FREEDM® Ribbon Interlocking Armored, Gel-Filled Cable, Riser

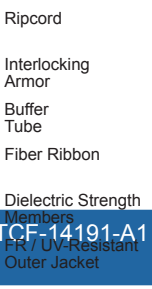
12 F, 50 µm multimode, extended 10G distance (OM4)

CORNING

Corning FREEDM® ribbon interlocking armored, gel-filled riser cables continue the innovative breakthrough in indoor/outdoor cable technology with a new generation of high-fiber-count single tube cables. These cables are designed to maximize the use of critical duct space with excellent installation results. Encased in spirally -wrapped aluminum interlocking armor for ruggedness and superior crush resistance, the cables are ideal for industrial and heavy traffic areas and installations requiring extra protection for optical cables. The UV-resistant, flame-retardant jacket allows this cable to be installed outdoors or in indoor general purpose horizontal and riser applications. The cable employs a single buffer tube containing a stack of 12 fiber ribbons within a gel-filled central buffer tube.

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.

Part Number: 012TCF-14191-A1



Cross Section of Part Number: 012TCF-14191-A1

Features and Benefits

Precise fiber and ribbon geometries
Excellent mass splicing yields

Waterblocked cable
Enables use of cables for outdoor applications

12-fiber ribbons with ribbon IDs
Easy identification

UV-resistant, flame-retardant jacket
Rugged, durable and easy to strip

Flexible interlocking armor
Up to seven times the crush protection compared to non-armored cables

Common installations
Outdoor aerial and duct; indoor general purpose horizontal according to NEC Article 770

Standards

Listings	National Electrical Code® (NEC®) OFNR
Design Criteria	CSA OFN FT-4

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Standards

Test Criteria ANSI/ICEA S-104-696

Specifications

General Specifications	
Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser)
Cable Type	Ribbon
Product Type	Dielectric
Flame Rating	Riser (OFNR)
Fiber Category	50 µm 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	
Fiber Count	12
Ribbons per Tube	1
Fibers per Ribbon	12
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Buffer Tube Color	Natural
Buffer Tube Diameter	5.6 mm (0.22 in)
Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Tape	Water-swellable
Tensile Strength Elements and/or Armoring - Layer 2	Dielectric strength members
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	600 N (135 lbf)
Weight	277 kg/km (185.59 lb/1000 ft)
Nominal Outer Diameter	19.3 mm (0.76 in)
Min. Bend Radius Installation	289.5 mm (11.4 in)
Min. Bend Radius Operation	193 mm (7.6 in)

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG

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	3.0 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 / -

** Assumes 0.7 dB maximum total connector/splice loss.*
** Meets 0.75 ns optical skew when used in all Corning Plug and Play™/Pretium EDGE® systems solutions.*

Notes: 1) *50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.*
2) *Improved attenuation and bandwidth options available.*
3) *Bend-insensitive single-mode fibers available on request.*
4) *Contact a Corning Customer Care Representative for additional information.*

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Ordering Information

Part Number	012TCF-14191-A1
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RoHS COMPLIANT

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