

NP 117E

Brilliance® Tactical Fiber Optic Cables

Belden introduces rugged and resilient fiber optic cables, designed for use in mobile communications systems, digital camera transmissions in electronic news gathering, OB vehicles, underground and underwater research and industrial applications.



Belden® Brilliance Tactical Fiber Optic Cables: Bend-Insensitive and Core-Bonded for Fast, Easy Use at Outdoor Events

Broadcasters covering events outdoors, 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.

New Belden Brilliance Tactical Fiber Optic cables are designed and constructed to facilitate fast, easy field deployment. The single-mode cables are ideal for use in digital camera transmissions, electronic news gathering and OB vehicles and other event-related communications systems. The cables can also be used in underground and underwater research and industrial applications.

Rugged yet Flexible Construction for Reliable Outdoor Performance

Belden Tactical Fiber Optic cables are constructed for maximum performance and reliability. They are made with extremely strong, rugged, and survivable tight-buffered single-mode fibers. They feature an aramid yarn strength member which is core-bonded to a jacket made from exceptionally tough, sunlight and chemical resistant polyurethane (PUR). The round outer jacket is flame retardant according to IEC60332-2 and highly resistant to abrasion, crushing and cut-through.

Core-Bonded – Easier, Stronger and Better Performance

Belden Tactical Fiber Optic cables feature Belden's proprietary core-bonded technology: the outer

jacket is pressure extruded over the interior cable structure. This allows the cable core and jacket to act as one mechanical unit and simplifies its installation. In severe bends, the core-bonded cable outer jacket keeps the cable elements in place, which retains the round shape of the cable, provides localized bend limits, and avoids wrinkling of the cable's outer jacket. This construction helps to resist tearing and prevents subsequent damage to the cable. The core-bonded outer jacket is designed with a polyester ripcord that easily opens up the outer jacket for fast access to the tight buffered fibers.

Improved Flexibility and Resiliency

These cables are smaller and lighter in weight than traditional tactical fiber cables. As a result, they have 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 tactical mobile optical fiber series in six standard product codes, with up to 12 fibers. The new ITU G.657A fiber design delivers a bend-insensitive fiber to enable smaller fiber management. Special options to meet a wide variety of application requirements, include fiber count and type, as well as jacket color and material.

ITU G.657A Fiber Design: Key Benefits

- Ideal for low temperature applications: the improved micro and macro bending of bend-insensitive fiber boosts the performance of cables at temperatures as low as -70°C.
- Superior bend performance: these cables display very low bending loss across the full usable spectrum of wavelengths from 1260 to 1625 nm. Fibers can be coiled into:
 - 32 mm diameter loop with < 0.02 dB incurred loss at 1550 nm – 25 times better bending performance than conventional single-mode fibers according to ITU G.652 (< 0.5 dB).
 - 20 mm diameter loop with < 0.2 dB which is still 2.5 times better than G.652.
- Zero Water Peak (ZWP): these cables feature the first fiber to eliminate the water peak defect found in conventional single-mode fiber.
- Splicing compatibility: ITU G.657A fiber ensures seamless splicing to existing standard G.652 fibers to help reduce installation time.

Faster, Easier Installation – Even with Repeated Use

These new cables are ideal for professional broadcasters in TV, radio and OB vans, covering outdoor news, sporting events and/or other outdoor activities. They are also designed for use in sports venues such as race tracks and stadiums.

The key advantages of these cables include superior bend performance – thanks to the use of bend-insensitive fiber, much better pulling tension, low memory effect, ease of termination, excellent impact and crush resistance, abrasion, cut, and chemical resistance. Compact, round cable design allows easy transportation and deployment, whilst the cables are extremely strong, lightweight, and rugged.

Ideal Solution for a Range of Applications

New Belden field deployable Tactical Fiber Optic cables are ideal for use in:

- Field video broadcast
- Digital camera transmission

- ENG vehicles and OB vans
- Re-deployable communications
- Underground and underwater research and industrial applications
- Military communications

For installers, the benefits of transporting and deploying smaller, lighter, more flexible tactical cables are clear. They occupy less space and add less weight to their mobile trucks. Installation can be performed in less time and with significantly less effort. Their ruggedness and resiliency allows the cables to be deployed repeatedly – and still deliver the quality performance required by the broadcast industry. They are compatible with all optical fiber connector types.

Belden at Your Service

Belden offers a complete line of video and audio cables for broadcast. These cables are available from a single source and are featured in the new Belden EMEA Master Catalog (sections 16 and 19).

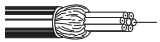
Tactical Mobile Optical Fiber

De-scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μ m	Nom. Buffer / Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re-sistance kN/m	Energy kJ/m	Bending radii cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna-mic

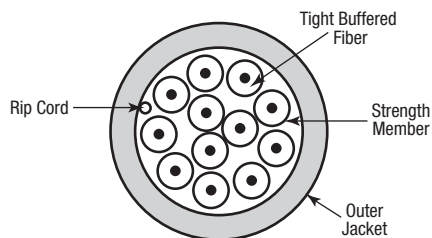
GMTT • Intex Mobile • Tight Buffer • Designed for Despooling and Respooling • A/I-VQ(ZN)11Y • Rip Cord

Dry Construction • PUR Jacket (Orange or Black)

-70/85°C	IEC 60332-2	6888	2100	\emptyset 280 \pm 15		Longitudinal watertightness Swellable Reinforced Yarn	no
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GMTTA01	1			57.3	26.0			0.21	5.4		700	4	440	81.0	108.0
GMTTA02	2			59.5	27.0			0.21	5.4		700	4	470	81.0	108.0
GMTTA04	4			68.3	31.0			0.23	5.8		800	4	580	87.0	116.0
GMTTA06	6			83.8	38.0			0.25	6.3		950	4	725	94.5	126.0
GMTTA08	8			103.6	47.0			0.28	7.0		1100	4	890	105.0	140.0
GMTTA12	12			167.5	76.0			0.32	8.2		1400	4	1270	123.0	164.0



Color coding of the buffered fibers: White, Red, Blue, Yellow, Green, Violet, Brown, Black, Orange, Turquoise, Pink, Grey