



Fiber Optic Cables

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Introduction

The Belden® BelOptix® fiber optic cable line is designed to answer the diverse, and often complex, needs of today's advanced networks. Not only do these cables future-proof your network, they also fully organize your network while protecting it from the environment.

Belden fiber optic cables have become the natural choice for closed circuit television, government network circuitry, factory automation and major commercial networks. In applications such as video conferencing, medical imaging, and CAD/CAM, Belden fiber optics feature unparalleled performance. The cable has become essential for bringing light-speed communication to hospitals, corporate campuses, educational facilities, and more.

Among the many features found in the Belden BelOptix fiber optic cable line are:

- **Ritestrip® II** Ritestrip II 900 micron buffered fiber is designed to consistently and easily strip to 250 microns or down to 125 microns. It expedites preparation for traditional epoxy and crimp-style, direct-connect ST and SC applications. Ritestrip II also improves preparation of mechanical or fusion splicing requirements.
- **LCF™ (Laser Certified Fiber)** The BelOptix line features LCF to handle the new light sources required in short wavelength Gigabit Ethernet systems. The light sources, named VCSEL (Vertical Cavity Surface Emitting Lasers), are designed to operate at the short wavelength of 850nm, the same wavelength as today's LED light sources. Belden's LCF 62.5 and 50 micron multimode fiber ensures compliance with laser technology. The LCF fiber utilizes enhanced bandwidth and tight attenuation limits to meet and exceed the EIA/TIA-TSB72 300 meter backbone length. LCF fiber has been deployed across the entire BelOptix cable series. It is operational with current LED light sources and exceeds FDDI+ performance specifications. LCF is also able to handle low-cost, long wavelength VCSEL light sources.

LCF Lengths for Gigabit Ethernet

Core Size	Wavelengths	SX	LX
62.5	850nm	300m	N/A
	1300nm	N/A	550m
50.0	850nm	600m	N/A
	1300nm	N/A	600m

Customer Service

Most of our fiber optic cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a fiber optic cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1 for additional information.

In addition, Belden fiber optic cables are provided in standard put-up lengths. A cutting charge will be assessed per item, per cut.

Matchmaker Warranty®

Belden's Matchmaker® Certified Link Warranty provides the freedom to choose a connectivity solution from any UL verified manufacturer of patch panels, wall plates or connectors — in addition to Belden cable. It is a transferable program that provides complete flexibility for network design and the added reassurance that the industry leader in cable is backing your installation for a lifetime. Matchmaker is a Warranty Certification to industry standards ANSI EIA/TIA-568-A (1995) and EN50173 (1995).

Fiber Optic Cable Packaging

Reel Identification

Belden shipping labels provide in-depth cable information. Footage, diameter, fiber count, lot number and UL information are included. Belden can trace each glass fiber all the way back to the drawing process.



Sample reel label

Test Reports

Test reports accompany every reel shipped.

Packaging Information

All standard reels now have our new easy access reel design. Reels 30 inches and smaller will feature the new double flange reel (A) and the larger reels will have protective channels (B) to speed on-site testing and preconnectorization.

All standard reels are protected with a reinforced composite wrap for safe shipment.



A. New double flange featured on all reels 30" and smaller.



B. Larger reels feature protective channels.



BitLite® Interconnect Cable

Tight Buffer — Riser- & Plenum-Rated

Product Description

BelOptix® enhanced BitLite interconnect cordage features the Ritestrip® II tight buffer technology for easy cable preparation during termination. Belden's new interconnect cordage has been updated with 62.5 micron LCF™ (Laser Certified Fiber) to handle emerging Gigabit Ethernet light sources and expanded bandwidth requirements as well as conventional LED light sources.

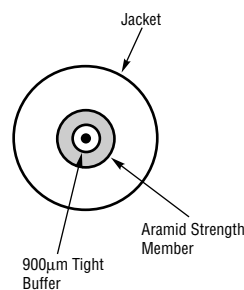
Product Specifications

Fiber Counts	1 and 2
Fiber Size	SM, 50µm, 62.5µm
Buffer Diameter	900µm
Strength Member	Aramid Yarn
Jacket Material	PVC Riser Plenum Flamarrest®
Flame Test	UL 1666 and NFPA 262
UL Listing NEC/CEC	OFNR FT4 Riser OFNP FT6 Plenum
Minimum Bend Radius	2" Installation 1" Long Term
Temperature Range	-40 to +75°C Storage -20 to +75°C Operating

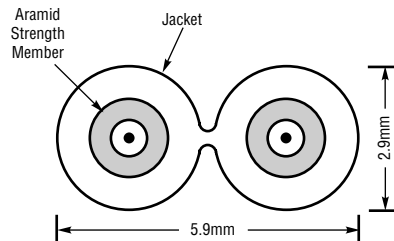
Fiber Specifications

	Multimode	
	50µm	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.5	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	500/500	220/600
Max. Gigabit Ethernet Distance (m)	600/600	300/550
Numerical Aperture	0.20	0.275
	Single-mode	
Core Diameter	8.3µm	
Mode Field Diameter	9.2µm	
Max. Attenuation (dB/km @1310/1550nm)	0.5/0.5	
Max. Dispersion (Ps/nm-km @1285-1330nm)	3.5	
Max. Dispersion Slope [Ps/(nm²-km)]	0.092	

Simplex



Zip Cord



Part No.	No. of Fibers	Outer Diameter		Weight		Max. Load Installation		Max. Load Long-Term	
		Inch	mm	Lbs./1000'	kg/km	Lbs.	N	Lbs.	N

Riser (NEC/CEC OFNR FT4)

Single-mode/125/900 Micron (Core/Clad/Coating)

PTS1001 <small>new</small>	1	.114	2.9	5.6	8.3	106	470	35	156
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PTZ1002 <small>new</small>	2	.114	2.9	9.4	14.0	212	943	70	311
		X	X						
		.23	5.9						

