

Interconnect Cables – Simplex and Duplex

Tight Buffer – Plenum Rated

Applications

- Patch panels
- Workstation equipment connections
- Horizontal distribution in open office environments

Product Description

Interconnect cables are designed for low fiber-count premises environments. They are small and very flexible, making them ideal for confined spaces. Their aesthetic appearance makes these cables suitable for use in open office environments. Available in 1 or 2 fibers. One sub-unit is marked to permit easy identification of transmit and receive fibers. Length markings to facilitate installation.

Jacket Material	PVC
Tight Buffer	PVC
Strength Member	Aramid Yarn
Color Code (Tight Buffer)	Per EIA/TIA 598-A, see page 16.24
Jacket Color	
Single-mode	Yellow
62.5/125 μm	Orange
50/125 $\mu\text{m}/1$ Gbe	Orange
50/125 $\mu\text{m}/10$ Gbe	Aqua

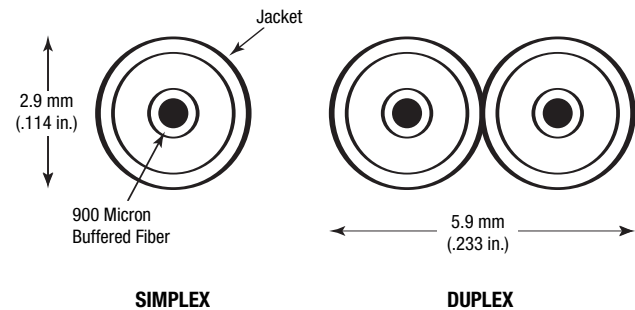
Ratings

Plenum	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

Specifications

Temperature Range	
Storage	-40 to +70°C
Operating	-20 to +70°C
Crush Resistance (EIA-455-41)	200 N/cm
Impact Resistance (EIA-455-25)	20 Impacts @ 1.0 N-m
Cyclic Flexing (EIA-455-104)	2000 cycles, min.
Min. Bend Radius	
Installation	15xOD
Long term	10xOD
Optical Specifications	see page 16.24

Fiber Bundle Detail



No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 μm Std./1 Gbe	50.0/125 μm Std./1 Gbe	50.0/125 μm 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

Interconnect Cable Series

Plenum (NEC/CEC OFNP/OFN FT6)										
1	M98086	M9A003	M9C003	M9W003	0.114	2.9	6	9	90	400
2	M96919	M9A004	M9C004	M9W004	0.11 x 0.23	2.9 x 5.9	13	19	180	801

Distribution Cables

Tight Buffer – Indoor Plenum Rated

Applications

- Low to high fiber count requirements
- In-building backbone
- Fiber-to-the-desk applications
- Computer room

Product Description

Flexible thermoplastic jacket provides excellent handling characteristics. Fibers and cable sub-units are color coded for easy identification. Length markings in meters for easy determination of cable length. Full dielectric construction, no grounding required. For Riser offering, MSHA approved cables are available.

Jacket Material	
Non-unitized Plenum	PVC
Unitized Plenum	PVDF
Tight Buffer	
Plenum	PVC
Strength Member	
	Aramid Yarn
Color Code (Tight Buffer)	
	Per EIA/TIA 598-A, see page 16.24
Jacket Color	
Single-mode	Yellow
62.5/125 μm	Orange (Green for LSZH only)
50/125 μm /1 Gbe	Orange
50/125 μm /10 Gbe	Aqua

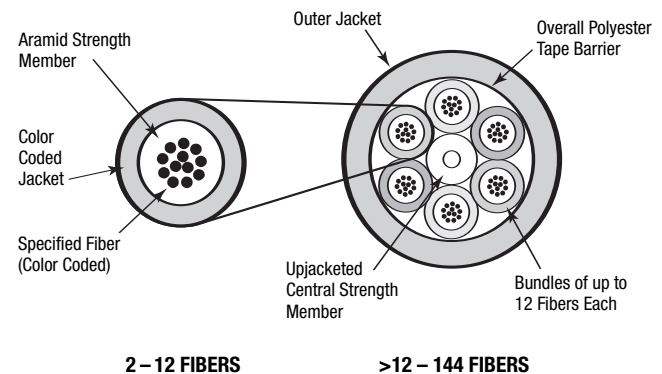
Ratings

Plenum	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

Specifications

Temperature Range	
Storage	-40 to +80°C
Operating	-20 to +70°C
Crush Resistance (EIA-455-41)	
	2000 N/cm
Impact Resistance (EIA-455-25)	
	2000 Impacts @ 1.6 N-m
Cyclic Flexing (EIA-455-104)	
	2000 cycles, min.
Min. Bend Radius	
Installation	15xOD
Long term	10xOD
Optical Specifications	
	see page 16.24

