
| AWG: American Wire Gauge | COE: Central Office Equipment | FCC: (1) Federal Communications Commission (2) Flat Conductor Cable, NEC Article 328 Cable Designation |
| AWM: Appliance wiring material | COS: Cooperation for Open Systems | FDDI: Fiber Distributed Data Interface |
| B & S Gauge: See American Wire Gauge (AWG) | COSINE: Cooperation for Open Systems Interconnection Network in Europe | FDI: Frequency-Division Multiplexing |
| B or BUR: Buried | COT: Central Office Terminal | FDR: Feeder |
| AWM: Appliance wiring material | CPC: Customer Premises Communication | FEF: Fluorinated ethylene propylene |
| BCF: Billion Conductor Feet | CPE: (1) Chlorinated Polyethylene (2) Customer Premises Equipment or Customer Provided Equipment | FEXT: Far End Crosstalk |
| BEF: Building Entrance Facility | CPU: Central Processing Unit | FI: Approval agency of Finland; Electrical Inspectorate |
| BER: Bit Error Rate | CRT: Cathode Ray Tube | FIPS PUB: Federal Information Processing Standard Publication |
| BIC: Building Industry Consultant | CSMA/CD: Carrier Sense Multiple Access/ Collision Detection | FM: Frequency modulation |
| BICSI: Building Industry Consulting Service International | CSPE: Chlorosulfonated Polyethylene | FOCIS: Fiber Optic Connector Intermateability Standard |
| BISDN: Broadband Integrated Services Digital Network | CTR: Certified Test Report | FOTP: Fiber Optic Test Procedure |
| BTU: British Thermal Unit | CV: Continuous vulcanization | FOTS: Fiber Optics Transmission System |
| CA: Cable | D-A: Digital to analog conversion | FPL: Power Limited Fire Protective Signaling Circuit Cable, NEC Article 760 Cable Designation |
| CATV: (1) Community Antenna Television; Cable Access Television (2) CATV Cable, NEC Article 820 Cable Designation | DAF: Dedicated Access Facility | FPLP: Power Limited Fire Protective Signaling Circuit Plenum Cable, NEC Article 760 Cable Designation |
| CATVP: CATV Plenum Cable, NEC Article 820 Cable Designation | dB: Decibel | FPLR: Power Limited Fire Protective Signaling Circuit Riser Cable, NEC Article 760 Cable Designation |
| CATVR: CATV Riser Cable, NEC Article 820 Cable Designation | DBS: Direct Broadcast Satellite | FR-1: A flammability rating established by Underwriter's Laboratories for wires and cables that pass a specially designed vertical flame test |
| CATVX: CATV Limited Use Cable, NEC Article 820 Cable Designation | dc: Direct current | freq: Frequency |
| CB: Citizens band | DCE: Data Circuit-Terminating Equipment | FRICC: Federal Research Internet Coordinating Committee (now FNC) |
| C-C: Conductor to conductor capacitance | DCO: Digital Central Office | FRPE: Flame Retardant Polyethylene |
| CCITT: The International Telegraph and Telephone Consultative Committee | DCR: Direct Current Resistance | ft: Foot |
| CCTV: Closed-circuit television | DD: Distribution Designer or Distribution Device | FTP: Fire Transfer Protocol |
| CDDI: Copper Distributed Data Interface | DEMARC: Demarcation point | ga: Gauge |
| CDF: Central Distribution Frame | DEMKO: Approval agency of Denmark | gHz: Gigahertz |
| CDO: Community Dial Office | DGM: Data Grade Medium | grd: Ground |
| CEBEC: Belgium approval agency; Comité Electrotechnique Belge Service de la Marque | DISA: Defense Information Systems Agency (formerly DCA) | GTO: Gas tube sign and oil-burner ignition cable. 5,000V-15,000V. |
| CEE: European standards agency; International Commission on Rules for the Approval of Electrical Equipment | DISI: Directory Information Services Infrastructure | H: Designation for intensity of magnetic energy |
| | DIST: District | hc: Handset combination (single-line telephone) |
| | DRT: Plastic range and dryer cord (CSA) | HC: Horizontal cross-connect |
| | DTE: Data Terminal Equipment | hck: Handset combination; key (six-button telephone) |
| | DVD: Digital Versatile Disc | HDPE: High Density Polyethylene |
| | DW: Distribution Wire | HF: High Frequency |

Abbreviations & Acronyms

| | | |
|--|---|---|
| hh: Handhole | MDPE: Medium Density Polyethylene | PABX: Private Automatic Branch Exchange |
| Hi-Pot: A test designed to determine the highest voltage that can be applied to a conductor without breaking through the insulation. | Meg or Mega: A numerical prefix denoting 1,000,000 (10 ⁶) | PAM: Pulse Amplitude Modulation |
| HPD: Rubber- and asbestos-insulated heater cord. No braid on individual conductors but with braid overall. Also made with neoprene insulation and no asbestos or PVC/NBC. | M/G: Motor/Generator Set | PAP: A commonly used term for air core (unfilled) direct burial telephone cable with a corrugated aluminum shield |
| HPN: Two-conductor, neoprene-insulated heater cord. Parallel construction. For use in damp locations. | MH: Manhole | PBX: Private Branch Exchange |
| HSJ: Same as type HS but with #18, #16 and #14 conductors and differing thickness of jacket. | Mho: The unit of conductivity. The reciprocal of an ohm. | PC: Personal Computer |
| HVAC: Heating, ventilation and air conditioning | MHz: Megahertz | PCB: Printed Circuit Board |
| Hz: Hertz | MI: Mineral Insulated Cable, NEC Article 330 Cable Designation | P-FEP: General Cable proprietary dielectric material used in junction with FEP. |
| i: Symbol used to designate current | Micro: A numerical prefix denoting one-millionth (10 ⁶) | PCM: Pulse Code Modulation |
| IC: Intermediate cross-connect | MIL STD: Military Standard | PCP: A commonly used term for air core (unfilled) direct burial cable with a corrugated copper shield |
| ICEA: Insulated Cable Engineers Association | MILNET: Military Network | PE: Polyethylene |
| IDC: Insulation Displacement Connector | MLT: Multi-Level Threshold | pf: Picofarad |
| IEC: International Electrotechnical Commission | mm: Millimeter | PFA: Polyfluoroalkoxy |
| IEEE: Institute of Electrical and Electronics Engineers | Modem: Modulator demodulator | PIC: A general term for any type of plastic insulated telephone cable |
| IGS: Integrated Gas Spacer Cable, NEC Article 325 Cable Designation | MTT: Main Telephone Terminal | Pico: A numerical prefix denoting one-millionth of one-millionth (10 ⁻¹²) |
| IMSA: International Municipal Signal Association | MTW: Machine Tool Wire | PL: Private Lines |
| in: Inch | MV: Medium Voltage Cable, NEC Article 326 Cable Designation | PLSJ: All-rubber, parallel-jacketed, two-conductor, light-duty cord for pendant or portable use in damp locations. 300V. |
| IRSG: Internet Research Steering Group | MW: Radio hookup wire with polyvinyl insulation and plain or nylon jacket or braid, or shield, 1000V | PLT: (1) Plant (2) Same as PLSJ except thermo-plastic insulation |
| IRTF: Internet Research Task Force | N: Newton | PLTC: Power Limited Tray Cable, NEC Article 725 Cable Designation |
| IS: International Standard | NAIC: Network Applications and Information Center | PM: Phase Modulation |
| ISA: Instrument Society of America | NASA: National Aeronautics and Space Administration | POI: Point Of Interface |
| ISDN: Integrated Services Digital Network | NBR: Natural butadiene-acrylonitrile copolymer rubber | POSJ: All-rubber, parallel, light duty rip-cord for use on lamps and small appliances, 300V, 60°C |
| ISO: International Organization for Standardization | NBS: National Bureau of Standards (now NIST) | POT: Thermoplastic, parallel, light duty rip-cord. 300V, 60°C to 105°C. |
| ISOC: Internet Society | NEC: National Electrical Code | POTS: Plain Old Telephone Service (colloquial) |
| ITC: Independent Telephone Company | NEMA: National Electrical Manufacturers Association | PP: Polypropylene |
| ITU-T: International Telecommunications Union - Telecommunications Standardization Section | NEMKO: Approval agency of Norway | PR: Pair |
| IW (C): Inside Wiring (cable) | NESC: National Electrical Safety Code | PTFE: Polytetrafluoroethylene |
| J: Joule | NEXT: Near End Crosstalk | PTSS: Passive Transmission Sub-System |
| kcmil: One thousand circular mils | nf: Nanofarad | PVC: Polyvinyl Chloride |
| KEMA KEUR: Approval agency of the Netherlands | NFPA: National Fire Protection Association | PVDF: Polyvinylidene Fluoride |
| kft: An abbreviation for 1000 ft. | NI: Network Interface | R: Symbol for resistance |
| kHz: Kilohertz | NID: Network Interface Device | R-F: Radio-frequency |
| Kilo: A numerical prefix denoting 1000 (10 ³) | NIST: National Institute of Standards and Technology (formerly NBS) | RCDD: Registered Communication Distribution Designer |
| km: Kilometer | NIU: Network Interface Unit | REA: Rural Electrification Administration |
| KTS: Key Telephone Service | nm: Nanometer | REP: Repair |
| kV: Kilovolt | NM & NMC: Non Metallic Sheathed Cable, NEC Article 336 Cable Designation | RFQ: Request for Quote |
| kVA: Kilovolt Ampere | NPLF: Non Power-Limited Fire Protective Signaling Circuit Cable, NEC Article 760 Cable Designation | RG/U: General utility grade military coaxial cable |
| kW: Kilowatt | NPLFP: Non Power-Limited Fire Protective Signaling Circuit Plenum Cable, NEC Article 760 Cable Designation | RH: Relative humidity |
| LAN: Local Area Network | NPLFR: Non Power-Limited Fire Protective Signaling Circuit Plenum Cable, NEC Article 760 Cable Designation | RJ-45: A specific pin-point assignment for an eight position modular telecommunications connector. |
| LASER: Light Amplification by Stimulated Emission of Radiation | NRZ: Non Return to Zero | RMS: (1) rack mount space (2) Root Mean Squares |
| LATA: Local Access Transport Area | NRZI: Non Return to Zero Inverted | RoHS: Restriction on Hazardous Substances |
| lbf: Pound force | OC: Optical Carrier | S: Heavy-duty, rubber-insulated portable cord. Stranded copper conductors with separator and individual rubber insulation. Two or more color-coded conductors cabled with filler, wrapped with separator and rubber jacketed overall, 600 Volts. |
| LBO: Line Buildout | ODC: Ozone Depleting Chemical | SAE: Society of Automotive Engineers |
| LDPE: Low Density Polyethylene | OP: Outside Plant | SANZ: Standards Association of New Zealand |
| LEC: Local Exchange Carrier | OPE: Outside Plant Engineer | SBR: Styrene Butadiene Rubber |
| LED: Light-Emitting Diode | OSHA: Occupational Safety and Health Administration | ScTP: Screened Twisted Pair |
| LLDPE: Linear Low Density Polyethylene | OSI: Open Systems Interconnection | SDN: Switched Digital Network |
| LOCA: Loss of Coolant Accident | OVE: Approval agency of West Germany; Oesterreichischer Verband für Elektrotechnik | |
| locap: Low-capacitance, low-loss paired cable | | |
| MAC: Moves, Adds and Changes | | |
| MAP: Manufacturing Automation Protocol | | |
| MATV: Master Antenna Television | | |
| Mbps: Megabits per second | | |
| MC: (1) main cross-connect (2) Metal Clad Cable, NEC Article 334 Cable Designation | | |
| MCM: One thousand circular mils | | |
| MDF: Main Distribution Frame | | |