50/125/900 Micron

PTS5001 <small>new</small>	1	.114	2.9	5.6	8.3	106	470	35	156
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PTZ5002 <small>new</small>	2	.114	2.9	9.4	14.0	212	943	70	311
		X	X						
		.23	5.9						

62.5/125/900 Micron

PTS6001	1	.114	2.9	5.6	8.3	106	470	35	156
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PTZ6002	2	.114	2.9	9.4	14.0	212	943	70	311
		X	X						
		.23	5.9						

Plenum (NEC/CEC OFNP FT6)

Single-mode/125/900 Micron (Core/Clad/Coating)

PTSP101 <small>new</small>	1	.114	2.9	6.3	9.3	106	470	35	156
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PTZP102 <small>new</small>	2	.114	2.9	11.5	17.1	212	943	70	311
		X	X						
		.23	5.9						

50/125/900 Micron

PTSP501 <small>new</small>	1	.114	2.9	6.3	9.3	106	470	35	156
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PTZP502 <small>new</small>	2	.114	2.9	11.5	17.1	212	943	70	311
		X	X						
		.23	5.9						

62.5/125/900 Micron

PTSP601	1	.114	2.9	6.3	9.3	106	470	35	156
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PTZP602	2	.114	2.9	11.5	17.1	212	943	70	311
		X	X						
		.23	5.9						



LANLite® Distribution Cable

Tight Buffer — Indoor Riser- & Plenum-Rated, Gigabit Rated

Product Description

BelOptix® LANLite distribution backbone cables offer Ritestrip® II tight buffer technology for easier fiber stripping in cable preparation. The glass fiber performance has been updated to include LCF™ (Laser Certified Fiber) to handle tomorrow's Gigabit Ethernet light sources and expanded bandwidth requirements.

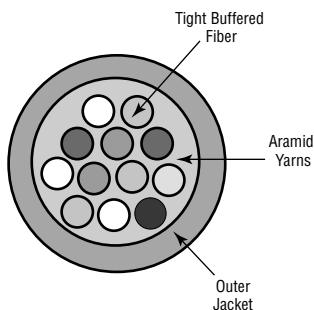
Product Specifications

Fiber Counts	2 through 24
Fiber Size	SM, 50µm, 62.5µm
Buffer Diameter	900µm
Strength Member	Aramid Yarn
Jacket Material	
Riser	PVC
Plenum	Flamarrest®
Flame Test	UL 1666 and NFPA 262
UL Listing NEC/CEC	
Riser	OFNR FT4
Plenum	OFNP FT6
Minimum Bend Radius	
Installation	20 x OD
Long Term	10 x OD
Temperature Range	
Storage	-40 to +70°C
Operating	-20 to +70°C

Fiber Specifications

	Multimode	
	50µm	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.5	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	500/500	220/600
Max. Gigabit Ethernet Distance (m)	600/600	300/550
Numerical Aperture	0.20	0.275
	Single-mode	
Core Diameter	8.3µm	
Mode Field Diameter	9.2µm	
Max. Attenuation (dB/km @1310/1550nm)	0.5/0.5	
Max. Dispersion (Ps/nm-km @1285–1330nm)	3.5	
Max. Dispersion Slope [Ps/(nm ² -km)]	0.092	

LANLite



Part No.	No. of Fibers	Outer Diameter		Weight		Installation Tensile		Long-Term Tensile	
		Inch	mm	Lbs./1000'	kg/km	Lbs.	N	Lbs.	N

Riser (NEC/CEC OFNR FT4)

Single-mode/125/900 Micron (Core/Clad/Coating)

PTD1002 <small>new</small>	2	.175	4.4	12	17.6	180	800	45	200
PTD1004	4	.207	5.3	16	23.8	230	1020	69	305
PTD1006	6	.207	5.3	16	23.8	230	1020	69	305
PTD1012	12	.260	6.6	27	40.2	300	1333	100	444
PTD1024	24	.524	13.3	120	179.0	635	2820	225	1000
PTD1036	36	.614	15.6	148	220.0	800	3555	240	1066

50/125/900 Micron

PTD5002	2	.175	4.4	12	17.6	180	800	45	200
PTD5004	4	.207	5.3	16	23.8	230	1020	69	305
PTD5006 <small>new</small>	6	.207	5.3	16	23.8	230	1020	69	305
PTD5012 <small>new</small>	12	.260	6.6	27	40.2	300	1333	100	444
PTD5024 <small>new</small>	24	.524	13.3	120	179.0	635	2820	225	1000
PTD5036 <small>new</small>	36	.614	15.6	148	220.0	800	3555	240	1066

62.5/125/900 Micron

PTD6002 <small>new</small>	2	.175	4.4	12	17.6	180	800	45	200
PTD6004	4	.207	5.3	16	23.8	230	1020	69	305
PTD6006	6	.207	5.3	16	23.8	230	1020	69	305
PTD6012	12	.260	6.6	27	40.2	300	1333	100	444
PTD6024	24	.524	13.3	120	179.0	635	2820	225	1000
PTD6036	36	.614	15.6	148	220.0	800	3555	240	1066

Plenum (NEC/CEC OFNP FT6)

Single-mode/125/900 Micron (Core/Clad/Coating)

PTDP102	2	.155	3.9	10	15.0	180	800	45	200
PTDP104	4	.190	4.8	32	48.0	230	1020	69	305
PTDP106	6	.190	4.8	32	48.0	230	1020	69	305
PTDP112	12	.250	6.4	38	57.0	300	1333	100	444
PTDP124	24	.508	12.9	104	155.0	635	2820	225	1000
PTDP136 <small>new</small>	36	.606	15.4	171	225.0	800	3555	240	1066

