

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

72 F, SMF-28® Ultra fiber, 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

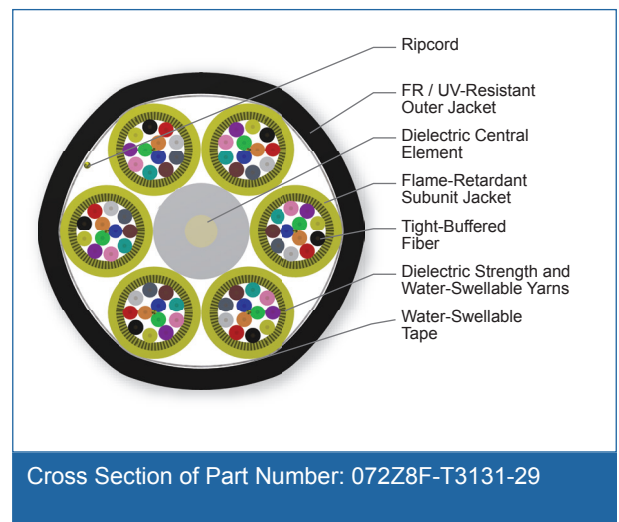
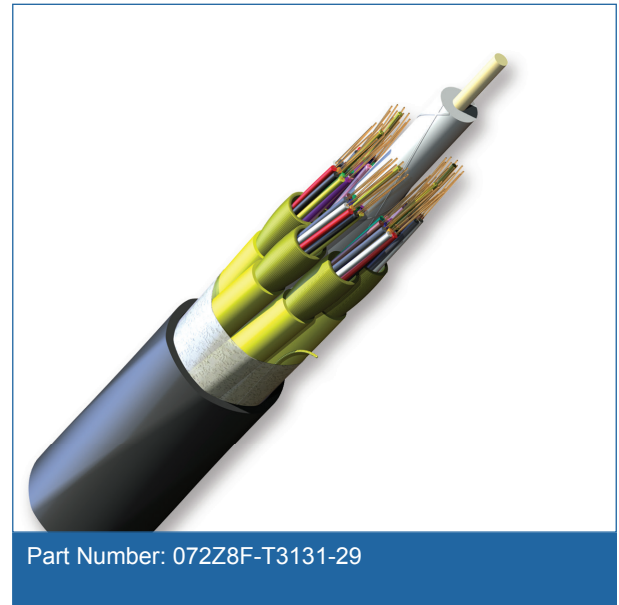
Quick and easy identification

### All-dielectric construction

Requires no grounding or bonding

### UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip



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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         | SMF-28 <sup>®</sup> Ultra fiber                                 |

| 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                  | 72   |
| Tight Buffer Color           | 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 | 12   |
| Subunit Diameter             | 5.55 mm (0.22 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                            | 287.1 kg/km (192.9 lb/1000 ft) |
| Nominal Outer Diameter            | 19.5 mm (0.77 in)              |
| Min. Bend Radius Installation     | 292.5 mm (11.5 in)             |
| Min. Bend Radius Operation        | 195 mm (7.7 in)                |

## Chemical Characteristics

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

## Fiber Specifications

### Optical Characteristics (cabled)

|                         |                                     |
|-------------------------|-------------------------------------|
| Fiber Name              | SMF-28® Ultra fiber                 |
| Fiber Category          | G.652.D/G.657.A1                    |
| Fiber Code              | Z                                   |
| Performance Option Code | 31                                  |
| Wavelengths             | 1310 nm / 1383 nm / 1550 nm         |
| Maximum Attenuation     | 0.65 dB/km / 0.65 dB/km / 0.5 dB/km |

## Ordering Information

|                     |  |
|---------------------|--|
| Part Number         | 072Z8F-T3131-29  |
| Product Description | FREEDM® One Unitized Tight-Buffered Cable, Riser, 72 F, SMF-28® Ultra fiber, Single-mode (OS2) |



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](http://www.corning.com/opcomm)

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