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## Belden Brilliance® MaxiBend™ Tactical Fiber Optic Cables Are Small and Lightweight for Fast, Easy Deployment at Outdoor Events

Broadcasters covering professional sporting events outdoors – such as PGA golf tournaments and NASCAR motor sports – face tough challenges in installing their mobile communications and broadcast systems. They are constantly seeking smaller, lighter weight equipment and cabling that can be easily transported in their mobile trucks and installed quickly and easily. Belden MaxiBend Tactical Fiber Optic cables are designed and constructed to facilitate fast, easy field deployment. These single-mode and multimode cables are ideal for use in digital camera transmissions such as HD-SDI and 1080p/50 or 1080p/60, electronic news gathering (ENG) or electronic field production vehicles. Tactical Fiber Optic cables are also appropriate for emergency communications systems, as well as mining and industrial applications, where ruggedness, long-runs, and bend-tolerance are essential.

### Rugged, Yet Flexible Construction Ensures Reliable Outdoor Performance

Designed to military standards, Belden Tactical Fiber Optic cables are newly designed, ruggedly constructed for maximum performance, superior bend tolerance, and reliability. These tight buffered cables feature an aramid yarn strength member and an exceptionally tough, sunlight-resistant polyurethane outer jacket, making them highly resistant to abrasion, crushing and cut-through. In addition, the cables are smaller and lighter in weight than traditional tactical fiber cables. The result is a smaller bend radius capability and improved flexibility and resiliency (cable memory) over a broad range of outdoor temperatures and weather conditions. Belden offers its MaxiBend tactical fiber series in eight standard product codes, in single-mode and multimode constructions, with up to 12 fibers and a variety

of special options designed to meet a wide variety of application requirements. These options include glass type, fiber count and jacket color and material. They are compatible with all optical fiber connector types.

For more information, please consult NP305 or visit, [www.belden.com](http://www.belden.com)



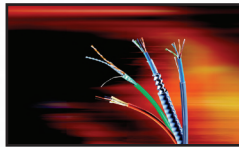
## Quality Corner

- Conduit Capacity Slide Rule Charts available for order on-line at [www.belden.com](http://www.belden.com)
- First place in ControlDesign Readers' Choice awards in Wire and Cabling, Industrial Network Components - Wire, and Industrial Network Hubs/Routers/Switches. Third place in Industrial Electrical Connectors/Cordsets
- TV Technology STAR 2009 Superior Technology Award Recipient



**New Products**

**1. Industrial Cable New Product & Capabilities Launches**



NP231

The Industrial products offered from Belden provide a quality product designed to withstand the rigors of industrial environments. Belden now offers the following new products and procurement specifications:

**DataTuff® Industrial Ethernet Category 6 Shielded Solid Conductor (7953A)**

Part number 7953A supports Mission-critical Industrial Ethernet applications requiring shielded constructions for high-noise environments.

**Features & Benefits**

- Bonded-Pair technology for superior electrical performance in mission critical applications.
- Overall foil shield
- Solid conductors
- Industrial grade (Sun- and Oil-resistant) PVC Up-Jacket
- -40°C to +75°C Operating Temp
- CMR FT4
- Ethernet/IP Compliant

**DataTuff® Industrial Ethernet Category 5e Continuous Flex (7938A)**

- Rated for 10 million flex cycles on C-Track
- Oil, Sunlight and Weldsplatter-resistant TPE jacket
- Foil/Braid shield
- CEC: FT1, AWM 20626

**Features & Benefits**

- Bonded-Pair technology for superior electrical performance in mission critical applications.
- Designed for harsh Industrial environments
  - Heavy-Duty Sunlight & Oil-Resistant Jacket
  - -40°C to +80°C Operating Temp
  - Very good noise immunity in the presence of EMI/RFI (electromagnetic interference or radio frequency interference)
- Ripcord for convenient jacket removal
- Sequential footage marking every two feet

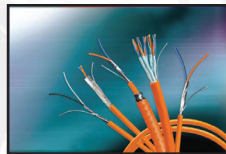
**DataTuff® Industrial Ethernet Category 5e Shielded Stranded Conductor (7939A)**

**Features & Benefits**

- Bonded-Pair technology for superior electrical performance in mission critical applications.
- Overall foil shield
- Stranded conductors
- Industrial grade (Sun- and Oil-resistant) PVC jacket
- -40°C to +75°C Operating Temp
- CMR FT4

For more information, please consult NP231 or visit, [www.belden.com](http://www.belden.com)

**Foundation FieldBus Compliant Cable -40°C (3076F)**



NP244

**Features & Benefits**

- Type A Foundation Fieldbus cable
- -40°C Cold-Bend (UL1581)
- CMX-Outdoor
- Direct Burial Rated
- Stranded, tinned-copper conductors

