

# FREEDM® One Tight-Buffered Cable, Plenum

6 F, 50 µm multimode, extended 10G distance (OM4)

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Corning FREEDM® One plenum cables are flame-retardant, UV-resistant, indoor/outdoor cables designed for aerial, duct and direct-buried 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 TBII® 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

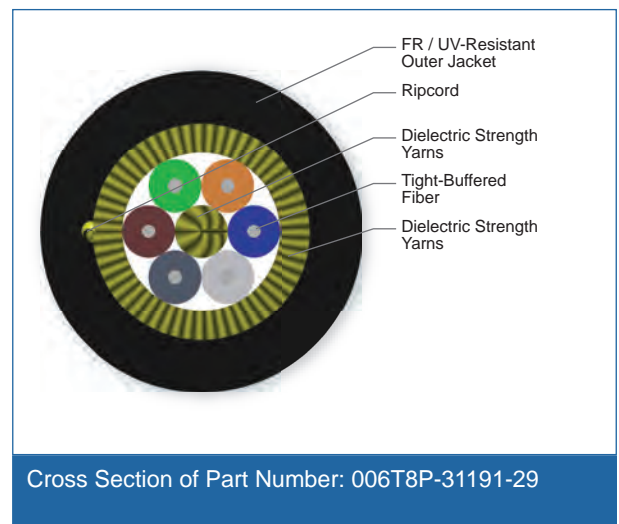
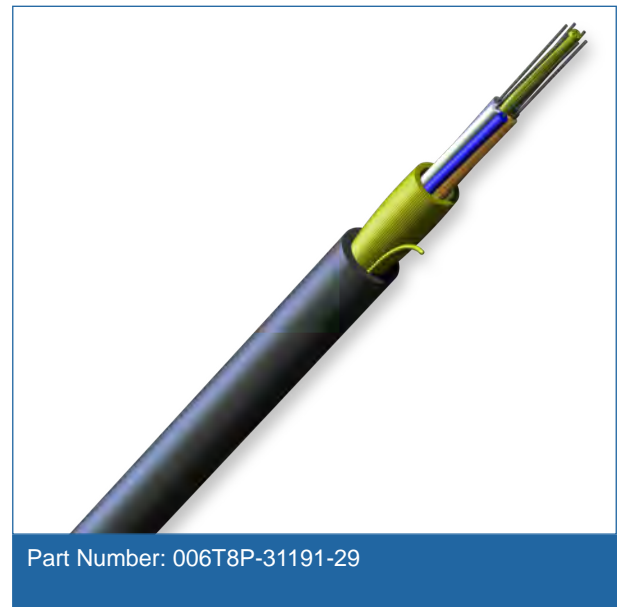
Quick and easy identification

### All-dielectric construction

Requires no grounding or bonding

### UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip



## Standards

### Approval and Listings

National Electrical Code®  
(NEC®) OFNP, CSA FT-6

### Design and Test Criteria

ICEA S-104-696

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## Specifications

### General Specifications

Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser, Plenum)
Cable Type	Tight-Buffered
Product Type	Dielectric
Flame Rating	Plenum (OFNP)
Fiber Category	50 µm MM (OM4+)

### Temperature Range

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

### Cable Design

Central Element	Dielectric
Fiber Count	6
Tight Buffer Color	Blue, Orange, Green, Brown, Slate, White
Tensile Strength Elements and/or Armoring - Layer 1	Water-swellaable strength members
Outer Jacket Material	Flame-Retardant, UV-Resistant
Outer Jacket Color	Black

### Mechanical Characteristics Cable

Weight	27 kg/km (18 lb/1000 ft)
Nominal Outer Diameter	5.3 mm (.21 in)
Min. Bend Radius Installation	80 mm (3.1 in)
Min. Bend Radius Operation	27 mm (1.0 in)
Max. Tensile Strength, Short-Term	675 N (150 lbf)
Max. Tensile Strength, Long-Term	200 N (45 lbf)

### Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2002/95/EG
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## Fiber Specifications

Optical Characteristics (cabled)	
Fiber Core Diameter	50 µm
Fiber Category	OM4 Extended Distance
Fiber Code	T
Performance Option Code	91
Wavelengths	850 nm / 1300 nm
Maximum Attenuation	2.8 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	1100 m / 600 m
Serial 10 Gigabit Ethernet	600 m / -
Min. Overfilled Launch (OFL) Bandwidth	3500 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	5350 MHz*km / -

## Ordering Information

Part Number	006T8P-31191-29
Product Description	FREEDM® One Tight-Buffered Cable, Plenum, 6 F, 50 µm multimode, extended 10G distance (OM4)



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