Table of Contents for fiber optic cables



Overview of Fiber Optic Cable Engineering and Manufacturin	_
Quality and testing procedures	
Fiber Part Numbering System Key	3
Fiber Performance Data	
High-performance singlemode fiber specifications	
UltraFiber [™] multimode fiber specifications	
High-performance and enhanced FDDI multimode fiber specifications	6
Outside Plant Cables	
Introduction and general description	
Arid-Core® Stranded Loose Tube All Dielectric	8
Arid-Core® Stranded Loose Tube Armored	9
Fiber Feeder	.10
Central Tube	
Figure 8 Stranded Loose Tube	.12
Harsh Environment Stranded Loose Tube All Dielectric	
Specialty Designs Stranded Loose Tube/Multiple Jacket/Armor	
Cordage	.15
Distribution	
Flooded Stranded Loose Tube All Dielectric	
Flooded Stranded Loose Tube Armored	
Cable-in-conduit	.19
Indoor/Outdoor Cables • all designs are OFNR riser-rated	
Introduction and general description	
Triathlon™ Distribution/Low Smoke/Zero Halogen	
Triathlon™ Cordage/Low Smoke/Zero Halogen	
Stranded Loose Tube/Standard Duty Dielectric	
Stranded Loose Tube/Heavy Duty Dielectric	
Fiber Feeder	
Central Tube	.24
Premises Cables • OFNR riser-rated and OFNP plenum-rated designs	
Introduction and general description	
Riser Distribution	
Heavy Duty Riser Distribution	
Plenum Distribution	
Heavy Duty Plenum Distribution	
Triathlon™ Premise Riser/Low Smoke/Zero Halogen Distribution	
Riser Breakout	
Plenum Breakout	
Riser Cordage	
Hybrids	
Shipping Information	
Maximum Reel Capacity per Cable Diameter	
Fiber Cross Reference New to Old	
Sag and Tension for Self Supporting Fiber Feeder	
sag and rension for sen sopporting riser recaer	







CommScope Fiber Optic Cables

proven quality and performance



In the past thirty years, fiber optic cables have evolved from a laboratory novelty to become an indispensible necessity on the communication superhighway. A fiber optic cable's superior bandwidth and speed makes it the transmission medium of choice for almost any communication application.



Bearing this versatility in mind, CommScope has developed three families of fiber optic cables to be used anywhere in the communication hierarchy.

Outside plant cables for standard and rugged environments

For direct buried, underground duct and aerial installations, CommScope offers several designs. These include armored fiber feeder cables, dielectric and armored central tube cables and a variety of loose tube cables, from dielectric and armored types to especially rugged and moisture-resistant double armored and triple-jacketed loose tube cables. Most of these cables can be pre-installed in high-strength conduit. Special urethane-jacketed distribution and cordage cables are available as well. Call 1-800-982-1708 for our HFC Upgrade Manual, Volume 2: Fiber.

Indoor/outdoor cables for strength and safety (including zero-halogen types)

CommScope's design for these hybrid application cables offer construction and jacketing suitable for outside usage yet comply with UL and CSA riser (OFNR) flame standards. This design allows you to run cable through the building entrance without having to terminate and splice different cables together which results in significant savings in time and labor. Cable types include dielectric fiber feeder and central tube designs, standard and heavy-duty loose tube cables and specially designed low-smoke/zero halogen distribution and cordage cables.

Premises cables for safety and performance

CommScope's premises cables are designed to handle the unique stresses of indoor applications. Along with riser and plenum-rated distribution, breakout and cordage cables, CommScope also offers heavy-duty distribution and cordage that provide additional fiber protection.

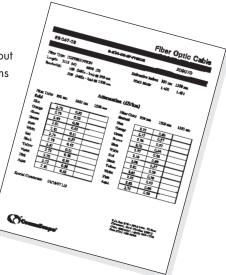
Test reports - a higher standard for higher speeds

Every reel of CommScope fiber optic cable is subjected to stringent testing throughout the entire manufacturing process. Our state-of-the-art process controls and testing systems insure that every foot of CommScope cable consistently meets or exceeds our high standards.

To prove that our fiber optic cables exceed industry standards, we go to the extra step of attaching the individual cable test report to the reel. You get proof-positive that the cable you purchase will perform to the level you require.

Remember, a network is only as good as the cable that connects it. Specify the cables that make networks work; fiber optic cables from CommScope.

Detailed product specification sheets are available at the download area of our website.



Fiber Optic Numbering Key



Steps to build the catalog number for the cable you need!

Let the installation environment determine your cable style.

Position 1 (Cable Style)

OOutdoor (Arid Core Standard)

UUrethane

MMessenger

HHarsh Environment

ZZero Halogen

P.....Plenum

R.....Riser

F.....Flooded Stranded Loose Tube

How many fibers do you need?*

Positions 2, 3, & 4 (Total Fiber Count)

Total Fiber Count (in increments of two)

*XXX variable in catalog number.

What cable construction do you

Positions 5 & 6 (Construction)

LAStranded Loose Tube Armored

LN......Stranded Loose Tube Non Armored All Dielectric

LHStranded Loose Tube Heavy Duty All Dielectric

L2Stranded Loose Tube Dual Jacket/Single Armor

L3Stranded Loose Tube Triple Jacket/Dual Armor

FAFiber Feeder Armored

FNFiber Feeder Non Armored All Dielectric

FSFiber Feeder (Self Supporting)

CACentral Tube Armored

CNCentral Tube Non Armored All Dielectric

DS......Distribution

BOBreakout

DUDuplex

ICInterconnect

ZC.....Zipcord

SPSimplex

What type of fiber does the application require?*

Positions 7 & 8 (Fiber Type)

8H8.3/125µm Singlemode

6U62.5/125µm UltraFiber™ Multimode

6F62.5/125µm Enhanced FDDI Grade

Multimode

5H50/125µm Multimode

CMComposite (Singlemode and Multimode)

*XY variable in catalog number

Do you want jacket print in feet or meters?

Position 9 (Unit of Length printed on Jacket)

FPrinted in Feet (standard)

MPrinted in Meters

Positions 10 & 11

For cordage, value indicates outside diameter; otherwise additional description

01-12Fiber Count per Subunit HD.....Heavy Duty

SDStandard

Cordaae

202.0 mm Jacket OD 252.5 mm Jacket OD 292.9 mm Jacket OD

Do you need a co-extruded stripe for tracer?*

Positions 12 & 13 (Color Field)

• Outdoor Cables (stripe or tracer) Outdoor Cables are manufactured with a standard all-black jacket — No Stripe (NS). Stripes (tracers) are also available in the following colors:

Blue (BL), Green (GR), Orange (OR), Violet (VL), White (WH) and Yellow (YL).

Premises, Indoor/Outdoor or Outdoor

Tight Buffer Cables (jacket color) Manufactured with the following standard jacket

colors: Black (BK) - for Indoor/Outdoor and Tight Buffer

Orange (OR) - for Multimode & Composite

Yellow (YL) - for Singlemode

Available Non Standard Jacket Colors

(min. order required for non-standard colors):

^{*}ZZ variable in catalog number.

Note...

When positions 7 & 8 are CM (composite cables), positions 14-23 are required.

Position 14 - 15Fiber type 8H

Position 16 - 18......Fiber Count (aaa variable in catalog number)

Position 19 - 20.....Multimode Fiber Type

Position 21 - 23.....Fiber Count (bbb variable in catalog number)

Singlemode Fiber Specifications



A variety of fiber types for your applications

Available in all CommScope cable types 8H (8.3/125µm singlemode/High-performance grade)

8H Fiber - 8.3/125 µm High-performance Singlemode		
Atte <u>nuation Coefficient</u>		
Maximum Attenuation - Outside Plant Loose and Central Tube Designs	0.35 dB/km @ 1310 nm	0.25 dB/km @ 1550 nm
Maximum Attenuation - Indoor/Outdoor Loose and Central Tube Designs	0.5 dB/km @ 1310 nm	0.5 dB/km @ 1550 nm
Maximum Attenuation - Tight Buffered Cables	0.7 dB/km @ 1310 nm	0.7 dB/km @ 1550 nm
Maximum Dispersion @ 1285 - 1330 nm	< 3.2 ps/nm-km	
Maximum Dispersion @ 1550 nm	18 ps/nm-km	
Cut-off Wavelength	1260 µm ± 100 µm	
Core Diameter	8.3 µm (concentricity error	of <u><</u> 0.6 µm)
Cladding Diameter	125 ± 2.0 µm	
Coating Diameter	245 ± 10 μm	
Zero Dispersion Range	1310 µm ± 10 µm	
ndex of Refraction	1.464 @ 1310nm	1.465 @ 1550nm
Proof test	> 100 kpsi	
Optical Characteristics		
Attenuation 1310 nm	.35 dB/km max.	
Attenuation 1380 nm	2.0 dB/km max.	
Attenuation 1550 nm	0.25 dB/km max.	
Attenuation 1285-1310 nm	0.40 dB/km max.	
Attenuation 1310-1330 nm	0.40 dB/km max.	
Attenuation 1525-1575 nm	0.30 dB/km max.	
Cutoff (Uncabled)	1150-1330 nm	
OTDR Point Defects	0.07dB max.	
Zero Dispersion Wavelength	1310 <u>+</u> 10µm	
Zero Dispersion Slope	0.092 ps/km.nm² max.	
Dispersion 1285-1330nm	3.2 ps/km.nm max.	
Dispersion @ 1550nm	18 ps/km.nm max.	
Geometric Characteristics		
Core Ovality	5% max.	
Clad/Core offset	0.6µm max.	
Cladding Diameter	125 <u>+</u> 1µm	
Fiber Ovality	1% max.	
Coat/Clad Concentricity Error	12µm max.	
Coating Diameter	245 <u>+</u> 10µm	
Environmental Characteristics		
Temperature Sensitivity (-60°C to +85°C)		
1310nm and 1550nm	0.05dB increase max.	
Heat Aging, 85°C	0.05dB increase max.	
Water Immersion, 1310 nm & 1550nm, 30 day	0.05 dB increase max.	
Mechanical Characteristics	1100 GD IIIGIGGG IIIGA	
Macrobend 100 wraps, 60mm mandrel		
@1310nm	0.05dB max.	
@1550nm	0.1dB max.	
Macrobend 1 wrap, 32mm mandrel	J. I GD III GA.	
@1550nm	0.1dB max.	
Prooftest	100kpsi	

Fiber Color

CommScope's standard singlemode fiber is treated with a new fiber coating process which provides permanent color to the fiber. This process improves color consistency from fiber to fiber and cable to cable and has excellent average splice loss performance. This technique is fully LID system and fusion splice compatible. The strength and mechanical performance of the colored fibers are guaranteed.