- 100% Beldfoil® shield
- Industrial grade (Sun- and Oil-resistant) PVC jacket
- NEC: PLTC ITC-ER; CMG; CEC: CMG, FT4; IEEE 1202/383

**Foundation FieldBus Compliant Cable 50-pair capability (S1359A)**

Available Quote to Order

**Features & Benefits**

- Type A Foundation Fieldbus cable
- Full product offering from 1 pair to 50 Pair
- Fully compliant with Foundation Fieldbus spec
- Stranded, tinned-copper conductors
- Individually shielded pairs + 100% Beldfoil® Shield
- Industrial grade (Sun- and Oil-resistant) PVC jacket
- NEC: PLTC ITC, CMG CEC: CMG, FT4

For more information, please consult NP244 or visit, [www.belden.com/industrial](http://www.belden.com/industrial)

**Solar Cable (UL PV-Photovoltaic)**



UL Subject 4703

Part #	Description
38218	UL 4703 Type PV, 18 AWG, XPLE, PVC, 1KV
38216	UL 4703 Type PV, 16 AWG, XPLE, PVC, 1KV
38214	UL 4703 Type PV, 14 AWG, XPLE, PVC, 1KV
38212	UL 4703 Type PV, 12 AWG, XPLE, PVC, 1KV
38210	UL 4703 Type PV, 10 AWG, XPLE, PVC, 1KV

Supports the installation of solar energy panels with interconnection wiring of grounded and un-grounded photovoltaic power systems as described in section 630.31 of the NEC.

Continued

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**Features & Benefits**

- Single conductor, XLPE insulation with sunlight-resistant PVC jacket
- Voltage: 1kV or 600V UL PV
- Gauge Range: 18 AWG to 8 AWG
- Temperature: -40°C to 90°C
- Flame Resistance: VW-1
- Compliance: RoHS & CE

For more information, please visit, [www.belden.com/industrial](http://www.belden.com/industrial)

**Variable Frequency Drive 2kV rated Cable**



NP235

Available Quote to Order

Supports VFD applications that require a higher voltage and/or require commonality for installations within a cable tray.

**Features & Benefits**

- Industrial grade (Sun- and Oil-resistant) PVC jacket
- 2000V UL 1277 Type TC-ER per 2005 NEC Article 336
- 2000V UL Flexible Motor Supply (up to 2 AWG)
- CSA AWM I/II A/B FT4
- 90°C Wet/Dry
- Class I & II; Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- IEEE 1202/383 Vertical Tray flame test
- UL Direct Burial
- RoHS compliant & CE approved
- Pricing has been established and available to quote as required.

**Variable Frequency Drive Wind Turbine Tray Cable (WTTTC) Capabilities**



Part #	Description
29500	16 AWG, Classic Design with Full-size Ground
29501	14 AWG, Classic Design with Full-size Ground
29502	12 AWG, Classic Design with Full-size Ground
29503	10 AWG, Classic Design with Full-size Ground
29504	8 AWG, Classic Design with Full-size Ground
29505	6 AWG, Classic Design with Full-size Ground
29506	4 AWG, Classic Design with Full-size Ground
29507	2 AWG, Classic Design with Full-size Ground

Utilized with for wind turbine applications and related substations Splice Tray Kits and Enclosures.

**Features & Benefits**

- Industrial grade (Sun- and Oil-resistant) PVC jacket
- Overall Beldfoil® + 85% TC Braid Shield
- Sunlight- and Oil-resistant PVC Jacket
- MSHA
- 1000V UL Flexible Motor Supply
- 600V UL 1277 Type TC-ER per 2005 NEC Article 336
- 1000V CSA AWM I/II A/B FT4
- IEEE 1202/383
- UL Direct Burial
- XHHW-2, RHW-2 rated circuit conductors
- 90°C Wet/Dry
- Class I & II; Division 2 hazardous locations
- UL 1685 Vertical Tray Flame Test
- RoHS compliant & CE approved
- Pricing has been established and available to quote as required.