Abbreviations & Acronyms

| | |
|--|---|
| SE: Service Entrance Cable, NEC Article 338 Cable Designation | SWR: Standing Wave Ratio |
| SEMKO: Approval agency for Sweden | SYS: System |
| SFTP: Simple File Transfer Protocol | TC: (1) Power and Control Tray Cable, NEC Article 340 Cable Designation (2) Telecommunications Closet |
| SI: System Internationale | TEL: Telephone |
| SJ: Junior hard-service, rubber-insulated pendant or portable cord. Same construction as type S, but 300V. Jacket thickness different. | TCP: Transmission Control Protocol |
| SJO: Same as SJ, but carolprene, oil-resistant compound outer jacket. Can also be made "water-resistant." 300V, 60°C. | TDM: Time-Division Multiplexing |
| SJT: Junior hard service thermoplastic or rubber-insulated conductors with overall thermoplastic jacket, 300V, 60°C to 105°C. | TEL: Telephone |
| SJTO: Same as SJT but oil-resistant thermoplastic outer jacket. 60°C. | TELCO: Telephone Company |
| SMTP: Simple Mail Transfer Protocol | TERM: Terminal or termination |
| SNA: Systems Network Architecture | TEW: Canadian Standard Association type appliance wires. Solid or stranded single conductor, plastic-insulated, 600V, 105°C. |
| SNM: Shielded Non Metallic Sheathed Cable, NEC Article 337 Cable Designation | TF: Fixture wire, thermoplastic-covered solid or seven strands. 60°C. |
| SNMP: Simple Network Management Protocol | TFE: Tetrafluoroethylene |
| SNR: Signal to Noise Ratio | TFF: Same as TF but flexible stranding. 60°C. |
| SO: Hard-service cord, same construction as type S except oil-resistant carolprene jacket, 600V, 60° to 90°C. | THHN: 90°C, 600V nylon jacketed building wire |
| SONET: Synchronous Optical Network | THW: Thermoplastic vinyl-insulated building wire. Flame-retardant, moisture- and heat-resistant. 75°C. Dry and wet locations. |
| SP-1: All rubber, parallel-jacketed, two-conductor light-duty cord for pendant or portable use in damp locations. 300V. | THWN: Same as THW but with nylon jacket overall. 75°C. |
| SP-2: Same as SP-1, but heavier construction, with or without third conductor for grounding purposes. 300V. | TIA: Telecommunications Industry Association |
| SP-3: Same as SP-23, but heavier construction for refrigerators or room air conditioners. 300V. | TOC: Tin Overcoat |
| SPC: Stored Program Control | TP: Transport Protocol |
| SPG: Single Point Ground | TP-PMD: Twisted Pair-Physical Medium Dependent |
| SPT-1: Same as SP-1, except all-thermoplastic. 300V. With or without third conductor for grounding. | TPDDI: Twisted Pair Distributed Data Interface |
| SPT-2: Same as SP-2, except all-thermoplastic. 300V. With or without third conductor for grounding. | TSB: Telecommunications System Bulletin |
| SPT-3: Same as SP-3, except all-thermoplastic. 300V. With or without third conductor for grounding. | TT: Telephone Terminal |
| SRD: Portable range or dryer cable. Three or four rubber-insulated conductors with rubber or neoprene jacket, flat or round construction. 300V, 60°C. | TTB: Telephone Terminal Board |
| SRDT: Same as SRD, except all-thermoplastic with a maximum temperature of 90°C. | TTY: Text Telephones |
| SRL: Structural return loss | TW: Thermoplastic vinyl-jacketed building wire, moisture-resistant. 60°C. |
| ST: Hard-service cord, jacketed, same as type S except all-plastic construction, 600V, 60°C to 105°C. | UCC: Uniform Code Council |
| STA: Station | UF: Thermoplastic underground feeder and branch circuit cable |
| STO: Same as ST but with oil-resistant thermoplastic outer jacket. 600V, 60°C. | UF: Underground Feeder and Branch Circuit Cable, NEC Article 339 Cable Designation |
| STP: Shielded twisted pair | UG: Underground |
| SV: Vacuum cleaner cord, two or three-conductor, rubber-insulated. Overall rubber jacket. For light-duty in damp locations. 300V, 60°C. | UHF: Ultra High Frequency, 300 to 3,000 MHz |
| SVO: Same as SV except carolprene jacket, 300V, 60°C. | UL: Underwriter's Laboratories, Inc. |
| SVT: Same as SV except all-plastic construction. With or without third conductor for grounding purposes only. 300V, 60°C to 90°C. | µm: Micron or micrometer |
| SW: Station Wire | UPC: Universal Packaging Code |
| SWB: Switchboard | UPS: Uninterruptible Power Supply |
| | USE: Underground Service Entrance Cable, NEC Article 338 Cable Designation |
| | UTE: Approval agency for France; Union Technique de l'Electricite |
| | UTP: Unshielded twisted-pair |
| | V: Volt |
| | VDE: West Germany approval agency |
| | VHF: Very High Frequency, 30 to 300 MHz |
| | VP: Velocity of Propagation |
| | VSWR: Volume Standing Wave Ratio |
| | VW-1: A flammability rating established by Underwriters Laboratories for wires and cables that pass a specially designed vertical flame test, (formerly designated FR-1) |
| | W: Symbol for watt or wattage |
| | WA: Work area |
| | WP: Waterproof Outlet |
| | X: Cross-connect |
| | XLPE: Crosslinked polyethylene |
| | Z: Symbol for impedance |