50/125/900 Micron

PTDP502 <small>new</small>	2	.155	3.9	10	15.0	180	800	45	200
PTDP504	4	.190	4.8	32	48.0	230	1020	69	305
PTDP506 <small>new</small>	6	.190	4.8	32	48.0	230	1020	69	305
PTDP512 <small>new</small>	12	.250	6.4	38	57.0	300	1333	100	444
PTDP524 <small>new</small>	24	.508	12.9	134	200.0	635	2820	225	1000
PTDP536 <small>new</small>	36	.606	15.4	171	225.0	800	3555	240	1066

62.5/125/900 Micron

PTDP602	2	.155	3.9	10	15.0	180	800	45	200
PTDP604	4	.190	4.8	16	23.8	230	1020	69	305
PTDP606	6	.190	4.8	16	23.8	230	1020	69	305
PTDP612	12	.250	6.4	26	38.7	300	1333	100	444
PTDP624	24	.508	12.9	134	200.0	635	2820	225	1000
PTDP636	36	.606	15.4	171	225.0	800	3555	240	1066



Breakout Style Cable

Tight Buffer — Indoor/Outdoor Riser- & Plenum-Rated

Product Description

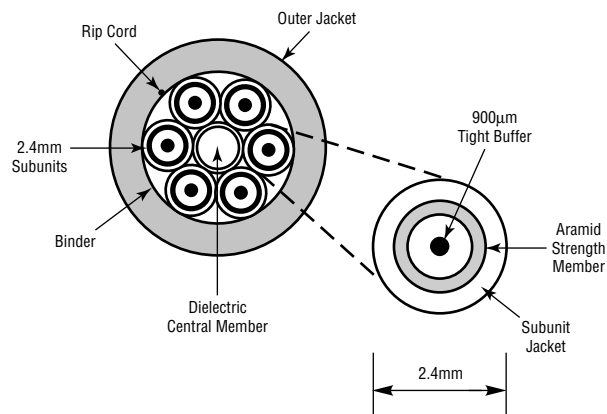
BelOptix® reinforced breakout cables are the preferred selection for direct termination methods. Each EIA colored fiber subunit is protected by a layer of aramid yarn and encased in a PVC jacket. These individual subunits are cabled and then jacketed with a flame resistant PVC compound. Each fiber in the subunit uses the Ritestrip® II tight buffer technology for easier fiber stripping in cable preparation. These cables have been updated to include the LCF™ (Laser Certified Fiber) to handle tomorrow's Gigabit Ethernet light sources and expanded bandwidth requirements.

Product Specifications

Fiber Counts	2 through 12
Fiber Size	50µm, 62.5µm
Buffer Diameter	900µm
Strength Member	Aramid Yarn
Jacket Material	Riser PVC Plenum Flamarrest®
Flame Test	UL 1666 and NFPA 262
UL Listing NEC/CEC	Riser OFNR FT4 Plenum OFNP FT6
Temperature Range	Storage -40 to +70°C Operating -20 to +70°C

Fiber Specifications

	Multimode	
	50µm	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.5	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	500/500	220/600
Max. Gigabit Ethernet Distance (m)	600/600	300/550
Numerical Aperture	0.20	0.275



Part No.	No. of Fibers	Outer Diameter		Weight		Installation Tensile		Long-Term Tensile	
		Inch	mm	Lbs./1000'	kg/km	Lbs.	N	Lbs.	N

Riser (NEC/CEC OFNR FT4)

50/125/900 Micron (Core/Clad/Coating)									
MTB5002 <small>new</small>	2	.257	6.5	24	35.7	210	930	65	288
MTB5004 <small>new</small>	4	.299	7.6	34	50.7	215	950	75	333
MTB5006 <small>new</small>	6	.373	9.5	63	93.9	380	1685	145	644
MTB5012 <small>new</small>	12	.476	12.1	76	113.2	640	2840	255	1133

62.5/125/900 Micron

MTB6002	2	.257	6.5	24	35.7	210	930	65	288
MTB6004	4	.299	7.6	34	50.7	215	950	75	333
MTB6006	6	.373	9.5	63	93.9	380	1685	145	644
MTB6012	12	.476	12.1	76	113.2	640	2840	255	1133

Plenum (NEC/CEC OFNP FT6)

50/125/900 Micron (Core/Clad/Coating)									
MTBP502 <small>new</small>	2	.250	6.4	24	35.8	210	930	65	288
MTBP504 <small>new</small>	4	.293	7.4	36	53.6	215	950	75	333
MTBP506 <small>new</small>	6	.356	9.0	56	83.4	380	1685	145	644
MTBP512 <small>new</small>	12	.461	11.7	84	125.2	640	2840	256	1133

62.5/125/900 Micron

MTBP602	2	.250	6.4	24	35.8	210	930	65	288
MTBP604	4	.293	7.4	36	53.6	215	950	75	333
MTBP606	6	.356	9.0	56	83.4	380	1685	145	644
MTBP612	12	.461	11.7	84	125.2	640	2840	256	1133



Single-Jacket, All Dielectric Cable

Product Description

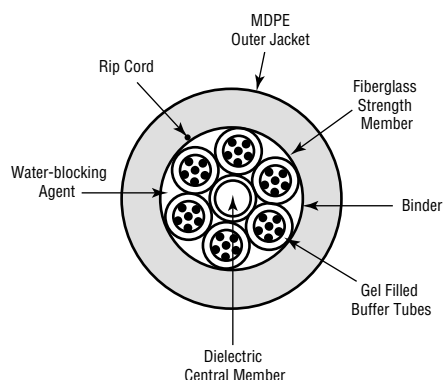
These all-dielectric, loose tube cables are designed for aerial, duct and conduit applications. They feature a durable polyethylene outer jacket. These cables feature Belden's water-blocking agent for a craft-friendly, no mess, hassle-free cable preparation experience. Additionally, these cables utilize LCF™ (Laser Certified Fiber) multimode glass fiber for new expanded bandwidth applications. Higher fiber counts are available. Please contact Belden Technical Support at 1-800-BELDEN-1 for additional information.

