

## Multimode, 50-Micron, Breakout-Style Fiber Optic Bulk Cable



**This tight-buffered, 50-micron cable is ideal for high-bandwidth voice, data, video, and imaging signals.**

## FEATURES

- Breakout design enables individual routing of fibers for termination and maintenance.
- Individually jacketed fibers are rugged and easy to handle.
- Fibers feature an easily strippable 900- $\mu$ m coating.
- Suitable for indoor applications.
- Cable construction consists of: outer jacket, tape binder, breakout fiber assembly (tight-buffered fiber surrounded in aramid yarns and jacketed), strength member, and ripcord.
- Both the PVC and plenum cables are rated for fire safety.

## Technically Speaking

### 50- vs. 62.5-micron cable.

As today's networks expand, the demand for more bandwidth and greater distances increases. Thus, there is a renewed interest in 50-micron fiber optic cable. First used in 1976, 50-micron cable has not experienced the widespread use in North America that 62.5-micron cable has.

Although 50-micron fiber cable features a smaller core, which is the light-carrying portion of the fiber, both 62.5- and 50-micron cable feature the same cladding diameter of 125 microns. You can use both in the same types of networks, although 50-micron cable is recommended for premise applications: backbone, horizontal, and interbuilding

connections, and should be considered especially for any new construction and installations. And both can use either LED or laser light sources.

The big difference between 50-micron and 62.5-micron cable is that 50-micron cable provides longer link lengths and/or higher speeds. 50-micron cable features three times the bandwidth of standard 62.5-micron cable, particularly at 850 nm. The 850-nm wavelength is becoming more important as lasers are being used more frequently as a light source. At 850 nm, 50-micron cable is rated at 500 MHz/km versus 160 MHz/km for 62.5-micron cable.

## TECH SPECS

**Attenuation (Maximum)**— 3.5/1 dB/km @ 850/1300 nm

**Bandwidth (Minimum)**— 500/500 MHz-km @ 850/1300 nm

**Bend Radius**—

PVC: 2-Fiber: 5.7" (14.5 cm) installation, 4.3" (10.9 cm) operating;  
4-Fiber: 6.5" (16.5 cm) installation, 4.9" (12.4 cm) operating;  
6-Fiber: 7.5" (19.1 cm) installation, 5.7" (14.5 cm) operating;  
12-Fiber: 11.3" (28.7 cm) installation, 21.6" (54.9 cm) operating;  
24-Fiber: 13.6" (34.5 cm) installation, 10.2" (25.9 cm) operating;  
36-Fiber: 15.8" (40.1 cm) installation, 11.8" (30 cm) operating;

Plenum: 4-Fiber: 5.4" (13.7 cm) installation, 4.1" (10.4 cm) operating;  
6-Fiber: 6.6" (16.8 cm) installation, 5" (12.7 cm) operating;  
8-Fiber: 7.8" (19.8 cm) installation, 5.9" (15 cm) operating;  
12-Fiber: 10.5" (26.7 cm) installation, 7.8" (19.8 cm) operating;  
24-Fiber: 12.4" (31.5 cm) installation, 9.3" (23.6 cm) operating;  
36-Fiber: 14.3" (36.3 cm) installation, 10.7" (27.2 cm) operating

**Buffer Diameter**— 900  $\mu$ m

**Cable Size**— PVC: 2-Fiber: 0.286" (7.26 mm);

4-Fiber: 0.325" (8.26 mm);  
6-Fiber: 0.377" (9.58 mm),  
12-Fiber: 0.567" (14.40 mm);  
24-Fiber: 0.680" (17.27 mm);  
36-Fiber: 0.788" (20.02 mm);

Plenum: 4-Fiber: 0.273" (6.93 mm);  
6-Fiber: 0.330" (8.38 mm);  
8-Fiber: 0.392" (9.96 mm);  
12-Fiber: 0.523" (13.28 mm);  
24-Fiber: 0.620" (15.75 mm);  
36-Fiber: 0.715" (18.16 mm)

**Fiber Type**— Multimode, 50/125  $\mu$ m

**Pulling Strength**—

2-Fiber: 1200 Newtons/270 lb.;  
4-Fiber: 2000 Newtons/450 lb.;  
6- and 8-Fiber: 2700 Newtons/600 lb.;  
12-Fiber: 3500 Newtons/788 lb.;  
24-Fiber: 5520 Newtons/1240 lb.;  
36-Fiber: 7390 Newtons/1660 lb.