Fiber Bundle Detail



Distribution Cables

Tight Buffer – Indoor Plenum Rated (*continued*)

No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 µm Std./1 Gbe	50.0/125 µm Std./1 Gbe	50.0/125 µm 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

Distribution Cable Series

Plenum (NEC/CEC OFNP/OFN FT6)

2	M9B043	M9A043	M9C043	M9W043	0.184	4.67	14	21	180	801
4	M9B044	M9A044	M9C044	M9W044	0.174	4.42	13	19	195	867
6	M9B045	M9A045	M9C045	M9W045	0.190	4.83	16	24	270	1201
8	M9B046	M9A046	M9C046	M9W046	0.222	5.64	19	28	270	1201
12	M9B048	M9A048	M9C048	M9W048	0.225	5.72	22	33	300	1334
24	M9B611*	M9A611*	M9C611*	M9W611*	0.330	8.38	40	60	390	1735
24	M9B612	M9A612	M9C612	M9W612	0.493	12.52	89	132	1263	5618
36	M9B614	M9A614	M9C614	M9W614	0.594	15.09	134	199	1913	8509
48	M9B616	M9A616	M9C616	M9W616	0.599	15.21	131	195	1245	5538
72	M9B620	M9A620	M9C620	M9W620	0.754	19.15	197	293	2093	9310
96	M9B623	M9A623	M9C623	M9W623	0.904	22.96	268	399	2160	9608
144	M9B621	M9A621	M9C621	M9W621	1.047	26.59	365	543	3645	16213

Composite Plenum Cables

6xSM/ 6x62.5	M97174
6xSM/ 12x62.5	M97041
12xSM/ 12x62.5	M97219
6xSM/ 6x50	M97412
6xSM/ 12x50	M97411
12xSM/ 12x50	M96780

Construction for LSZH cables differs from the drawing. Alternative fiber counts are available.

* Single jacket design.

Breakout Style Cables

Tight Buffer — Indoor Plenum Rated

Applications

- Low to medium fiber count requirements
- In-building backbone or horizontal deployment
- Office wiring
- Factory floor automation and harsh environment installations

Product Description

Full dielectric construction, no grounding required. Available with 2 to 36 fibers. Fiber subunits are color coded for easy identification. Length markings in meters for easy determination of cable length. For riser offering, MSHA approved cables are available.

Outer Jacket Material	
Riser & Plenum	PVC
Plenum	PVDF
Sub-unit Jacket Material	
Riser & Plenum	PVC
Tight Buffer	
Riser & Plenum	PVC
Strength Member	
	Aramid Yarn
Color Code (Tight Buffer)	
	Per EIA/TIA 598-A, see page 16.24
Jacket Color	
Single-mode	Yellow
62.5/125 μ m	Orange (Green for LSZH only)
50/125 μ m/1 Gbe	Orange
50/125 μ m/10 Gbe	Aqua

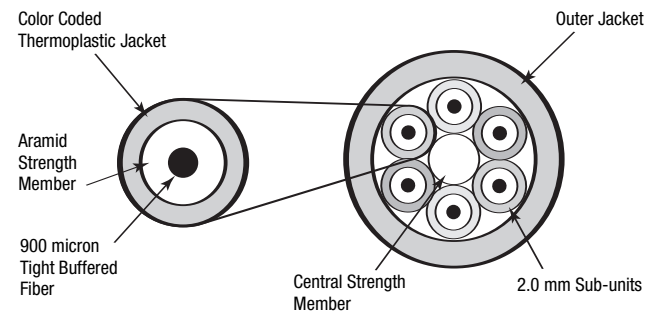
Ratings

Plenum	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

Specifications

Temperature Range	
Storage	-40 to +80°C
Operating	-20 to +70°C
Crush Resistance (EIA-455-41)	
	2000 N/cm
Impact Resistance (EIA-455-25)	
	2000 Impacts @ 1.6 N-m
Cyclic Flexing (EIA-455-104)	
	2000 cycles, min.
Min. Bend Radius	
Installation	15xOD
Long term	10xOD
Optical Specifications	
	see page 16.24

