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Cable Selection Reference

Introduction

The optical fiber cables featured in this section have been expanded to meet advances in technology and the demands of both commercial and industrial applications. Refer to this page for selecting a fiber type, color coding information, and optical specifications. Belden's extensive line of indoor and outdoor cable products is offered in tight buffer and loose tube designs. Armored, burial, and ruggedized designs are suited to a host of industrial environments. For each product design, items for OM1, OM2, OM3, OM4, and OS2 (single-mode) items have been developed. Belden fiber products are third

party tested by either ETL or UL and approved for use according to the National Electric Code.

Customer Service

Many fiber designs are available from stock through our Distributors. For your new or custom application that you do not locate in this section, contact Customer Service at 1-800-Belden-1 (800.235.3361) for additional information or to request a quote. Further product and technical information is also available on our web site at www.belden.com.



Cable Selection Guide

Optical Fiber

Fiber Selection Chart

Type	Fiber Size (μ)	Standard Compliance	Link Length (m)	Data Rate (Gb)
Multimode	50/125	TIA/EIA-568-C.3 / ISO 11801 OM4	550	10
	50/125	TIA/EIA-568-C.3 / ISO 11801 OM3	300	10
	50/125	TIA/EIA-568-C.3 / ISO 11801 OM2	600	1
	62.5/125	TIA/EIA-568-C.3 / ISO 11801 OM1	300	1
Single-mode	—	ITU G.652.c/d†	—	—

† Zero or Low water peak fiber with advantages for CWDM applications

Color Code Charts

Jacket Color Chart

Cable Type	Jacket Color
Loose Tube & Outside Plant Cables	Black
Industrial Tray Cables	Orange
Tight Buffered Cables	
Multimode OM1, OM2	Orange
Multimode OM3, OM4	Aqua
Single-mode Enhanced	Yellow

Non-standard jacket colors are available on request.

Fiber Sub-unit Color Code Chart*

Fiber/Tube No.	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Slate
6	White

*Per TIA/EIA 598-B

Fiber/Tube No.	Color
7	Red
8	Black
9	Yellow
10	Violet
11	Rose
12	Aqua

Optical Specifications

Glass Type	Multimode, OM1, 62.5 μm Std./1 Gb	Multimode, OM2, 50 μm Std./1 Gb	Multimode, OM3, 50 μm 10 Gb - 300 m	Multimode, OM4, 50 μm 10 Gb - 550 m	Single-mode Enhanced, OS2 ⁵
Part Number Designations	B9BXXX	B9AXXX	B9CXXX	B9EXXX	B9WXXX
Operating Wavelength (nm)	850/1300	850/1300	850/1300	850/1300	1310/1550
Min. OFL ¹ Bandwidth (MHz-km)	200/500	500/500	1500/500	3500/550*	—
Laser Optimized Bandwidth	220/500	550/500	2000/500	4700/500	—
Max. Attenuation Loose Tube (dB/km)	2.9/0.9	3.5/1.2	2.9/0.9	2.9/0.9	0.35/0.25
Max. Attenuation Tight Buffered ² (dB/km)	3.5/1.2	3.5/1.2	3.0/1.2	3.0/1.2	0.50/0.50
1 Gb Ethernet Min. Link Length (meters S/L ³)	300/550	600/600	900 ⁴ /550	1000/550	5,000/—
10 Gb Ethernet Min. Link Length (meters S/L ³)	32/—	82/—	300/—	550/—	10,000/40,000

¹ OFL = Overfilled Launch

² Max. Attenuation for Tight Buffered, Ribbon, and Loose Tube Plenum Cables

³ S/L = Short wavelength (850 nm) / Long wavelength (1310 nm)

* While Belden supports this distance, hardware performance may limit the fiber's potential. For this reason, the TIA-568-C.0 standard channel length states 400m

⁴ >2000 meters for engineered links

⁵ Low water peak Single-mode suitable for CWDM use complies with ITU G.652.c/d

Other performance levels are available on request. Contact Customer Service for more information.



Distribution Cable

Tight Buffer — Indoor and Indoor/Outdoor Riser, Plenum & LSZH Rated



Optical Fiber Distribution Cable

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

Riser	PVC
Plenum	PVC or PVDF
LSZH	FRPE

Tight Buffer Thermoplastic

Strength Member Aramid Yarn

Color Code (Tight Buffer) Per TIA/EIA 598-B, See page 39

Jacket Color

Single-mode	Yellow
62.5/125 μm	Orange
50/125 μm / 1 Gb	Orange
50/125 μm / 10 Gb	Aqua

Nonstandard jacket colors are available upon request.

Ratings

Riser	
UL Type	OFNR
cUL Type	OFN FT.4
Flame Resistance	UL 1666

Plenum	
UL Type	OFNP
cUL Type	OFN FT.6
Flame Resistance	NFPA 262

Low Smoke Zero Halogen

UL Type	OFNR
cUL Type	OFN FT.4
Flame Resistance	UL 1666

Complies to:

TIA/EIA-568-C.3
ICEA S-83-596

Functional Requirements of:

GR-20-CORE
GR-409-CORE

Specifications

Temperature Range

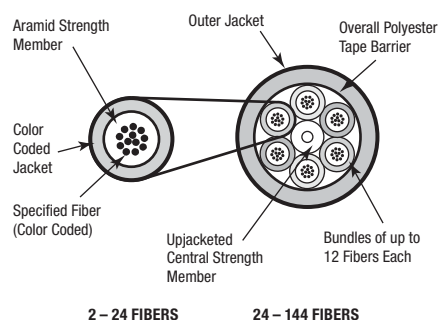
Storage	-40 to +75°C
Operating	-20 to 70°C
(Indoor/Outdoor type)	-40 to 70°C
Installation	0 to 70°C

Min. Bend Radius

Installation	15 x OD
Long Term	10 x OD

Optical Specifications See page 39

Fiber Bundle Detail



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Distribution Cable

Tight Buffer — Riser, Plenum & LSZH Rated

No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Distribution Cable Series



Riser (NEC/CEC OFNR/OFN FT.4)												
2	2	B9B037	B9A037	B9C037	B9E037	B9W037	0.190	4.83	13	20	214	952
4	4	B9B038	B9A038	B9C038	B9E038	B9W038	0.190	4.83	17	25	286	1272
6	6	B9B039	B9A039	B9C039	B9E039	B9W039	0.170	4.40	12	17	286	1272
12	12	B9B042	B9A042	B9C042	B9E042	B9W042	0.220	5.59	17	25	239	1063
24	24	B9B601*	B9A601*	B9C601*	B9E601*	B9W601*	0.350	8.90	41	61	300	1350
24	6	B9B602	B9A602	B9C602	B9E602	B9W602	0.550	13.30	121	180	300	1350
36	12	B9B604	B9A604	B9C604	B9E604	B9W604	0.620	15.60	147	220	300	1350
48	12	B9B606	B9A606	B9C606	B9E606	B9W606	0.610	15.40	120	180	300	1350
72	12	B9B609	B9A609	B9C609	B9E609	B9W609	0.760	19.30	184	275	300	1350
96	12	B9B622	B9A622	B9C622	B9E622	B9W622	0.900	22.80	281	420	300	1350
144	12	B9B619	B9A619	B9C619	B9E619	B9W619	1.000	25.40	288	430	300	1350