Hook-Up Wire Product Finder

| TEMP. °C | VOLTAGE | UL | UL | CSA | MIL | AWG | P/N | STRAND TYPE | PAGE |
|----------|---------|------|------|-------|-------|-----|--------|-------------|------|
| 60 | 1500* | — | — | — | — | 20 | C1326 | STRANDED | 172 |
| 60 | 3000* | — | — | — | — | 20 | C1319 | STRANDED | 172 |
| 60 | 5000* | — | — | — | — | 18 | C1320A | STRANDED | 172 |
| 60 | 5000* | — | — | — | — | 18 | C1321 | STRANDED | 172 |
| 60 | 10000* | — | — | — | — | 18 | C1318 | STRANDED | 172 |
| 80 | 1000 | — | — | — | W-76B | 24 | C7600A | STRANDED | 169 |
| 80 | 1000 | — | — | — | W-76B | 22 | C7602A | STRANDED | 169 |
| 80 | 1000 | — | — | — | W-76B | 20 | C7604A | STRANDED | 169 |
| 80 | 1000 | — | — | — | W-76B | 18 | C7606A | STRANDED | 169 |
| 80 | 1000 | — | — | — | W-76B | 16 | C7608A | STRANDED | 169 |
| 80 | 1000 | — | — | — | W-76B | 14 | C7610A | STRANDED | 169 |
| 80 | 1000 | — | — | — | W-76B | 12 | C7611A | STRANDED | 169 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 24 | C2003A | SOLID | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 24 | C2015A | STRANDED | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 22 | C2004A | SOLID | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 22 | C2016A | STRANDED | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 20 | C2028A | SOLID | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 20 | C2040A | STRANDED | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 18 | C2052A | SOLID | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 18 | C2064A | STRANDED | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 16 | C2053A | SOLID | 167 |
| 80/105 | 300 | 1007 | 1569 | TR-64 | — | 16 | C2065A | STRANDED | 167 |
| 105 | 600 | 1015 | — | TEW | — | 24 | C2100A | STRANDED | 168 |
| 105 | 600 | 1015 | — | TEW | — | 22 | C2101A | STRANDED | 168 |
| 105 | 600 | 1015 | — | TEW | — | 22 | C2117A | SOLID | 168 |
| 105 | 600 | 1015 | — | TEW | — | 20 | C2102A | STRANDED | 168 |
| 105 | 600 | 1015 | — | TEW | — | 20 | C2118A | SOLID | 168 |
| 105 | 600 | 1015 | — | TEW | — | 18 | C2103A | STRANDED | 168 |
| 105 | 600 | 1015 | — | TEW | — | 18 | C2119A | SOLID | 168 |
| 105 | 600 | 1015 | — | TEW | — | 16 | C2104A | STRANDED | 168 |
| 105 | 600 | 1015 | — | TEW | — | 14 | C2105A | STRANDED | 168 |
| 105 | 600 | 1015 | — | TEW | — | 12 | C2106A | STRANDED | 168 |
| 105 | 600 | 1015 | — | TEW | — | 10 | C2107A | STRANDED | 168 |

* For intermittent duty only

Multi-Conductor Cable Product Finder

| NO. COND. | STRAND TYPE | AWG 28 | | AWG 24 | | AWG 22 | | AWG 20 | | AWG 19 | | AWG 18 | | AWG 16 | | AWG 14 | | AWG 12 | | |
|-----------|-------------|-------------------------------------|---|---|--|--|--|----------------|--|----------------|---|---|---|--|------|---|------|--|------|---|
| | | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD |
| 2 | SOLID | | | | | C2515A F.....16 C4167A F.....22 C2676A B.....28 E1482S U.....99 E2482S F.....101 E3482S U-P.....103 E3542S F-P.....105 E1000S U.....115 E2000S F.....116 E3000S U-P.....117 E2100S F-P.....118 | | C4311A U.....2 | | C2754A U.....2 | | C3110 U-P.....10 C3060 F-P.....21 E2402S U.....99 E1502S U.....99 C4304A U.....100 E2502S F-P.....101 C4344A F.....102 E3502S U-P.....103 C4334A F.....102 E3602S F-P.....105 C3200 U-P.....104 E3612S F-P.....105 C3270 F-P.....106 C0471 U.....107 C3260 F-P.....106 C0472 F.....108 C3240 U-P.....109 C3167 F-P.....110 E1030S U.....115 E2030S F.....116 E3030S U-P.....117 E2200S F-P.....118 | | C3110 U-P.....10 E1512S U.....99 C4321A U.....100 E2522S F.....101 C4344A F.....102 E3512S U-P.....103 C3210 U-P.....104 E3612S F-P.....105 C3270 F-P.....106 C0473 U.....107 C0474 F.....108 C3241 U-P.....109 C0472 F.....108 C3169 F-P.....20, 110 C3240 U-P.....109 C3167 F-P.....110 E1030S U.....115 E2030S F.....116 E3030S U-P.....117 E2200S F-P.....118 | | E2404S U.....99 E1522S U.....99 C4324A U.....100 E2532S F.....101 C4347A F.....102 E3522S U-P.....103 C3220 U-P.....104 E3622S F-P.....105 C0491 U.....107 C0475 F.....108 C3244 U-P.....109 C3172 F-P.....110 | | E2406S U.....99 E1522S U.....99 C4324A U.....100 E2542S F.....101 C4348A F.....102 E3532S U-P.....103 C3224 U-P.....104 E3632S F-P.....105 C3282 F-P.....106 C0492 U.....107 C0476 F.....108 C3246 U-P.....109 C3174 F-P.....110 | | E1532S U.....99 C4327A U.....100 E2542S F.....101 C4348A F.....102 E3532S U-P.....103 C3224 U-P.....104 E3632S F-P.....105 C3282 F-P.....106 C0492 U.....107 C0476 F.....108 C3246 U-P.....109 C3174 F-P.....110 |
| | STRANDED | C6500A B.....31 | C2461A U.....4 C2513A F.....16 C4152A F.....22 C4216A F.....24 C0740A F.....63 | C6348A U.....5 C3105 U-P.....9 C3115 U-P.....10 C4100A U.....13 C0431A U.....15 C2514A F.....16 C2516A F.....16 C2518A F.....17 C2520A F.....17 C3154 F-P.....20 C3158 F-P.....21 C4153A F.....22 C4168A F.....22 C4192A F.....23 C4210A F.....23 C0450A F.....26 C2882A S.....27 C2677A B.....28 C2679A B.....30 C6700A U.....14 C0760A F.....64 E1002S U.....115 E2002S F.....116 E3002S U-P.....117 E2102S F-P.....118 C6892A F.....25 C6810A F.....25 | C6351A U.....6 C4117A U.....11 C0433A U.....15 C2524A F.....16 C2540A F.....16 C2519A F.....17 C3320 F-P.....20 C4211A F.....23 C0452A F.....26 C2888A S.....27 C1642A B.....29 C2681A B.....30 C3602 U-R.....34 C1302 B-R.....35 C6717A U.....14 C0780A F.....64 E1022S U.....115 E2022S F.....116 E3022S U-P.....117 E2122S F-P.....118 C6866A F.....25 C6811A F.....25 | | C2830A U.....6 C3102 U-P.....9 C3112 U-P.....10 C4125A U.....11 C4214A U.....11 C0435A U.....15 C2534A F.....16 C2521A F.....17 C3162 F-P.....20 C4199A F.....22 C4155A F.....22 C4197A F.....23 C4212A F.....23 C0454A F.....26 C2892A S.....27 C2686A B.....30 C1202 B-C.....36, 165 C6725A U.....14 C6714A U.....14 E1032S U.....115 E2032S F.....116 E3032S U-P.....117 E2202S F-P.....118 C6897A F.....25 C6812A F.....25 | | C2405A U.....7 C3193 U-P.....9 C3127 U-P.....10 C4135A U.....12 C0437A U.....15 C2536A F.....16 C3169 F-P.....20, 110 C4162A F.....22 C4199A F.....22 C4213A F.....23 C0456A F.....26 C2895A S.....27 C2689A B.....30 C8111 FB-P.....33 C1602 B-C.....36, 165 C6735A U.....14 E1042S U.....115 E2042S F.....116 E3042S U-P.....117 E2242S F-P.....118 C6899A F.....25 C6813A F.....25 | | C2409A U.....7 C3126 U-P.....9 C3128 U-P.....10 C4146A U.....12 C0439A U.....15 C2538A F.....16 C4163A F.....22 C4201A F.....23 C4215A F.....23 C0458A F.....26 C6746A U.....14 E1052S U.....115 E2052S F.....116 E3052S U-P.....117 E2252S F-P.....118 C6801A F.....25 C6815A F.....25 | | C2410A U.....7 C3135 U-P.....9 C3129 U-P.....10 C4150A U.....12 C0441A U.....15 C2539A F.....16 C4164A F.....22 C4202A F.....23 C0460A F.....26 E1062S U.....115 E2062S F.....116 E3062S U-P.....117 E2262S F-P.....118 | | | | | | | |
| 3 | SOLID | | | | | C4328A U.....111 | | | | | | C3114 U-P.....10 E1503S U.....99 C4305A U.....100 E2503S F.....101 C4335A F.....102 E3503S U-P.....103 E3603S F-P.....105 | | C4322A U.....100 C4345A F.....102 | | C4325A U.....100 | | | | |
| | STRANDED | C6501A B.....31 C0939A FB.....65 | C2462A U.....4 C4217A F.....24 C8115 FB-P.....33 C0741A F.....63 C0951A FB.....65 C0680A FB.....67 | C4062A U.....5 C4101A U.....13 C0432A U.....15 C2526A F.....16 C2517A F.....16 C3310 F-P.....20 C4156A F.....22 C4169A F.....22 C4193A F.....23 C0451A F.....26 C1335A S.....27 C2678A B.....30 C6701A U.....14 C0761A F.....64 C0971A FB.....66 E1003S U.....115 E2003S F.....116 E3003S U-P.....117 E2103S F-P.....118 C6893A F.....25 | C6352A U.....6 C4118A U.....11 C0434A U.....15 C2528A F.....16 C2525A F.....16 C3321 F-P.....20 C4157A F.....22 C4158A F.....22 C4195A F.....23 C0453A F.....26 C1643A B.....29 C1332A B.....30 C3603 U-R.....34 C1304 B-R.....35 C0781A F.....64 E1023S U.....115 E2023S F.....116 E3023S U-P.....117 E2123S F-P.....118 | | C2831A U.....6 C3190 U-P.....9 C3120 U-P.....10 C4126A U.....11 C0436A U.....15 C2537A F.....16 C2535A F.....16 C8106 F-P.....19 C3164 F-P.....20 C3064 F-P.....21 C4159A F.....22 C4198A F.....23 C0455A F.....26 C2768A S.....27 C2687A B.....30 C8107 FB-P.....33 C1203 B-C.....36 C6726A U.....14 E1033S U.....115 E2033S F.....116 E3033S U-P.....117 E2203S F-P.....118 C6898A F.....25 | | C2406A U.....7 C3194 U-P.....9 C4136A U.....12 C0438A U.....15 C2537A F.....16 C3340 F-P.....20 C4165A F.....22 C4200A F.....23 C0457A F.....26 C8119 FB-P.....33 C1603 B-C.....36 C6736A U.....14 E1043S U.....115 E2043S F.....116 E3043S U-P.....117 E2243S F-P.....118 C6800A F.....25 | | C0440A U.....15 C0459A F.....26 | | | | | | | | | |