Product Specifications

Fiber Counts	2 through 36
Fiber Size	50µm, 62.5µm
Buffer Tube Diameter	2.5mm
Strength Members	Dielectric Central Member/ Fiberglass Yarn
Jacket Material	Medium-density Polyethylene (MDPE)
Temperature Range	
Storage	-40 to +80°C
Operating	-40 to +80°C

Fiber Specifications

	Multimode	
	50µm	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.0	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	500/500	220/600
Max. Gigabit Ethernet Distance (m)	600/600	300/550
Numerical Aperture	0.20	0.275



Part No.	No. of Fibers	Outer Diameter		Weight		Installation Tensile		Long-Term Tensile	
		Inch	mm	Lbs./1000'	kg/km	Lbs.	N	Lbs.	N

All Dielectric

50/125/245 Micron (Core/Clad/Coating)									
MLS5002 <small>new</small>	2	.417	10.6	59	88	600	2666	180	800
MLS5004 <small>new</small>	4	.417	10.6	59	88	600	2666	180	800
MLS5006 <small>new</small>	6	.417	10.6	59	88	600	2666	180	800
MLS5008 <small>new</small>	8	.417	10.6	59	88	600	2666	180	800
MLS5012 <small>new</small>	12	.417	10.6	59	88	600	2666	180	800
MLS5018 <small>new</small>	18	.417	10.6	59	88	600	2666	180	800
MLS5024 <small>new</small>	24	.417	10.6	59	88	600	2666	180	800
MLS5036 <small>new</small>	36	.417	10.6	59	88	600	2666	180	800
62.5/125/245 Micron									
MLS6002 <small>new</small>	2	.417	10.6	59	88	600	2666	180	800
MLS6004 <small>new</small>	4	.417	10.6	59	88	600	2666	180	800
MLS6006 <small>new</small>	6	.417	10.6	59	88	600	2666	180	800
MLS6008 <small>new</small>	8	.417	10.6	59	88	600	2666	180	800
MLS6012 <small>new</small>	12	.417	10.6	59	88	600	2666	180	800
MLS6018 <small>new</small>	18	.417	10.6	59	88	600	2666	180	800
MLS6024 <small>new</small>	24	.417	10.6	59	88	600	2666	180	800
MLS6036 <small>new</small>	36	.417	10.6	59	88	600	2666	180	800



Heavy-Duty, Double-Jacket Cable

Loose Tube — Outdoor

Product Description

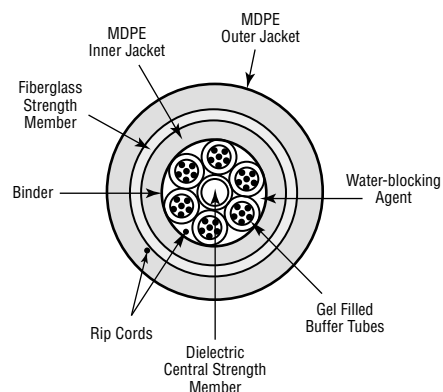
The heavy-duty loose tube cables are designed for direct burial, duct, outside tray and aerial applications. The heavy-duty series utilizes two weather-resistant polyethylene jackets. The extra jacket provides additional crush and impact resistance. These cables have been updated with a water-blocking agent for easier installation and LCF™ (Laser Certified Fiber) multimode glass fiber for new expanded bandwidth applications. Higher fiber counts are available. Please contact Belden Technical Support at 1-800-BELDEN-1 for additional information.

Product Specifications

Fiber Counts	2 through 36
Fiber Size	50µm, 62.5µm
Buffer Tube Diameter	2.5mm
Strength Members	Dielectric Central Member/ Fiberglass Yarn
Jacket Material	Medium-density Polyethylene (MDPE)
Temperature Range	
Storage	-40 to +80°C
Operating	-40 to +80°C

Fiber Specifications

	Multimode	
	50µm	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.0	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	500/500	220/600
Max. Gigabit Ethernet Distance (m)	600/600	300/550
Numerical Aperture	0.20	0.275



Part No.	No. of Fibers	Outer Diameter		Weight		Installation Tensile		Long-Term Tensile	
		Inch	mm	Lbs./1000'	kg/km	Lbs.	N	Lbs.	N

Outdoor

50/125/245 Micron (Core/Clad/Coating)

MLD5002 <small>new</small>	2	.522	13.3	80	119	600	2666	180	800
MLD5004 <small>new</small>	4	.522	13.3	80	119	600	2666	180	800
MLD5006 <small>new</small>	6	.522	13.3	80	119	600	2666	180	800
MLD5008 <small>new</small>	8	.522	13.3	80	119	600	2666	180	800
MLD5012 <small>new</small>	12	.522	13.3	80	119	600	2666	180	800
MLD5018 <small>new</small>	18	.522	13.3	80	119	600	2666	180	800
MLD5024 <small>new</small>	24	.522	13.3	80	119	600	2666	180	800
MLD5036 <small>new</small>	36	.522	13.3	80	119	600	2666	180	800

62.5/125/245 Micron

MLD6002	2	.522	13.3	80	119	600	2666	180	800
MLD6004	4	.522	13.3	80	119	600	2666	180	800
MLD6006	6	.522	13.3	80	119	600	2666	180	800
MLD6008	8	.522	13.3	80	119	600	2666	180	800
MLD6012	12	.522	13.3	80	119	600	2666	180	800
MLD6018	18	.522	13.3	80	119	600	2666	180	800
MLD6024	24	.522	13.3	80	119	600	2666	180	800
MLD6036	36	.522	13.3	80	119	600	2666	180	800