Riser (NEC/CEC OFNR/OFN FT.4) Indoor Outdoor												
2	2	B9B037T	B9A037T	B9C037T	B9E037T	B9W037T	0.190	4.83	14	21	303	1350
4	4	B9B038T	B9A038T	B9C038T	B9E038T	B9W038T	0.190	4.83	15	23	303	1350
6	6	B9B039T	B9A039T	B9C039T	B9E039T	B9W039T	0.210	5.33	19	28	303	1350
12	12	B9B042T	B9A042T	B9C042T	B9E042T	B9W042T	0.240	6.09	26	38	303	1350
24	24	B9B601T*	B9A601T*	B9C601T*	B9E601T*	B9W601T*	0.330	8.70	46	69	600	2700
24	6	B9B602T	B9A602T	B9C602T	B9E602T	B9W602T	0.670	17.02	169	252	600	2700
36	12	B9B604T	B9A604T	B9C604T	B9E604T	B9W604T	0.670	17.02	178	265	600	2700
48	12	B9B606T	B9A606T	B9C606T	B9E606T	B9W606T	0.670	17.02	187	278	600	2700
72	12	B9B609T	B9A609T	B9C609T	B9E609T	B9W609T	0.810	20.57	233	346	600	2700
96	12	B9B622T	B9A622T	B9C622T	B9E622T	B9W622T	0.895	22.7	305	454	600	2700
144	12	B9B619T	B9A619T	B9C619T	B9E619T	B9W619T	0.964	24.5	365	543	600	2700

Plenum (NEC/CEC OFNP/OFN FT.6)												
2	2	B9B043	B9A043	B9C043	B9E043	B9W043	0.190	4.83	13	19	214	952
4	4	B9B044	B9A044	B9C044	B9E044	B9W044	0.190	4.83	17	25	286	1272
6	6	B9B045	B9A045	B9C045	B9E045	B9W045	0.170	4.40	12	17	286	1272
12	12	B9B048	B9A048	B9C048	B9E048	B9W048	0.220	5.59	17	25	239	1063
24	24	B9B611*	B9A611*	B9C611*	B9E611*	B9W611*	0.330	8.40	46	69	300	1350
24	6	B9B612	B9A612	B9C612	B9E612	B9W612	0.550	13.30	121	180	300	1350
36	12	B9B614	B9A614	B9C614	B9E614	B9W614	0.620	15.60	147	220	300	1350
48	12	B9B616	B9A616	B9C616	B9E616	B9W616	0.610	15.40	134	200	300	1350
72	12	B9B620	B9A620	B9C620	B9E620	B9W620	0.760	19.30	211	315	300	1350
96	12	B9B623	B9A623	B9C623	B9E623	B9W623	0.900	22.80	295	440	300	1350
144	12	B9B621	B9A621	B9C621	B9E621	B9W621	1.000	25.40	382	568	300	1350

Construction for LSZH cables differs from the drawing. Alternative fiber counts are available.
*Single jacket design, in which all fibers are together and not sub-grouped.
For product details on the Indoor/Outdoor fiber cables, contact 1.800.BELDEN.1 or www.belden.com.

Distribution Cable (continued)

Tight Buffer – Riser, Plenum & LSZH Rated

No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Distribution Cable Series



Plenum (NEC/CEC OFNP/OFN FT.6) Indoor Outdoor												
2	2	B9B043T	B9A043T	B9C043T	B9E043T	B9W043T	0.18	5.0	14	21	243	1082
4	4	B9B044T	B9A044T	B9C044T	B9E044T	B9W044T	0.17	4.0	13	19	243	1082
6	6	B9B045T	B9A045T	B9C045T	B9E045T	B9W045T	0.19	5.0	16	24	243	1082
12	12	B9B048T	B9A048T	B9C048T	B9E048T	B9W048T	0.23	6.0	22	33	388	1726
24	24	B9B611T*	B9A611T*	B9C611T*	B9E611T*	B9W611T*	0.33	8.0	40	60	398	1744
24	6	B9B612T	B9A612T	B9C612T	B9E612T	B9W612T	0.47	12.0	86	128	600	2700
36	12	B9B614T	B9A614T	B9C614T	B9E614T	B9W614T	0.61	15.0	136	202	600	2700
48	12	B9B616T	B9A616T	B9C616T	B9E616T	B9W616T	0.61	15.0	136	202	600	2700
72	12	B9B620T	B9A620T	B9C620T	B9E620T	B9W620T	0.754	19.2	241	359	600	2700
96	12	B9B623T	B9A623T	B9C623T	B9E623T	B9W623T	0.916	23.3	329	490	600	2700
144	12	B9B621T	B9A621T	B9C621T	B9E621T	B9W621T	1.068	27.1	408	607	600	2700

LSZH (NEC/CEC OFNR/OFN FT.4) Indoor Outdoor												
2	2	B9B100	B9A100	B9C100	B9E100	B9W100	0.184	4.70	15	22	180	801
4	4	B9B101	B9A101	B9C101	B9E101	B9W101	0.200	5.10	18	27	195	807
6	6	B9B102	B9A102	B9C102	B9E102	B9W102	0.220	5.60	19	28	270	1201
12	12	B9B104	B9A104	B9C104	B9E104	B9W104	0.255	6.50	26	39	300	1334
24	24	B9B107*	B9A107*	B9C107*	B9E107*	B9W107*	0.325	8.30	44	65	390	1735
36	6	B9B111	B9A111	B9C111	B9E111	B9W111	0.655	16.60	155	231	600	2700
48	12	B9B112	B9A112	B9C112	B9E112	B9W112	0.638	16.20	143	213	600	2700
72	12	B9B114	B9A114	B9C114	B9E114	B9W114	0.775	19.70	207	308	600	2700
96	12	B9B116	B9A116	B9C116	B9E116	B9W116	0.906	23.00	326	485	600	2700
144	12	B9B120	B9A120	B9C120	B9E120	B9W120	0.986	25.00	350	521	600	2700

Construction for LSZH cables differs from the drawing. Alternative fiber counts are available.
 *Single jacket design, in which all fibers are together and not sub-grouped.
 For product details on the Indoor/Outdoor fiber cables, contact 1.800.BELDEN.1 or www.belden.com.