UltraFiber™ Multimode Optical Fiber



High bandwidth fiber for LAN, WAN and video cabling applications

CommScope's premium multimode fiber with twice the bandwidth of regular fiber Guaranteed to carry Gigabit Ethernet 1200m @ 1300nm and 500m @ 850nm for twenty years* Minimum bandwidth of 1000 MHz•km @ 1300 nm allows for migration to faster protocols

220 MHz • km @ 850 nm means excellent performance on existing networks Available in all CommScope cable designs (outdoor loose tube, riser-rated loose tube and tight buffer)

/11	(0.F/10=	The Pil As In 1 D C	** A CFD	3 111111
6U	62.5/125µm	UltraFiber Multimode Performance	** LASER CERTIFIED	
	rical Characteristics			
	cal Attenuation for all cable	··	2.9 dB/km @ 850 nm	0.7 dB/km @ 1300 nm
	Max. Attenuation/loose and	<u> </u>	3.3 dB/km @ 850 nm	0.9 dB/km @ 1300 nm
	Max. Attenuation/tight buffe	ered cables	3.5 dB/km @ 850 nm	1.5 dB/km @ 1300 nm
	imum Modal Bandwidth		220 MHz•km @ 850 nm	1000 MHz•km @ 1300 nm
	Gigabit Ethernet Distances*		500 m	1200 m
Num	nerical Aperture		0.275 ± 0.015	
Chro	omatic Dispersion		FDDI specifications	
Back	cscatter			
;	Step (mean of bidirectional	measurement)	≤ 0.1 dB	
Ī	Irregularities over Length of	Fiber	≤ 0.1 dB	
_	Reflections		Not allowed	
	Group Index of Refraction (t	ypical)	1.497 @ 850 nm	1.492 @ 1300 nm
Geo	ometric Characteristics			
	e Diameter		62.5 ± 2.5 μm	
	e Non-Circularity		≤ 6.0 %	
	e/Cladding Concentricity Err	ror	≤ 1.5 µm	
	Iding Diameter		125 ± 2.0 µm	
	dding Non-Circularity		≤ 1.0 %	
	ting Diameter		245 ± 10 μm	
Coat	ting Non-Circularity		≤ 6 %	
Coat	ting Concentricity Error		≤ 12.5 µm	
	ironmental Characterist	***		
			0.1 dB/l	
iemp	perature Dependence @ 850 Induced Attenuation (-60° to	o +80°C)	≤ 0.1 dB/km	
Wate	ersoak Dependence @ 850 Induced Attenuation (20°C f	nm and 1300 nm or 30 days)	≤ 0.2 dB/km	NACE . LAC
Dam	np Heat Dependence @ 850 Induced Attenuation (+85°C	nm and 1300 nm @ 85% RH for 30 days)	≤ 0.2 dB/km	The state of the s
Med	chanical Characteristics			
Proo	f test		≥ 8.8 Newtons ≥ 1.0 % ≥ 100 kpsi	E ABY S
Benc	d-induced Attenuation (100 t	turns around a 75mm dia. mandrel)	≤ 0.5 dB	Warran
Dyno	amic Stress Corrosion Susce	ptibility Parameter (typical)	≥ 27	NV8 .
			1 () 1 .	

Coating Strip Force (typical)

1.4 Newtons

²⁰ year warranty applicable within system attenuation restraints.

CommScope UltraFiber is verified for laser launch applications using conventional lasers or VCSELs

Multimode Fiber Specifications



A variety of fiber types for your applications

Different fiber types and grades help you match performance and cost:

6F (62.5/125µm graded index multimode/FDDI grade) 5H (50/125µm graded index multimode/High-performance grade) Available in all CommScope cable types

6F Fiber - 62.5/125 μm Enhanced FDDI Multimode		
Attenuation Coefficient		
Typical Attenuation - Outside Plant Loose and Central Tube Designs	3.0 dB/km @ 850 nm	0.7 dB/km @ 1300 nm
Typical Attenuation - Indoor/Outdoor Loose and Central Tube Designs	3.0 dB/km @ 850 nm	0.7 dB/km @ 1300 nm
Typical Attenuation - Tight Buffered Cables	3.0 dB/km @ 850 nm	0.9 dB/km @ 1300 nm
Maximum Attenuation - Outside Plant Loose and Central Tube Designs	3.5 dB/km @ 850 nm	1.0 dB/km @ 1300 nm
Maximum Attenuation - Indoor/Outdoor Loose and Central Tube Designs	3.5 dB/km @ 850 nm	1.0 dB/km @ 1300 nm
Maximum Attenuation - Tight Buffered Cables	3.5 dB/km @ 850 nm	1.5 dB/km @ 1300 nm
Minimum Modal Bandwidth	200 MHz•km @ 850 nm	500 MHz•km @ 1300 nm
Gigabit Ethernet Distances *	300 m	700 m
Numeral Aperture	0.275 ± 0.015	
Core Diameter	62.5 \pm 3.0 μ m (ovality of \leq	6.0 %/concentricity error of \leq 1.0 μm
Cladding Diameter	125 ± 2.0 µm (concentricity	r error of ≤ 1.0 μm)
Coating Diameter	$245 \pm 10 \mu \text{m}$ (ovality of ≤ 6	5.0 %)
Index of Refraction	1.497 @ 850nm	1.492 @ 1300nm
Proof test	> 100 kpsi	

5H Fiber - 50/125 µm High-performance Multimode •SPECIAL - M	linimum orders only•	
Attenuation Coefficient		
Typical Attenuation - Outside Plant Loose and Central Tube Designs	2.5 dB/km @ 850 nm	0.9 dB/km @ 1300 nm
Typical Attenuation - Indoor/Outdoor Loose and Central Tube Designs	2.5 dB/km @ 850 nm	0.9 dB/km @ 1300 nm
Typical Attenuation - Tight Buffered Cables	2.9 dB/km @ 850 nm	0.9 dB/km @ 1300 nm
Maximum Attenuation - Outside Plant Loose and Central Tube Designs	2.7 dB/km @ 850 nm	1.0 dB/km @ 1300 nm
Maximum Attenuation - Indoor/Outdoor Loose and Central Tube Designs	2.7 dB/km @ 850 nm	1.0 dB/km @ 1300 nm
Maximum Attenuation - Tight Buffered Cables	3.5 dB/km @ 850 nm	1.5 dB/km @ 1300 nm
Minimum Modal Bandwidth	500 MHz•km @ 850 nm	500 MHz•km @ 1300 nm
Gigabit Ethernet Distances*	600 m	600 m
Numeral Aperture	0.200 ± 0.015	
Core Diameter	$50.0 \pm 3.0 \ \mu m$ (ovality of \leq	6.0 %/concentricity error of \leq 1.0 μ m
Cladding Diameter	125 ± 2.0 µm (concentricity	v error of ≤ 1.0 µm)
Coating Diameter	$245 \pm 10 \mu m$ (ovality of ≤ 6	5.0 %)
Index of Refraction	1.482 @ 850nm	1.479 @ 1300nm
Proof test	> 100 kpsi	

²⁰ year warranty applicable within system attenuation restraints.

CommScope UltraFiber is verified for laser launch applications using conventional lasers or VCSELs



Outside Plant Cables

Robust dielectric and armored constructions



CommScope has engineered one of the most complete outside plant (OSP) product lines in the cable industry in order to provide you with optimum performance for your application, no matter how rigorous it may be.

All CommScope loose tube OSP cables offer three levels of moisture protection, including a water-blocking gel filling in the buffer tubes. Excess fiber length helps maintain a strain-free environment in the cable for better mechanical and optical performance. And special harsh-condition cables have been engineered to withstand the rugged conditions imposed by fossil fuels, solvents and acids.

We offer several constructions, which include:

Stranded Loose Tube, using reverse oscillation stranding, in dielectric and armored constructions, with up to 288 fibers

Waterblocking Technologies For Stranded Loose
Tube CommScope now offers 2 water blocking options:
Arid-Core® Dry Waterblocking technology is our standard.
Super absorbent polymers prevent water ingress into cables.
Also Available with Flooding Compound up to 216 fibers.

Fiber Feeder[®], a compact, cost-efficient design with up to 24 fibers protected by steel armor or all dielectric with a robust central tube

Central Tube, both armored and dielectric, with 2 to 96 fibers arranged in easy-to-handle color-coded 12 fiber groups

Rugged Environment Stranded Loose Tube cables of up to 72 fibers protected by multiple jacket/armor combinations, including a triple-jacketed harsh environment conditions cable

Outdoor Distribution (from 2 to 8 fibers) **Cordage** including simplex and zipcord cables in weatherproof, flexible and durable designs. These polyurethane-jacketed cables provide flexibility and ruggedness for tactical-type applications.



Outside Plant Arid-Core® Stranded Loose Tube Non-Armored All Dielectric



Designs for aerial and conduit applications

ARID-CORE water blocking technology protects fibers from moisture /significantly reduces termination effort

Certain configurations available in lengths of 8.4 miles/14 km singlemode and 4.95 miles/8 km multimode Standard color-coding on fibers and buffer tubes for easy identification

Fiber types and grades available:

Sinalemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Be Loaded inch/cm	nd Radius Unloaded inch/cm	Installation Loading Ibs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weight lbs/ kg/ 1000' 1000m
Single jacket 2 - 72 Fiber	O -XXX -LN- XY -F12NS	.49/12.5	9.8/24.0	4.9/12.5	600/2700	220	2.9 N•m	<i>77</i> 115
74 - 96 Fiber	O- XXX -LN- XY -F12NS	.57/14.5	11.4/29.0	5.7/14.5	600/2700	220	5.9 N•m	102 152
98 - 120 Fiber	O- XXX -LN- XY -F12NS	.65/16.6	13.0/33.2	6.5/16.6	600/2700	220	8.8 N•m	121 181
122 - 144 Fiber	O- XXX -LN- XY -F12NS	.73/18.6	14.6/37.1	7.3/18.6	600/2700	220	11.8 N•m	136 203
146 - 216 Fiber	O- XXX -LN- XY -F12NS	.72/18.4	14.4/36.6	7.2/18.4	600/2700	220	11.8 N•m	146 218
218 - 288 Fiber	O- XXX -LN- XY -F12NS	.84/21.3	16.8/42.6	8.4/21.3	600/2700	220	11.8 N•m	198 295
Singlemode/Multimode O-XXX-LN-XY-F12NS/8Haaa/XYbbb Refer to above specifications.								

Variables in the Catalog Number:

Composite (4-288 fiber)

XXX = Total Fiber Count XY = Fiber Grade For Composites Only:

8H (8.3/125µm High Performance fiber)

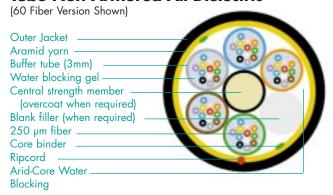
6F (Enhanced FDDI 62.5/125µm) **6U** (UltraFiber 62.5/125μm) aaa is replaced with singlemode fiber count

5H (50/125µm)

bbb is replaced by multimode fiber count

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua Fiber identification colors:

Arid Core Stranded Loose Tube Non-Armored All Dielectric



Description	Specification
Operating Temp.	-40 to 70°C single jacket
Installation Temp.	-20° to 70°C
Storage Temp.	-40 to 70°C single jacket
Max. Long Term Load	135 lbs/600 N
Crush Resistance	> Bellcore GR-20
Impact Resistance	> Bellcore GR-20
Flexing	> Bellcore GR-20
Twist/Bend	> Bellcore GR-20

Outside Plant Arid-Core® Stranded Loose Tube Armored



Jacket/armor combinations for buried/underground/aerial use

Corrugated steel tape armor is strong yet flexible

ARID-CORE water blocking technology protects fibers from moisture /significantly reduces termination effort

Certain configurations available in lengths of 8.4 miles/14 km singlemode and 4.95 miles/8 km multimode Standard color-coding on fibers and buffer tubes helps ease installation

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bend Radius Loaded Unloaded inch/cm inch/cm	Installation Loading lbs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weight lbs/ kg/ 1000' 1000m
Single jacket/ single armor 2 - 72 Fiber	O- XXX -LA- XY -F12NS	.55/13.9	10.9/27.7 5.5/13.9	600/2700	440	5.9 N•m	126 188
74 - 96 Fiber	O- XXX -LA- XY -F12NS	.63/16.0	12.6/31.9 6.3/16.0	600/2700	440	5.9 N•m	158 236
98 - 120 Fiber	O- XXX -LA- XY -F12NS	.71/18.0	14.2/36.1 7.1/18.0	600/2700	440	8.8 N•m	185 276
122 - 144 Fiber	O- XXX -LA- XY -F12NS	.79/20.1	15.9/40.3 7.9/20.1	600/2700	440	11.8 N•m	208 310
146 - 216 Fiber	O- XXX LA- XY -F12NS	.78/19.9	15.6/39.7 7.8/19.9	600/2700	440	11.8 N•m	219 326
218 - 288 Fiber	O- XXX LA- XY -F12NS	.9/22.8	18.0/45.6 9.0/22.8	600/2700	440	11.8 N•m	323 481
Singlemode/Multimode Composite (4-216 fiber)							

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade 8H (8.3/125µm High Performance fiber)

6U (UltraFiber 62.5/125μm)

