



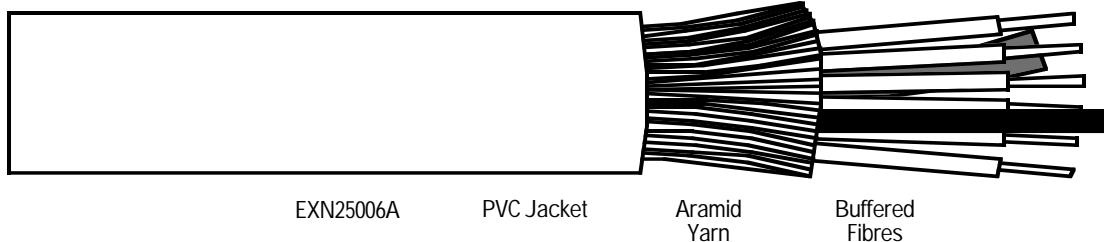
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# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

Black Box Network Services • 464 Basingstoke Road • Reading, Berkshire, RG2 0BG • Tech Support: 0118 965 6000 • [www.blackbox.co.uk](http://www.blackbox.co.uk) • e-mail: [techhelp@blackbox.co.uk](mailto:techhelp@blackbox.co.uk)

## MULTIMODE, 50-MICRON, DISTRIBUTION-STYLE BULK FIBRE OPTIC CABLE



***Here's the tight-buffered, distribution-style  
50-micron cable you want with high fibre counts.***

### Key Features

- ▶ ***Designed for backbone, horizontal, and inter/intrabuilding installations.***
- ▶ ***High-performance, tight-buffer coating on each fibre provides environmental and mechanical protection.***
- ▶ ***Suitable for both indoor and outdoor use. It's flame-retardant, and fungus-, water-, and UV-resistant.***
- ▶ ***Extremely economical for long-distance runs.***
- ▶ ***Features an easily strippable 900- $\mu$ m coating for convenient handling.***
- ▶ ***Flexible subunit design enables easy routing of group fibres. Includes tight-buffered, single-jacket construction with subunits holding up to 12 fibres each.***
- ▶ ***Construction consists of: outer jacket, binder, subunit jacket, subunit aramid yarn, strength member, tight-buffered fibres, and a ripcord.***
- ▶ ***Both PVC and plenum cable 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 fibre, 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.

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. At 850 nm, 50-micron cable is rated at 500 MHz/km versus 160 MHz/km for 62.5-micron cable.

# Specifications

**Maximum Attenuation:** 3.5/1.0 dB/km @ 850/1300 nm

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

**Bend Radius:**

- PVC: 2-Fibre: 3.7" (9.4 cm) installation, 2.8" (7.1 cm) operating;
- 4-Fibre: 4.4" (11.2 cm) installation, 3.3" (8.4 cm) operating;
- 6-Fibre: 4.7" (11.9 cm) installation, 3.5" (8.9 cm) operating;
- 8-Fibre: 4.9" (12.4 cm) installation, 3.7" (9.4 cm) operating;
- 12-Fibre: 5.5" (14 cm) installation, 4.1" (10.4 cm);
- 24-Fibre: 10.3" (26.2 cm) installation, 7.7" (19.6 cm) operating operating;
- 36-Fibre: 12.5" (31.8 cm) installation, 9.3" (23.6 cm) operating;
- Plenum: 4-Fibre: 3.4" (8.6 cm) installation, 2.6" (6.6 cm) operating;
- 6-Fibre: 3.8" (9.7 cm) installation, 2.8" (7.1 cm) operating;
- 8-Fibre: 4" (10.2 cm) installation, 2.9" (7.4 cm) operating;
- 12-Fibre: 4.6" (11.7 cm) installation, 8.8" (22.4 cm);
- 24-Fibre: 8" (20.3 cm) installation, 6" (15.2 cm) operating operating;
- 36-Fibre: 10" (25.4 cm) installation, 7.5" (19.1 cm) operating