Interlocked Armor Distribution Cable

Tight Buffer — Indoor and Indoor/Outdoor, Riser and Plenum Rated

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	
Riser	PVC
Plenum	PVC or PVDF
Buffer Tube	Thermoplastic
Strength Member	Aramid Yarn
Central Strength Member	E-Glass
Armor	Aluminum
Color Code (Buffer)	Per TIA/EIA 598-B, See page 39

Jacket Color	
Single-mode	Yellow
62.5/125 μm	Orange
50/125 μm / 1 Gb	Orange
50/125 μm / 10 Gb	Aqua

Ratings

Riser	OFRC
Plenum	OFCP

Complies to:
TIA/EIA-568-C.3
ICEA S-104-696

Specifications

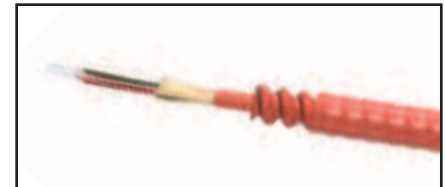
Temperature Range	
Storage	-40 to +80°C
Operating	-20 to +70°C
(Indoor/Outdoor type)	-40 to 70°C)

Crush Resistance (EIA-455-41)	220 N/cm
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Impact Resistance (EIA-455-25)	2000 Impacts @ 3.0 N-m
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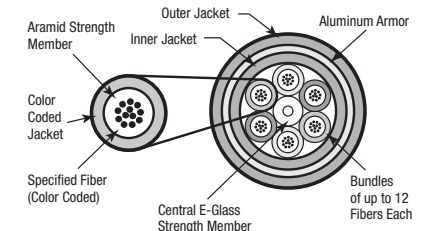
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Optical Specifications	See page 39
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Armored Optical Fiber Distribution Cable

Fiber Bundle Detail



No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 μm Std. / 1 Gb	OM2 50 / 125 μm Std. / 1 Gb	OM3 50 / 125 μm 10 Gb – 300 m	OM4 50 / 125 μm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Industrial Armored Series – Indoor

Riser (NEC/CEC OFCR/OFC FT.4)

6	6	B9B230	B9A230	B9C230	B9E230	B9W230	0.570	14.48	127	189	270	1201
12	12	B9B231	B9A231	B9C231	B9E231	B9W231	0.620	15.75	150	223	300	1334
24	24	B9B232*	B9A232*	B9C232*	B9E232*	B9W232*	0.670	17.02	225	335	390	1735
24	6	B9B233	B9A233	B9C233	B9E233	B9W233	0.845	21.46	263	391	600	2700
36	6	B9B234	B9A234	B9C234	B9E234	B9W234	0.995	25.27	368	548	600	2700
48	12	B9B235	B9A235	B9C235	B9E235	B9W235	0.970	24.64	363	540	600	2700
72	12	B9B236	B9A236	B9C236	B9E236	B9W236	1.095	27.81	481	716	600	2700
96	12	B9B237	B9A237	B9C237	B9E237	B9W237	1.245	31.62	625	930	600	2700
144	12	B9B238	B9A238	B9C238	B9E238	B9W238	1.320	33.53	675	1005	600	2700

Plenum (NEC/CEC OFCP/OFC FT.6)

6	6	B9B240	B9A240	B9C240	B9E240	B9W240	0.481	12.22	90	134	270	1201
12	12	B9B241	B9A241	B9C241	B9E241	B9W241	0.506	12.85	103	153	300	1334
24	24	B9B242*	B9A242*	B9C242*	B9E242*	B9W242*	0.631	16.03	151	225	390	1735
24	6	B9B243	B9A243	B9C243	B9E243	B9W243	0.781	19.84	135	201	600	2700
36	6	B9B244	B9A244	B9C244	B9E244	B9W244	0.881	22.38	309	460	600	2700
48	12	B9B245	B9A245	B9C245	B9E245	B9W245	0.881	22.38	295	439	600	2700
72	12	B9B246	B9A246	B9C246	B9E246	B9W246	1.031	26.19	433	644	600	2700
96	12	B9B247	B9A247	B9C247	B9E247	B9W247	1.181	30.00	599	891	600	2700
144	12	B9B248	B9A248	B9C248	B9E248	B9W248	1.356	34.44	688	1024	600	2700

Additional optical fiber cable constructions are available upon request. *Single jacket designs, in which all fibers are together and not sub-grouped.

Interlocked Armor Distribution Cable (continued)

Tight Buffer — Indoor and Indoor/Outdoor, Riser and Plenum Rated, Direct Burial

No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Industrial Armored Series – Indoor/Outdoor



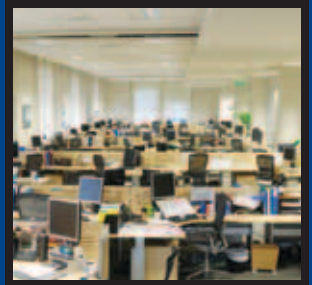
Riser (NEC/CEC OFCR/OFC FT.4) Indoor/Outdoor												
6	6	B9B230T	B9A230T	B9C230T	B9E230T	B9W230T	0.570	14.48	127	189	300	1334
12	12	B9B231T	B9A231T	B9C231T	B9E231T	B9W231T	0.620	15.74	150	223	300	1334
24	24	B9B232T*	B9A232T*	B9C232T*	B9E232T*	B9W232T*	0.670	17.02	225	335	300	1334
24	6	B9B233T	B9A233T	B9C233T	B9E233T	B9W233T	0.870	22.10	398	592	600	2700
36	6	B9B234T	B9A234T	B9C234T	B9E234T	B9W234T	1.020	25.91	451	671	600	2700
48	12	B9B235T	B9A235T	B9C235T	B9E235T	B9W235T	0.995	25.27	422	628	600	2700
72	12	B9B236T	B9A236T	B9C236T	B9E236T	B9W236T	1.120	28.45	527	784	600	2700
96	12	B9B237T	B9A237T	B9C237T	B9E237T	B9W237T	1.270	32.26	644	958	600	2700
144	12	B9B238T	B9A238T	B9C238T	B9E238T	B9W238T	1.320	33.53	743	1106	600	2700

Plenum (NEC/CEC OFCP/OFC FT.6) Indoor/Outdoor												
6	6	B9B240T	B9A240T	B9C240T	B9E240T	B9W240T	0.481	12.20	90	134	300	1334
12	12	B9B241T	B9A241T	B9C241T	B9E241T	B9W241T	0.506	12.85	94	140	300	1334
24	24	B9B242T*	B9A242T*	B9C242T*	B9E242T*	B9W242T*	0.631	16.03	151	225	300	1334
24	6	B9B243T	B9A243T	B9C243T	B9E243T	B9W243T	0.756	19.20	161	240	600	2700
36	6	B9B244T	B9A244T	B9C244T	B9E244T	B9W244T	0.906	23.01	280	417	600	2700
48	12	B9B245T	B9A245T	B9C245T	B9E245T	B9W245T	0.906	23.01	297	442	600	2700
72	12	B9B246T	B9A246T	B9C246T	B9E246T	B9W246T	1.051	26.70	379	564	600	2700
96	12	B9B247T	B9A247T	B9C247T	B9E247T	B9W247T	1.206	30.63	610	908	600	2700
144	12	B9B248T	B9A248T	B9C248T	B9E248T	B9W248T	1.356	34.44	725	1079	600	2700

Additional optical fiber cable constructions are available upon request.

*Single jacket designs, in which all fibers are together and not sub-grouped.

One Enterprise.
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One Partner.