Fiber Bundle Detail



No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 μ m Std./1 Gbe	50.0/125 μ m Std./1 Gbe	50.0/125 μ m 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

Breakout Cable Series

Plenum (NEC/CEC OFNP/OFN FT6)										
2	M9B013	M9A013	M9C013	M9W013	0.230	5.84	20	30	180	801
4	M9B014	M9A014	M9C014	M9W014	0.263	6.68	30	45	345	1535
6	M9B015	M9A015	M9C015	M9W015	0.309	7.85	41	61	465	2068
8	M9B016	M9A016	M9C016	M9W016	0.336	8.53	55	82	600	2700
10	M9B017	M9A017	M9C017	M9W017	0.385	9.78	73	109	600	2700
12	M9B018	M9A018	M9C018	M9W018	0.391	9.93	65	97	600	2700
18	M9B019	M9A019	M9C019	M9W019	0.456	11.58	89	132	600	2700
24	M9B020	M9A020	M9C020	M9W020	0.544	13.82	117	174	600	2700
36	M9B082	M9A082	M9C082	M9W082	0.612	15.54	154	229	600	2700

2.5 mm Breakout Cables are also available.

Industrial Armored Cables

Tight Buffer — Indoor Plenum Rated (*continued*)

Applications

- Industrial environments
- Rugged installations
- Manufacturing plants
- Mining operations
- Telecommunications and data trunk
- Inter- and intra-building installations

Product Description

Heavy duty construction with interlocking aluminum armor (steel available on request) provides excellent mechanical protection from cutting or crushing and eliminates need for innerduct. Rodent resistant. Also available for outside plant. Loose tube design available on request.

Jacket Material		
Plenum	PVC	
Buffer Tube	PVC	
Strength Member	Aramid Yarn	
Central Strength Member	E-Glass	
Armor	Aluminum	
Color Code (Buffer)	Per EIA/TIA 598-A, see page 16.24	
Jacket Color		
Single-mode	Yellow	
62.5/125 μ m	Orange	
50/125 μ m/1 Gbe	Orange	
50/125 μ m/10 Gbe	Aqua	

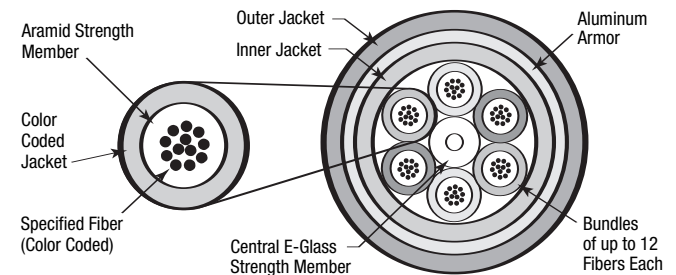
Ratings

Plenum	
UL Type	OFCP
cUL Type	OFC FT6
Flame resistance	NFPA 262

Specifications

Temperature Range	
Storage	-40 to +70°C
Operating	-20 to +70°C
Crush Resistance (EIA-455-41)	2000 N/cm
Impact Resistance (EIA-455-25)	2000 Impacts @ 3.0 N-m
Min. Bend Radius	
Installation	20xOD
Long term	15xOD
Optical Specifications	see page 16.24

Fiber Bundle Detail



No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 μ m Std./1 Gbe	50.0/125 μ m Std./1 Gbe	50.0/125 μ m 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