Corrugated Steel Armor Cable

Loose Tube — Outdoor

Product Description

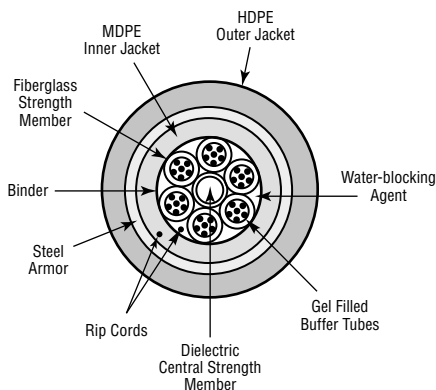
The heavy-duty armored loose tube cables are designed for direct burial, duct and outside tray applications. The heavy-duty series utilizes a corrugated steel tape armor barrier combined with two weather-resistant polyethylene jackets to give the maximum protection of your optical fiber cable. These cables have been updated with a water-blocking agent for easier installation and LCF™ (Laser Certified Fiber) multimode glass fiber for new expanded bandwidth applications. Higher fiber counts are available. Please contact Belden Technical Support at 1-800-BELDEN-1 for additional information.

Product Specifications

Fiber Counts	2 through 36
Fiber Size	50µm, 62.5µm
Buffer Tube Diameter	2.5mm
Strength Members	Dielectric Central Member/ Fiberglass Yarn
Armor Material	Corrugated Steel
Jacket Material	Medium-density Polyethylene (MDPE)/ High-density Polyethylene (HDPE)
Temperature Range	
Storage	-40 to +80°C
Operating	-40 to +80°C

Fiber Specifications

	Multimode	
	50µm	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.0	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	500/500	220/600
Max. Gigabit Ethernet Distance (m)	600/600	300/550
Numerical Aperture	0.20	0.275



Part No.	No. of Fibers	Outer Diameter		Weight		Installation Tensile		Long-Term Tensile	
		Inch	mm	Lbs./1000'	kg/km	Lbs.	N	Lbs.	N

Outdoor

50/125/245 Micron (Core/Clad/Coating)									
MLC5002 <small>new</small>	2	.571	14.5	125	186	600	2666	180	800
MLC5004 <small>new</small>	4	.571	14.5	125	186	600	2666	180	800
MLC5006 <small>new</small>	6	.571	14.5	125	186	600	2666	180	800
MLC5008 <small>new</small>	8	.571	14.5	125	186	600	2666	180	800
MLC5012 <small>new</small>	12	.571	14.5	125	186	600	2666	180	800
MLC5018 <small>new</small>	18	.571	14.5	125	186	600	2666	180	800
MLC5024 <small>new</small>	24	.571	14.5	125	186	600	2666	180	800
MLC5036 <small>new</small>	36	.571	14.5	125	186	600	2666	180	800
62.5/125/245 Micron									
MLC6002	2	.571	14.5	125	186	600	2666	180	800
MLC6004	4	.571	14.5	125	186	600	2666	180	800
MLC6006	6	.571	14.5	125	186	600	2666	180	800
MLC6008	8	.571	14.5	125	186	600	2666	180	800
MLC6012	12	.571	14.5	125	186	600	2666	180	800
MLC6018	18	.571	14.5	125	186	600	2666	180	800
MLC6024	24	.571	14.5	125	186	600	2666	180	800
MLC6036	36	.571	14.5	125	186	600	2666	180	800



Steel Messengered Cable

Loose Tube — Aerial

Product Description

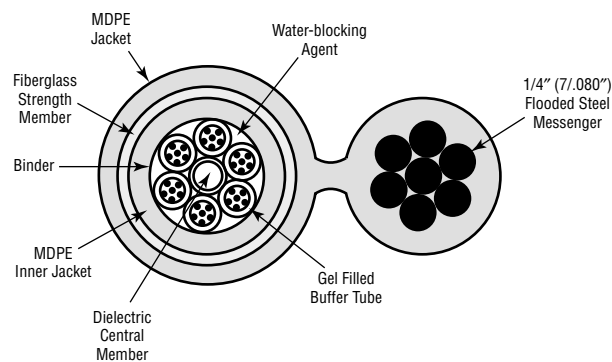
The messengered style outdoor loose tube cables are designed for aerial application between poles, buildings or other structures. The cable is constructed in a figure 8 profile with a 1/4" EHS galvanized steel support wire and covered with a weather-resistant polyethylene jacket overall. These cables have been updated with a water-blocking agent for easier installation and LCF™ (Laser Certified Fiber) multimode glass fiber for new expanded bandwidth applications. Higher fiber counts and 50 micron constructions are available. Please contact Belden Technical Support at 1-800-BELDEN-1 for additional information.

Product Specifications

Fiber Counts	2 through 36
Fiber Size	62.5µm
Buffer Tube Diameter	2.5mm
Messenger	1/4" EHS Steel
Strength Members	Dielectric Central Member/ Fiberglass Yarn
Jacket Material	Medium-density Polyethylene (MDPE)
Temperature Range	
Storage	-40 to +80°C
Operating	-40 to +80°C

Fiber Specifications

	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	220/600
Max. Gigabit Ethernet Distance (m)	300/550
Numerical Aperture	.275



Part No.	No. of Fibers	Outer Diameter		Weight		Max. Messenger Load	
		Minor Inch	Major Inch	Lbs./1000'	kg/km	Lbs.	N

Aerial

62.5/125/245 Micron (Core/Clad/Coating)							
MLM6004	4	.530	1.00	246	366	3990	17,750
MLM6006	6	.530	1.00	246	366	3990	17,750
MLM6008	8	.530	1.00	246	366	3990	17,750
MLM6012	12	.530	1.00	246	366	3990	17,750
MLM6018	18	.530	1.00	246	366	3990	17,750
MLM6024	24	.530	1.00	246	366	3990	17,750
MLM6036	36	.530	1.00	246	366	3990	17,750



TrayOptic® Heavy-Duty, All Dielectric Cable

Loose Tube — Indoor/Outdoor Riser & Tray

Product Description

The TrayOptic series cables are designed for indoor/outdoor industrial applications. All TrayOptic cables have been upgraded with a water-blocking agent. The TrayOptic series carry the IEEE 383 flame approval. All TrayOptic series products utilize the LCF™ (Laser Certified Fiber) to handle tomorrow's Gigabit Ethernet light sources and expanded bandwidth requirements. TrayOptic cables are also available with 50 micron or single-mode fiber upon request.