For Composites Only: aaa is replaced with singlemode fiber count

6F (Enhanced FDDI 62.5/125μm)

5H (50/125μm)

bbb is replaced by multimode fiber count

Buffer Tube/Fiber identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Arid Core stranded Loose Tube Armored

(60 fiber version shown)

Polyethylene jacket

Armor

Core binder

Aramid yarn

Buffer tube (3mm)

Water blocking gel

Central strength member

(overcoat when required)

Blank filler (when required)

250 µm fiber

Arid-Core Water Blocking

Dual Ripcords

•
Specification
-40 to 70°C
-20° to 70°C
-40 to 70°C
> Bellcore GR-20

Outside Plant Fiber Feeder®



Dielectric and armored designs for buried/underground/aerial use

Robust constructions offers excellent protection of fibers

Small sizes and light weight reduces installation costs

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Be Loaded inch/c	nd Radius Unloaded inch/cm	Installation Loading Ibs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weight lbs/ kg, 1000' 1000	/ Om
Fiber Feeder Dielectric 2 - 24 Fiber	O- XXX -FN- XY -F12NS	.36/9.3	7.3/18.5	3.6/9.2	400/1800	440	3 N•m	53 79	>
Fiber Feeder Armored 2 - 24 Fiber	O- XXX -FA- XY -F12NS	.36/9.3	7.3/18.5	3.6/9.2	400/1800	440	3 N•m	67 10	0
Fiber Feeder Armored Self Supporting 2 - 24 Fiber	O- XXX -FS- XY -F12NS	Major Axis .44/11.2 Minor Axis	.88/22.4	.44/11.2	500/2200	440	3 N•m	95 14	2
See page 40 for sag and tension information		.34/8.4	6.6/16.7	3.3/8.4					
Singlemode/Multimode Composite (4 - 24 fiber)	O- XXX -FS-CM-F12/ 8	Haaa/XYbbb	Refer to ab	oove specifico	ations.				

Variables in the Catalog Number:

XXX = Total Fiber Count XY = Fiber Grade

For Composites Only:

Fiber & Binder Thread identification colors:

8H (8.3/125μm High Performance fiber) **6U** (UltraFiber 62.5/125μm)

aaa is replaced with singlemode fiber count

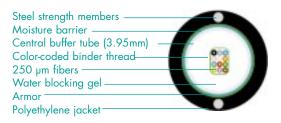
6F (Enhanced FDDI 62.5/125μm) **5H** (50/125μm)

bbb is replaced by multimode fiber count

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

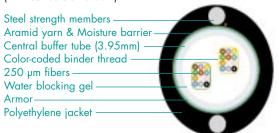
Fiber Feeder Armored Cable

(12 fiber version shown)



Fiber Feeder Armored Self Supporting Cable

(24 fiber version shown)



Description	Specification
Operating Temp.	-40 to 70°C
Installation Temp.	-20° to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-20
Impact Resistance	> Bellcore GR-20
Flexing	> Bellcore GR-20
Twist/Bend	> Bellcore GR-20

Outside Plant Central Tube



Dielectric and armored designs for buried/underground/aerial use

Robust constructions offers excellent protection of fibers

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm **Multimode:**

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bei Loaded inch/cm	nd Radius Unloaded inch/cm	Installation Loading Ibs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weig lbs/ 1000' 10	kg/
Central Tube Dielectric 2 - 24 Fiber 4mm Tube Size	O- XXX -CN- XY -F12NS	.43/11	8.7/22	4.3/11	600/2700	220	3 N•m	70	105
Central Tube Dielectric 26 - 48 Fiber 6mm Tube Size	O .XXX -CN- XY -F12NS	.49/12.5	9.8/24.9	4.9/12.5	600/2700	220	3 N•m	105	155
Central Tube Armored 2 - 24 Fiber 4mm Tube Size	O-XXX-CA-XY-F12NS	.41/10.5	8.3/21.0	4.1/10.5	600/2700	440	3 N•m	85	127
Central Tube Armored 26 - 48 Fiber 6mm Tube Size	O- XXX -CA- XY -F12NS	.50/12.6	10.0/25.4	5.0/12.6	600/2700	440	3 N•m	115	171
Central Tube Armored 50 - 96 Fiber 8mm Tube Size	O-XXX-CA-XY-F12NS	.57/14.5	11.4/29.0	5.7/14.5	600/2700	440	5.8 N•m	152	226

Singlemode/Multimode Composite

O-XXX-CN-CM-F12NS/8Haaa/XYbbb Refer to above specifications. -CA-

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade

For Composites Only:

Fiber & Binder Thread

identification colors:

8H (8.3/125µm High Performance fiber) **6U** (UltraFiber 62.5/125μm)

aaa is replaced with singlemode fiber count

bbb is replaced by multimode fiber count

5H (50/125μm)

6F (Enhanced FDDI 62.5/125µm)

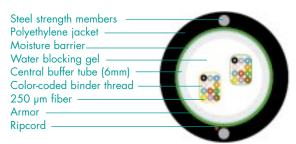
1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Mechanical Properties

Description	Specification				
Operating Temp.	-40 to 70°C				
Installation Temp.	-20° to 70°C				
Storage Temp.	-40 to 70°C				
Crush Resistance	> Bellcore GR-20				
Impact Resistance	> Bellcore GR-20				
Flexing	> Bellcore GR-20				
Twist/Bend	> Bellcore GR-20				

Central Tube Armored Cable

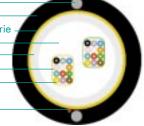
(24 Fiber Version Shown)



Central Tube Non-Armored All Dielectric Cable

24 Fiber Dielectric Version

Dielectric strength members Polyethylene jacket Aramid Yarns & Moisture Barrie Water blocking gel Central buffer tube (6mm) Color-coded binder thread 250 µm fiber



Ripcord -

Outside Plant Self-Supporting Figure 8 Stranded Loose Tube



Dielectric and armored designs for buried/underground/aerial use

ARID-CORE® water blocking technology protects fibers from moisture / reduces termination effort

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Ben Loaded inch/cm	d Radius Unloaded inch/cm	Crush Resistance N/cm	Impact Resistance 25 Impacts	Wei bs/ 1000'	ight kg/ 1000m
Figure 8 Armored 2 - 72 Fiber	M- XXX -LA- XY -F12NS	0.55/14	11.0/28.0	9.0/21.0	440	5.9 N•m	280	417
Figure 8 Non-Armored 2 - 72 Fiber	M- XXX -LN- XY -F12NS	0.50/12.5	10.0/25.0	6.0/13.0	440	48 N•m	235	344
Singlemode/Multimode Composite (2-72 fiber)	M- XXX -LN- XY -F12NS -LA-	/8Haaa/XYb	bb Refer to	above spec	cifications.			

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade For Composites Only:

8H (8.3/125µm High Performance fiber) **6U** (UltraFiber 62.5/125µm)

aaa is replaced with singlemode fiber count

Fiber identification colors:

6F (Enhanced FDDI 62.5/125µm)

5H (50/125µm)

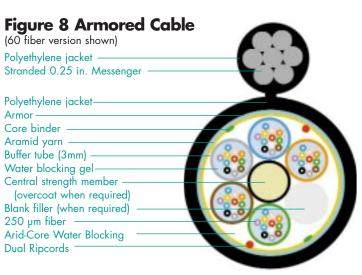
bbb is replaced by multimode fiber count

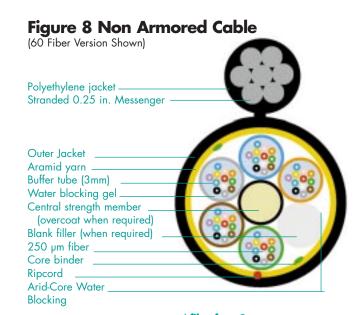
1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Loading Capabilities: Meets the loading conditions of heavy, medium or light storm loading areas as defined in Rule 251 of the National Electric Safety Code (NESC).

Sag and Tension Tables are available providing the recommended sag or tension required for span lengths up to 600 ft. (183m) with 1/4" messengers.

Description	Specification
Operating Temp.	-40 to 70°C
Installation Temp.	-20° to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-20
Impact Resistance	> Bellcore GR-20
Flexing	> Bellcore GR-20
Twist/Bend	> Bellcore GR-20





Outside Plant Harsh Environment Stranded Loose Tube All Dielectric



Designs for standard and harsh outside plant operating conditions

Strong, durable triple jacketed constructions

ARID-CORE® water blocking technology protects fibers from moisture / reduces termination effort

Certain configurations available in lengths of 8.4 miles/14 km singlemode and 4.95 miles/8 km multimode Harsh condition cable uses PVDF jacket which is resistant to gasoline and other solvents

Standard color-coding on fibers and buffer tubes for fast installations

Meets FAA E-2761B requirements for airport applications

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bend Radius Loaded Unloaded inch/cm inch/cm	Installation Loading Ibs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weight lbs/ kg/ 1000' 1000m
Harsh Conditions Triple jacket 2 - 72 Fiber	H- XXX -LN- XY -F12NS	.57.14.5	11.4/28.9 5.7/14.5	600/2700	440	48 N•m	135 194

Singlemode/Multimode Composite (4-72 fiber)

Singlemode/Multimode H-XXX-LN-CM-F12SS/8Haaa/XYbbb Refer to above specifications.

Variables in the Catalog Number:

XXX = Total Fiber Count

For Composites Only:

XY = Fiber Grade

8H (8.3/125μm High Performance fiber) **6U** (UltraFiber 62.5/125μm)

aaa is replaced with singlemode fiber count

6F (Enhanced FDDI 62.5/125µm)

5H (50/125μm)

bbb is replaced by multimode fiber count

Buffer Tube/Fiber identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Harsh Environment Stranded Loose Tube All Dielectric Cable

(Triple jacket 60 fiber version shown)



	•
Description	Specification
Operating Temp.	-55 to 80°C
Installation Temp.	-20° to 70°C
Storage Temp.	-55 to 80°C
Max. Long Term Load	135 lbs/600 N
Crush Resistance	> Bellcore GR-20
Impact Resistance	> Bellcore GR-20
Flexing	> Bellcore GR-20
Twist/Bend	> Bellcore GR-20

Outside Plant Specialty Designs Multi Jacketed Armored Stranded Loose Tube



Jacket/armor combinations for buried/underground/aerial use

Strong, durable double and triple jacketed construction with corrugated steel tape armor

Certain configurations available in lengths of 8.4 miles/14 km singlemode and 4.95 miles/8 km multimode Standard color-coding on fibers and buffer tubes helps ease installation Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bend Radius Loaded Unloaded inch/cm inch/cm	Installation Loading lbs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weight lbs/ kg/ 1000' 1000m
Double jacket/ single armor 2 - 72 Fiber	O- XXX -L2- XY -F12NS	.65/16.5	13.0/33.0 6.5/16.5	600/2700	440	44 N•m	167 249
74 - 96 Fiber	O- XXX -L2- XY -F12NS	.71/17.9	14.2/35.8 7.1/17.9	600/2700	440	44 N•m	187 279
Triple jacket/ double armor 2 - 72 Fiber	O- XXX -L3- XY -F12NS	.81/20.5	16.2/41.1 8.1/20.5	600/2700	440	44 N•m	291 434
Singlemode/Multimode Composite (4-72 fiber)		/8Haaa/XYbb	b Refer to above specif	ications.			