Interconnect Cable – Simplex and Duplex

Tight Buffer – Riser & Plenum Rated

Applications

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

Product Description

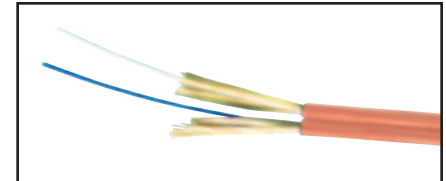
Interconnect Cables are designed for low fiber-count premises environments. They are small and very flexible, making them ideal for confined spaces. Their aesthetic appearance makes these cables suitable for use in open office environments. Available in 1 or 2 fibers. One sub-unit is marked to permit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

Jacket Material	PVC
Tight Buffer	Thermoplastic
Strength Member	Aramid Yarn
Color Code (Tight Buffer)	Per TIA/EIA 598-B, See page 39
Jacket Color	
Single-mode	Yellow
62.5/125 μm	Orange
50/125 μm / 1 Gb	Orange
50/125 μm / 10 Gb	Aqua

Nonstandard jacket colors are available upon request.

Ratings

Riser	OFNR
Plenum	OFNP
Complies to:	
TIA/EIA-568-C.3	
ICEA S-83-596	

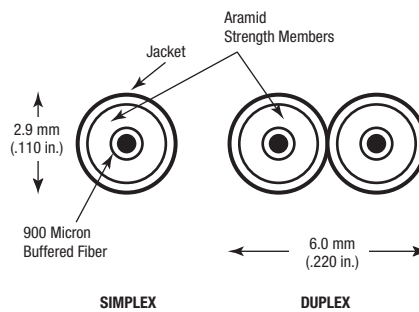


Duplex Optical Fiber Interconnect Cable

Specifications

Temperature Range	
Storage	-40 to +75°C
Operating/Installation	0 to +70°C
Min. Bend Radius	
Installation	18 x OD
Long Term	11 x OD
Optical Specifications	See page 39

Fiber Bundle Detail



No. of Fibers	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
	OM1 62.5 / 125 μm Std. / 1 Gb	OM2 50 / 125 μm Std. / 1 Gb	OM3 50 / 125 μm 10 Gb – 300 m	OM4 50 / 125 μm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Interconnect Cable Series

Riser (NEC/CEC OFNR/OFN FT.4)

1	B97112	B9A001	B9C001	B9E001	B9W001	0.110	2.9	6	9	119	530
2	B96915	B9A002	B9C002	B9E002	B9W002	0.11 x 0.22	2.9 x 6.0	10	15	239	1063

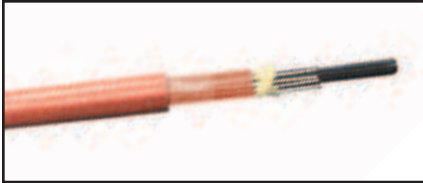
Plenum (NEC/CEC OFNP/OFN FT.6)

1	B98086	B9A003	B9C003	B9E003	B9W003	0.110	2.9	6	9	119	530
2	B96919	B9A004	B9C004	B9E004	B9W004	0.11 x 0.22	2.9 x 6.0	12	18	239	1063

LSZH versions (OFNR-LS) and 2.0mm diameter size are available as special order.

Breakout Style Cable

Tight Buffer — Indoor Riser, Plenum & LSZH Rated



Optical Fiber Breakout Cable

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	PVC
Plenum	PVC or PVDF
LSZH	FRPE

Sub-unit Jacket Material Thermoplastic

Tight Buffer Thermoplastic

Strength Member Aramid Yarn

Color Code (Tight Buffer) Per TIA/EIA 598-B, See page 39

Jacket Color

Single-mode	Yellow
62.5/125 µm	Orange
50/125 µm / 1 Gb	Orange
50/125 µm / 10 Gb	Aqua

Ratings

Riser OFNR

Plenum OFNP

Low Smoke Zero Halogen OFNR

Complies to:

TIA/EIA-568-C.3
ICEA S-83-596

Specifications

Temperature Range

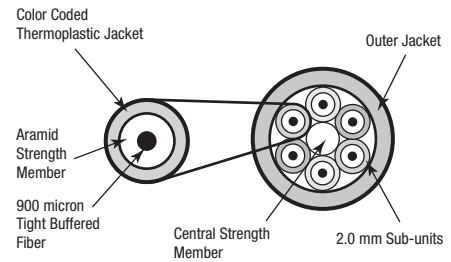
Storage	-40 to +80°C
Operating/Installation	-20 to +70°C

Min. Bend Radius

Installation	15 x OD
Long Term	10 x OD

Optical Specifications See page 39

Fiber Bundle Detail



No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Breakout Cable Series



Riser (NEC/CEC OFNR/OFN FT.4)

No. of Fibers	No. of Fibers Per Bundle	OM1	OM2	OM3	OM4	OS2	Inch	mm	lb/1000 ft	kg/km	lb	N
2	1	B9B005	B9A005	B9C005	B9E005	B9W005	0.260	6.60	24	36	240	1068
4	1	B9B006	B9A006	B9C006	B9E006	B9W006	0.321	8.15	35	52	345	1535
6	1	B9B007	B9A007	B9C007	B9E007	B9W007	0.358	9.09	54	80	543	2415
10	1	B9B009	B9A009	B9C009	B9E009	B9W009	0.455	11.56	86	128	600	2700
12	1	B9B010	B9A010	B9C010	B9E010	B9W010	0.514	13.06	110	164	600	2700
18	1	B9B011	B9A011	B9C011	B9E011	B9W011	0.520	13.21	104	155	600	2700
24	1	B9B012	B9A012	B9C012	B9E012	B9W012	0.590	14.99	135	201	600	2700

Plenum (NEC/CEC OFNP/OFN FT.6)

No. of Fibers	No. of Fibers Per Bundle	OM1	OM2	OM3	OM4	OS2	Inch	mm	lb/1000 ft	kg/km	lb	N
2	1	B9B013	B9A013	B9C013	B9E013	B9W013	0.230	5.84	20	20	180	801
4	1	B9B014	B9A014	B9C014	B9E014	B9W014	0.263	6.68	30	45	345	1535
6	1	B9B015	B9A015	B9C015	B9E015	B9W015	0.309	7.85	41	61	465	2068
10	1	B9B017	B9A017	B9C017	B9E017	B9W017	0.385	9.78	73	109	600	2700
12	1	B9B018	B9A018	B9C018	B9E018	B9W018	0.391	9.93	60	89	600	2700
18	1	B9B019	B9A019	B9C019	B9E019	B9W019	0.456	11.58	89	132	600	2700

One Enterprise.
One Infrastructure.
One Partner.



Breakout Style Cable (continued)
Tight Buffer — Indoor Riser, Plenum & LSZH Rated



No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Breakout Cable Series (continued)

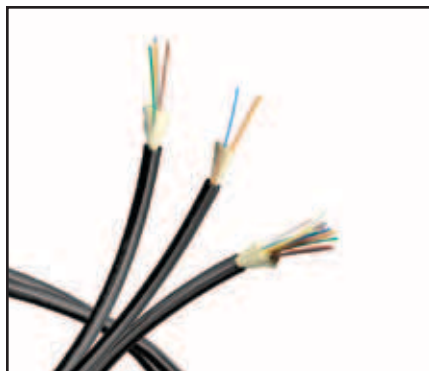


LSZH (NEC/CEC OFNR/OFN FT.4)												
2	1	B9B130	B9A130	B9C130	B9E130	B9W130	0.260	6.60	24	36	240	1068
4	1	B9B131	B9A131	B9C131	B9E131	B9W131	0.321	8.15	36	54	345	1535
6	1	B9B132	B9A132	B9C132	B9E132	B9W132	0.358	9.09	58	86	543	2415
10	1	B9B134	B9A134	B9C134	B9E134	B9W134	0.455	11.56	95	141	600	2700
12	1	B9B135	B9A135	B9C135	B9E135	B9W135	0.514	13.06	120	179	600	2700
18	1	B9B136	B9A136	B9C136	B9E136	B9W136	0.520	13.21	115	171	600	2700

2.5 mm & 2.9 mm Breakout Cables are also available.