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 C - CAROLPRENE®
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 FB - FOIL + BRAID SHIELD
 I - INDIVIDUAL FOIL SHIELD
 IFB - INDIVIDUAL FOIL + BRAID SHIELD
 P - PLENUM
 R - RUBBER
 S - SPIRAL SHIELD
 U - UNSHIELDED

Multi-Conductor Cable Product Finder

| NO. COND. | STRAND TYPE | AWG 28 | | AWG 24 | | AWG 22 | | AWG 20 | | AWG 19 | | AWG 18 | | AWG 16 | | AWG 14 | | AWG 12 | | |
|-----------|-------------|---|--|--|---|---|-------------|--|---|--|---|---|---|--|---|--------|-------------|--------|-------------|-----|
| | | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N |
| 4 | SOLID | | | | | E1484S U. 99 E2484S F. 101 E3484S U-P. 103 E1001S U. 115 E3001S U-P. 117 | | | | | | C3111 U-P. 10 C3061 F-P. 21 E1504S U. 99 C4306A U. 100 E2504S F. 101 C4336A F. 102 E3504S U-P. 103 C3201 U-P. 104 E3604S F-P. 105 C0495 F. 108 C0485 U. 107 C0494 F. 108 C3242 U-P. 109 C3170 F-P. 110 | E1514S U. 99 C4323A U. 100 E2524S F. 101 C4346A F. 102 E3514S U-P. 103 C3211 U-P. 104 E3614S F-P. 105 C3271 F-P. 106 C0486 U. 107 C0495 F. 108 C3243 U-P. 109 C3171 F-P. 110 | E1524S U. 99 C4326A U. 100 E2534S F. 101 E3524S U-P. 103 C3223 U-P. 104 E3624S F-P. 105 C3284 F-P. 106 C0496 F. 108 C3245 U-P. 109 C3173 F-P. 110 | E1534S U. 99 E2544S F. 101 E3534S U-P. 103 C3225 U-P. 104 E3634S F-P. 105 C0497 F. 108 C3247 U-P. 109 C3175 F-P. 110 | | | | | |
| | STRANDED | C6502A B. 31 C0940A FB. 65 | C2463A U. 4 C4218A F. 24 C0742A F. 63 C0952A FB. 65 C0681A FB. 67 | C3159 F-P. 21 C4160A F. 22 C4194A F. 23 C1337A S. 27 C2680A B. 30 C6702A U. 14 C0762A F. 64 C0972A FB. 66 E1004S U. 115 E2004S F. 116 E3004S U-P. 117 E2104S F-P. 118 C4063A U. 5 C3106 U-P. 9 C3116 U-P. 10 C4102A U. 13 C2523A F. 16 C3155 F-P. 20 C6894A F. 25 | C6353A U. 6 C4119A U. 11 C2555A F. 16 C3322 F-P. 20 C4161A F. 22 C4196A F. 23 C1644A B. 29 C2683A B. 30 C3604 U-R. 34 C1305 B-R. 35 C6718A U. 14 C0782A F. 64 E1024S U. 115 E2024S F. 116 E3024S U-P. 117 E2124S F-P. 118 C6896A F. 25 | | | C2404A U. 6 C8102 U-P. 8 C3103 U-P. 9 C3113 U-P. 10 C4127A U. 11 C0444A U. 15 C2543A F. 18 C8114 F-P. 19 C3163 F-P. 20 C3063 F-P. 21 C4204A F. 23 C2688A B. 30 C8110 FB-P. 33 C1204 B-C. 36 C6727A U. 14 E1034S U. 115 E2034S F. 116 E3034S U-P. 117 E2204S F-P. 118 C6804A F. 25 | C2425A U. 7 C3195 U-P. 9 C4137A U. 12 C3341 F-P. 20 C1604 B-C. 36 C6737A U. 14 E1044S U. 115 E2044S F. 116 E3044S U-P. 117 E2254S F-P. 118 | C2430A U. 7 C4147A U. 12 C6747A U. 14 E1054S U. 115 E2064S F. 116 E3064S U-P. 117 E2264S F-P. 118 | C2440A U. 7 C4151A U. 12 E1064S U. 115 E2084S F. 116 E3084S U-P. 117 E2284S F-P. 118 | | | | | | | | | |
| 5 | SOLID | | | | | | | | | | | C3117 U-P. 10 E1505S U. 99 C4307A U. 100 C4337A F. 102 | C4349A U. 100 C4350A F. 102 | | | | | | | |
| | STRANDED | C0941A FB. 65 | C2464A U. 4 C4219A F. 24 C0753A F. 63 C0953A FB. 65 C0682A FB. 67 | C4064A U. 5 C4103A U. 13 C0973A FB. 66 | C6355A U. 6 C4120A U. 11 C1645A B. 29 C3605 U-R. 34 C1308 B-R. 35 | | | C2420A U. 6 C3134 U-P. 9 C3125 U-P. 10 C4128A U. 11 | C2434A U. 7 C4138A U. 12 | C2437A U. 7 C4148A U. 12 | | | | | | | | | | |
| 6 | SOLID | | | | | E1486S U. 99 C4300A U. 100 C4329A U. 111 | | | | | | C3118 U-P. 10 E1506S U. 99 C4308A U. 100 E2506S F. 101 C4338A F. 102 E3506S U-P. 103 E3606S F-P. 105 C4333A U. 111 | | | | | | | | |
| | STRANDED | C6503A B. 31 C0942A FB. 65 | C2466A U. 4 C4220A F. 24 C0743A F. 63 C0954A FB. 65 C0683A FB. 67 | C4066A U. 5 C4104A U. 13 C3311 F-P. 20 C4207A F. 23 C1341A S. 27 C6704A U. 14 C0763A F. 64 C0974A FB. 66 E1006S U. 115 E2006S F. 116 E3006S U-P. 117 E2106S F-P. 118 C6807A F. 25 | C1646A B. 29 C3606 U-R. 34 C1310 B-R. 35 C0783A F. 64 | | | C3192 U-P. 9 C3121 U-P. 10 C4206A U. 11 C3166 F-P. 20 C3065 F-P. 21 C4205A F. 23 C8120 FB-P. 33 C1206 B-C. 36 C6706A U. 14 E1036S U. 115 E2036S F. 116 E3036S U-P. 117 E2206S F-P. 118 C6805A F. 25 | C8108 FB-P. 33 | | | | | | | | | | | |
| 7 | SOLID | | | | | | | | | | | C4309A U. 100 C4339A F. 102 | | | | | | | | |
| | STRANDED | C0943A FB. 65 | C2488A U. 4 C4221A F. 24 C0754A F. 63 C0955A FB. 65 C0684A FB. 67 | C4088A U. 5 C4105A U. 13 C0975A FB. 66 | C6356A U. 6 C4121A U. 11 C3607 U-R. 34 C1312 B-R. 35 | | | C2421A U. 6 C4129A U. 11 | C2426A U. 7 C4139A U. 12 | C2431A U. 7 C4149A U. 12 | | | | | | | | | | |
| 8 | SOLID | | | | | | | | | | | C3119 U-P. 10 E1508S U. 99 C4310A U. 100 E2508S F. 101 C4340A F. 102 | | | | | | | | |
| | STRANDED | C6504A B. 31 C0944A FB. 65 | C2465A U. 4 C4222A F. 24 C0744A F. 63 C0956A FB. 65 C0685A FB. 67 | C4065A U. 5 C4106A U. 13 C4208A F. 23 C0764A F. 64 C0976A FB. 66 E1008S U. 115 E2008S F. 116 E3008S U-P. 117 E2108S F-P. 118 | C1648A FB. 32 C3608 U-R. 34 C1313 B-R. 35 C0784A F. 64 | | | C3191 U-P. 9 C3122 U-P. 10 C3180 F-P. 20 E1038S U. 115 E2038S F. 116 E3038S U-P. 117 E2208S F-P. 118 | C2443A U. 7 C4140A U. 12 | | | | | | | | | | | |



