AccuRibbon® DuctSaver+ Cable

The Cabling Solution for High-Density, High-Bandwidth Communications Applications

Overview

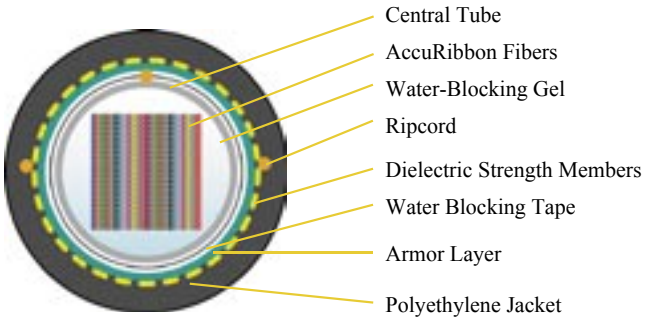
The *AccuRibbon*® DuctSaver family of products are the next generation ribbon cable designs for use in outside plant applications. With this family of products, optimal use of duct space is obtained; there is a reduction in installation time and cost; and craft productivity is enhanced.

The 864-fiber *AccuRibbon* DuctSaver+ arrangement adds to our already reliable cable design by incorporating a steel-armored sheath design with the popular *AccuRibbon* core. This provides the highest fiber density by packaging 864-fibers into the smallest relative outside cable diameter possible. This cable will easily withstand standard installation procedures in aerial, buried, and underground environments. And, as you would expect, its mechanical, optical, and environmental performances are outstanding.

Product Description

The OFS 864-fiber *AccuRibbon* DuctSaver+ Cable begins with our reliable, proven central core design. All of the optical fibers are placed in one easily accessible core tube, water-blocked with a traditional cable gel, providing the maximum fiber packing density relative to cable diameter.

To provide protection, the sheath includes an overlapped, armor layer of corrugated, electrolytically chromecoated steel (ECCS) over the *AccuRibbon* cable core. A ripcord under the armor eases its removal, and a coating on the armor inhibits corrosion and provides a strong bond to the outer jacket. The sheath is completed with a single helical application of dielectric strength members and a circular extrusion of a black, medium density polyethylene (MPDE) jacket.

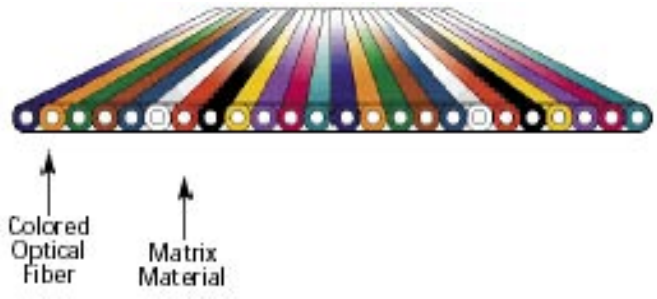


AccuRibbon Cable

Why the *AccuRibbon* DuctSaver+?

AccuRibbon DuctSaver+ Cable provides the utmost in splicing productivity and ease with its rugged ribbons that hold 24 fibers in a unique, ingenious ribbon design. These ribbons can be easily divided into two, robust 12-fiber sub-units, and can be mass-fusion spliced. The mass-fusion splicing of 12-fiber units can improve splicing productivity over single-fiber splicing by a factor of 4-to-1, and can reduce installation cost by a factor of 2-to-1. Cable-end and mid-span entry is simplified, once entered, all fibers are easily accessible. The use of thirty-six 24-fiber *AccuRibbon* units in a central core cable compared to seventy-two 12-fiber ribbon units in a noncentral core designs simplifies the routing within fiber closures, particularly at mid-span breakouts. Using thirty-six 24-fiber ribbon units optimizes slack fiber storage in the confines of your closure. *AccuRibbon* DuctSaver+ Cable can accommodate up to 864 fibers in a 1-inch (25.4-mm) metallic design.

AccuRibbon units in the cable contain 24-fibers per ribbon and there are 36 ribbons in the cable, totaling 864 fibers. The units are stacked in a rectangular array and given a controlled twist to minimize stress when the cable is bent. Each unit is a flat array of colored fibers bonded by an ultra-violet light-curable matrix material as shown in figure 1. Each *AccuRibbon* unit has identifying marks at approximately six-inch (150-mm) intervals along its length. These marks uniquely identify each *AccuRibbon* unit within a cable. The identification marks on 24-fiber ribbons consist of the ribbon sub-unit number; fiber type identifier; a vertical bar used to code number one to four; and "box" marks used to code groups of five. The marks provide unique ribbon identification when dividing the ribbons into sub-units of less than twelve fibers.