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade 8H (8.3/125µm High Performance fiber)

6U (UltraFiber 62.5/125μm)

For Composites Only: aaa is replaced with singlemode fiber count

6F (Enhanced FDDI 62.5/125µm)

5H (50/125μm)

bbb is replaced by multimode fiber count

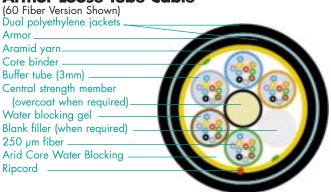
Buffer Tube/Fiber identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Buffer identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

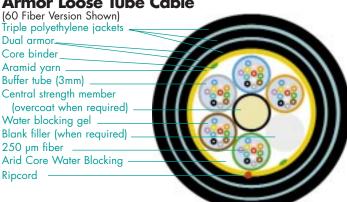
Mechanical Properties

Description	Specification
Operating Temp.	-55 to 70°C
Installation Temp.	-20° to 70°C
Storage Temp.	-55 to 75°C
Crush Resistance	> Bellcore GR-20
Impact Resistance	> Bellcore GR-20
Flexing	> Bellcore GR-20
Twist/Bend	> Bellcore GR-20

Double Jacket/Single Armor Loose Tube Cable



Triple Jacket/Double
Armor Loose Tube Cable



Outside Plant Cordage



Several constructions available for a variety of uses

Tough polyurethane jacketing for outdoor usage

ARID-CORE® water blocking technology protects fibers from moisture / reduces termination effort

Excellent low-temperature and resistance to UV

Tight buffered fiber for ease of handling, stripping and termination

Ideal for tactical-style payoff and take up

Supports remote monitoring and camera locations

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Cable Type/Unit Size	Catalog Number	Outer Diameter inch/mm	Min. Bei Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ten Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m
Simplex/2.5mm	U-ØØ1-SP- XY -F25BK	0.10/2.5	2.0/5.1	1.0/2.5	100/445	35/135	5.8	8.6
Simplex/2.9mm	U-ØØ1-SP- XY -F29BK	0.11/2.9	2.0/5.1	1.0/2.5	100/445	35/135	6.9	10.3
Zipcord/2.9mm	U-ØØ2-ZC- XY -F29BK	0.11/2.9 x 0.25/6.4	2.0/5.1	1.0/2.5	200/890	70/270	14.0	20.8

Variables in the Catalog Number:

XY = Fiber Grade

8H (8.3/125μm High Performance fiber)

6U (UltraFiber 62.5/125μm)

Fiber identification colors:

1/Blue, 2/White

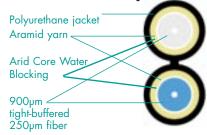
6F (Enhanced FDDI 62.5/125μm)

5H (50/125µm)

Outside Plant Simplex



Outside Plant Zipcord



Description	Specification
Operating Temp. Installation Temp. Storage Temp. Crush Resistance Impact Resistance Flexing Twist/Bend	-40 to 80°C -30 to 80°C -40 to 85°C > Bellcore GR-409 > Bellcore GR-409 > Bellcore GR-409 > Bellcore GR-409

Outside Plant Distribution



Several constructions available for a variety of uses

Tough polyurethane jacketing for outdoor usage

ARID-CORE® water blocking technology protects fibers from moisture /significantly reduces termination effort

Excellent low-temperature and resistance to UV

Tight buffered fiber for ease of handling, stripping and termination

Ideal for tactical-style payoff and take up

Supports remote monitoring and camera locations

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Cable Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Ben Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ter Short term lbs./ Newtons	nsile Load Long term lbs./Newtons	We lbs/ 1000'	eight kg/ 1000m
2 Fiber	U-ØØ2-DS- XY -FSDBK	.22/5.6	3.3/8.4	2.2/5.6	360/1600	120/135	18	27
4 Fiber	U-ØØ4-DS- XY -FSDBK	.24/6.1	3.6/9.1	2.4/6.1	360/1600	120/135	25	37
The second secon								
6 Fiber	U-ØØ6-DS- XY -FSDBK	.27/6.9	4.1/10.4	2.7/6.9	400/1800	135/600	27	40
8 Fiber	U-ØØ8-DS- XY -FSDBK	.30/7.6	4.5/11.4	3.0/7.6	400/1800	135/600	32	48

Variables in the Catalog Number:

XY = Fiber Grade

8H (8.3/125µm High Performance fiber)

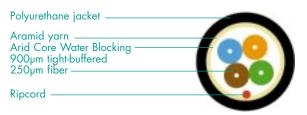
6F (Enhanced FDDI 62.5/125μm) **5H** (50/125μm)

6U (UltraFiber 62.5/125μm)

Buffer Tube/Fiber identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black

Distribution Cable

(4 fiber version shown)



Description	Specification
Operating Temp.	-40 to 80°C
Installation Temp.	-30 to 80°C
Storage Temp.	-40 to 80°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Outside Plant Flooded Stranded Loose Tube All Dielectric



Designs for all outside plant conditions

Certain configurations available in lengths of 8.4 miles/14 km singlemode and 4.95 miles/8 km multimode Standard color-coding on fibers and buffer tubes for fast installations
Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bei Loaded inch/cm	nd Radius Unloaded inch/cm	Installation Loading lbs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weight lbs/ kg/ 1000' 1000m
Single jacket 2 - 72 Fiber	F- XXX -LN- XY -F12NS	.49/12.5	9.8/24.0	4.9/12.5	600/2700	220	2.9 N•m	85 12 <i>7</i>
74 - 96 Fiber	F- XXX -LN- XY -F12NS	.57/14.5	11.4/29.0	5.7/14.5	600/2700	220	5.9 N•m	113 169
98 - 120 Fiber	F- XXX -LN- XY -F12NS	.65/16.6	13.0/33.2	6.5/16.6	600/2700	220	8.8 N•m	136 203
122 - 144 Fiber	F- XXX -LN- XY -F12NS	.73/18.6	14.6/37.1	7.3/18.6	600/2700	220	11.8 N•m	153 228
146 - 216 Fiber	F- XXX -LN- XY -F12NS	.72/18.4	14.4/36.6	7.2/18.4	600/2700	220	11.8 N•m	170 253
Singlemode/Multimode	F- XXX -LN-CM-F12N	F-XXX-LN-CM-F12NS/8Haaa/XYbbb Refer to above specifications.						

Variables in the Catalog Number:

Composite (4-216 fiber)

XXX = Total Fiber Count

XY = **Fiber Grade**8H (8.3/125µm High Performance fiber)
6U (UltraFiber 62.5/125µm)

For Composites Only: aaa is replaced with singlemode fiber count

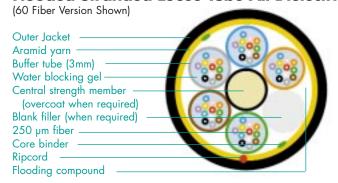
6F (Enhanced FDDI 62.5/125μm)

5H (50/125µm)

bbb is replaced by multimode fiber count

Buffer Tube/Fiber identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Flooded Stranded Loose Tube All Dielectric Cable



Description	Specification				
Operating Temp. Installation Temp.	-40 to 70°C -20 to 70°C				
Storage Temp.	-40 to 70°C				
Max. Long Term Load	135 lbs/600 N				
Crush Resistance	> Bellcore GR-20				
Impact Resistance	> Bellcore GR-20				
Flexing	> Bellcore GR-20				
Twist/Bend	> Bellcore GR-20				

Outside Plant Flooded Stranded Loose Tube Armored



Jacket/armor combinations for buried/underground/aerial use

Corrugated steel tape armor is strong yet flexible

Certain configurations available in lengths of 8.4 miles/14 km singlemode and 4.95 miles/8 km multimode Standard color-coding on fibers and buffer tubes helps ease installation Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Product Type/ Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bend Radius Loaded Unloaded inch/cm inch/cm	Installation Loading lbs/newtons	Crush Resistance N/cm	Impact Resistance 25 Impacts	Weight lbs/ kg/ 1000' 1000m
Single jacket/ single armor 2 - 72 Fiber	F- XXX -LA- XY -F12NS	.55/13.9	10.9/27.7 5.5/13.9	600/2700	440	5.9 N•m	138 206
74 - 96 Fiber	F- XXX -LA- XY -F12NS	.63/16.0	12.6/31.9 6.3/16.0	600/2700	440	5.9 N•m	174 259
98 - 120 Fiber	F- XXX -LA- XY -F12NS	.71/18.0	14.2/36.1 7.1/18.0	600/2700	440	8.8 N•m	205 306
122 - 144 Fiber	F- XXX -LA- XY -F12NS	.79/20.1	15.9/40.3 7.9/20.1	600/2700	440	11.8 N•m	230 343
146 - 216 Fiber	F- XXX LA- XY -F12NS	.78/19.9	15.6/39.7 7.8/19.9	600/2700	440	11.8 N•m	249 371
Singlemode/Multimode Composite (4-216 fiber)	F-XXX-LA-CM-F12NS/8Haaa/XYbbb Refer to above specifications.						

Variables in the Catalog Number: XXX = Total Fiber Count

For Composites Only:

8H (8.3/125µm High Performance fiber) XY = Fiber Grade

6F (Enhanced FDDI 62.5/125μm) **6U** (UltraFiber 62.5/125μm) 5H (50/125µm)

aaa is replaced with singlemode fiber count **bbb** is replaced by multimode fiber count

Buffer Tube/Fiber identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Stranded Loose Tube Armored Cable

(60 Fiber Version Shown) Polyethylene jacket_ Armor. Core binder Aramid yarn . Buffer tube (3mm) Water blocking gel Central strength member (overcoat when required) Blank filler (when required) 250 µm fiber Flooding compound Ripcord

Description	Specification				
Operating Temp.	-40 to 70°C				
Installation Temp.	-20 to 70°C				
Storage Temp.	-40 to 70°C				
Crush Resistance	> Bellcore GR-20				
Impact Resistance	> Bellcore GR-20				
Flexing	> Bellcore GR-20				
Twist/Bend	> Bellcore GR-20				

Outside Plant Cable-in-Conduit



Conduit/cable assembly cuts installation effort and cost

Smooth-wall conduit made of grade P34 polyethylene to meet ASTM D1248

Conduit treated with high concentrations of UV stabilizers and antioxidants Available in three different diameters - 1 inch/25mm, 1.125in/29mm and 2.00in/32mm Two different wall thicknesses - SDR 13.5 and SDR 11

Cable types other than those shown are available - contact your salesperson

Cable Type Fiber Count	Fiber Cable Catalog Number	Available Conduit Diameters inch/mm	Cable Diameter inch/mm	Available Wall Thicknesses (SDR)	Available lengths Available Conduit Colors	English Weight SDR 13.: lbs/1000'	Metric Weight 5 & 11 kg/1000m
Fiber Feeder Armored 2 - 24 Fiber	O XXX FA XY F12SS Specify Conduit OD, SDR and Color	1.0/25.4 1.125/28.6 1.25/31.8	.36/9.1	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	236 & 271 280 & 326 332 & 387	352 & 403 417 & 455 494 & 576
Central Tube Dielectric 26 - 48 Fiber	O XXX -CN- XY -F12SS Specify Conduit OD, SDR and Color	1.0/25.4 1.125/28.6 1.25/31.8	.49/12.5	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	273 & 308 317 & 365 369 & 424	355 & 407 421 & 526 499 & 709
Central Tube Armored 26 - 48 Fiber	O XXX -CA- XY -F12SS Specify Conduit OD, SDR and Color	1.0/25.4 1.125/28.6 1.25/31.8	.49/12.5	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	283 & 318 327 & 373 379 & 434	365 & 522 536 & 575 613 & 695
Central Tube Armored 49 - 96 Fiber	O XXX -CA- XY -F12SS Specify Conduit OD, SDR and Color	1.0/25.4 1.125/28.6 1.25/31.8	.57/14.5	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	320 & 355 364 & 411 416 & 471	402 & 454 468 & 507 546 & 628
Single Jacket Loose Tube Dielectric 2 - 72 Fiber	O XXX LN- XY F12SS Specify Conduit OD, SDR and Color	1.0/25.4 1.125/28.6 1.25/31.8	.49/12.5	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	273 & 308 317 & 363 369 & 424	355 & 407 421 & 526 499 & 709
Single Jacket Loose Tube Dielectric 74 - 96 Fiber	O XXX LN- XY F12SS Specify Conduit OD, SDR and Color	1.0/25.4 1.125/28.6 1.25/31.8	.57/14.5	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	305 & 349 349 & 398 401 & 456	388 & 439 453 & 492 530 & 613
Single Jacket Loose Tube Dielectric 98 - 120 Fiber	O XXX LN- XY F12SS Specify Conduit OD, SDR and Color	1.0/25.4 1.125/28.6 1.25/31.8	.65/16.6	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	340 & 375 384 & 431 436 & 491	423 & 475 488 & 527 566 & 648
Single Jacket Loose Tube Dielectric 122 - 144 Fiber	O XXX LN- XY F12SS Specify Conduit OD, SDR and Color	1.125/28.6 1.25/31.8	.73/18.6	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	397 & 443 449 & 504	501 & 540 579 & 661
Single Jacket Loose Tube Dielectric 146 - 216 Fiber	O XXX IN XY F12SS Specify Conduit OD, SDR and Color	1.125/28.6	.72/18.4	13.5 and 11	0.5 km - 1 km & 1.1 km - 2 km Black or Terra Cotta	398 & 444	502 & 541