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P - PLENUM
R - RUBBER
S - SPIRAL SHIELD
U - UNSHIELDED



Multi-Conductor Cable Product Finder

| NO. COND. | STRAND TYPE | AWG 28 | | AWG 24 | | AWG 22 | | AWG 20 | | AWG 19 | | AWG 18 | | AWG 16 | | AWG 14 | | AWG 12 | | |
|-----------|-------------|---------------------------------------|-------------|---|-------------|--|-------------|---|-------------|--------|-------------|--|--|-------------------------------------|-------------------------------------|--------|-------------|--------|-------------|-----|
| | | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N | SHIELD PAGE | P/N |
| 9 | SOLID | | | | | | | | | | | C4312A U.100 C4341A F.102 | | | | | | | | |
| | STRANDED | C0945A FB.65 | | C2470A U.4 C4223A F.24 C0755A F.63 C0957A FB.65 C0686A FB.67 | | C4070A U.5 C4107A U.13 C0977A FB.66 | | C6357A U.6 C4122A U.11 | | | | | C2422A U.6 C4130A U.11 | | C2435A U.7 C4141A U.12 | | | | | |
| 10 | SOLID | | | | | | | | | | | C4313A U.100 C4342A F.102 | | | | | | | | |
| | STRANDED | C6505A B.31 C0946A FB.65 | | C2471A U.4 C4224A F.24 C0745A F.63 C0958A FB.65 C0687A FB.67 | | C4071A U.5 C4108A U.13 C0765A F.64 C0978A FB.66 E1010S U.115 E2010S F.116 E3010S U-P.117 E2110S F-P.118 | | C3610 U-R.34 C0785A F.64 | | | | | C3178 U-P.9 C3123 U-P.10 C3181 F-P.20 C3183 F-P.21 E1040S U.115 E2040S F.116 | | | | | | | |
| 11 | SOLID | | | | | | | | | | | C4314A U.100 | | | | | | | | |
| | STRANDED | | | | | | | | | | | | | | | | | | | |
| 12 | SOLID | | | | | C4330A U.111 | | | | | | | | | | | | | | |
| | STRANDED | C6506A B.31 | | C2467A U.4 | | C4067A U.5 C4109A U.13 E1012S U.115 E2012S F.116 E3012S U-P.117 E2112S F-P.118 | | C6360A U.6 C4123A U.11 | | | | | C2412A U.6 C3179 U-P.9 C3124 U-P.10 C4131A U.11 C3182 F-P.20 C3184 F-P.21 E1041S U.115 E2041S F.116 | | C2427A U.7 C4142A U.12 | | | | | |
| 15 | SOLID | | | | | C4301A U.100 C4331A U.111 | | | | | | | | | | | | | | |
| | STRANDED | C6507A B.31 C0947A FB.65 | | C2473A U.4 C4225A F.24 C0746A F.63 C0959A FB.65 C0688A FB.67 | | C4073A U.5 C4110A U.13 C0766A F.64 C0979A FB.66 C4111A U.13 | | C6358A U.6 C4124A U.11 C0786A F.64 | | | | | C2423A U.6 C4132A U.11 | | C2428A U.7 C4143A U.12 | | | | | |
| 19 | SOLID | | | | | | | | | | | C2424A U.6 | | | | | | | | |
| | STRANDED | | | | | | | | | | | C4133A U.11 | | C2429A U.7 C4144A U.12 | | | | | | |
| 20 | SOLID | | | | | C4302A U.100 | | | | | | C4316A U.100 | | | | | | | | |
| | STRANDED | C6508A B.31 | | C4226A F.24 C0747A F.63 C0960A FB.65 | | C4075A U.5 C4112A U.13 C0767A F.64 C0980A FB.66 | | | | | | | | | | | | | | |
| 21 | SOLID | | | | | | | | | | | C4317A U.100 | | | | | | | | |
| | STRANDED | | | | | | | | | | | | | | | | | | | |
| 25 | SOLID | | | | | | | | | | | | | | | | | | | |
| | STRANDED | C0948A FB.65 | | C4227A F.24 C0748A F.63 C0961A FB.65 | | C4076A U.5 C4113A U.13 C0768A F.64 C0981A FB.66 | | C0787A F.64 C0788A F.64 | | | | | C2433A U.6 C4134A U.11 | | C2436A U.7 C4145A U.12 | | | | | |
| 27 | SOLID | | | | | C4332A U.111 | | | | | | | | | | | | | | |
| | STRANDED | | | | | | | | | | | | | | | | | | | |
| 30 | SOLID | | | | | | | | | | | C4318A U.100 C4343A F.102 | | | | | | | | |
| | STRANDED | | | C4228A F.24 C0749A F.63 | | C4077A U.5 C4114A U.13 | | | | | | | | | | | | | | |
| 40 | SOLID | | | | | | | | | | | | | | | | | | | |
| | STRANDED | | | C4229A F.24 C0750A F.63 | | C4078A U.5 C4115A U.13 | | | | | | | | | | | | | | |
| 50 | SOLID | | | | | | | | | | | | | | | | | | | |
| | STRANDED | | | C4230A F.24 C0751A F.63 | | C4079A U.5 C4116A U.13 | | | | | | | | | | | | | | |

Multi-Paired Cable Product Finder

| NO. COND. | STRAND TYPE | AWG 28 | | AWG 24 | | AWG 22 | | AWG 20 | | AWG 18 | |
|-----------|-------------|------------|------|-----------------|------|----------------|------|---------------|------|----------------|------|
| | | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE |
| 2 | SOLID | | | | | C4008A U..... | 38 | | | | |
| | STRANDED | | | C8127 F-P..... | 46 | C7104A F..... | 41 | | | C6101A U..... | 39 |
| 4 | SOLID | | | C4170A F..... | 48 | C3204 F-P..... | 43 | | | C8116 U-P..... | 40 |
| | STRANDED | | | C4209A F..... | 48 | C8103 F-P..... | 44 | | | C8122 U-P..... | 40 |
| 6 | SOLID | | | C4191A F..... | 48 | C8109 F-P..... | 44 | | | C8101 F-P..... | 44 |
| | STRANDED | | | C8117 FB-P..... | 52 | C8126 F-P..... | 46 | | | C8104 F-P..... | 44 |
| 8 | SOLID | | | C0600A F..... | 68 | C8124 F-P..... | 46 | | | C8123 F-P..... | 46 |
| | STRANDED | | | C0841A FB..... | 71 | C4183A F..... | 49 | | | | |
| 4 | SOLID | | | | | C7112A F..... | 61 | | | | |
| | STRANDED | | | | | C0720A F..... | 68 | | | | |
| 6 | SOLID | | | | | | | | | | |
| | STRANDED | | | C3150 F-P..... | 43 | C6010A U..... | 38 | C7106A I..... | 53 | C6118A U..... | 39 |
| 8 | SOLID | | | C8118 F-P..... | 45 | C3205 F-P..... | 43 | | | C3362 F-P..... | 47 |
| | STRANDED | | | C4171A F..... | 48 | C3352 F-P..... | 47 | | | C0584A I..... | 60 |
| 9 | SOLID | | | C3214 F-P..... | 50 | C4184A F..... | 49 | | | C0560A F..... | 61 |
| | STRANDED | | | C3028 F-P..... | 51 | C1352A I..... | 53 | | | | |
| 9 | SOLID | | | C8129 FB-P..... | 52 | C1353A I..... | 53 | | | | |
| | STRANDED | | | C8134 I-P..... | 57 | C4203A I..... | 54 | | | | |
| 9 | SOLID | | | C8128 I-P..... | 59 | C1350A I..... | 55 | | | | |
| | STRANDED | | | C0601A F..... | 68 | C3156 I-P..... | 56 | | | | |
| 9 | SOLID | | | C0890A F..... | 69 | C8105 I-P..... | 57 | | | | |
| | STRANDED | | | C0620A FB..... | 70 | C8112 I-P..... | 58 | | | | |
| 9 | SOLID | | | C0842A FB..... | 71 | C0570A I..... | 60 | | | | |
| | STRANDED | | | C0829A FB..... | 72 | C0550A F..... | 61 | | | | |
| 9 | SOLID | | | C0515A FB..... | 73 | C7114A F..... | 61 | | | | |
| | STRANDED | | | C0910A I..... | 75 | C0721A F..... | 68 | | | | |
| 9 | SOLID | | | C0924A IFB..... | 76 | C0650A FB..... | 70 | | | | |
| | STRANDED | | | | | | | | | | |
| 9 | SOLID | | | | | | | | | | |
| | STRANDED | | | | | | | | | | |
| 9 | SOLID | | | | | | | | | | |
| | STRANDED | | | C3217 F-P..... | 50 | | | | | | |