Features and Benefits

- AccuRibbon core
- Compact size
- Metallic sheath
- Single-mode, *AllWave*®, and *TrueWave*® fibers with *D-LUX*® coating
- Quick and easy access to fibers.
- Excellent optical, mechanical and environmental performance
- Meets all industry standards
- Provides highest fiber packing density, resulting in the smallest relative cable outside diameter
- Accommodates up to 864 fibers in a 1-inch (25.4-mm) diameter
- Highly adaptable to mass splicing which increases productivity and reduces installation time and cost
- Highly reliable.

Fiber Color Code

All fibers are color-coded to facilitate individual fiber identification. The individual fiber colors used in 24-fiber *AccuRibbon* units are given in the following table.

Fiber	Fiber Color	Fiber	Fiber Color
1	Blue (BL)	13	Blue (BL)
2	Orange (OR)	14	Orange (OR)
3	Green (GR)	15	Green (GR)
4	Brown (BR)	16	Brown (BR)
5	Slate (SL)	17	Slate (SL)
6	White (WH)	18	White (WH)
7	Red (RD)	19	Red (RD)
8	Black (BK)	20	Black (BK)
9	Yellow (YL)	21	Yellow (YL)
10	Violet (VI)	22	Violet (VI)
11	Rose (RS)	23	Rose (RS)
12	Aqua (AQ)	24	Aqua (AQ)

Value Statement

The 864-fiber *AccuRibbon* DuctSaver+ Fiber Optic Cable designs offer an excellent solution for high-density, high bandwidth communications applications.

Applications/Use

The *AccuRibbon* DuctSaver+ cable is ideal for use in Metropolitan networks and Long-Haul Networks.

Test and Methods

Mechanical, Environmental, and Electrical Requirements for Single-mode Fiber Optic Cables

Cable Test	Test Method	Requirement
Cyclic Flexing	TIA/EIA-455-104 IEC 60794-1-E6	90% ≤ 0.05 dB Max. Added loss 100% ≤ 0.15 dB Max. Added Loss
Cyclic Impact	TIA/EIA-455-25 IEC 60794-1-E4	90% ≤ 0.05 dB Max. Added Loss 100% ≤ 0.15 dB Max. Added Loss
Compressive Loading	TIA/EIA-455-41 IEC 60794-1-E3	90% ≤ 0.05 dB Max. Added Loss 100% ≤ 0.15 dB Max. Added Loss 440 N/cm (250 lbf/in) Load
Twist	TIA/EIA-455-85 IEC 60794-1-E7	90% ≤ 0.05 dB Max. Added Loss 100% ≤ 0.15 dB Max. Added Loss
Low and High Temperature Bend	TIA/EIA-455-37 IEC 60794-1-E11	90% ≤ 0.05 dB Max. Added Loss 100% ≤ 0.15 dB Max. Added Loss
External Freezing	TIA/EIA-455-98 IEC 60794-1-F6	90% ≤ 0.05 dB Max. Added Loss 100% ≤ 0.15 dB Max. Added Loss
Fiber Stripability	TIA/EIA-455-178 IEC 60793-1-B6	≤8.9 N (2 lbf) on unaged and aged fiber ≥1.3N (0.3 lbf) on unaged and aged fiber
Temperature Cycling	TIA/EIA-455-3 IEC 60794-1-F1	≤0.05 dB/km Mean Added Loss ≤0.15 dB/km Max Added Loss
Cable Aging	TIA/EIA-455-3 IEC 60794-1-F1	≤0.10 dB/km Mean Added Loss ≤0.25 dB/km Max Added Loss
Water Penetration	TIA/EIA-455-82 IEC 60794-1-F5	No flow after 24 hours from one meter length of cable
Sheath-to-Ground Dielectric Strength		≥20 kV for all armored metallic sheaths
Compound Drip	TIA/EIA-455-81 IEC60794-1-E14	80°C, 24 hours duration, no drip
Lightning Conduction metallic sheaths	TIA/EIA-455-181	Telcordia Category I for all armored

The DustSaver+ cable complies with the latest revision of the TIA/EIA Test Method. There is not an exact correspondence of TIA/EIA Fiber Optic Test Procedures (FOTPs) and IEC Test Methods.

Ordering Information

Sheath Option	Fiber Type	Cable Code	Comcode	Notes	Cable Outside Diameter (OD)	Maximum Length
Metallic	Single-mode (SM) Matched Cladding	7R2X-864-BXD	108 464 363	BXD = 0.4/0.3 db/km at 1310/1550 nm	1-inch (25.4 mm)	10,940 ft (3.3 km)
Metallic	Single-mode (SM) *AllWave*®	AR2X-864-BXD	108 464 371			

The AccuRibbon DuctSaver+ cables can be customer ordered up to 10,940 ft (3.3 km) lengths. Customers can specify a particular fiber optic cable design, fiber count, and transmission parameter using the twelve-character cable code. To order, specify the cable code, described above, and the required cable length. Cable length, by default, is specified in feet.

* Other fiber types and transmission parameters may be ordered on a special order basis.

OFS
Marketing Communications

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