Brilliance® Maxi-Bend™ Tactical Fiber Optic Cables

Single-mode and Multimode Fiber



Applications

- ENG vehicles
- Outdoor news, sporting or other events
- Digital camera transmission
- Military communications
- Re-deployable communications
- Mining and industrial applications

Product Description

Small and lightweight with a rugged jacket, Tactical Cable provides a durable design for repeated deployment and retrieval cycles and a superior level of crush resistance. Designed to military standards.

Jacket Material	UV-resistant PU
Buffer	Polyester
Strength Member	Aramid Yarn
Color Code	

Jacket	Black
Fiber/Buffer	Per EIA/TIA 598-C
Fiber/Buffer 1	Blue
Fiber/Buffer 2	Orange
Fiber/Buffer 3	Green
Fiber/Buffer 4	Brown
Fiber/Buffer 5	Slate
Fiber/Buffer 6	White
Fiber/Buffer 7	Red
Fiber/Buffer 8	Black
Fiber/Buffer 9	Yellow
Fiber/Buffer 10	Violet
Fiber/Buffer 11	Rose
Fiber/Buffer 12	Aqua

Specifications

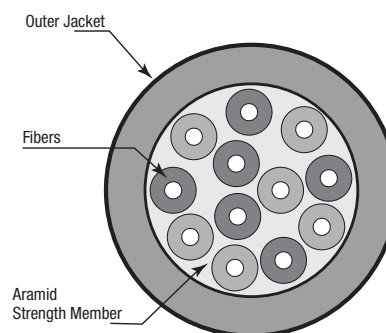
Temperature Range	
Storage	-70 to +85°C
Operating	-55 to +85°C
Crush Resistance (EIA-455-41)	440 N/cm
Impact Resistance (EIA-455-25)	200 Impacts @ 2.2 N-m
Cyclic Flexing (EIA-455-104)	2000 cycles, min.
Min. Bend Radius	
Installation	15 x OD
Long Term	8 x OD

Optical Specifications

Single-mode Enhanced*	
Operating Wavelength (nm)	1310/1550
Max. Attenuation Tight Buffered (dB/km)	0.80/0.50
Multimode 62.5/125 µm Std./1Gbe	
Operating Wavelength (nm)	850/1300
Max. Attenuation Tight Buffered (dB/km)	3.50/1.25

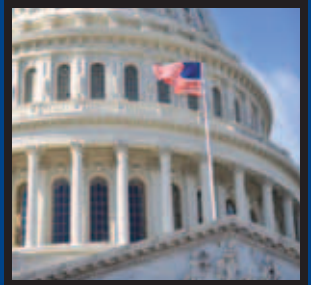
* Low water peak Single-mode suitable for CWDM use complies with ITU G.652.c/d

Fiber Bundle Detail



No. of Fibers	Belden Part Number		Outside Diameter		Weight		Max. Install Load	
	OM1 62.5 / 125 µm	OS2 Single-mode	Inch	mm	lb/1000 ft	kg/km	lb	N
2	B96571	B96566	0.240	6.0	22	33	330	1468
4	B96551	B96639	0.240	6.0	22	33	330	1468
6	B96572	B96567	0.240	6.1	23	33	330	1468
12	B96575	B96570	0.280	7.0	25	37	330	1468

Please contact the Technical Support Group for proper connectivity integration and installation guidance. All optical fiber products can be supplied in compliance with RoHS regulations. Please contact Inside Sales for more details. Other glass types, strand counts and jacket formulations (and colors) are available by special order. Contact your authorized Belden distributor (www.belden.com) or call Belden Customer Service at 1.800.235.3361 (1.800.BELDEN.1)



Single Jacket, All Dielectric Cable

Loose Tube — Outdoor, and Indoor/Outdoor Riser & LSZH Rated

Applications

- Medium to high fiber count requirements
- Inter-building duct installations
- Lashed aerial
- Indoor/outdoor
- Industrial outside plant (OSP Type)

Product Description

Gel-filled buffer tube prevents water migration. All-dielectric strength member. Available as Riser rated cable, thereby eliminating the need for service entrance splicing to in-building cable. Full dielectric construction, no grounding required. Available with up to 216 fibers. Length markings in meters for easy determination of cable length.

Jacket Material	
Outdoor	PE
Riser	PVC
Buffer Tube	PBT
Strength Member	Aramid Yarn
Central Strength Member	E-Glass
Color Code (Buffer)	Per TIA/EIA 598-B, See page 39
Jacket Color	Black

Ratings

Riser	
UL Type	OFNR
cUL Type	OFN FT.4
Flame Resistance	UL 1666

Complies to:
TIA/EIA-568-C.3
ICEA S-87-640

Functional Requirements of:
GR-20-CORE
GR-409-CORE

Specifications

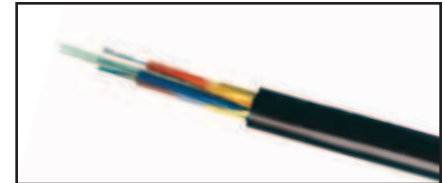
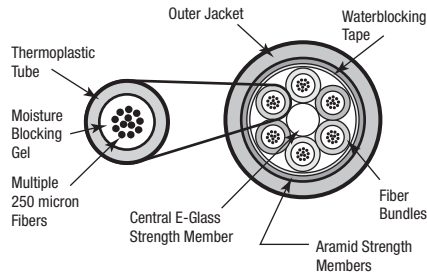
Temperature Range (Outdoor Series)	
Storage	-40 to +75°C
Operating	-40 to +70°C

Temperature Range (Riser Series)	
Storage	-40 to +75°C
Operating	-40 to +70°C

Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Optical Specifications See page 39

Fiber Bundle Detail



Single Jacket, All Dielectric Optical Fiber Cable

Single Jacket, All Dielectric Cable (continued)
Loose Tube — Outdoor, and Indoor/Outdoor Riser Rated

No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Loose Tube Series



Outdoor												
6	6	B9B510T	B9A510T	B9C510T	B9E510T	B9W510T	0.41	10.5	56	84	600	2700
12	12	B9B511T	B9A511T	B9C511T	B9E511T	B9W511T	0.41	10.5	56	84	600	2700
24	12	B9B500T	B9A500T	B9C500T	B9E500T	B9W500T	0.41	10.5	57	85	600	2700
36	12	B9B502T	B9A502T	B9C502T	B9E502T	B9W502T	0.41	10.5	58	86	600	2700
48	12	B9B505T	B9A505T	B9C505T	B9E505T	B9W505T	0.41	10.5	59	87	600	2700
72	12	B9B507T	B9A507T	B9C507T	B9E507T	B9W507T	0.45	11.5	71	106	600	2700
96	12	B9B513T	B9A513T	B9C513T	B9E513T	B9W513T	0.52	13.2	91	136	600	2700
144	12	B9B509T	B9A509T	B9C509T	B9E509T	B9W509T	0.67	17.0	148	220	600	2700
216	12	B9B520T	B9A520T	B9C520T	B9E520T	B9W520T	0.69	17.4	150	224	600	2700