Variables in the Catalog Number: XXX = Total Fiber Count

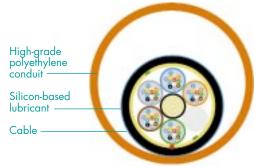
XY = Fiber Grade

8H (8.3/125µm High Performance fiber) **6U** (UltraFiber 62.5/125μm)

6F (Enhanced FDDI 62.5/125μm)

5H (50/125µm)

Typical Cable-in-Conduit (60 fiber stranded loose tube all dielectric version shown)



Description	Designation
Density (g/cm³)	D792A/D1505
Min. Tensile @ yield	D638-82a
Min. Elongation	D638-82a
ESCR, 10% Igepal	D1693-80
Low-temp brittleness	D746-79
Moisture Content	CS TIP #307
Carbon Black	D1603
Min. Flexural Modulus	D790-81

Indoor/Outdoor Cables (OFNR)



Riser-rated designs are rugged for outdoor and safe for indoor

CommScope indoor/outdoor tight buffer cables are designed to meet the rigors of outside plant while allowing for direct connectorization of the individual fibers, yet meet the NEC requirement of "ONFR".

CommScope indoor/outdoor loose tube cables are a unique hybrid - they are made tough enough to withstand the rigors of the outside plant environment (the buffer tubes are filled with a gel compound that blocks moisture flow while de-stressing the fiber), yet are made of materials that permit them to meet NEC riser safety standards.

Indoor/outdoor cables allow a cable to be run from outside a building to the inside without changing cable types, thus avoiding the extra time and labor of an additional splice point. Their riser rating makes this possible.

Another technical achievement in CommScope's indoor/outdoor cables is the use of our *ARID-CORE®* dry water-blocking technology. Instead of the traditional hard-to-clean flooding gel, *ARID-CORE* remains dry inside the cable. Once exposed to moisture, *ARID-CORE* rapidly swells to form a gel that stops water penetration almost immediately. The result is a craft-friendly cable that significantly reduces termination time, effort and cost.

We offer several constructions, which include:

Triathlon™ Low Smoke/Zero-Halogen (LSZH) Distribution cables of up to 24 fibers (Speed pull up to 72 fibers, call factory for specs)

Triathlon Low Smoke/Zero-Halogen (LSZH) Cordage in simplex, duplex zipcord and two-fiber interconnect

Fiber Feeder® cables of up to 24 fibers in a rugged dielectric construction

Central Tube cables of up to 48 fibers in a robust dielectric design

Loose Tube cables of up to 144 fibers in a dielectric construction or with a special PVDF inner jacket that resists moisture, chemicals, fuels and corrosive materials



Triathlon™ Indoor/Outdoor LSZH Distribution



Low smoke-zero halogen construction permits riser use as well

Black or colored jackets are UV-stable for outdoor use yet meet critical NEC riser (OFNR) safety standards

Riser rating eliminates splice points at the building entrance

ARID-CORE® water blocking technology protects fibers from moisture/significantly reduces termination effort

Low-smoke zero-halogen gives added protection to building occupants and equipment

Tight buffered construction reduces installation cost

Fiber types and grades available:

Sinalemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Fiber	Catalan	Outer Diameter		nd Radius	Max. Ten		١٨/-	:
Count	Catalog Number	inch/mm	Loaded inch/cm	Unloaded inch/cm	Short term lbs./ Newtons	Long term lbs./Newtons	lbs/ 1000'	ight kg/ 1000m
4 Fiber (no central member)	Z-ØØ4-DS- XY -FSDBK	.16/4.0	3.2/8.0	1.6/5.5	300/1350	100/445	15	22
6 Fiber	Z-ØØ6-DS- XY -FSDBK	.21/5.3	4.2/10.6	2.1/5.3	300/1350	100/445	20	30
8 Fiber	Z-ØØ8-DS- XY -FSDBK	.25/6.4	5.0/12.8	2.5/6.4	300/1350	100/445	24	35
12 Fiber	Z-Ø12-DS- XY -FSDBK	.29/7.4	5.8/14.8	2.9/7.4	400/1800	140/600	38	56
All listed OFNR								
18 Fiber	Z-Ø18-DS- XY -FSDBK	.39/9.9	7.8/19.8	3.9/9.9	600/2700	160/710	60	88
24 Fiber	Z-Ø24-DS- XY -FSDBK	.39/9.9	7.8/19.8	3.9/9.9	600/2700	160/710	49	72
			,					

Singlemode/Multimode Composite (4 - 24 fiber) Z-ØØØ-DS-CM-FSDBK/8Haaa/XYbbb Custom design - sizes/specs will vary depending on fiber count

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade

8H (8.3/125µm High Performance fiber) **6U** (UltraFiber 62.5/125μm)

6F (Enhanced FDDI 62.5/125μm) 5H (50/125µm)

For Composites Only:

aaa is replaced with singlemode fiber count

bbb is replaced by multimode fiber count

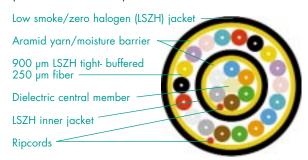
Buffer Tube/Fiber identification colors:

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Fibers 13-24: repeat color sequence with tracer stripe

Triathlon LSZH Indoor/Outdoor-Riser Distribution Cable

(24 fiber version shown)



Description	Specification
Operating Temp.	-40 to 70°C
Installation Temp.	-20 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Triathlon™Indoor/Outdoor LSZH Cordage



Low smoke-zero halogen construction permits riser use as well

Black or colored jackets are UV-stable for outdoor use yet meet critical NEC riser (OFNR) safety standards Riser rating eliminates splice points at the building entrance

ARID-CORE® water blocking technology protects fibers from moisture/significantly reduces termination effort

Low-smoke zero-halogen gives added protection to building occupants and equipment

Simplex, duplex and zipcord cables available in a variety of sizes

Designed for ease of handling, stripping and termination

Fiber types and grades available:

Sinalemode: 8.3/125µm High Performance Fiber

UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm Multimode:

Moniniode.	Ulifuriber 02.3/ i	23pm, Emiano	ed i DDi C	2.3/ 123	Jili, alia riig	ii renomia	ice 50/	1 ZJpii
Cable Type/Unit Size	Catalog Number	Outer Diameter inch/mm	Min. Bei Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ter Short term lbs./ Newtons	nsile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m
Simplex/2.0mm	Z-ØØ1-SP- XY -F2ØBK	0.08/2.0	1.8/4.6	0.9/2.3	50/225	16/71	3.0	4.5
All UL listed OFNR								
Simplex/2.5mm Special Minimum Order Required	Z-ØØ1-SP- XY -F25BK	0.10/2.5	2.0/5.1	1.0/2.5	60/260	20/90	5.8	8.6
Simplex/2.9mm Standard	Z-ØØ1-SP- XY -F29BK	0.11/2.9	2.2/5.8	1.1/2.8	60/260	20/90	6.7	9.9
Duplex/2.5mm Standard	Z-ØØ2-DU- XY -F25BK	0.13/3.3 x 0.23/5.8	2.6/6.6	1.3/3.3	90/400	30/133	13.5	20.1
Zipcord/2.5mm Special Minimum Order Required	Z-ØØ2-ZC- XY -F25BK	0.10/2.5 x 0.21/5.4	2.0/5.1	1.0/2.5	90/400	30/133	11.9	17.7
Zipcord/2.9mm Standard	Z-ØØ2-ZC- XY -F29BK	0.11/2.9 x 0.24/6.1	2.2/5.8	1.1/2.8	90/400	30/133	15.8	23.5
2 fiber interconnect	Z-ØØ2-IC- XY -FSDBK	.14/36	2.8/7.2	1.4/3.6	270/1200	90/400	10.6	15.8

Variables in the Catalog Number:

Fiber identification colors:

XY = Fiber Grade

8H (8.3/125µm High Performance fiber)

6U (UltraFiber 62.5/125μm)

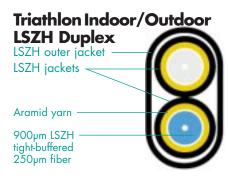
1/Blue, 2/White

6F (Enhanced FDDI 62.5/125µm)

5H (50/125µm)

Triathlon Indoor/Outdoor LSZH Simplex





Triathlon Indoor/Outdoor LSZH 2-fiber Interconnect



Triathlon Indoor/Outdoor LSZH Zipcord LSZH jacket Aramid yarn

900µm LSZH tight-buffered 250µm fiber

Description	Specification				
Operating Temp.	-40 to 70°C				
Installation Temp.	-20 to 70°C				
Storage Temp.	-40 to 70°C				
Crush Resistance	> Bellcore GR-409				
Impact Resistance	> Bellcore GR-409				
Flexing	> Bellcore GR-409				
Twist/Bend	> Bellcore GR-409				

Indoor/Outdoor Stranded Loose Tube



Standard and heavy-duty double-jacket versions

All meet critical NEC riser (OFNR) safety standards

ARID-CORE® water blocking technology protects fibers from moisture /significantly reduces termination effort

Dual jacket (PVC/PVDF) version offers additional mechanical and chemical protection

Standard color-coding on fibers and buffer tubes helps ease installation

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Product Type	Catalog	Outer Diameter	Min. Bend		Max. Ten		We	ight ,
Fiber Count	Number	inch/mm	Loaded inch/cm	Unloaded inch/cm	Short term lbs./ Newtons	Long term lbs./Newtons	lbs/ 1000'	kg/ 1000m
Standard 2 - 72 fibers	R- XXX -LN- XY -F12SS	.53/13.3	10.6/26.9	5.3/13.3	600/2700	135/600	119	177
All listed OFNR								
74 - 96 fibers	R- XXX -LN- XY -F12SS	.58/14.7	11.6/29.5	5.8/14.7	600/2700	135/600	145	216
98 - 144 fibers	R- XXX -LN- XY -F12SS	.73/18.5	14.6/37.1	7.3/18.5	600/2700	135/600	225	335
Singlemode/Multimode Composite (4 - 144 fiber)	R- XXX -LN- XY -F12SS	/8Haaa/XYb	bb Custom (design - size	es/specs will var	y depending on	fiber count	
Heavy Duty Dual jacket 2 - 72 fibers	R- XXX -LH- XY -F12SS	.57/14.5	11.4/28.9	5.7/14.5	600/2700	135/600	135	194
All listed OFNR								
74 - 96 fibers	R- XXX -LH- XY -F12SS	.62/15.7	12.4/31.5	6.2/15.7	600/2700	135/600	165	246
98 - 144 fibers	R- XXX -LH- XY -F12SS	. <i>77</i> /19.6	15.4/39.1	7.7/19.6	600/2700	135/600	250	373
Singlemode/Multimode Composite (4 - 144 fiber)	R- XXX -LH- XY -F12SS,	/8Haaa/XYbl	bb Cust	tom design -	sizes/specs will	vary depending	g on fiber co	unt

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade 8H (8.3/125μm High Performance fiber) **6F** (Enhanced FDDI 62.5/125μm)

6U (UltraFiber 62.5/125μm) **5H** (50/125μm)

For Composites Only: aaa is replaced with singlemode fiber count bbb is replaced by multimode fiber count