Product Specifications

Fiber Counts*	2 through 24
Fiber Size	62.5µm
Buffer Sizes	
≤ 6 Fibers	2.0mm
> 6 Fibers	2.5mm
Jacket Materials	PVC or CPE
Flame Test	Passes IEEE 383 and UL 1581 Vertical Tray Flame Tests
UL Listing NEC/CEC	
2 to 12 Fibers	OFNR FT4
18 to 24 Fibers	OFN FT1
Strength Members	Dielectric Central Member/ Fiberglass Yarn
Temperature Range	-40 to +75°C
Crush Resistance	
2 to 6 Fibers	750 lbs./in. min.
8 to 24 Fibers	500 lbs./in. min.
Impact Resistance	3.3 ft.-lbs./25 impacts min.
Flexing	25 cycles, 12 lbs., 20 x OD radius min.
Twist/Bend	25 cycles, 12 lbs., 20 x OD radius min.
Minimum Bend Radius	
Installation	20 x OD
Long Term	10 x OD
Maximum Recommended Load (Lbs.)	
Installation	600
Long Term	180

*1- through 6-fiber cables are single fiber per tube.

Fiber Specifications

	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	220/600
Numerical Aperture	0.275

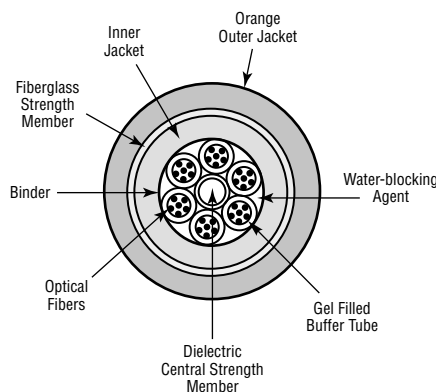
Part No.	Jacket Material	No. of Fibers	Outer Diameter		Weight	
			Inch	mm	Lbs./1000'	kg/km

Riser (NEC/CEC OFNR FT4)

62.5/125/245 Micron (Core/Clad/Coating)						
I100255	PVC	2	.469	11.91	93	138
I100266	CPE	2	.469	11.91	89	132
I100455	PVC	4	.469	11.91	91	135
I100466	CPE	4	.469	11.91	80	119
I100655	PVC	6	.469	11.91	89	120
I100666	CPE	6	.469	11.91	85	126
I400855	PVC	8	.572	14.53	140	190
I400866	CPE	8	.572	14.53	132	196
I601055	PVC	10	.572	14.53	135	183
I601255	PVC	12	.572	14.53	135	183
I601266	CPE	12	.572	14.53	139	207

Tray (NEC/CEC OFN FT1)

62.5/125/245 Micron (Core/Clad/Coating)						
I601855	PVC	18	.572	14.53	133	180
I601866	CPE	18	.572	14.53	136	202
I602455	PVC	24	.572	14.53	133	180
I602466	CPE	24	.572	14.53	137	204



Public Network Fiber Optic Cable

Loose Tube — Single Mode, Dual Window Fiber

Armored, Double Jacket

Product Description

The BelOptix® Public Network Fiber Series addresses the converging technologies of CATV, Broadband and Telephony providing cable solutions for longhaul, local exchange and MAN/WAN applications.

The BelOptix Public Network Fiber Cables come in a variety of configurations all meeting RUS/PE-90 performance standards.

Product Specifications

Fiber Counts	6 through 144
Fiber Size	Single-mode
Cladding Diameter	125 ±1µm
Coating Diameter	245 ±10µm, dual layer
Fiber Coating	UV Acrylate
Jacket Materials	Medium-density Polyethylene (MDPE)/ High-density Polyethylene (HDPE)
Strength Member	Fiberglass and Central FGE Rod
Operating Temperature Range	-40 to +75°C
Maximum Recommended Load	
Installation	600 lbs. (2700 N)
Long Term	135 lbs. (600 N)

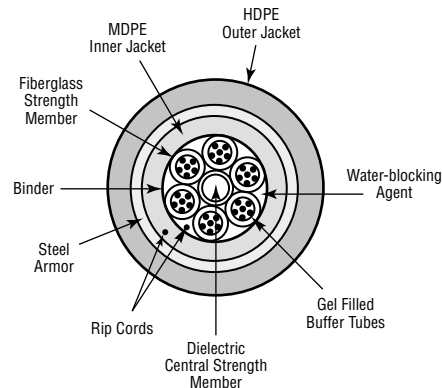
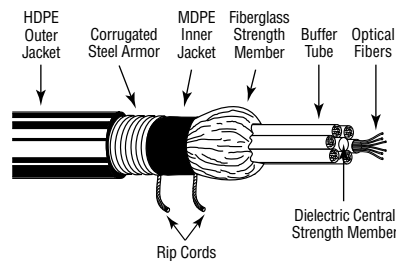
Fiber Specifications

Mode Field Diameter (@1310nm)	9.2 ± 0.4µm
Mode Field Diameter (@1550nm)	10.5 ± 1.0µm
Cable Cut-off Wavelength	< 1260nm
Zero Dispersion Wavelength	1300–1322nm
Max. Dispersion Slope [Ps/(nm²-km)]	0.092
Max. Dispersion (Ps/nm-km @1285–1330)	< 3.5
Polarization Mode Dispersion (Ps/√km @1310nm)	< 0.5
Effective Refractive Index (@1310nm)	1.466
Effective Refractive Index (@1550nm)	1.467
Core Diameter	8.3µm
Core/Cladding Concentricity Error	< 0.8µm
Cladding Non-circularity	< 1.0µm
Proof Test	100 kpsi
Strip Force (Newtons)	1.3 < F < 8.9
Max. Attenuation (dB/km @1310/1550nm)	.35/.25
Minimum Bend Radius	
Installation	20 x dia.
Long Term	10 x dia.