Riser (NEC/CEC OFNR/OFN FT.4) Indoor/Outdoor												
6	6	B9B810	B9A810	B9C810	B9E810	B9W810	0.51	12.9	107	157	600	2700
12	12	B9B811	B9A811	B9C811	B9E811	B9W811	0.51	12.9	108	160	600	2700
24	12	B9B812	B9A812	B9C812	B9E812	B9W812	0.51	12.9	108	161	600	2700
36	12	B9B813	B9A813	B9C813	B9E813	B9W813	0.51	12.9	109	162	600	2700
48	12	B9B814	B9A814	B9C814	B9E814	B9W814	0.51	12.9	110	164	600	2700
72	12	B9B815	B9A815	B9C815	B9E815	B9W815	0.54	13.7	128	190	600	2700
96	12	B9B816	B9A816	B9C816	B9E816	B9W816	0.61	15.5	159	237	600	2700
144	12	B9B817	B9A817	B9C817	B9E817	B9W817	0.76	19.3	243	361	600	2700

Alternative fiber counts are available.



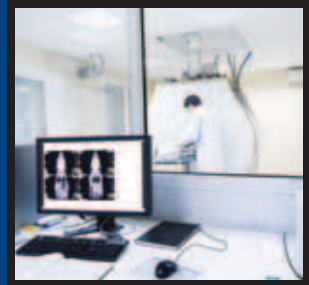
No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Loose Tube Indoor/Outdoor Fiber Optic Cable



LSZH (NEC/CEC OFNR/OFN FT.4) Indoor/Outdoor												
6	6	B9B830	B9A830	B9C830	B9E830	B9W830	0.38	9.65	71	105	600	2700
12	12	B9B831	B9A831	B9C831	B9E831	B9W831	0.38	9.65	71	105	600	2700
24	12	B9B832	B9A832	B9C832	B9E832	B9W832	0.38	9.65	71	105	600	2700
36	12	B9B833	B9A833	B9C833	B9E833	B9W833	0.38	9.65	62	92	600	2700
48	12	B9B834	B9A834	B9C834	B9E834	B9W834	0.48	12.18	101	151	600	2700

One Enterprise.
One Infrastructure.
One Partner.



Single Jacket, All Dielectric Cable

Loose Tube — (Gel-free) 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 waterblocking 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.

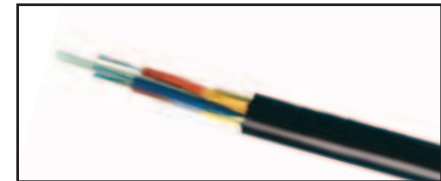
Jacket Material	Non-unitized	Thermoplastic
	Unitized	PVDF-Copolymer
Buffer Tube		Thermoplastic
Strength Member		E-Glass and Aramid Yarn
Central Strength Member		Upjacketed
Color Code (Fiber)		Per TIA/EIA 598-B, See page 39
Jacket Color		Black

Functional Requirements of:
GR-20-CORE
GR-409-CORE

Ratings

Plenum	
UL Type	OFNP
cUL Type	OFN FT.6
Flame Resistance	NFPA 262

Complies to:	
TIA/EIA-568-C.3	
ICEA S-104-696	



Single Jacket, All Dielectric Optical Fiber Cable

Specifications

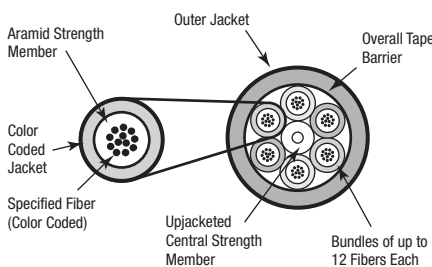
Temperature Range	
Storage	-40 to +80°C
Operating	-40 to +70°C
Installation	0 to +60°C

Cyclic Flexing (EIA-455-104) 2000 cycles, min.

Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Optical Specifications See page 39

Fiber Bundle Detail



No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Loose Tube Series

Plenum (NEC/CEC OFNP/OFN FT.6) Indoor/Outdoor												
No. of Fibers	No. of Fibers Per Bundle	OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N
6	6	B9B202	B9A202	B9C202	B9E202	B9W202	0.265	6.70	33	49	320	1423
12	12	B9B204	B9A204	B9C204	B9E204	B9W204	0.265	6.70	33	49	320	1423
24	12	B9B205	B9A205	B9C205	B9E205	B9W205	0.359	9.12	47	70	405	1801
36	12	B9B206	B9A206	B9C206	B9E206	B9W206	0.359	9.12	47	70	405	1801
48	12	B9B207	B9A207	B9C207	B9E207	B9W207	0.359	9.12	48	71	405	1801
72	12	B9B209	B9A209	B9C209	B9E209	B9W209	0.429	10.90	72	107	600	2700
96	12	B9B211	B9A211	B9C211	B9E211	B9W211	0.501	12.73	102	152	600	2700
144	12	B9B215	B9A215	B9C215	B9E215	B9W215	0.665	16.89	191	284	600	2700

Alternative fiber counts and hybrid constructions are available.

Double Jacket, Armored Cable

Loose Tube – Outdoor, and Indoor/Outdoor Riser Rated



Double Jacket Armored Cable

Applications

- Direct burial
- Low to high fiber count requirements
- Inter-building duct installations
- Indoor/outdoor
- Industrial outside plant (OSP Type)

Product Description

Gel-filled buffer tube prevents water migration. Available as Riser rated cable, thereby eliminating the need for service entrance splicing to in-building cable. Rodent resistant. Available in sizes up to 216 fibers. Length markings in meters for easy determination of cable length.

Jacket Material	
Outdoor	PE
Riser	PVC
Buffer Tube	Thermoplastic
Strength Member	Aramid Yarn
Central Strength Member	E-Glass
Aarmor	Corrugated Steel Tape
Color Code (Buffer)	Per TIA/EIA 598-B, See page 39
Jacket Color	Black

Ratings

Riser OFCR

Complies to:
TIA/EIA-568-C.3
ICEA S-87-640

Functional Requirements of:
GR-20-CORE
GR-409-CORE

Specifications

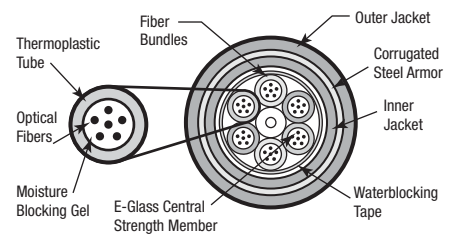
Temperature Range (Outdoor)
Storage -40 to +75°C
Operating -40 to +70°C

Temperature Range (Riser)
Storage -40 to +80°C
Operating -40 to +70°C

Min. Bend Radius
Installation 20 x OD
Long Term 15 x OD

Optical Specifications See page 39

Fiber Bundle Detail



One Enterprise.
One Infrastructure.
One Partner.



