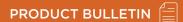
# BELDEN

# High-Density Fiber Solution for Rugged Environments





Belden Micro Tactical Fiber Optic Cable Assemblies are designed and constructed to facilitate fast, easy field deployment. The singlemode cables are ideal for use in digital camera transmissions, electronic news gathering and OB vehicles and other event-related communications systems. Belden Micro Tactical Fiber Optic Cable Assemblies are future proofed for 10/40/100G.

By combining rugged cable assemblies with proven mechanical transfer (MT) technology for multi-fiber ferrules, termination of 24 and 48 fibers with one connection is possible to drastically reduce installation time and termination costs.

This solution consists of a Micro Tactical Cable with 24 or 48 fibers terminated on each end with aluminum hard-anodized hermaphroditic connectors that contain 2 or 4 MT Base-12/APC (angled) ferrules and patch panels with 12 or 24 LC/UPC Duplex connectors.

#### **Key Features**

- · Made with bend-insensitive fibers
- Aramid yarn strength members below a jacket made from exceptionally tough, sunlight- and chemicalresistant polyurethane (PUR) that resists abrasion, crushing and cut-through
- MT Base-12/APC technology for termination of 24 and 48 fibers with one MT Base-12 ferrule with mated pair
- Color-coded labels are included and can be used for port identification and polarity management

# **Benefits at a Glance**

- Smaller and lighter in weight than traditional tactical fiber cables
- Smaller bend radius capability and improved flexibility and resiliency (cable memory) over a broad range of outdoor temperatures and weather conditions
- Compact, rugged cable design allows easy transportation and deployment
- Hermaphroditic design easily allows connectors to be mated/concatenated regardless of gender and offers seamless point-to-point connections
- All-metal shell construction ensures that connections can withstand wide temperature ranges and provides extreme impact resistance
- IP68 rating reinforces the robust connector and keeps connector end faces well protected against dirt, dust and water

#### **Key Applications**

#### AV/Broadcast

- · Broadcast trucks and vans
- Digital camera transmission
- Field video broadcast
- Military communications
- · Re-deployable communications

## **Technical Information**

## Cable Assembly

Physical Characteristics							
Materials	Description	Туре	M	aterial	Color	Size	
	Connector Plugs at Both Ends	IP68 Hermaphroditic	Al	luminum Hard-Anodized	Black	Size 19	
	Fiber Optic Ferrules	MT Base-12/APC Ferrules	s PI	lastic	Black	12f (each)	
Cable Color	Black						
Fiber Count	24 Fibers - 2x MT-12 APC or 48 Fibers - 4x MT-12 APC						
Wiring Scheme	TIA-568.3						
Packaging	Individually packaged on 3-flange plastic reel. Deployable reels are optional.						
Mechanical Characteristics							
Storage Temperature Range	-40°C to +75°C						
Installation Temperature Range	-20°C to +65°C						
Operating Temperature Range	-40°C to +75°C						
Environmental/Mechanical Characteristics	Test		Method		Performance		
	Humidity		EIA/TIA-455-5		+75°C, 90-95% RH, 7 days		
	Cable Retention		EIA/TIA-455-6		400 lbs		
	Durability		EIA/TIA-455-21		500 Cycles		
	Vibration		EIA/TIA-455-11, Cond. I		10 to 55 Hz		
	Impact		EIA/TIA-455-2		8 Impacts @ 2.5 m		
	Shock		EIA/TIA-455-14, Cond. A		50 g for 11 ms		
	Water Submersion		IP68		Water Immersion 1 m		
	Crush Resistance (cable)		IEC 60794-1-21-E3		50 kN/m		
	Cable Min Bend Radius Operation (Long-Term)		IEC 60794-1-21 E11		10x Cable OD		
	Cable Min Bend Radius Operation (Short-Term)		IEC 60794-1-21 E6		15x Cable OD		
Transmission Characteristics							
Fiber Type	Singlemode ITU G.652.D & G.657.A1						
Optical Connector Performance	Wavelength (nm)		Max Insertion Loss (dB) Per < mated Pair		Min Return Loss (dB) Per < mated Pair		
	1310/1550		0.5		-60		
Optical Fiber Characteristics	Mode-Field/Cladding Diameter (μm)		Wavelength (nm)		Attenuation max. (dB/km)		
	8.9 ± 0.4		1310/1550/1625		0.5		



Hermaphroditic Connector Detail



Optional Deployable Reel

#### **Patch Panel**

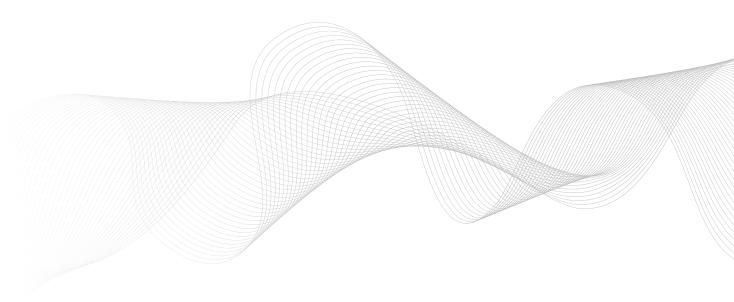
Physical Characteristics									
Max. Capacity	Panel 24 Fibers - LC Duplex/UPC/MT-12 APC or Panel 48 Fibers - LC Duplex/UPC/MT-12 APC								
Access	Front Connection - LC Adapters			Rear Connection - Ruggedized MT Plug					
Dimensions	Height (in)		Width (in)		Depth (in)				
	1.75		19		8.81				
Materials	Description	Туре	Material		Color				
	Panel	N/A		Aluminum	Black				
	Front Adapters	LC-Duplex w/ Internal Shutters		Plastic	Blue				
	Back Receptable	IP68 Hermaphroditic		Aluminum Hard-Anodized	Black				
	Receptable Termini	MT- Ferrule SM APC		Thermo-Plastic	Black				
Color	Black								
Weight	5.95 lbs								
Included Parts	Receptable, adapters and internal cabling								
Packaging	Individually packaged								
Transmission Characteristics									
Fiber Type	Singlemode ITU G.652.D & G.657.A1								
Transmission Specifications	Wavelength (nm)		x Insertion Loss (dB) r Panel	Return Loss (dB) Per MT-APC Mated Pair	Return Loss (dB) Per LC-UPC Mated Pair				
	1310/1550	0.8	350	-60	-55				





Standard Patch Panel

Patch Panel Shown with Optional Color-coded Labels



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