



For more Information  
please call

1-800-Belden1



### General Description:

22 AWG stranded (7x30) TC conductor, polyolefin insulation, individually shielded with bonded Beldfoil®, numbered/color-coded PVC jackets, jackets and shields are bonded so both strip simultaneously, overall black PVC jacket and nylon rip cord.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
24	22	7x30	TC - Tinned Copper	0.762

Total Number of Conductors: 48

#### Insulation

Insulation Material:

Insulation Material	Dia. (mm)
PO - Polyolefin	1.27

#### Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

Inner Shield Drain Wire AWG:

AWG
22

Inner Shield Drain Wire Stranding: 7x30

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

#### Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (mm)
PVC - Polyvinyl Chloride	3.3782

#### Outer Shield

Outer Shield Material:

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
18	19x30	TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Outer Jacket Ripcord: Yes

#### Overall Cable

Overall Cabling Color Code Chart:

Number	Color
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Purple
8	Gray
9	White

10	Black
11	Tan
12	Pink
13	Gray/Brown Stripe
14	Gray/Red Stripe
15	Gray/Orange Stripe
16	Gray/Yellow Stripe
17	Gray/Green Stripe
18	Gray/Blue Stripe
19	Gray/Purple Stripe
20	Gray/Gray Stripe
21	Gray/White Stripe
22	Gray/Black Stripe
23	Gray/Tan Stripe
24	Gray/Pink Stripe

Overall Nominal Diameter: 24.613 mm

**Pair**

Pair Color Code Chart:

<b>Color</b>
Red and Black

**Mechanical Characteristics (Overall)**

Operating Temperature Range:	-20°C To +60°C
Bulk Cable Weight:	711.360 Kg/Km
Max. Recommended Pulling Tension:	3020.328 N
Min. Bend Radius/Minor Axis:	247.650 mm

**Applicable Specifications and Agency Compliance (Overall)**

**Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
EU Directive 2011/65/EU (ROHS II):	Yes
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

**Flame Test**

UL Flame Test:	UL1666 Riser
CSA Flame Test:	FT4

**Plenum/Non-Plenum**

Plenum (Y/N):	No
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**Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

<b>Impedance (Ohm)</b>
50

Nom. Inductance:

<b>Inductance (µH/m)</b>
0.59058

Nom. Capacitance Conductor to Conductor:

<b>Capacitance (pF/m)</b>
101.711

Nom. Capacitance Cond. to Other Conductor & Shield:

<b>Capacitance (pF/m)</b>
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## METRIC MEASUREMENT VERSION

## 1821R Multi-Conductor - CMR Rated Cable

183.736

### Nominal Velocity of Propagation:

VP (%)

66

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

48.5588

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

38.7158

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 46.262 Ohm/km

### Max. Operating Voltage - UL:

Voltage

300 V RMS

### Max. Recommended Current:

Current

1.45 Amps per conductor @ 25°C

### Notes (Overall)

**Notes:** Pair jackets and shields are bonded so both strip simultaneously with automatic stripping equipment. Beldfoil® provides high reliability with ease of termination.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1821R 0101000	1,000 FT	518.000 LB	BLACK	C	24 #22 FS PR PVC FS PVC
1821R 010500	500 FT	263.500 LB	BLACK	C	24 #22 FS PR PVC FS PVC

### Notes:

C = CRATE REEL PUT-UP.

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