**Buffer Diameter:** 900 µm

**Fiber Type:** Multimode, 50/125 µm

**Pulling Strength:** 2-Fibre: 800 Newtons/180 lb.;

- 4- and 6-Fibre: 1000 Newtons/225 lb.;
- 8-Fibre: 1400 Newtons/315 lb.;
- 12-Fibre: 1800 Newtons/405 lb.;
- 24-Fibre: 2700 Newtons/600 lb.;
- 36-Fibre: 4000 Newtons/900 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-Fibre: 250 Newtons/56 lb.;

- 4- and 6-Fibre: 400 Newtons/91 lb.;
- 8-Fibre: 463 Newtons/104 lb.;
- 12-Fibre: 600 Newtons/135 lb.;
- 24-Fibre: 1110 Newtons/250 lb.;
- 36-Fibre: 2000 Newtons/450 lb.

**Vertical Rise:** 2-Fibre: 2987 ft. (910.4 m);

- 4-Fibre: 3832 ft. (1168 m);
- 6-Fibre: 3467 ft. (1056.7 m);
- 8-Fibre: 3617 ft. (1102.5 m);
- 12-Fibre: 3600 ft. (1097.3 m);
- 24-Fibre: 2227 ft. (678.8 m);
- 36-Fibre: 2515 ft. (766.6 m);
- Plenum: 4-Fibre: 5200 ft. (1585 m);
- 6-Fibre: 4853 ft. (1479.2 m);
- 8-Fibre: 4622 ft. (1408.8 m);
- 12-Fibre: 4909 ft. (1496.3 m);
- 24-Fibre: 3006 ft. (916.2 m);
- 36-Fibre: 3133 ft. (954.9 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)

**Cable Size:** PVC: 2-Fibre: 0.187" (4.75 mm);

- 4-Fibre: 0.220" (5.59 mm);
- 6-Fibre: 0.235" (5.97 mm);
- 8-Fibre: 0.245" (6.22 mm);
- 12-Fibre: 0.275" (6.99 mm);
- 24-Fibre: 0.516" (13.11 mm);
- 36-Fibre: 0.623" (15.82 mm);
- Plenum: 4-Fibre: 0.170" (4.32 mm);
- 6-Fibre: 0.185" (4.70 mm);
- 8-Fibre: 0.195" (4.95 mm);
- 12-Fibre: 0.230" (5.84 mm);
- 24-Fibre: 0.4" (10.16 mm);
- 36-Fibre: 0.502" (12.75 mm)

*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.*

## Ordering Information

ITEM	CODE
Multimode, 50-Micron, Distribution-Style Bulk Fibre Optic Cables	
PVC, Riser (OFNR/FT4)	
2-Fibre 500-ft. (152.4-m) .....	EXN25002A-0500
Custom Lengths .....	EXN25002A
4-Fibre 500-ft. (152.4-m) .....	EXN25004A-0500
Custom Lengths .....	EXN25004A
6-Fibre 500-ft. (152.4-m) .....	EXN25006A-0500
Custom Lengths .....	EXN25006A
8-Fibre 500-ft. (152.4-m) .....	EXN25008A-0500
Custom Lengths .....	EXN25008A
12-Fibre 500-ft. (152.4-m) .....	EXN25012A-0500
Custom Lengths .....	EXN25012A
24-Fibre 500-ft. (152.4-m) .....	EXN25024A-0500
Custom Lengths .....	EXN25024A
36-Fibre 500-ft. (152.4-m) .....	EXN25036A-0500
Custom Lengths .....	EXN25036A
Plenum (OFNP/FT6)	
4-Fibre 500-ft. (152.4-m).....	EXP25004A-0500
Custom Lengths .....	EXP25004A
6-Fibre 500-ft. (152.4-m).....	EXP25006A-0500
Custom Lengths .....	EXP25006A
8-Fibre 500-ft. (152.4-m).....	EXP25008A-0500
Custom Lengths .....	EXP25008A
12-Fibre 500-ft. (152.4-m).....	EXP25012A-0500
Custom Lengths .....	EXP25012A
24-Fibre 500-ft. (152.4-m).....	EXP25024A-0500
Custom Lengths .....	EXP25024A
36-Fibre 500-ft. (152.4-m).....	EXP25036A-0500
Custom Lengths .....	EXP25036A