

FREEDM® One Tight-Buffered Cable, Plenum

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Corning FREEDM® One plenum cables are flame-retardant, UV-resistant, indoor/outdoor cables designed for aerial and duct applications with no need for a transition splice when entering the building. The tight-buffered construction facilitates easier termination for low-fiber-count applications in the local area network (LAN) and eliminates the need for fan-out kits. The design features TIA-598 color-coded 900 µm buffered fibers for easy identification, consistent stripping and direct termination. The small diameter and bend radius of the cable allow for easy installation in space-constrained areas while the innovative waterblocking technology is ideal for outside plant (OSP) applications. The all-dielectric cable construction requires no grounding or bonding, and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip. Note: This cable is available in 12 different jacket colors – blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. The colored jacket allows for easy visual identification of the cables while still providing all of the required environmental protection of an indoor/outdoor cable jacket. Black is the standard jacket color using the part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

Features and Benefits

Waterblocking technology

OSP (outdoor) applications

Small diameter and bend radius

Easy installation in space-constrained areas

Color-coded fibers

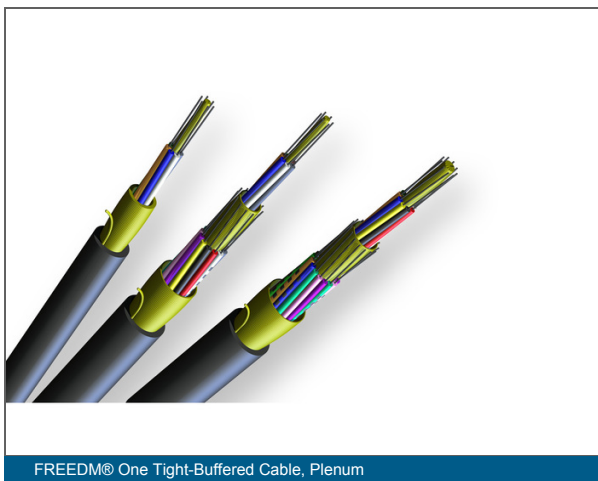
Quick and easy identification

All-dielectric construction

Requires no grounding or bonding

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip



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Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
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Specifications

General Specifications

Environment	Indoor/Outdoor
Product Type	Dielectric
Cable Type	Tight-Buffered
Flame Rating	Plenum (OFNP)

Temperature Range

Temperature Range, Storage	-40 °C - 70 °C (-40 °F - 158 °F)
Temperature Range, Installation	0 °C - 60 °C (32 °F - 140 °F)
Temperature Range, Operation	-40 °C - 70 °C (-40 °F - 158 °F)

Design Characteristics Cable

Fiber Count
2 - 24

Mechanical Characteristics Cable

Fiber Count	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Cable Weight
2	5 mm	75 mm	50 mm	675 N	200 N	21.94 kg/km
4	5.3 mm	79.5 mm	53 mm	675 N	200 N	25.18 kg/km

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Mechanical Characteristics Cable

Fiber Count	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Cable Weight
4	5.3 mm	79.5 mm	53 mm	675 N	200 N	24.7 kg/km
4	5.3 mm	79.5 mm	53 mm	675 N	200 N	25.18 kg/km
6	5.3 mm	79.5 mm	53 mm	675 N	200 N	27.21 kg/km
6	5.3 mm	79.5 mm	53 mm	675 N	200 N	26.8 kg/km
6	5.3 mm	79.5 mm	53 mm	675 N	200 N	27.21 kg/km
12	6.3 mm	94.5 mm	63 mm	675 N	200 N	36.9 kg/km
12	6.3 mm	94.5 mm	63 mm	675 N	200 N	37.57 kg/km
12	6.3 mm	94.5 mm	63 mm	675 N	200 N	36.9 kg/km
12	6.3 mm	94.5 mm	63 mm	675 N	200 N	37.57 kg/km
18	7.4 mm	111 mm	74 mm	1350 N	400 N	56.59 kg/km
18	7.4 mm	111 mm	74 mm	1350 N	400 N	55.9 kg/km
18	7.4 mm	111 mm	74 mm	1350 N	400 N	56.59 kg/km
24	8 mm	120 mm	80 mm	1350 N	400 N	65 kg/km
24	8 mm	120 mm	80 mm	1350 N	400 N	52.95 kg/km
24	8 mm	120 mm	80 mm	1350 N	400 N	65 kg/km

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1 Select fiber count.

Standard offerings:

002 006 018
004 012 024

2 Select fiber code.

K = 62.5 μ m multimode (OM1)
T = 50 μ m multimode
(OM2/OM3/OM4/OM4+)
E = Single-mode (OS2)
SMF-28e®
Z = Single-mode (OS2)
SMF-28® Ultra fiber

3 Defines cable type.

8 = FREEDM® One cable

4 Defines outer jacket.

P = Indoor/outdoor plenum

5 Defines fiber placement.

3 = Standard for FREEDM
One plenum cable

6 Defines length markings.

1 = Markings in ft (standard)
for single-layer design.

7 Defines tensile strength.

1 = See specifications.

8 Select performance option code.

30 = 62.5 μ m multimode (OM1)
31 = 50 μ m multimode (OM2)
80 = 50 μ m multimode (OM3)
90 = 50 μ m multimode (OM4)
91 = 50 μ m multimode (OM4+)
31 = Single-mode (OS2)
(Max. attenuation .65 / .65 / 0.5 dB/km)

9 Defines cable type.

- = FREEDM One cable

10 Defines special requirements.

29 = No special requirements



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