Part No.	Jacket Material	No. of Fibers	Outer Diameter		Nominal Cable Weight	
			Inch	mm	Lbs./1000'	kg/km

Armored — Double Jacket (RUS/PE-90 Listed)

Single-mode/125/245 Micron (Core/Clad/Coating)						
A6006FM <small>new</small>	HDPE/MDPE	6	.571	14.5	125	186
A6012FM <small>new</small>	HDPE/MDPE	12	.571	14.5	125	186
A6024FM <small>new</small>	HDPE/MDPE	24	.571	14.5	125	186
A6036FM <small>new</small>	HDPE/MDPE	36	.571	14.5	125	186
AT048FM <small>new</small>	HDPE/MDPE	48	.581	14.8	136	202
AT060FM <small>new</small>	HDPE/MDPE	60	.581	14.8	136	202
AT072FM <small>new</small>	HDPE/MDPE	72	.640	16.3	156	232
AT096FM <small>new</small>	HDPE/MDPE	96	.713	18.1	180	268
AT120FM <small>new</small>	HDPE/MDPE	120	.785	19.9	214	318
AT144FM <small>new</small>	HDPE/MDPE	144	.855	21.7	242	360



Public Network Fiber Optic Cable

Loose Tube — Single Mode, Dual Window Fiber

All Dielectric

Product Description

The BelOptix® Public Network Fiber Series addresses the converging technologies of CATV, Broadband and Telephony providing cable solutions for longhaul, local exchange and MAN/WAN applications.

The BelOptix Public Network Fiber Cables come in a variety of configurations all meeting RUS/PE-90 performance standards.

Product Specifications

Fiber Counts	6 through 144
Fiber Size	Single-mode
Cladding Diameter	125 ±1µm
Coating Diameter	245 ±10µm, dual layer
Fiber Coating	UV Acrylate
Jacket Materials	Medium-density Polyethylene (MDPE)
Strength Member	Fiberglass and Central FGE Rod
Operating Temperature Range	-40 to +75°C
Maximum Recommended Load	
Installation	600 lbs. (2700 N)
Long Term	135 lbs. (600 N)

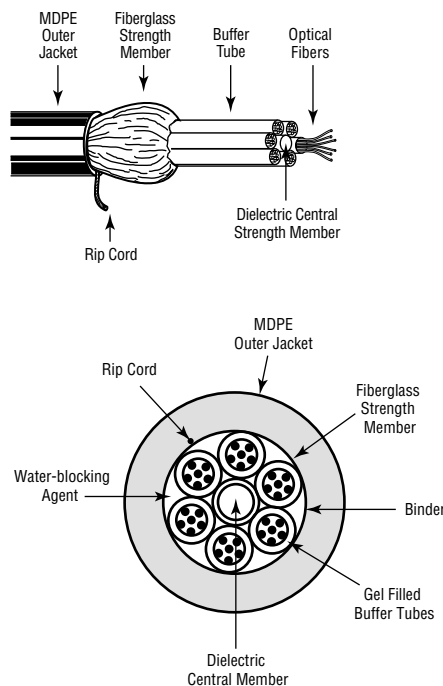
Fiber Specifications

Mode Field Diameter (@1310nm)	9.2 ± 0.4µm
Mode Field Diameter (@1550nm)	10.5 ± 1.0µm
Cable Cut-off Wavelength	< 1260nm
Zero Dispersion Wavelength	1300–1322nm
Max. Dispersion Slope [Ps/(nm²-km)]	0.092
Max. Dispersion (Ps/nm-km @1285–1330)	< 3.5
Polarization Mode Dispersion (Ps/√km @1310nm)	< 0.5
Effective Refractive Index (@1310nm)	1.470
Effective Refractive Index (@1550nm)	1.470
Core Diameter	8.3µm
Core/Cladding Concentricity Error	< 0.8µm
Cladding Non-circularity	< 1.0µm
Proof Test	100 kpsi
Strip Force (Newtons)	1.3 < F < 8.9
Max. Attenuation (dB/km @1310/1550nm)	.35/.25
Minimum Bend Radius	
Installation	20 x dia.
Long Term	10 x dia.

Part No.	Jacket Material	No. of Fibers	Outer Diameter		Nominal Cable Weight	
			Inch	mm	Lbs./1000'	kg/km

All Dielectric

Single-mode/125/245 Micron (Core/Clad/Coating)						
D6006FM <small>new</small>	MDPE	6	.417	10.6	59	88
D6012FM <small>new</small>	MDPE	12	.417	10.6	59	88
D6024FM <small>new</small>	MDPE	24	.417	10.6	59	88
D6036FM <small>new</small>	MDPE	36	.417	10.6	59	88
DT048FM <small>new</small>	MDPE	48	.461	11.7	62	92
DT060FM <small>new</small>	MDPE	60	.461	11.7	62	92
DT072FM <small>new</small>	MDPE	72	.496	12.6	77	114
DT096FM <small>new</small>	MDPE	96	.573	14.6	102	152
DT120FM <small>new</small>	MDPE	120	.647	16.4	119	177
DT144FM <small>new</small>	MDPE	144	.735	18.7	166	247



Public Network Fiber Optic Cable

Loose Tube — Single Mode, Dual Window Fiber Light Armored

Product Description

The BelOptix® Public Network Fiber Series addresses the converging technologies of CATV, Broadband and Telephony providing cable solutions for longhaul, local exchange and MAN/WAN applications.