Buffer Tube/Fiber identification colors: 1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Indoor/Outdoor Stranded Loose Tube



Description	Specification
Operating Temp. Installation Temp. Storage Temp. Crush Resistance Impact Resistance Flexing Twist/Bend	-40 to 70°C -20 to 70°C -40 to 75°C > Bellcore GR-409 > Bellcore GR-409 > Bellcore GR-409 > Bellcore GR-409

Indoor/Outdoor Fiber Feeder® & Central Tube (CommScope)



Multiple constructions to meet your specific application

All meet critical NEC riser (OFNR) safety standards

ARID-CORE® water blocking technology protects fibers from moisture /significantly reduces termination effort

Standard color-coding on fibers helps ease installation

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Product Type Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Ber Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ten Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We bs/ 1000'	ight kg/ 1000m
Fiber Feeder 2 - 24 fibers	R- XXX -FN- XY -F12SS	.39/9.9	7.8/19.8	3.9/9.9	300/1350	90/400	75	112
Singlemode/Multimode Composite (4 - 24 fiber)	R-XXX-FN-CM-F12SS8Haaa/XYbbb Custom design - specs will vary depending on fiber count							
Central Loose Tube 26 - 48 fibers	R- XXX -CN- XY -F12SS	.49/12.5	9.8/25.0	4.9/12.5	300/1350	90/400	105	156
Singlemode/Multimode Composite (2-48 fiber)	R- XXX -CN- CM -F128	SS/ 8Haaa/X `	Ybbb Cus	tom design -	specs will vary o	depending on fi	per count	

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade

For Composites Only:

Buffer Tube/Fiber & Binder Thread identification colors:

8H (8.3/125µm High Performance fiber) **6U** (UltraFiber 62.5/125µm)

aaa is replaced with singlemode fiber count

6F (Enhanced FDDI 62.5/125µm)

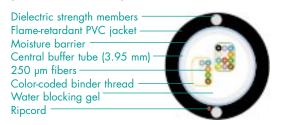
5H (50/125µm)

bbb is replaced by multimode fiber count

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

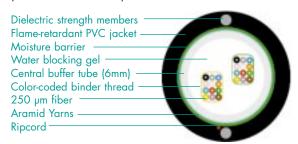
Indoor/Outdoor Fiber Feeder Cable

(18 fiber version shown)



Indoor/Outdoor Central Tube Cable

(24 fiber version shown)



Description	Specification
Operating Temp.	-40 to 70°C
Installation Temp.	-20 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Premises Cables

Riser and plenum-rated designs for indoor applications



CommScope premises cables were engineered with two goals in mind - excellent mechanical/optical performance coupled with superior fire safety ratings. These goals are achieved in a family of cables that meet all critical NEC requirements for riser or plenum applications while offering unique resistance to installation and termination stresses.

Our distribution cables are a perfect example of this achievement. Buffered subunits of 12 fibers are engineered into constructions that are up to 30% smaller in diameter and 50% lighter than comparable products. The result is a compact cable that easily installs and terminates.

Premises fiber optic cable meet or exceed performance standards as established by Bellcore GR-409, TIA/EIA 568B, ICEA 83-596, ANSI X3.166-1990 & X3T9.5 PMD, FDDI, ATM, Fibre Channel and HIPPI.

We offer several constructions, which include:

Riser and Plenum Distribution cables of up to 144 fibers in a lightweight and compact construction

Heavy-Duty Riser and Plenum Distribution cables of up to 24 fibers with a robust construction

Low Smoke/Zero-Halogen Distribution cables of up to 24 fibers which can be used outdoor as well, thus eliminating the need to change cable types at the building entrance

Riser and Plenum Breakout cables of up to 24 individually jacketed fibers in a single unit

Riser and Plenum Cordage in simplex, duplex zipcord and two-fiber interconnect

Riser and Plenum Cables will follow Bellcore GR-409 jacket color code specs: single mode is yellow and multimode and composites are orange.



Premises Riser-rated Distribution



Meets critical NEC riser (OFNR) safety standards

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Numbered subunits and color-coded fibers help ease installation

Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Ber Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ten Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m
4 Fiber	R-ØØ4-DS- XY -FSD ZZ	.16/4.0	3.2/8.0	1.6/4.1	300/1350	100/445	15	22
6 Fiber	R-ØØ6-DS- XY -FSD ZZ	.20/5.3	4.0/10.6	2.0/5.3	300/1350	100/445	16	24
8 Fiber	R-ØØ8-DS- XY -FSD ZZ	.22/5.5	4.4/11.2	2.2/5.5	300/1350	100/445	18	27
12 Fiber	R-Ø12-DS- XY -FSD ZZ	.22/5.5	4.4/11.2	2.2/5.5	300/1350	100/445	18	27
18-24 Fiber	Available in Heavy-D	Available in Heavy-Duty only- see page 27.						
30 Fiber (3 subunits)	R-Ø3Ø-DS- XY -FSD ZZ	.63/16.0	12.6/32	6.3/16.0	800/3550	265/1175	118	176
36 Fiber (3 subunits)	R-Ø36-DS- XY -FSD ZZ	.63/16.0	12.6/32	6.3/16.0	800/3550	265/1175	118	176
All UL listed OFNR								
48 Fiber (4 subunits)	R-Ø48-DS- XY -FSD ZZ	.63/16.0	12.6/32	6.3/16.0	800/3550	265/1175	118	176
60 Fiber (5 subunits)	R-Ø6Ø-DS- XY -FSD ZZ	.72/18.4	14.4/36.8	7.2/18.4	1000/4450	330/1470	186	277
72 Fiber (6 subunits)	R-Ø72-DS- XY -FSD ZZ	.72/18.4	14.4/36.8	7.2/18.4	1000/4450	330/1470	183	273
84 Fiber (7 subunits)	R-Ø84-DS- XY -FSD ZZ	.72/18.4	14.4/36.8	7.2/18.4	1000/4450	330/1470	1 <i>7</i> 9	267
96 Fiber (8 subunits)	R-Ø96-DS- XY -FSD ZZ	.80/20.4	16.0/40.8	8.0/20.4	1000/4450	330/1470	223	332
144 Fiber (12 subunits)	R-144-DS- XY -FSD ZZ	.98/25.0	19.6/49.8	19.6/9.8	1000/4450	330/1470	288	429
Singlemode/Multimode	R- XXX -DS-CM-FSD XX	/8Haaa/XYbbl	Custor	n design - si	zes/specs will vo	ary depending c	n fiber c	ount

Variables in the Catalog Number:

Composite (4 - 144 fiber)

XXX = Total Fiber Count = Fiber Grade

= Standard Jacket Color

For Composites Only:

Fiber identification colors:

6U (UltraFiber 62.5/125μm)

6F (Enhanced FDDI 62.5/125μm)

OR (Orange-Multimode or Composite cable)

Minimum order required for special colors.

aaa is replaced with singlemode fiber count

YL (Yellow- Singlemode cable)

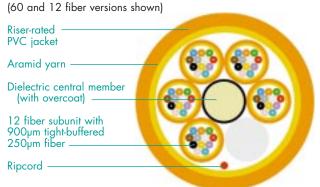
bbb is replaced by multimode fiber count

8H (8.3/125µm High Performance fiber)

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua Subunits are numbered for easy identification

5H (50/125µm)

Riser Distribution Cables



12 Fiber Unit

Riser-rated PVC jacket Aramid yarn 12 fiber subunit with 900µm tight-buffered 250µm fiber Ripcord -

Description	Specification
Operating Temp.	-20 to 70°C
Installation Temp.	0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Premises Heavy-Duty Riser Distribution



Central strength member provides additional fiber support

Meets critical NEC riser (OFNR) safety standards

Overcoated dielectric central strength member for additional strength and support Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bei Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ten Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m
6 Fiber	R-ØØ6-DS- XY -FHD ZZ	.21/5.3	4.2/10.6	2.1/5.3	300/1350	100/445	20	30
8 Fiber	R-ØØ8-DS- XY -FHD ZZ	.25/6.4	5.0/12.8	2.5/6.4	300/1350	100/445	24	35
12 Fiber	R-Ø12-DS- XY -FHD ZZ	.29/7.4	5.8/14.8	2.9/7.4	400/1800	140/600	38	56
All III E to 1 OFNID								
All UL listed OFNR 18 Fiber	R-Ø18-DS- XY -FHD ZZ	.39/9.9	7.8/19.8	3.9/9.9	600/2700	160/710	60	88
24 Fiber	R-Ø24-DS- XY -FHD ZZ	.44/11.2	8.8/22.4	4.4/11.2	600/2700	160/710	87	130
Singlemode/Multimode	R- XXX -DS-CM-FHD XX /	/8Haaa/XYbbb	Custom des	ign - sizes/sp	ecs will vary de	pending on fibe	r count	

Variables in the Catalog Number:

Composite (6 - 24 fiber)

XXX = Total Fiber Count

XY = Fiber Grade

ZZ = Standard Jacket Color

ZZ = Standard Jacker Color

For Composites Only: Fiber identification colors:

6U (UltraFiber 62.5/125μm) **6F** (Enhanced FDDI 62.5/125μm)

OR (Orange Multimode or Composite cable)
Minimum order required for special colors.

5H (50/125μm)

8H (8.3/125µm High Performance fiber)

YL (Yellow- Singlemode cable)

aaa is replaced with singlemode fiber count **bbb** is replaced by multimode fiber count

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Fibers 13-24: repeat color sequence with tracer stripe

Premises Riser Heavy-Duty Distribution Cable

(12 fiber version shown)



Description	Specification
Operating Temp.	-20 to 70°C
Installation Temp.	0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Premises Plenum Distribution



Meets critical NEC plenum (OFNP) safety standards

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Numbered subunits and color-coded fibers help ease installation

Fiber Count	Catalog Number	Outer Diameter	Min. Bei Loaded	nd Radius Unloaded	Max. Ten Short term	sile Load Lona term	We lbs/	eight ka/
Couli	Number	IIICII/ IIIIII	inch/cm	inch/cm	lbs./ Newtons	lbs./Newtons	1000′	1000m
4 Fiber	P-ØØ4-DS- XY -FSD ZZ	.16/4.0	3.2/8.0	1.6/4.0	300/1350	100/445	15	22
6 Fiber	P-ØØ6-DS- XY -FSD ZZ	.20/5.3	4.0/10.6	2.0/5.3	300/1350	100/445	16	24
8 Fiber	P-ØØ8-DS- XY -FSD ZZ	.22/5.5	4.4/11.0	2.2/5.5	300/1350	100/445	18	28
12 Fiber	P-Ø12-DS- XY -FSD ZZ	.22/5.5	4.4/11.0	2.2/5.5	300/1350	100/445	18	28
18-24 Fiber	Available in	Heavy-Duty only- s	see page 29.					
30 Fiber	P-Ø30-DS- XY -FSD ZZ	.58/14.7	11.6/29.4	5.8/14.7	800/3550	265/1175	118	176
36 Fiber (3 subunits)	P-Ø36-DS- XY -FSD ZZ	.58/14.7	11.6/29.4	5.8/14.7	800/3550	265/1175	118	1 <i>7</i> 6
All cables OFNP								
48 Fiber (4 subunits)	P-Ø48-DS- XY -FSD ZZ	.58/14.7	11.6/29.4	5.8/14.7	800/3550	265/1175	118	176
60 Fiber (5 subunits)	P-Ø6Ø-DS- XY -FSD ZZ	.72/18.4	14.4/36.8	7.2/18.4	1000/4450	330/1470	186	277
72 Fiber (6 subunits)	P-Ø72-DS- XY -FSD ZZ	.72/18.4	14.4/36.8	7.2/18.4	1000/4450	330/1470	183	273
6° /84 1°	D. W.W.W. D.O. O. L. FOD.W.	DAMA DE CHIECDAM (NIL AMALLI C						

Singlemode/Multimode Composite (4 - 72 fiber) P-XXX-DS-CM-FSDXX/8Haaa/XYbbb

Custom design - sizes/specs will vary depending on fiber count

Variables in the Catalog Number:

XXX = Total Fiber Count XY = Fiber Grade

ZZ = Standard Jacket Color

For Composites Only:

Fiber identification colors:

6U (UltraFiber 62.5/125μm) **6F** (Enhanced FDDI 62.5/125μm)

OR (Orange-Multimode or Composite cable)

Minimum order required for special colors.

aaa is replaced with singlemode fiber count **bbb** is replaced by multimode fiber count

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

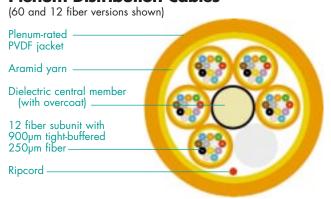
5H (50/125µm)

YL (Yellow- Singlemode cable)

8H (8.3/125µm High Performance fiber)

Fibers 13-24: repeat color sequence with tracer stripe

Plenum Distribution Cables





Description	Specification
Operating Temp.	-20 to 70°C
Installation Temp.	0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Premises Heavy-Duty Plenum Distribution

Central strength member provides additional fiber support



Meets critical NEC plenum (OFNP) safety standards

Overcoated dielectric central strength member for additional strength and support Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm

Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Ber Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ten Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m
6 Fiber	P-ØØ6-DS- XY -FHD ZZ	.17/4.3	3.4/8.6	1.7/4.3	300/1350	100/445	16	24
8 Fiber	P-ØØ8-DS- XY -FHD ZZ	.21/5.3	4.2/10.6	2.1/5.3	300/1350	100/445	22	33
12 Fiber	P-Ø12-DS- XY -FHD ZZ	.24/6.1	4.8/11.2	2.4/6.1	400/1800	140/600	28	42
All listed OFNP								
18 Fiber	P-Ø18-DS- XY -FHD ZZ	.33/8.4	6.6/16.8	3.3/8.4	600/2700	160/710	53	79
24 Fiber	P-Ø24-DS- XY -FHD ZZ	.40/10.2	8.0/20.4	4.0/10.2	600/2700	160/710	75	112
Singlemode/Multimode	P-XXX-DS-CM-FHD77/8Haga/XYhhh Custom design - sizes/specs will vary depending on fiber count							

Singlemode/Multimode Composite (6 - 24 fiber)

P-XXX-DS-CM-FHDZZ/8Haaa/XYbbb Custom design - sizes/specs will vary depending on fiber count

Variables in the Catalog Number:

XXX = Total Fiber Count

XY = Fiber Grade

ZZ = Standard Jacket Color

For Composites Only:

Fiber identification colors:

6U (UltraFiber 62.5/125μm)

6F (Enhanced FDDI 62.5/125μm)

OR (Orange-Multimode or Composite cable)
Minimum order required for special colors.

5H (50/125μm) **8H** (8.3/125μm

8H (8.3/125µm High Performance fiber)

YL (Yellow- Singlemode cable)

aaa is replaced with singlemode fiber count bbb is replaced by multimode fiber count

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Fibers 13-24: repeat color sequence with tracer stripe

Premises Plenum Heavy-Duty Distribution Cable

(12 fiber version shown)



Description	Specification
Operating Temp. Installation Temp.	-20 to 70°C 0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance Impact Resistance	> Bellcore GR-409 > Bellcore GR-409
Flexing Twist/Bend	> Bellcore GR-409 > Bellcore GR-409

Triathlon™ Premises Riser/LSZH Distribution



Can be used both as a riser and indoor/outdoor cable

Meets critical NEC riser (OFNR) safety standards yet rugged enough for outdoor use

Riser rating eliminates splice points at the building entrance

Low-smoke zero-halogen gives added protection to building occupants and equipment

Dielectric central member on 6 to 24 fiber versions for strength and support

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

7-FSDBK .21,	/4.0 /5.3 /6.4 /7.4	3.2/8.0 4.2/10.6 5.0/12.8 5.8/14.8	1.6/5.5 2.1/5.3 2.5/6.4 2.9/7.4	300/1350 300/1350 300/1350 400/1800	100/445 100/445 100/445 140/600	15 20 24	22 30 35
7-FSDBK .25,	/6.4	5.0/12.8	2.5/6.4	300/1350	100/445	24	35
·	<i>'</i>	· ·		,	•		
-FSDBK .29,	/7.4	5.8/14.8	2.9/7.4	400/1800	140/600	20	E /
					•	38	56
-FSDBK .39,	/9.9	7.8/19.8	3.9/9.9	600/2700	160/710	60	88
-FSDBK .39,	/9.9	7.8/19.8	3.9/9.9	600/2700	160/710	49	72
		·	·	· · · · · ·			

Singlemode/Multimode Composite (4 - 24 fibers) Z-XXX-DS-CM-FSDBK/8Haaa/XYbbb Custom design - sizes/specs will vary depending on fiber count

Variables in the Catalog Number: XXX = Total Fiber Count XY = Fiber Grade

For Composites Only:

Fiber identification colors:

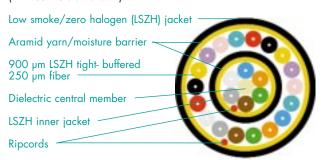
6U (UltraFiber 62.5/125μm) **5H** (50/125µm) **6F** (Enhanced FDDI 62.5/125μm)

8H (8.3/125µm High Performance fiber) aaa is replaced with singlemode fiber count **bbb** is replaced by multimode fiber count

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua Fibers 13-24: repeat color sequence with tracer stripe

Triathlon Indoor/Outdoor LSZH **Riser Distribution Cable**

(24 fiber version shown)



Description	Specification
Operating Temp.	-40 to 70°C
Installation Temp.	0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Premises Riser Breakout

Robust design for easy handling and termination



Meets critical NEC riser (OFNR) safety standards

Individual subunits are rugged and flexible

Dielectric central member on 6 to 24 fiber versions for added strength and support

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

UltraFiber™ 62.5/125μm, Enhanced FDDI 62.5/125μm, and High Performance 50/125μm **Multimode:**

2.5mm subunit Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Ber Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ten Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m
4 Fiber (no central member)	R-ØØ4-BO- XY -FSD ZZ	.34/8.6	6.8/17.2	3.4/8.6	300/1330	110/490	55	81
6 Fiber	R-ØØ6-BO- XY -FSD ZZ	.37/9.4	7.4/18.8	3.7/9.4	560/2500	200/890	76	113
8 Fiber	R-ØØ8-BO- XY -FSD ZZ	.43/10.9	8.6/21.8	4.3/10.9	560/2500	200/890	90	134
12 Fiber	R-Ø12-BO- XY -FSD ZZ	.50/12.7	10/25.4	5.0/12.7	600/2700	224/1000	120	179
All listed OFNR								
18 Fiber	R-Ø18-BO- XY -FSD ZZ	.59/15.0	11.8/30.0	5.9/15.0	600/2700	224/1000	191	283
24 Fiber	R-Ø24-BO- XY -FSD ZZ	.61/15.5	12.2/31.0	6.1/15.5	800/3550	265/1175	191	283
Singlemode/Multimode Composite (4 - 24 fiber)	R- XXX -BO-CM-FSDXX	/8Haaa/XYbbl	Custom de	sign - sizes/s	specs will vary d	epending on fibe	er count	

Variables in the Catalog Number:

XXX = Total Fiber Count XY = Fiber Grade

ZZ = Standard Jacket Color

For Composites Only:

Subunit identification colors:

6U (UltraFiber 62.5/125μm)

6F (Enhanced FDDI 62.5/125μm)

OR (Orange Multimode or Composite cable)

Minimum order required for special colors.

aaa is replaced with singlemode fiber count

bbb is replaced by multimode fiber count

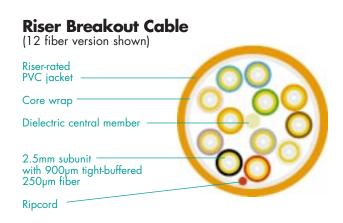
1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

YL (Yellow- Singlemode cable)

5H (50/125μm)

8H (8.3/125µm High Performance fiber)

Fibers 13-24: repeat color sequence with tracer stripe



Description	Specification
Operating Temp.	-20 to 70°C
Installation Temp.	0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Premises Plenum Breakout



Robust design for easy handling and termination

Meets critical NEC plenum (OFNP) safety standards

Individual subunits are rugged and flexible

Dielectric central member on 6 to 24 fiber versions for strength and support

Fiber types and grades available:

Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

2.5mm subunit Fiber Count	Catalog Number	Outer Diameter inch/mm	Min. Bend Radius Loaded Unloaded inch/cm inch/cm	Max. Ten: Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m	
4 Fiber (no central member)	P-ØØ4-BO- XY -FSD ZZ	.27/6.9	5.4/13.8 2.7/6.9	300/1330	110/490	55	81	
6 Fiber	P-ØØ6-BO- XY -FSD ZZ	.34/8.6	6.8/17.6 3.4/8.6	560/2500	224/1000	63	93	
8 Fiber	P-ØØ8-BO- XY -FSD ZZ	.40/10.0	8.0/20.0 4.0/10.0	560/2500	224/1000	81	120	
12 Fiber	P-Ø12-BO- XY -FSD ZZ	.50/12.7	10.0/25.4 5.0/12.7	600/2700	224/1000	90	132	
All listed OFNP								
18 Fiber	P-Ø18-BO- XY -FSD ZZ	.60/15.2	12.0/30.4 6.0/15.2	600/2700	224/1000	173	258	
24 Fiber	P-Ø24-BO- XY -FSD ZZ	.61/15.5	12.2/31.0 6.1/15.5	600/2700	224/1000	191	283	
Singlemode/Multimode	P- XXX -BO-CM-FSD X	P-XXX-BO-CM-FSDXX/8Haaa/XYbbb Custom design - sizes/specs will vary depending on fiber count						

Composite (4 - 24 fiber)

Variables in the Catalog Number:

XXX = Total Fiber Count XY = Fiber Grade

ZZ = Standard Jacket Color

For Composites Only:

Subunit identification colors:

6U (UltraFiber 62.5/125μm) **6F** (Enhanced FDDI 62.5/125μm)

OR (Orange-Multimode or Composite cable) YL (Yellow- Singlemode cable) Minimum order required for special colors.

aaa is replaced with singlemode fiber count

bbb is replaced by multimode fiber count

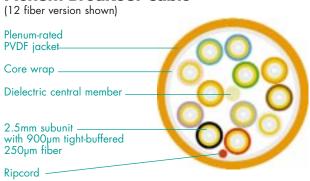
8H (8.3/125µm High Performance fiber)

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

5H (50/125µm)

Fibers 13-24: repeat color sequence with tracer stripe

Plenum Breakout Cable



Description	Specification
Operating Temp.	-20 to 70°C
Installation Temp.	0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Premises Riser Cordage



Several constructions available for a variety of uses

Meets critical NEC riser (OFNR) safety standards

Simplex, duplex and zipcord cables available in a variety of sizes Heavy-duty simplex and duplex cables absorb extra handling stresses Designed for ease of handling, stripping and termination Fiber types and grades available:

> Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

					, ,			
Cable Type/Unit Size	Catalog Number	Outer Diameter inch/mm	Min. Ber Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ter Short term lbs./ Newtons	sile Load Long term lbs./Newtons	We lbs/ 1000'	ight kg/ 1000m
Simplex/2.0mm Special Minimum Order Required	R-ØØ1-SP- XY -F20 ZZ	0.08/2.0	1.6/4.0	0.8/2.0	50/225	16/71	3.0	4.5
All cables listed OFNR								
Simplex/2.5mm Special Minimum Order Required	R-ØØ1-SP- XY -F25 ZZ	0.10/2.5	2.0/5.1	1.0/2.5	60/260	20/90	5.8	8.6
Simplex/2.9mm Standard	R-ØØ1-SP- XY -F29 ZZ	0.11/2.9	2.2/5.8	1.1/2.9	60/260	20/90	6.7	9.9
Duplex/2.5mm	R-ØØ2-DU- XY -F25 ZZ	0.13/3.3 x 0.23/5.8	2.6/6.6	1.3/3.3	90/400	30/133	13.9	20.7
Zipcord/2.5mm Special	R-ØØ2-ZC- XY -F25 ZZ	0.10/2.5 x	2.0/5.1	1.0/2.5	90/400	30/133	11.9	17.7
Minimum Order Required		0.21/5.4						
Zipcord/2.9mm Standard	R-ØØ2-ZC- XY -F29 ZZ	0.11/2.9 x 0.24/6.1	2.2/5.8	1.1/2.8	90/400	30/133	15.8	23.5
2 fiber interconnect	R-ØØ2-IC- XY -FSD ZZ	.14/36	2.8/7.2	1.4/3.6	270/1200	90/400	10.6	15.8