Industrial Armored Series

Plenum (NEC/CEC OFCP/OFC FT6)										
6	M9B240	M9A240	M9C240	M9W240	0.471	12.00	87	129	270	1201
12	M9B241	M9A241	M9C241	M9W241	0.506	12.90	103	153	300	1334
24	M9B242*	M9A242*	M9C242*	M9W242*	0.631	16.00	151	225	390	1735
24	M9B243	M9A243	M9C243	M9W243	0.781	19.84	289	430	600	2700
36	M9B244	M9A244	M9C244	M9W244	0.881	22.38	309	460	600	2700
48	M9B245	M9A245	M9C245	M9W245	0.906	23.01	320	476	600	2700
72	M9B246	M9A246	M9C246	M9W246	1.056	26.82	451	671	600	2700
96	M9B247	M9A247	M9C247	M9W247	1.256	31.90	608	905	600	2700
144	M9B248	M9A248	M9C248	M9W248	1.331	33.81	687	1022	600	2700

All optical fiber products can be supplied in compliance with RoHS regulations.
*Single jacket design.

Single Jacket, All Dielectric Cable

Loose Tube – Indoor/Outdoor Plenum Rated

Applications

- Medium to high fiber count requirements
- Inter-building duct installations
- Lashed aerial
- Indoor/outdoor
- Campus backbones
- Data centers
- High-density cable trays

Product Description

Dry water-blocking technology used within tubes and under jacket. Available as plenum rated cable, thereby eliminating the need for service entrance splicing to in-building cable. Small diameter and bend radius facilitate installation in tight spaces. Full dielectric construction, no grounding required. Available with up to 144 fibers. Fibers grouped into sets of 12 for maximum density. Length markings in meters for easy determination of cable length.

Jacket Material	
Non-unitized	PVC
Unitized	PVDF
Buffer Tube	PVC
Strength Member	E-Glass and Aramid Yarn
Central Strength Member	Upjacketed
Color Code (Buffer)	Per EIA/TIA 598-A, see page 16.24
Jacket Color	Black

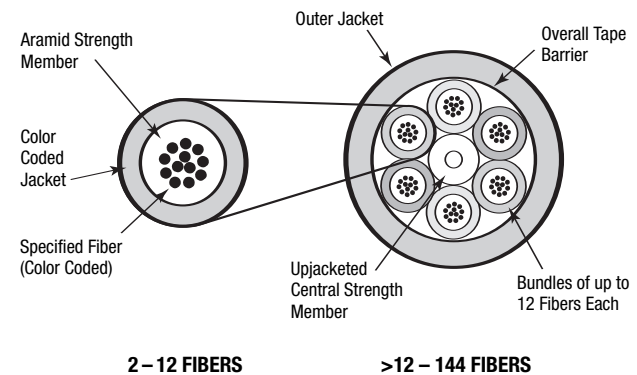
Ratings

Plenum	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

Specifications

Temperature Range	
Storage	-40 to +80°C
Operating	-40 to +70°C
Installation	0 to +60°C
Crush Resistance (EIA-455-41)	2000 N/cm
Impact Resistance (EIA-455-25)	2000 Impacts @ 1.6 N-m
Cyclic Flexing (EIA-455-104)	2000 cycles, min.
Min. Bend Radius	
Installation	20xOD
Long term	15xOD
Optical Specifications	see page 16.24

Fiber Bundle Detail



No. of Fibers	Fibers per tube	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
		62.5/125 µm Std./1 Gbe	50.0/125 µm Std./1 Gbe	50.0/125 µm 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

Loose Tube Series

Plenum (NEC/CEC OFNP/OFN FT6)											
6	6	M9B202	M9A202	M9C202	M9W202	0.265	6.70	33	49	320	1423
12	12	M9B204	M9A204	M9C204	M9W204	0.265	6.70	33	49	320	1423
24	12	M9B205	M9A205	M9C205	M9W205	0.359	9.12	47	70	405	1801
36	12	M9B206	M9A206	M9C206	M9W206	0.359	9.12	47	70	405	1801
48	12	M9B207	M9A207	M9C207	M9W207	0.359	9.12	48	71	405	1801
72	12	M9B209	M9A209	M9C209	M9W209	0.429	10.90	71	106	585	2602
96	12	M9B211	M9A211	M9C211	M9W211	0.501	12.73	105	156	903	4017
144	12	M9B215	M9A215	M9C215	M9W215	0.665	16.89	189	281	1263	5618

Alternative fiber counts and hybrid constructions are available.