For more information, please consult NP235 or visit, [www.belden.com/industrial](http://www.belden.com/industrial)

**New Procurement Specifications**

Available on the Belden Industrial Website

- Single Pair Fieldbus
- Industrial Ethernet Heavy Shield

For more information, please visit, [www.belden.com/industrial](http://www.belden.com/industrial)

**2. Belden's Pre-terminated Copper Cabling System Now Available For the 3600 System**



NP304

**Ideal for Data Centers and the Office Environment**

Belden understands that the ultimate goal in Data Center networks is to have zero downtime or 'extreme' network availability. In a risk-averse environment with very strict schedule constraints and budgets, demanding reliability and performance without compromise is a must. And today's office areas demand quick deployment, reusability and performance. This is why this both are great environments for the 3600 Pre-terminated Cabling System. Cabling deployment can be accelerated using the 3600 Pre-terminated Cabling System. And all cabling components can be re-used which is a plus in new "green" buildings. Belden's 3600 Pre-terminated Cabling System delivers built-in reliability combined with guaranteed performance and headroom. Moreover, the system is fully supported under Belden's IBDN 3600 Certification Program including guaranteed bandwidth of 280 MHz and Belden's 25-Year IBDN Product Warranty.

- 'Pre-Term Made Easy'™
- Save Time and Money

Continued

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- Category 6 Compliant
- No Compromise on Performance and Reliability
- Green Solution

At the heart of Belden's 3600 Pre-Terminated Cabling System are two core components: 3600 Pre-Terminated Cable Assemblies and CAT6+ RJ45 Modular Couplers. Individually, these components offer superior reliability and performance. Together, they deliver the full potential of pre-terminated copper cabling solutions. The Belden solution is referred to as 'Pre-Term Made Easy' because it brings simplicity to the configuring and ordering process and it offers ease of installation through flexible 3600 Cable Assemblies and plug-and-play CAT6+ RJ45 Connectivity. Furthermore, with simple planning, fast delivery, up to 90% reduction in installation time and labor cost, and with virtually no testing or troubleshooting required, Belden's 3600 Pre-Terminated Cabling System delivers the promise of pre-terminated cabling systems: dramatically reduced installation time, cost-savings, and the reliability and performance of factory terminations – all without compromises or trade-offs.

For more information, please consult NP304, or visit [www.belden.com](http://www.belden.com).

**3. Belden Now Offers High Performance, Low VSWR 50-ohm Coaxial Crimp N Connectors For Cell Site and Other RF Transmissions**



NP306

As the use of life/safety, two-way radios, cell sites, RPU, STL and uplink satellite broadcasting, and other high frequency RF applications has grown so has the demand for cable to support these services with greater bandwidth and reliability. To meet this need, Belden offers a line of RF connectivity — RF connectors

and cable — designed specifically for today's high speed, low loss RF applications.

**Performance Matched Connectors and Cable**

Belden 50-ohm N Connectors were specifically designed to match the superior electrical performance of Belden Low Loss 50-ohm Coaxial Cable. The cables are sweep tested to 6 GHz. They provide the lowest loss performance of any RF coaxial cables in the market today (from 5% to 10% lower, depending on the design and frequency), and they guarantee VSWR values of 1.25:1 maximum over all frequencies (1:25:1 VSWR = -19dB Return Loss). The VSWR value of connector with cable is also 1.25:1, assuring the user of consistent high performance.

**Connector Attributes**

Belden RF Male Connectors (plugs) and RF Female Connectors (jacks) are supplied unassembled, in a bag which contains the connector body, the center contact and the crimp sleeve. The connector insulators are made of Teflon®, the center contacts are gold-plated and the outer contacts are either silver or nickel plated. All other connector parts are nickel plated bronze with a tarnish resistant finish. Belden 50-ohm N Connectors work with industry standard crimp tools and dies. For your convenience, Belden also offers an easy-to-use crimp tool (Part No. RFCT) that ensures a full crimp each and every time. As a further convenience, installers can order connectors that have a reverse polarity or a left-hand thread.

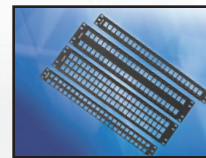
For more information, please consult NP306, or visit [www.belden.com](http://www.belden.com).

**4. KeyConnect Modular Jacks Are Now Available in Darker Colors!**



NP276

Belden's modular jack connectivity has traditionally been available in 12 standard colors including several TIA606 matching colors. Throughout the years there has been strong demand to add the darker color jacks. To satisfy this demand we have now added new darker colors for Orange, Red, Yellow, Green, Blue, Purple and Ivory, which are available for the 10GX, CAT6+ and CAT5E KeyConnect Modular Jacks. The new colors match our darker color patch cord cables that were introduced earlier in the year.



NP277

Currently the new colors are in addition to the Gray, Almond, White, Black, and the TIA606 standard colors, for Orange, Red, Yellow, Green, Blue, Violet and

Brown. In the future there will be some product rationalization of the TIA606 colors.

This change has been reflected in the update and reprint of NP302 KeyConnect Workstation Outlet System, NP277 KeyConnect Patch Panels and NP276 AngleFlex Patch Panels.



NP302

For more information, please consult these NPBs, or visit [www.belden.com](http://www.belden.com).