**Standards**— PVC: UL® 1666, CSA FT4;

Plenum: UL 910, CSA FT6;

All: IEEE 802.3 for 1000BASE-SX/LX, 100BASE-F, 10BASE-F,  
ATM 155, ATM 622, ATM 1.2/2.4 Gbps, Fibre Channel FC-PH,  
IEEE 802.5, FDDI, ICEA 83-596, EIA/TIA-568-B

**Tension (Operating)**—

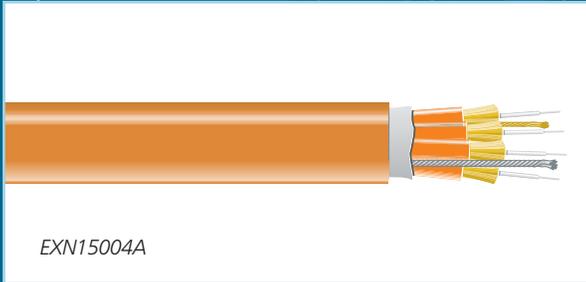
2-Fiber: 500 Newtons/113 lb.;  
4-, 6-, and 8-Fiber: 1110 Newtons/250 lb.;  
12-Fiber: 1200 Newtons/270 lb.;  
24- and 36-Fiber: 2000 Newtons/450 lb.

**Vertical Rise**— PVC:

2-Fiber: 2739 ft. (834.8 m);  
4-Fiber: 5000 ft. (1524 m);  
6-Fiber: 3509 ft. (1069.5 m);  
12-Fiber: 1674 ft. (510.2 m);  
24-Fiber: 2169 ft. (661.1 m);  
36-Fiber: 1682 ft. (512.7 m);  
Plenum: 4-Fiber: 6667 ft. (2032.1 m);  
6-Fiber: 4545 ft. (1385.3 m);  
8-Fiber: 3077 ft. (937.9 m);  
12-Fiber: 1728 ft. (526.7 m);  
24-Fiber: 2483 ft. (759.9 m);  
36-Fiber: 1957 ft. (596.5 m)

**Temperature**—

Operating: -4 to +176°F (-20 to +80°C);  
Storage: -40 to +176°F (-40 to +80°C);  
Installation: 32 to 122°F (0 to 50°C)



EXN15004A

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At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

Don't waste time and money—call Black Box today.

Item	Code
Multimode, 50-Micron, Breakout-Style Fiber Optic Bulk Cable	
PVC, Riser (OFNR/FT4)	
2-Fiber	
Custom Lengths	<b>EXN15002A</b>
4-Fiber	
500-ft. (152.4-m)	<b>EXN15004A-0500</b>
Custom Lengths	<b>EXN15004A</b>
6-Fiber	
Custom Lengths	<b>EXN15006A</b>
12-Fiber	
500-ft. (152.4-m)	<b>EXN15012A-0500</b>
Custom Lengths	<b>EXN15012A</b>
24-Fiber	
Custom Lengths	<b>EXN15024A</b>
36-Fiber	
500-ft. (152.4-m)	<b>EXN15036A-0500</b>
Custom Lengths	<b>EXN15036A</b>
Plenum (OFNP/FT6)	
4-Fiber	
Custom Lengths	<b>EXP15004A</b>
6-Fiber	
500-ft. (152.4-m)	<b>EXP15006A-0500</b>
Custom Lengths	<b>EXP15006A</b>
8-Fiber	
Custom Lengths	<b>EXP15008A</b>
12-Fiber	
500-ft. (152.4-m)	<b>EXP15012A-0500</b>
Custom Lengths	<b>EXP15012A</b>
24-Fiber	
500-ft. (152.4-m)	<b>EXP15024A-0500</b>
Custom Lengths	<b>EXP15024A</b>
36-Fiber	
Custom Lengths	<b>EXP15036A</b>

*NOTE: Minimum order for custom lengths is 1640 feet (500 m).  
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