Double Jacket, Armored Cable (OSP Type) (continued)
Loose Tube – Outdoor, and Indoor/Outdoor Riser Rated

No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Loose Tube Series – Armored



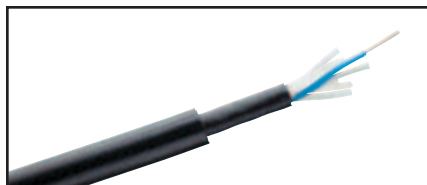
Outdoor												
6	6	B9B381T	B9A381T	B9C381T	B9E381T	B9W381T	0.62	15.5	134	200	600	2670
12	12	B9B382T	B9A382T	B9C382T	B9E382T	B9W382T	0.62	15.5	134	200	600	2670
24	12	B9B384T	B9A384T	B9C384T	B9E384T	B9W384T	0.62	15.5	134	200	600	2670
36	12	B9B386T	B9A386T	B9C386T	B9E386T	B9W386T	0.62	15.5	134	200	600	2670
48	12	B9B389T	B9A389T	B9C389T	B9E389T	B9W389T	0.62	15.5	134	200	600	2670
72	12	B9B391T	B9A391T	B9C391T	B9E391T	B9W391T	0.65	16.4	138	206	600	2670
96	12	B9B398T	B9A398T	B9C398T	B9E398T	B9W398T	0.72	18.2	170	254	600	2670
144	12	B9B393T	B9A393T	B9C393T	B9E393T	B9W393T	0.90	22.9	259	385	600	2670

Riser (NEC/CEC OFCR/OFC FT.4) Indoor/Outdoor												
6	6	B9B890	B9A890	B9C890	B9E890	B9W890	0.54	13.7	138	205	600	2700
12	12	B9B891	B9A891	B9C891	B9E891	B9W891	0.54	13.7	138	205	600	2700
24	12	B9B892	B9A892	B9C892	B9E892	B9W892	0.54	13.7	138	205	600	2700
36	12	B9B893	B9A893	B9C893	B9E893	B9W893	0.54	13.7	138	205	600	2700
48	12	B9B894	B9A894	B9C894	B9E894	B9W894	0.66	16.8	176	262	600	2700
72	12	B9B895	B9A895	B9C895	B9E895	B9W895	0.66	16.8	172	256	600	2700
96	12	B9B896	B9A896	B9C896	B9E896	B9W896	0.70	17.8	206	307	600	2700
144	12	B9B897	B9A897	B9C897	B9E897	B9W897	0.88	22.4	302	449	600	2700

Additional armor/jacket configurations are available including Single and Triple jacket with armor.
Armor types include steel/aluminum corrugated, steel/aluminum interlock, and glass yarn rodent resistant.

Double Jacket, Heavy-Duty Cable

Loose Tube — Outdoor



Double Jacket Heavy-Duty Cable

Applications

- Direct burial
- Harsh environments
- Applications requiring good ozone-, moisture- and weather-resistance

Product Description

Gel-filled buffer tube prevents water migration. Available with up to 216 fibers.

Jacket Material	
Outer Jacket:	PE
Inner Jacket:	PE
Buffer Tube	PBT
Strength Member	Aramid Yarn
Central Strength Member	E-Glass
Core Wrap	Water Swellable Tape
Color Code (Buffer)	Per TIA/EIA 598-B, See page 39
Jacket Color	Black

Ratings

Complies to:
TIA/EIA-568-C.3
ICEA S-87-640

Functional Requirements of:
GR-20-CORE

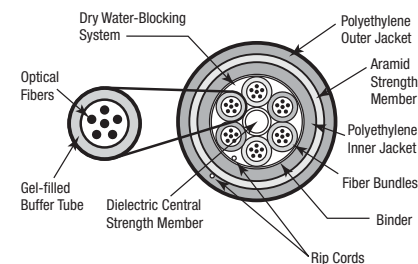
Specifications

Temperature Range	
Storage	-40 to +75°C
Operating	-40 to +70°C

Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Optical Specifications See page 39

Fiber Bundle Detail



No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Loose Tube Series — Heavy Duty



Outdoor												
No. of Fibers	No. of Fibers Per Bundle	B9B840	B9A840	B9C840	B9E840	B9W840	Outside Diameter (Inch)	Outside Diameter (mm)	Weight (lb/1000 ft)	Weight (kg/km)	Max. Install Load (lb)	Max. Install Load (N)
2	2	B9B840	B9A840	B9C840	B9E840	B9W840	0.49	12.5	84	125	600	2700
4	4	B9B841	B9A841	B9C841	B9E841	B9W841	0.49	12.5	84	125	600	2700
6	6	B9B842	B9A842	B9C842	B9E842	B9W842	0.49	12.5	84	125	600	2700
12	12	B9B844	B9A844	B9C844	B9E844	B9W844	0.49	12.5	84	125	600	2700
18	12	B9B845	B9A845	B9C845	B9E845	B9W845	0.49	12.5	84	125	600	2700
24	12	B9B846	B9A846	B9C846	B9E846	B9W846	0.49	12.5	84	125	600	2700
36	12	B9B847	B9A847	B9C847	B9E847	B9W847	0.49	12.5	84	125	600	2700
48	12	B9B848	B9A848	B9C848	B9E848	B9W848	0.49	12.5	84	125	600	2700
72	12	B9B849	B9A849	B9C849	B9E849	B9W849	0.53	13.4	97	144	600	2700
96	12	B9B820	B9A820	B9C820	B9E820	B9W820	0.60	15.2	121	180	600	2700
144	12	B9B821	B9A821	B9C821	B9E821	B9W821	0.75	19.0	184	274	600	2700
216	12	B9B822	B9A822	B9C822	B9E822	B9W822	0.76	19.3	187	273	600	2700



Central Tube Cable

Loose Tube — Outdoor, and Outdoor Armored

Applications

- Campus OSP backbones
- Drop cable
- Telecommunications and data trunk
- Direct burial (armored only)
- Lashed aerial

Product Description

Economical option for low fiber counts. Quick and easy end preparation. Fully waterblocked with gel-filled buffer tube. No rods – easy handling. Crush, impact and abrasion resistant.

