

# FREEDM® One Unitized, Tight-Buffered Cable, Riser

144 F, Single-mode (OS2)

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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

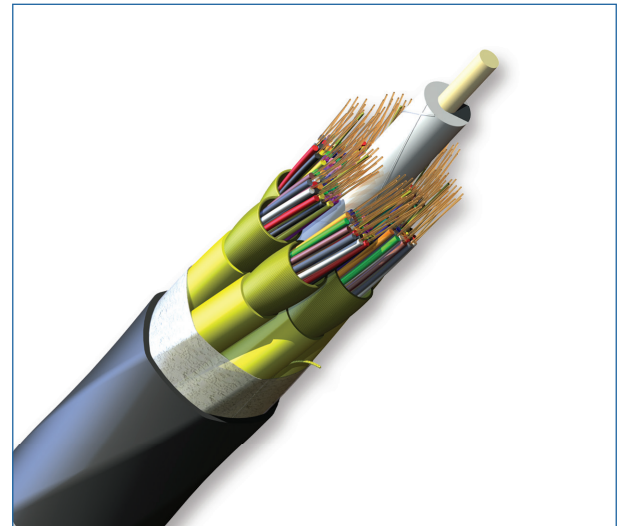
Quick and easy identification

### All-dielectric construction

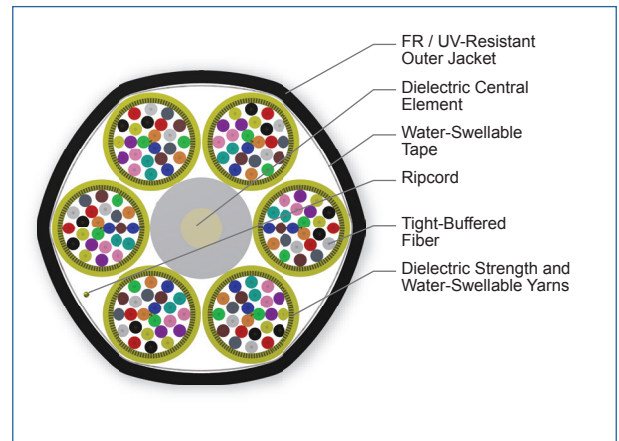
Requires no grounding or bonding

### UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip



Part Number: 144E8F-Y3131-29



Cross Section of Part Number: 144E8F-Y3131-29

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## Standards

**Listings** National Electrical Code<sup>®</sup>  
(NEC<sup>®</sup>) 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	Single-mode (OS2)

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	Yellow
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

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## 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
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## Fiber Specifications

### Optical Characteristics (cabled)

Fiber Name	SMF-28e <sup>®</sup> fiber
Fiber Category	G.652.D
Fiber Code	E
Performance Option Code	31
Wavelengths	1310 nm / 1383 nm / 1550 nm
Maximum Attenuation	0.65 dB/km / 0.65 dB/km / 0.50 dB/km

## Ordering Information

Part Number	144E8F-Y3131-29
Product Description	FREEDM <sup>®</sup> One Unitized Tight-Buffered Cable, Riser, 144 F, Single-mode (OS2)



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