B - BRAID SHIELD
 C - CAROLPRENE®
 F - FOIL SHIELD
 FB - FOIL + BRAID SHIELD
 I - INDIVIDUAL FOIL SHIELD

IFB - INDIVIDUAL FOIL + BRAID SHIELD
 P - PLENUM
 R - RUBBER
 S - SPIRAL SHIELD
 U - UNSHIELDED



Multi-Paired Cable Product Finder

| NO. COND. | STRAND TYPE | AWG 28 | | AWG 24 | | AWG 22 | | AWG 20 | | AWG 18 | |
|-----------|-------------|------------|------|--|------|---|------------------|------------|--|---------------|------|
| | | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE |
| 10 | SOLID | | | | | | | | | C3120 U..... | 10 |
| | STRANDED | | | C4174A F..... 48 C0604A F..... 68 C0894A F..... 69 C0623A FB..... 70 C0832A FB..... 72 C0518A FB..... 73 | | C4187A F..... 49 C0724A F..... 68 C0653A FB..... 70 | | | | | |
| 12 | SOLID | | | | | C4017A U..... 38 C1671A F..... 41 | | | | | |
| | STRANDED | | | C3165 F-P..... 43 C4175A F..... 48 C3218 F-P..... 50 C3031 F-P..... 51 C0605A F..... 68 C0899A F..... 69 C0624A FB..... 70 C0839A FB..... 72 C0519A FB..... 73 C0606A I..... 74 C0913A I..... 75 | | C6017A U..... 38 C3208 F-P..... 43 C3356 F-P..... 47 C4188A F..... 49 C8133 I-P..... 57 C8132 I-P..... 58 C0573A I..... 60 C0553A F..... 61 C0725A F..... 68 C0654A FB..... 70 C6041A I..... 74 | C6053A I..... 74 | | C6106A U..... 39 C0587A I..... 60 C0563A F..... 61 C6048A I..... 74 | | |
| 14 | SOLID | | | | | | | | | | |
| | STRANDED | | | C4176A F..... 48 C0606A F..... 68 C0625A FB..... 70 C0833A FB..... 72 C0520A FB..... 73 | | C0655A FB..... 70 | | | | | |
| 16 | SOLID | | | | | | | | | | |
| | STRANDED | | | C4177A F..... 48 C0607A F..... 68 C0626A FB..... 70 C0521A FB..... 73 | | C0656A FB..... 70 | | | | C6121A U..... | 39 |
| 18 | SOLID | | | | | C1672A F..... 41 | | | | | |
| | STRANDED | | | C4178A F..... 48 C0608A F..... 68 C0896A F..... 69 C0607A I..... 74 C0914A I..... 75 | | C6019A U..... 38 C4189A F..... 49 C0574A I..... 60 C0554A F..... 61 C0726A F..... 68 C6042A I..... 74 | C6054A I..... 74 | | C6109A U..... 39 C0588A I..... 60 C0564A F..... 61 C6049A I..... 74 | | |
| 20 | SOLID | | | | | | | | | | |
| | STRANDED | | | C4179A F..... 48 C0609A F..... 68 C0628A FB..... 70 C0835A FB..... 72 C0522A FB..... 73 | | C0658A FB..... 70 | | | | | |
| 22 | SOLID | | | | | | | | | | |
| | STRANDED | | | C0915A I..... 75 | | C0575A I..... 60 C0555A F..... 61 C6043A I..... 74 | | | | C0589A I..... | 60 |
| 24 | SOLID | | | | | | | | | | |
| | STRANDED | | | C0836A FB..... 72 C0916A I..... 75 | | C6023A U..... 38 C6059A I..... 74 | C6056A I..... 74 | | C6050A I..... | 74 | |
| 25 | SOLID | | | | | | | | | | |
| | STRANDED | | | C3152 F-P..... 43 C0897A F..... 69 C0630A FB..... 70 C0523A FB..... 73 | | C0660A FB..... 70 | | | | | |

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Multi-Paired Cable Product Finder

| NO. COND. | STRAND TYPE | AWG 28 | | AWG 24 | | AWG 22 | | AWG 20 | | AWG 18 | |
|-----------|-------------|------------|------|----------------|------|----------------|------|---------------|------|---------------|------|
| | | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE | P/N SHIELD | PAGE |
| 30 | SOLID | | | | | C1673A F..... | 41 | | | | |
| | STRANDED | | | C4180A F..... | 48 | C6026A U..... | 38 | C6058A I..... | 74 | C6111A U..... | 39 |
| | | | | C0610A F..... | 68 | C4190A F..... | 49 | | | C0590A I..... | 60 |
| | | | | C0524A FB..... | 73 | C0556A F..... | 61 | | | C0566A F..... | 61 |
| | | | | C0917A I..... | 75 | C0728A F..... | 68 | | | C6051A I..... | 74 |
| | | | | | | C6044A I..... | 74 | | | | |
| 34 | SOLID | | | | | | | | | | |
| | STRANDED | | | | | C6060A I..... | 74 | | | | |
| 36 | SOLID | | | | | | | | | | |
| | STRANDED | | | C0525A FB..... | 73 | | | | | | |
| 38 | SOLID | | | | | | | | | | |
| | STRANDED | | | C4181A F..... | 48 | C0729A F..... | 68 | | | | |
| | | | | C0611A F..... | 68 | C6045A I..... | 74 | | | | |
| 50 | SOLID | | | | | | | | | | |
| | STRANDED | | | C4182A F..... | 48 | C0663A FB..... | 70 | | | | |
| | | | | C0612A F..... | 68 | | | | | | |
| | | | | C0526A FB..... | 73 | | | | | | |
| 54 | SOLID | | | | | | | | | | |
| | STRANDED | | | | | C0730A F..... | 68 | | | | |
| | | | | | | C6046A I..... | 74 | | | | |
| 102 | SOLID | | | | | | | | | | |
| | STRANDED | | | | | C6451A F..... | 42 | | | | |



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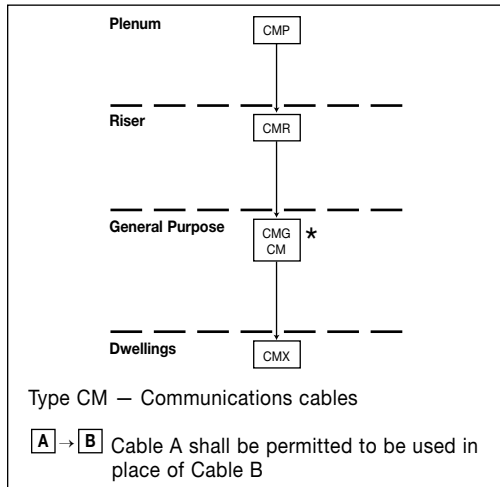
IFB - INDIVIDUAL FOIL + BRAID SHIELD
 P - PLENUM
 R - RUBBER
 S - SPIRAL SHIELD
 U - UNSHIELDED



NEC/CEC Substitution Chart

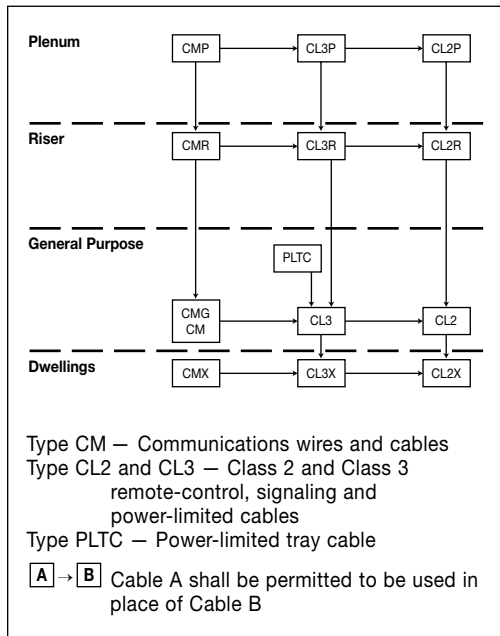
Communication wire and cable for premise installations in accordance with Article 800, and other applicable parts of the National Electrical Code (NEC), latest issue. Communication wire and cables for Canada are in accordance with the harmonized Canadian Standard Association C22.2 No. 214, Underwriters Laboratories UL 444, latest issue.