The BelOptix Public Network Fiber Cables come in a variety of configurations all meeting RUS/PE-90 performance standards.

Product Specifications

Fiber Counts	6 through 144
Fiber Size	Single-mode
Cladding Diameter	125 ±1µm
Coating Diameter	245 ±10µm, dual layer
Fiber Coating	UV Acrylate
Jacket Materials	High-density Polyethylene (HDPE)
Strength Member	Fiberglass and Central FGE Rod
Operating Temperature Range	-40 to +75°C
Maximum Recommended Load	
Installation	600 lbs. (2700 N)
Long Term	135 lbs. (600 N)

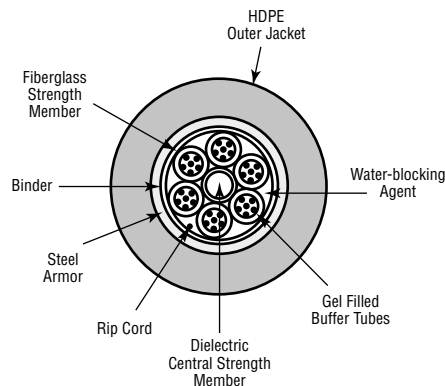
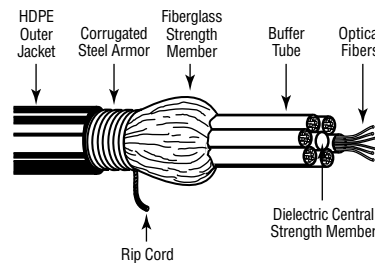
Fiber Specifications

Mode Field Diameter (@1310nm)	9.2 ± 0.4µm
Mode Field Diameter (@1550nm)	10.5 ± 1.0µm
Cable Cut-off Wavelength	< 1260nm
Zero Dispersion Wavelength	1300–1322nm
Max. Dispersion Slope [Ps/(nm²-km)]	0.092
Max. Dispersion (Ps/nm-km @1285–1330)	< 3.5
Polarization Mode Dispersion (Ps/√km @1310nm)	< 0.5
Effective Refractive Index (@1310nm)	1.466
Effective Refractive Index (@1550nm)	1.467
Core Diameter	8.3µm
Core/Cladding Concentricity Error	< 0.8µm
Cladding Non-circularity	< 1.0µm
Proof Test	100 kpsi
Strip Force (Newtons)	1.3 < F < 8.9
Max. Attenuation (dB/km @1310/1550nm)	.35/.25
Minimum Bend Radius	
Installation	20 x dia.
Long Term	10 x dia.

Part No.	Jacket Material	No. of Fibers	Outer Diameter		Nominal Cable Weight	
			Inch	mm	Lbs./1000'	kg/km

Light Armored (RUS/PE-90 Listed)

Single-mode/125/245 Micron (Core/Clad/Coating)						
L6006FM <small>new</small>	HDPE	6	.487	12.4	93	138
L6012FM <small>new</small>	HDPE	12	.487	12.4	93	138
L6024FM <small>new</small>	HDPE	24	.487	12.4	93	138
L6036FM <small>new</small>	HDPE	36	.487	12.4	93	138
LT048FM <small>new</small>	HDPE	48	.496	12.6	105	156
LT060FM <small>new</small>	HDPE	60	.496	12.6	105	156
LT072FM <small>new</small>	HDPE	72	.531	13.5	123	183
LT096FM <small>new</small>	HDPE	96	.623	15.8	148	220
LT120FM <small>new</small>	HDPE	120	.715	18.2	176	262
LT144FM <small>new</small>	HDPE	144	.785	19.9	204	308



Technical Information

Color Code Charts and Index of Refraction for OTDR

Color Code Chart: Fiber Optic Cables Outside Jackets

Cable Family	Jacket Material	Jacket Color	Mode
BitLite®	PVC	Yellow Orange Orange	Single-mode 50µ Multimode 62.5µ Multimode
	FA	Yellow Orange Orange	Single-mode 50µ Multimode 62.5µ Multimode
LANLite®	PVC	Yellow Orange Orange	Single-mode 50µ Multimode 62.5µ Multimode
	FA	Yellow Orange Orange	Single-mode 50µ Multimode 62.5µ Multimode
Breakout	PVC	Light Blue	Multimode
	FA	Light Blue	Multimode
Single Jacket, All Dielectric	MDPE	Black	Multimode
Heavy-Duty, Double-Jacket	MDPE	Black	Multimode
Corrugated Steel Armor	MDPE/HDPE	Black	Multimode
Steel Messengered	MDPE	Black	62.5µ Multimode
TrayOptic®	PVC	Orange	62.5µ Multimode
	CPE	Orange	62.5µ Multimode
Public Network	MDPE/ HDPE	Black	Single-mode

CPE = Chlorinated Polyethylene
 FA = Flam arrest®
 MDPE = Medium-density Polyethylene
 HDPE = High-density Polyethylene
 PVC = Polyvinylchloride

Color Code Chart: Fiber Optic Cables*

Fiber/Tube No.	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Slate
6	White
7	Red
8	Black
9	Yellow
10	Violet
11	Rose
12	Aqua

*Per TIA/EIA-598-A

Index of Refraction for OTDR Settings

Fiber Type (Core/Clad)	850nm	1300nm 1310nm	1550nm
Single-mode	—	1.466	1.467
Multimode (50µ/125µ)	1.483	1.479	—
Multimode (62.5µ/125µ)	1.496	1.491	—