Jacket Material	PE
Buffer Tube	PBT
Core Wrap	Water Swellable Tape
Strength Member	Fiberglass
Armor	Corrugated Steel
Color Codes (Jacket and Fibers)	Per TIA/EIA 598-B, See page 39
Jacket Color	Black

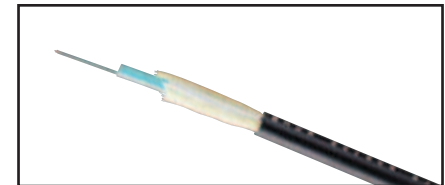
Functional Requirements of:
GR-20-CORE

Specifications

Temperature Range	
Storage	-40 to +75°C
Operating	-40 to +70°C

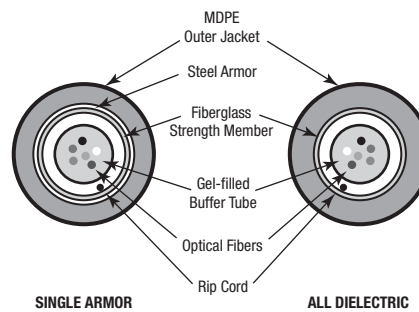
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Optical Specifications See page 39



Outdoor Loose Tube Cable

Fiber Bundle Detail



No. of Fibers	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
	OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

Central Tube Series



Outdoor											
2	B9B150	B9A150	B9C150	B9E150	B9W150	0.31	7.8	34	50	600	2700
4	B9B151	B9A151	B9C151	B9E151	B9W151	0.31	7.8	34	50	600	2700
6	B9B152	B9A152	B9C152	B9E152	B9W152	0.31	7.8	34	50	600	2700
8	B9B153	B9A153	B9C153	B9E153	B9W153	0.31	7.8	34	50	600	2700
10	B9B154	B9A154	B9C154	B9E154	B9W154	0.31	7.8	34	50	600	2700
12	B9B155	B9A155	B9C155	B9E155	B9W155	0.31	7.8	34	50	600	2700
24	B9B159	B9A159	B9C159	B9E159	B9W159	0.31	7.8	34	50	600	2700

Outdoor Armored											
2	B9B170	B9A170	B9C170	B9E170	B9W170	0.48	12.2	95	140	600	2700
4	B9B171	B9A171	B9C171	B9E171	B9W171	0.48	12.2	95	140	600	2700
6	B9B172	B9A172	B9C172	B9E172	B9W172	0.48	12.2	95	140	600	2700
8	B9B173	B9A173	B9C173	B9E173	B9W173	0.48	12.2	95	140	600	2700
10	B9B174	B9A174	B9C174	B9E174	B9W174	0.48	12.2	95	140	600	2700
12	B9B175	B9A175	B9C175	B9E175	B9W175	0.48	12.2	95	140	600	2700
24	B9B179	B9A179	B9C179	B9E179	B9W179	0.48	12.2	95	140	600	2700

TrayOptic® Industrial, Heavy-Duty, All Dielectric Cable

Loose Tube — Indoor/Outdoor Riser Rated



Tray Optic Cable

Applications

- Industrial and other harsh environment applications
- Factory automation
- Direct burial

Product Description

Laser Optimized Fiber to handle Gigabit Ethernet light sources and expanded bandwidth requirements. Passes IEEE 1202/583-2003 flame test. Waterblocking agent for moisture protection. CPE outer jacket option provides extra chemical or abrasion resistance.

Jacket Material	PVC or CPE
Strength Member	Aramid Yarn
Jacket Color	
Single-mode	Yellow
62.5/125 µm	Orange
50/125 µm / 1 Gb	Orange
50/125 µm / 10 Gb	Aqua

Ratings

Riser	
UL Type	OFNR
cUL Type	OFN FT.4
Flame Resistance	IEEE 1202 / 383-2003

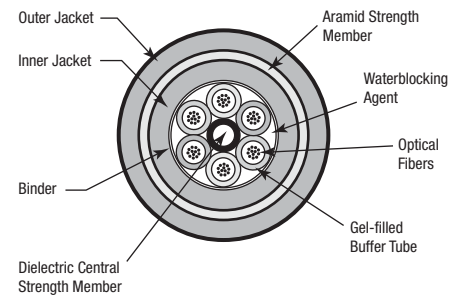
Complies to:
TIA/EIA-568-C.3
ICEA S-104-696

Functional Requirements of:
GR-20-CORE
GR-409-CORE

Specifications

Temperature Range	
Storage	-40 to +70°C
Operating	-40 to +70°C
Crush Resistance	2000 N/cm (EIA-455-41)
Impact Resistance	2000 impacts @ 1.6N-m (EIA-455-25)
Cyclic Flexing	25 cycles, 12 lbs., (EIA-455-104) 20 x OD radius min.
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD
Maximum Installation Load	600 lbs. (2700 N)
Optical Specifications	See page 39

Fiber Bundle Detail



One Enterprise.
One Infrastructure.
One Partner.



TrayOptic® Industrial, Heavy-Duty, All Dielectric Cable (continued)
Loose Tube — Indoor/Outdoor Riser Rated

No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb – 300 m	OM4 50 / 125 µm 10 Gb – 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

TrayOptic Series



Riser (NEC/CEC OFNR/OFN FT.4) PVC Jacket Indoor/Outdoor												
2	2	I100255	I1A0255	I1C0255	I1E0255	I1W0255	0.43	11.00	92	136	600	2700
4	4	I100455	I1A0455	I1C0455	I1E0455	I1W0455	0.43	11.00	92	136	600	2700
6	6	I100655	I1A0655	I1C0655	I1E0655	I1W0655	0.43	11.00	92	136	600	2700
8	4	I400855	I4A0855	I4C0855	I4E0855	I4W0855	0.43	11.00	92	136	600	2700
12	6	I601255	I6A1255	I6C1255	I6E1255	I6W1255	0.43	11.00	92	136	600	2700
18	6	I601855	I6A1855	I6C1855	I6E1855	I6W1855	0.43	11.00	92	136	600	2700
24	6	I602455	I6A2455	I6C2455	I6E2455	I6W2455	0.43	11.00	92	136	600	2700
36	6	I603655	I6A3655	I6C3655	I6E3655	I6W3655	0.43	11.00	92	136	600	2700
48	12	I604855	I6A4855	I6C4855	I6E4855	I6W4855	0.54	13.72	128	186	600	2700
60	12	I606055	I6A6055	I6C6055	I6E6055	I6W6055	0.54	13.72	128	186	600	2700
72	12	I607255	I6A7255	I6C7255	I6E7255	I6W7255	0.54	13.72	128	186	600	2700

Riser (NEC/CEC OFNR/OFN FT.4) CPE Jacket Indoor/Outdoor												
2	2	I100266	I1A0266	I1C0266	I1E0266	I1W0266	0.43	10.90	89	124	600	2700
4	4	I100466	I1A0466	I1C0466	I1E0466	I1W0466	0.43	10.90	89	124	600	2700
6	6	I100666	I1A0666	I1C0666	I1E0666	I1W0666	0.43	10.90	89	124	600	2700
8	4	I400866	I4A0866	I4C0866	I4E0866	I4W0866	0.43	10.90	89	124	600	2700
12	6	I601266	I6A1266	I6C1266	I6E1266	I6W1266	0.43	10.90	89	124	600	2700
18	6	I601866	I6A1866	I6C1866	I6E1866	I6W1866	0.43	10.90	89	124	600	2700
24	6	I602466	I6A2466	I6C2466	I6E2466	I6W2466	0.43	10.90	89	124	600	2700
36	6	I603666	I6A3666	I6C3666	I6E3666	I6W3666	0.43	10.90	89	124	600	2700
48	12	I604866	I6A4866	I6C4866	I6E4866	I6W4866	0.54	13.72	125	192	600	2700
60	12	I606066	I6A6066	I6C6066	I6E6066	I6W6066	0.54	13.72	125	192	600	2700
72	12	I607266	I6A7266	I6C7266	I6E7266	I6W7266	0.54	13.72	125	192	600	2700