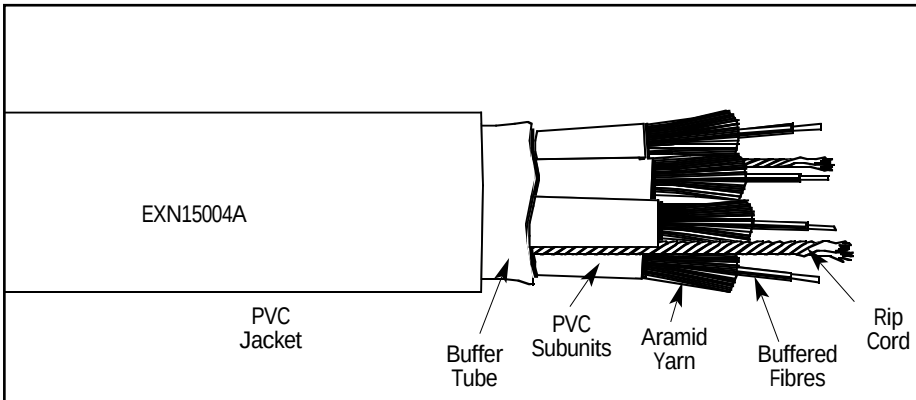
BLACK BOX®
NETWORK SERVICES

Black Box Network Services • 464 Basingstoke Road • Reading, Berkshire, RG2 0BG • Tech Support: 0118 965 6000 • **www.blackbox.co.uk** • **e-mail: techhelp@blackbox.co.uk**

MULTIMODE, 50-MICRON, BREAKOUT-STYLE BULK FIBRE OPTIC CABLE



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

Key Features

- ***Breakout design enables individual routing of fibers for termination and maintenance.***
- ***Individually jacketed fibres are rugged and easy to handle.***
- ***Fibres feature an easily strippable 900-µm coating.***
- ***Suitable for indoor and outdoor applications.***
- ***Can be used for direct burial, underground ducts, aerial lashing, building risers, and steam tunnels.***
- ***Cable construction consists of: outer jacket, tape binder, breakout fibre assembly (tight-buffered fibre surrounded in aramid yarns and jacketed), strength member, and ripcord.***
- ***Both the PVC and plenum cables are rated for fire safety.***

Technically Speaking

As today's networks expand, the demand for more bandwidth and greater distances increases. Thus, there is a renewed interest in 50-micron fibre 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 fibre 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 intrabuilding 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 in bandwidth—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.

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Specifications

Bend Radius:
PVC: 2-Fibre: 5.7" (14.5 cm) installation, 4.3" (10.9 cm) operating;
4-Fibre: 6.5" (16.5 cm) installation, 4.9" (12.4 cm) operating;
6-Fibre: 7.5" (19.1 cm) installation, 5.7" (14.5 cm) operating;
8-Fibre: 8.9" (22.6 cm) installation, 6.7" (17 cm) operating;
12-Fibre: 11.3" (28.7 cm) installation, 21.6" (54.9 cm) operating;
24-Fibre: 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-Fibre: 5.4" (13.7 cm) installation, 4.1" (10.4 cm) operating;
6-Fibre: 6.6" (16.8 cm) installation, 5" (12.7 cm) operating;
8-Fibre: 7.8" (19.8 cm) installation, 5.9" (15 cm) operating;
12-Fibre: 10.5" (26.7 cm) installation, 7.8" (19.8 cm) operating;
24-Fibre: 12.4" (31.5 cm) installation, 9.3" (23.6 cm) operating;
36-Fibre: 14.3" (36.3 cm) installation, 10.7" (27.2 cm) operating

Cable Size: PVC: 2-Fibre: 0.286" (7.26 mm);
4-Fibre: 0.325" (8.26 mm);
6-Fibre: 0.377" (9.58 mm),
8-Fibre: 0.445" (11.30 mm);
12-Fibre: 0.567" (14.4 mm);
24-Fibre: 0.680" (17.27 mm);
36-Fibre: 0.788" (20.02 mm);
Plenum: 4-Fibre: 0.273" (6.93 mm);
6-Fibre: 0.330" (8.38 mm);
8-Fibre: 0.392" (9.96 mm);
12-Fibre: 0.523" (13.28 mm);
24-Fibre: 0.620" (15.75 mm);
36-Fibre: 0.715" (18.16 mm)

Buffer Diameter: 900 µm

Fiber Type: Multimode, 50/125 µm

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

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

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

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)

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

Vertical Rise: PVC:
2-Fibre: 2739 ft. (834.8 m);
4-Fibre: 5000 ft. (1524 m);
6-Fibre: 3509 ft. (1069.5 m);
8-Fibre: 2564 ft. (781.5 m);
12-Fibre: 1674 ft. (510.2 m);
24-Fibre: 2169 ft. (661.1 m);
36-Fibre: 1682 ft. (512.7 m);
Plenum: 4-Fibre: 6667 ft. (2032.1 m);
6-Fibre: 4545 ft. (1385.3 m);
8-Fibre: 3077 ft. (937.9 m);
12-Fibre: 1728 ft. (526.7 m);
24-Fibre: 2483 ft. (759.9 m);
36-Fibre: 1957 ft. (596.5 m)

Ordering Information

ITEM		CODE
Multimode, 50-Micron, Breakout-Style Bulk Fibre Optic Cables		
PVC, Riser (OFNR/FT4)		
2-Fibre	500-ft. (152.4-m)	EXN15002A-0500
	Custom Lengths	EXN25002A
4-Fibre	500-ft. (152.4-m)	EXN15004A-0500
	Custom Lengths	EXN25004A
6-Fibre	500-ft. (152.4-m)	EXN15006A-0500
	Custom Lengths	EXN25006A
8-Fibre	500-ft. (152.4-m)	EXN15008A-0500
	Custom Lengths	EXN25008A
12-Fibre	500-ft. (152.4-m)	EXN15012A-0500
	Custom Lengths	EXN25012A
24-Fibre	500-ft. (152.4-m)	EXN15024A-0500
	Custom Lengths	EXN25024A
36-Fibre	500-ft. (152.4-m)	EXN15036A-0500
	Custom Lengths	EXN25036A
Plenum (OFNP/FT6)		
4-Fibre	500-ft. (152.4-m)	EXP15004A-0500
	Custom Lengths	EXP15004A
6-Fibre	500-ft. (152.4-m)	EXP15006A-0500
	Custom Lengths	EXP15006A
8-Fibre	500-ft. (152.4-m)	EXP15008A-0500
	Custom Lengths	EXP15008A
12-Fibre	500-ft. (152.4-m)	EXP15012A-0500
	Custom Lengths	EXP15012A
24-Fibre	500-ft. (152.4-m)	EXP15024A-0500
	Custom Lengths	EXP15024A
36-Fibre	500-ft. (152.4-m)	EXP15036A-0500
	Custom Lengths	EXP15036A

Note: Also available in 1000-foot (304.8-m) spools.
Minimum order for custom lengths is 1000 feet.
For details on both, call our FREE Tech Support.