

FREEDM® One Unitized, Tight-Buffered Cable, Riser

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

CORNING

Corning FREEDM® One unitized riser 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. Available in fiber counts up to 144 fibers, the tight-buffered construction facilitates easy termination for high-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.

Available in 50 µm, 62.5 µm, single-mode and hybrid versions, the cable design meets ICEA S-104-696 test criteria and is also OFNR and FT-4 listed for riser and general purpose use. 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 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. This cable is also available with interlocking armor for special applications requiring additional mechanical durability.

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

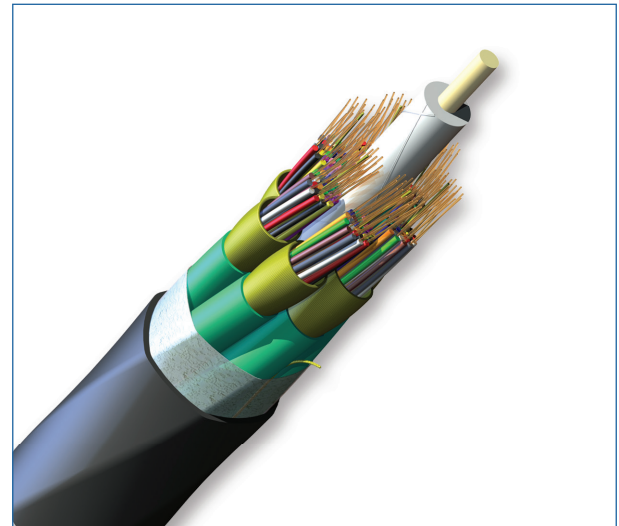
Quick and easy identification

All-dielectric construction

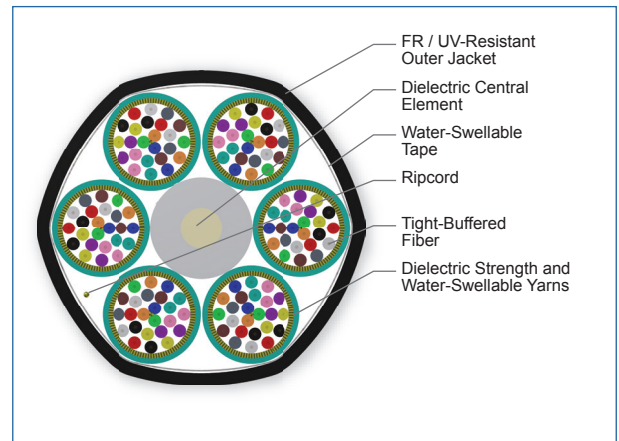
Requires no grounding or bonding

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip



Part Number: 144T8F-Y3191-29



Cross Section of Part Number: 144T8F-Y3191-29

FREEDM[®] One Unitized, Tight-Buffered Cable, Riser

144 F, 50 μ m multimode, extended 10G distance (OM4+)

CORNING

Standards

Listings National Electrical Code[®]
(NEC[®]) OFNR, FT-4

Design and Test Criteria ICEA S-104-696

Specifications

| General Specifications | |
|------------------------|---|
| Environment | Indoor/Outdoor Cables |
| Application | Direct Buried, Duct, General Purpose Horizontal, Vertical Riser |
| Cable Type | Tight-Buffered |
| Product Type | Distribution |
| Flame Rating | Riser (OFNR) |
| Fiber Category | 50 μ m MM (OM4+) |

| Temperature Range | |
|-------------------|------------------------------------|
| Storage | -40 °C to 70 °C (-40 °F to 158 °F) |
| Installation | -10 °C to 60 °C (14 °F to 140 °F) |
| Operation | -40 °C to 70 °C (-40 °F to 158 °F) |

| Cable Design | |
|------------------------------|--|
| Central Element | Dielectric |
| Fiber Count | 144 |
| Tight Buffer Color | Blue, Orange, Green |
| Tight buffer color, layer 1 | Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua |
| Tight Buffer Color, Layer 2 | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua |
| Number of Active Tubes | 6 |
| Subunit Color | Aqua |
| Number of Fibers per Subunit | 24 |
| Subunit Diameter | 7.00 mm (0.27 in) |
| Tape | Water-swellable |
| Number of Ripcords | 2 |
| Outer Jacket Material | Flame-Retardant, UV-Resistant |
| Outer Jacket Color | Black |

FREEDM[®] One Unitized, Tight-Buffered Cable, Riser

144 F, 50 μ m multimode, extended 10G distance (OM4+)



Mechanical Characteristics Cable

| | |
|-----------------------------------|---------------------------------|
| Max. Tensile Strength, Short-Term | 2700 N (600 lbf) |
| Max. Tensile Strength, Long-Term | 810 N (180 lbf) |
| Weight | 433.6 kg/km (291.38 lb/1000 ft) |
| Nominal Outer Diameter | 23.5 mm (0.93 in) |
| Min. Bend Radius Installation | 352.5 mm (14.3 in) |
| Min. Bend Radius Operation | 235 mm (9.3 in) |

Chemical Characteristics

| | |
|------|---|
| RoHS | Free of hazardous substances according to RoHS 2011/65/EU |
|------|---|

Fiber Specifications

Optical Characteristics (cabled)

| | |
|---|--------------------------|
| Fiber Core Diameter | 50 μ m |
| 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 | 144T8F-Y3191-29 |
| Product Description | FREEDM [®] One Unitized Tight-Buffered Cable, Riser, 144 F, 50 μ m multimode, extended 10 G distance (OM4+) |

FREEDM® One Unitized, Tight-Buffered Cable, Riser

144 F, 50 μ m multimode, extended 10G distance (OM4+)

The CORNING logo is a blue square with the word "CORNING" in white, uppercase, sans-serif font centered inside.

Notes



Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA

800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/trademarks.

All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified.

© 2016 Corning Optical Communications. All rights reserved.