Figure 800-154(E) Cable Substitution Hierarchy



*CMG can be substituted for CM—CM can NOT be substituted for CMG

Figure 725-154(G), Cable Substitution Hierarchy



| FIRE RESISTANCE LEVEL | TEST REQUIREMENT | NEC ARTICLE | | | |
|---|---|-------------|--------------|------|-------|
| | | 800 | 725 | 760 | 820 |
| (Highest) Plenum Cables | NFPA 262 (Steiner Tunnel) CSA-CMP (Steiner Tunnel) | CMP | CL3P CL2P | FPLP | CATVP |
| Riser Cables | UL-1666 (Vertical Shaft) | CMR | CL3R CL2R | FPLR | CATVR |
| General-Purpose Cables Multiple Floors | UL-1581 (Vertical Tray) CSA-CMG (Vertical Tray) | CMG CM | CL3 | FPL | CATV |
| (Lowest) Residential Cables Restricted Use | UL-1581 VW-1 | CMX | CL2 CL3X | | CATVX |

Note: 1. Cables with a higher fire resistance level may be substituted for those with a lower fire resistance level.
 2. Non-fire rated outside plant telephone cables may not run outside of a rigid metal conduit more than 50 feet from the point of entrance into a building.
 3. Cables rated cmg or cm may be used in runs penetrating one floor. (nec 800-53)

ARTICLE 800

Table 800-154(E). Cable Uses and Permitted Substitutions

| CABLE TYPE | USE | REFERENCE | PERMITTED SUBSTITUTIONS |
|-------------------------------|--------------------------------------|------------|-------------------------|
| CMP (FT6) | Communications plenum cable | 800-154(a) | |
| CMR | Communications riser cable | 800-154(b) | CMP |
| CMG (FT4) CM (FT1) | Communications general purpose cable | 800-154(c) | CMP, CMR |
| CMX (FT1) | Communications cable, limited use | 800-154(c) | CMP, CMR, CMG, CM |

Note: See Figure 800-154(E), Cable Substitution Hierarchy

ARTICLE 725

Table 725-154(G). Cable Uses and Permitted Substitutions

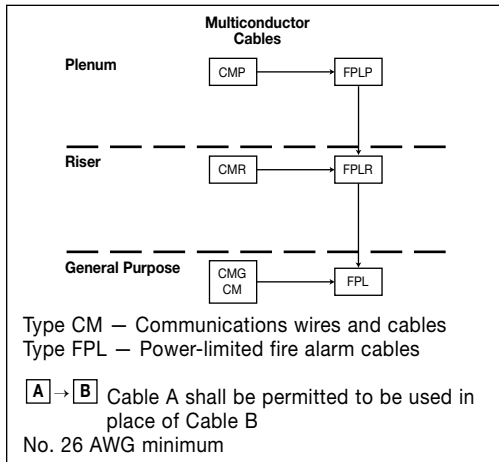
| CABLE TYPE | USE | REFERENCE | PERMITTED SUBSTITUTIONS |
|-------------|----------------------------|------------------------|--|
| CL3P | Class 3 plenum cable | 725-61(a) | CMP |
| CL2P | Class 2 plenum cable | 725-61(b) | CMP, CL3P |
| CL3R | Class 3 riser cable | 725-61(b) | CMP, CL3P, CMR |
| CL2R | Class 2 riser cable | 725-6 (b) | CMP, CL3P, CL2P, CMR, CL3R |
| PLTC | Power-limited tray cable | 725-61(c) and (d) | |
| CL3 | Class 3 cable | 725-61(b), (e) and (f) | CMP, CL3P, CMR, CL3R, CMG, CM, PLTC |
| CL2 | Class 2 cable | 725-61(b), (c) and (f) | CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3 |
| CL3X | Class 3 cable, limited use | 725-61(b) and (e) | CMP, CL3P, CMR, CL3R, CMG, CM, PLTC, CL3, CMX |
| CL2X | Class 2 cable, limited use | 725-61(b) and (e) | CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3, CL2, CMX, CL3X |

Note: See Figure 725-154(G), Cable Substitution Hierarchy

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NEC/CEC Substitution Chart

Figure 760-154 (D), Cable Substitution Hierarchy



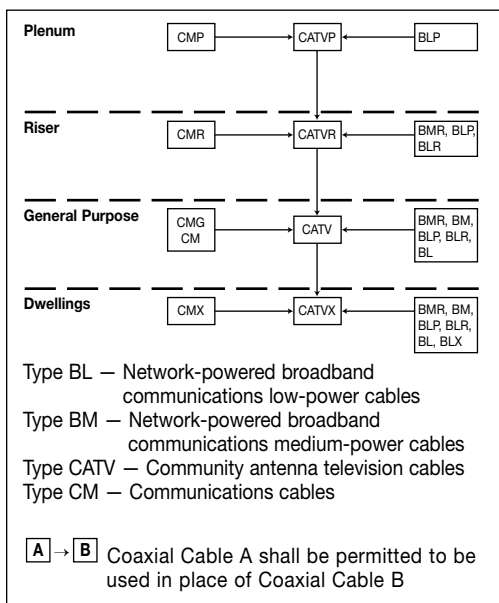
Article 760

Table 760-154 (D). Cable Uses and Permitted Substitutions

| CABLE TYPE | USE | REFERENCES | PERMITTED SUBSTITUTIONS |
|------------|---------------------------------------|-------------|-------------------------------|
| | | | MULTICONDUCTOR |
| FPLP | Power-limited fire alarm plenum cable | 760-154 (A) | CMP |
| FPLR | Power-limited fire alarm riser cable | 760-154 (B) | CMP, FPLP, CMR |
| FPL | Power-limited fire alarm cable | 760-154 (C) | CMP, FPLP, CMR, FPLR, CMG, CM |

Note: See Figure 760-154 (D), Cable Substitution Hierarchy

Figure 820-154 (E), Cable Substitution Hierarchy



Article 820

Table 820-154 (E). Coaxial Cable Uses and Permitted Substitutions

| CABLE TYPE | USE | REFERENCES | PERMITTED SUBSTITUTIONS |
|------------|-------------------------------|-------------|---|
| | | | MULTICONDUCTOR |
| CATVP | Coaxial plenum cable | 820-154 (A) | CMP, BLP |
| CATVR | Coaxial riser cable | 820-154 (B) | CATVP, CMP, CMR, BMR, BLP, BLR |
| CATV | Coaxial general purpose cable | 820-154 (C) | CATVP, CMP, CATVR, CMR, CMG, CM, BMR, BM, BLP, BLR, BL |
| CATVX | Coaxial cable, limited use | 820-154 (C) | CATVP, CMP, CATVR, CMR, CATV, CMG, CM, BMR, BM, BLP, BLR, BL, BLX |

Note: See Figure 820-154 (E), Cable Substitution Hierarchy

Agency Symbols



UL Listed Mark for the United States



CSA CMP



UL Listed Mark for Canada



CSA CMG



UL Listed Mark for Canada and the United States



CSA CMH



UL Recognized Component Mark for the United States



NFPA 262 and CSA FT6 Steiner Tunnel Fire Tests



TIA/EIA 568A Cat. 3



UL Vertical Tray Flame Test



TIA/EIA 568B Cat. 5e & Cat. 6



UL 1666 Riser Flame Test



California State Fire Marshal



IMSA



RoHS Compliant Directive 2011/65/EU



ETL

Put-Ups and Color Codes

PUT-UP CODES

| | PULL-PAC® | SPOOL-PAC® | SPOOL | REEL |
|-------|-----------|------------|-------|------|
| 100' | - | - | 12 | 33 |
| 250' | - | - | 15 | 35 |
| 500' | 25 | - | 18 | 38 |
| 1000' | 30 | 86 | 21 | 41 |
| 2000' | - | - | - | 43 |
| 2500' | - | - | 24 | 44 |
| 3000' | - | - | - | 52 |
| 5000' | - | - | 26 | 46 |

JACKET COLOR CODES

| COLOR | ABBREVIATION | COLOR CODE |
|------------|--------------|------------|
| Black | BK | 01 |
| White | WH | 02 |
| Red | RD | 03 |
| Orange | OR | 04 |
| Yellow | YL | 05 |
| Green | GN | 06 |
| Blue | BL | 07 |
| Brown | BR | 08 |
| Gray | GY | 10 |
| Pink | PK | 13 |
| Light Blue | LB | 16 |
| Beige | BG | 17 |
| Purple | PU | 19 |
| Natural | NT | 86 |
| Clear | CL | 90 |

Due to variances in monitors and printed materials, the colors above are only a representation of color and do not necessarily reflect the actual jacket color of the cable.

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| 224SLTCH | 160 | 395011-5 | 137 | C0518A | 73 | C0655A | 70 |
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| 05092 | 121 | 395025-4 | 150 | C0521A | 73 | C0660A | 70 |
| 05093 | 121 | 395025-5 | 150 | C0522A | 73 | C0663A | 70 |
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| 05095 | 121 | 395029 | 143, 158 | C0524A | 73 | C0681A | 67 |
| 05096 | 121 | 395035-3 | 151 | C0525A | 73 | C0682A | 67 |
| 05097 | 121 | 395035-4 | 151 | C0526A | 73 | C0683A | 67 |
| 05098 | 121 | 395035-5 | 151 | C0550A | 61 | C0684A | 67 |
| 05099 | 121 | 395058 | 143 | C0551A | 61 | C0685A | 67 |
| 05481 | 122 | 397001 | 139 | C0552A | 61 | C0686A | 67 |
| 05482 | 122 | 495015 | 143 | C0553A | 61 | C0687A | 67 |
| 05483 | 122 | 495016 | 143 | C0554A | 61 | C0688A | 67 |
| 05484 | 122 | 495023 | 149 | C0555A | 61 | C0720A | 68 |
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| 05587 | 122 | C0435A | 15 | C0574A | 60 | C0742A | 63 |
| 05588 | 122 | C0436A | 15 | C0575A | 60 | C0743A | 63 |
| 05589 | 122 | C0437A | 15 | C0584A | 60 | C0744A | 63 |
| 05782 | 123 | C0438A | 15 | C0585A | 60 | C0745A | 63 |
| 05783 | 123 | C0439A | 15 | C0586A | 60 | C0746A | 63 |
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| C0897A | 69 | C1180 | 138 | C2106A | 168 | C2543A | 18 |
| C0899A | 69 | C1188 | 144 | C2107A | 168 | C2555A | 16 |
| C0901A | 69 | C1198 | 138 | C2117A | 168 | C2676A | 28 |
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| C0913A | 75 | C1204 | 36 | C2405A | 7 | C2680A | 30 |
| C0914A | 75 | C1206 | 36 | C2406A | 7 | C2681A | 30 |
| C0915A | 75 | C1302 | 35 | C2409A | 7 | C2683A | 30 |
| C0916A | 75 | C1304 | 35 | C2410A | 7 | C2686A | 30 |
| C0917A | 75 | C1305 | 35 | C2412A | 6 | C2687A | 30 |
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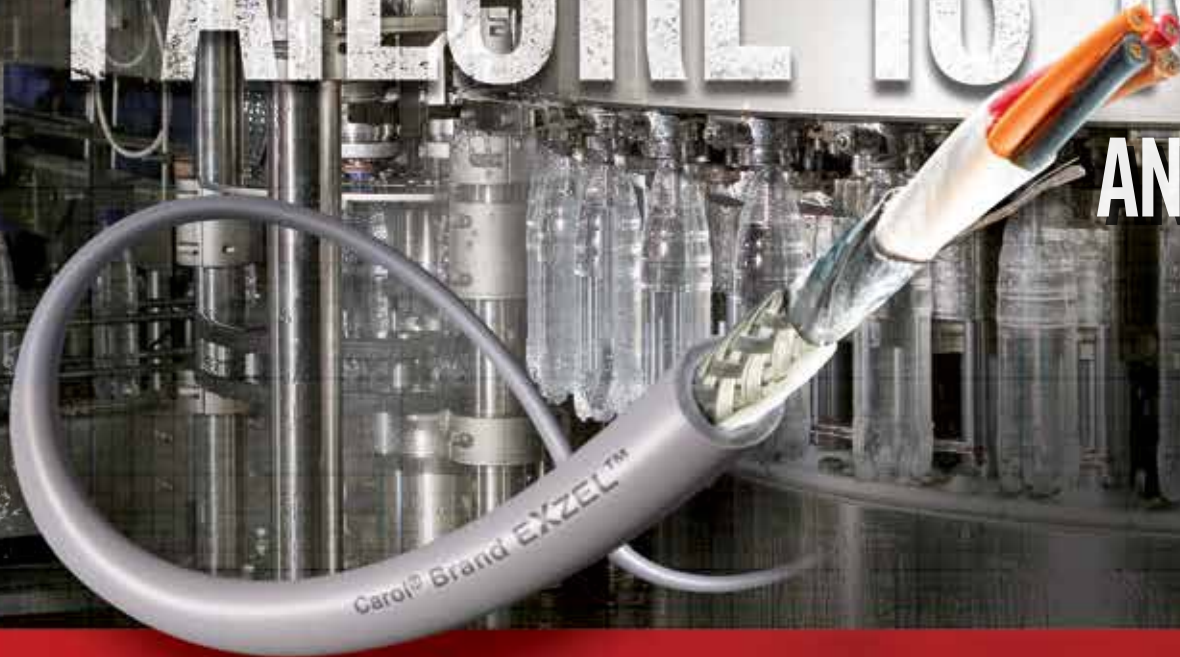
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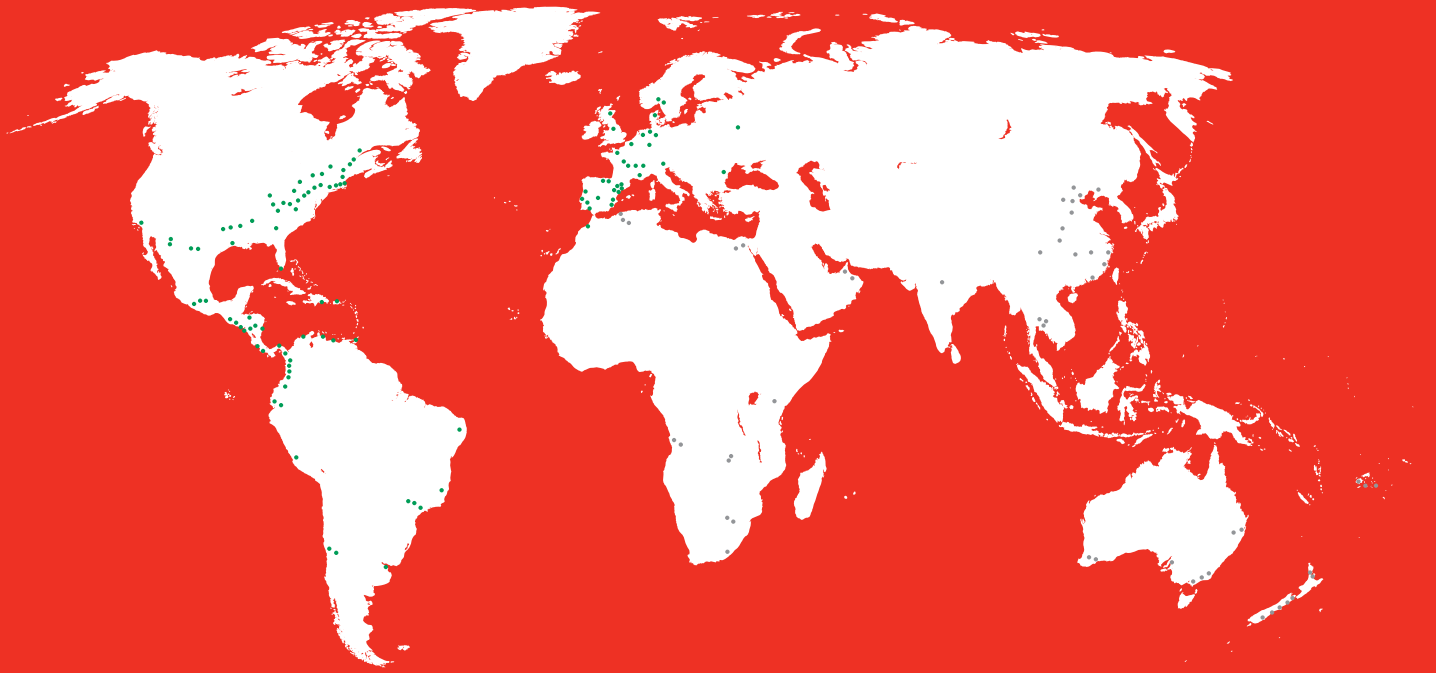
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