Variables in the Catalog Number:

XY = Fiber Grade

ZZ = Standard Jacket Color

6U (UltraFiber 62.5/125μm)

6F (Enhanced FDDI 62.5/125μm)

OR (Orange-Multimode or Composite cable)

Minimum order required for special colors

Buffer Tube identification colors: 1/Blue, 2/White **5H** (50/125µm)

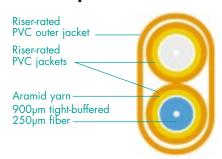
8H (8.3/125µm High Performance fiber)

YL (Yellow- Singlemode cable)

Riser Simplex



Riser Duplex



Riser 2-fiber Interconnect



Riser Zipcord



Standard Cordage Jacket Colors

Singlemode - Yellow Multimode - Orange

•
Specification
-20 to 70°C
0 to 70°C
-40 to 70°C
> Bellcore GR-409

Premises Plenum Cordage





Meets critical NEC plenum (OFNP) safety standards

Simplex, duplex and zipcord cables available in a variety of sizes Heavy-duty simplex and duplex cables absorb extra handling stress Designed for ease of handling, stripping and termination Fiber types and grades available:

> Singlemode: 8.3/125µm High Performance Fiber

Multimode: UltraFiber™ 62.5/125µm, Enhanced FDDI 62.5/125µm, and High Performance 50/125µm

Cable Type/Unit Size	Catalog Number	Outer Diameter inch/mm	Min. Ber Loaded inch/cm	nd Radius Unloaded inch/cm	Max. Ter Short term lbs./ Newtons	nsile Load Long term lbs./Newtons	We lbs/ 1000'	eight kg/ 1000m
Simplex/2.0mm Special Minimum Order Required All cables listed OFNP	P-ØØ1-SP- XY -F2Ø ZZ	0.08/2.0	1.6/4.0	0.8/2.0	50/225	16/71	3.0	4.5
Simplex/2.5mm Special Minimum Order Required	P-ØØ1-SP- XY -F25 ZZ	0.10/2.5	2.0/5.1	1.0/2.5	60/260	20/90	5.8	8.6
Simplex/2.9mm Standard	P-ØØ1-SP- XY -F29 ZZ	0.11/2.9	2.2/5.8	1.1/2.9	60/260	20/90	6.7	9.9
Duplex/2.5mm	P-ØØ2-DU- XY -F25 ZZ	0.13/3.3 x 0.23/5.8	2.6/6.6	1.3/3.3	90/400	30/133	15.95	23.74
Zipcord/2.5mm Special Minimum Order Required	P-ØØ2-ZC- XY -F25 ZZ	0.10/2.5 x 0.21/5.4	2.0/5.1	1.0/2.5	90/400	30/133	11.9	17.7
Zipcord/2.9mm Standard	P-ØØ2-ZC- XY -F29 ZZ	0.11/2.9 x 0.24/6.1	2.2/5.8	1.1/2.8	90/400	30/133	15.8	23.5
2 fiber interconnect	P-ØØ2-IC- XY -FSD ZZ	.14/36	2.8/7.2	1.4/3.6	270/1200	90/400	10.6	15.8

Variables in the Catalog Number:

XY = Fiber Grade

ZZ = Standard Jacket Color

6U (UltraFiber 62.5/125µm)

6F (Enhanced FDDI 62.5/125μm) OR (Orange-Multimode or Composite cable)

Minimum order required for special colors.

5H (50/125µm)

8H (8.3/125µm High Performance fiber)

YL (Yellow- Singlemode cable)

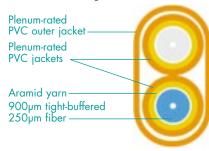
Buffer Tube identification colors:

1/Blue, 2/Orange, 3/Green, 4/Brown, 5/Slate, 6/White, 7/Red, 8/Black, 9/Yellow, 10/Violet, 11/Rose, 12/Aqua

Plenum Simplex



Plenum Duplex



Plenum 2-fiber Interconnect



Plenum Zipcord

Plenum-rated ————————————————————————————————————	0
Aramid yarn ————————————————————————————————————	O

Standard Cordage Jacket Colors

Singlemode - Yellow Multimode - Orange

Description	Specification
Operating Temp.	-20 to 70°C
Installation Temp.	0 to 70°C
Storage Temp.	-40 to 70°C
Crush Resistance	> Bellcore GR-409
Impact Resistance	> Bellcore GR-409
Flexing	> Bellcore GR-409
Twist/Bend	> Bellcore GR-409

Fiber and UTP Hybrids



Custom configurations available

Applications: These cables offer the convenience of being able to install both UTP and fiber in a

single pull. They can be used in all appropriate communication systems.

Features: Flexible jackets with ripcords strip cleanly and resist kinking

Coextruded colorstripe pairs for easy identification on UTP

Siamese Options: One and two UTP cables can be combined with one 2-6 fiber leg

Selected siamese/triamese products available with aramid yarn wrap for easier pulling

Round Options: For plenum styles, up to four UTP cables can be combined with one 2-6 fiber leg

For non-plenum styles, up to six UTP cables can be combined with one 2-6 fiber leg

Part Number	Fiber Component Type and Number	UTP Component Type and Number	Outer Jacket Color and Type W x H (or dia.) in/mm	Unit Weight in lbs. kft/mm
0410 Triamese UL CMP/C(UL) CMP	FDDI Two-fiber interconnect One pair of tight buffered fibers PVC buffering/PVDF inner jacket (see below for specifications) available with up to six tight-buffered fibers	Standard Category 5 Two 4 pair with FEP insulation (see below for specifications)	Blue PVC .64/16.3 x .20/5.1	72/236
0412 Siamese UL CMP/C(UL) CMP	FDDI Two-fiber interconnect One pair of tight buffered fibers PVC buffering/PVDF inner jacket (see below for specifications) available with up to six tight-buffered fibers	Standard Category 5 One 4 pair with FEP insulation (see below for specifications)	Blue PVC .64/16.3 x .20/5.1	41/135
0405 Triamese UL CMR/C(UL) CMG	FDDI Two-fiber interconnect One pair of tight buffered fibers PVC buffering/PVDF inner jacket (see below for specifications) available with up to six tight-buffered fibers	Standard Category 5 Two 4 pair with FEP insulation (see below for specifications)	Orange PVC .42/10.7 x .20/5.1	65/213
0439 Siamese UL CMR/C(UL) CMG	FDDI Two-fiber interconnect One pair of tight buffered fibers PVC buffering/PVDF inner jacket (see below for specifications) available with up to six tight-buffered fibers	Standard Category 5 One 4 pair with FEP insulation (see below for specifications)	Orange PVC .42/10.7 x .20/5.1	40/131
0468 Round UL CMP/C(UL) CMP	FDDI Two-fiber interconnect One pair of tight buffered fibers PVC buffering/PVDF inner jacket (see below for specifications) available with up to six tight-buffered fibers	Standard Category 5 Three 4 pair with FEP insulation (see below for specifications)	Gray PVDF .52/13.2 (round)	125/410
0429 Round UL CMP/C(UL) CMP	FDDI Two-fiber interconnect One pair of tight buffered fibers PVC buffering/PVDF inner jacket (see below for specifications) available with up to six tight-buffered fibers	Standard Category 5 Two 4 pair with FEP insulation (see below for specifications)	Blue PVDF .42/10.7 (round)	92/302

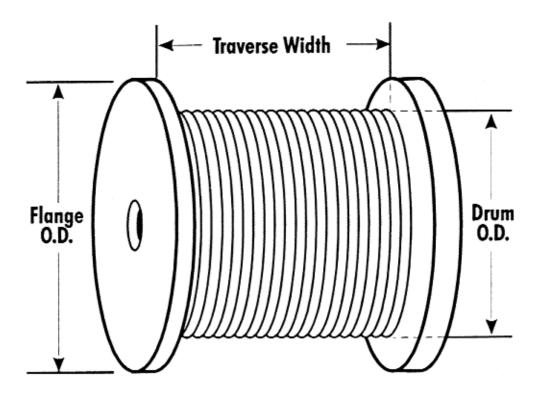
Category 5 Component	No. of Pairs	Conductor Size and Material	Insulation Type And Thickness in/mm	Nominal Capacitance	Characteristic Impedance	Maximum DCR kft/100mm	Velocity of Propogation
Plenum UTP	4	24 AWG Solid BC	FEP .007/.18	14 pF/ft	100Ω <u>+</u> 15Ω	28.6Ω/9.4Ω	72%
Non-plenum UTP	4	24 AWG Solid BC	PE .008/.20	14pF/ft	100Ω <u>+</u> 15Ω	28.6Ω/9.4Ω	70%

Fiber Component	Fiber Type Typical Attenuation Maximum Attenuation	Min. Bend Radius Loaded Unloaded in/cm in/cm		Max. Tensile Load Short Term Long Term lbs./newtons lbs./newtons	
Plenum/Non-plenum 2 fiber interconnect	FDDI-grade 62.5/125µm graded index 3.0dB/km @ 850nm 3.7dB/km @ 850nm 0.9 db/km @ 1300mn 1.5dB/km @ 1300nm	2.8/7.2	1.4/3.6	270/1200	90/400

Specifications subject to change without notice.

Shipping Information





Packaging and Shipping

Fiber optic cable is packaged for shipment on non-returnable wooden reels. Each package contains only one continuous length of cable. The packaging is designed so as to prevent damage to the cable during shipping and handling. Fiber cable reels are protected with a "reel wrap", the highest technology available today. This wrap is stronger, lighter and more environmentally friendly than other methods of lagging. In addition, reel wrap is simple to remove from the reel and readily disposable. All reel sizes between 35 and 78 inches will be blocked and palletized to help ensure safe arrival to the customer. Reels larger than 78 inches are placed on the rolling edge and securely fastened to the trailer during shipment.

Each reel is plainly marked to indicate the direction in which it should be rolled to prevent loosening of the cable on the reel.

Method of Shipment

CommScope's customary method of shipment of fiber optic cable from Claremont, North Carolina to the purchaser's site will vary depending on factors such as the size and number of cable reels, and the destination location. Shipper options include Federal Express, UPS, BAX, LTL motor freight carriers and CommScope's own fleet of trucks, "Cable Transport". Some trucks within CommScope's fleet are equipped with "Cargo Master" equipment for ease in unloading cable reels on location where no loading dock is available. These specially equipped trucks are available by request.

International Packaging

Products shipped outside the continental United States are protected with reel wrap, lagged with wood, and blocked and palletized (for reel sizes between 35 and 78 inches) or placed on the rolling edge and securely fastened to international shipping containers.

Maximum Reel Capacity Per Cable Diameter CommScope



Reel dimensions given as flange x drum x traverse

Cable length may vary with fiber type

Instructions: 1. Find your Cable Type and Outer Diameter (OD). 2. Look up OD on Chart.

3. Find length which meets or exceeds your requirements.

Outside plant loose tube cables

Reel Size										
Cable Diameter inches/mm	36x22x30 ft/m	42x22x30 ft/m	48x22x33 ft/m	54x24x28 ft/m	60x30x32 ft/m	66x30x32 ft/m	72x36x36 ft/m	78x36x36 ft/m	84x40x40 ft/m	88x40x40 ft/m
0.30/7.6	14281/4356	24180/7375	38341/11694	41000/12496						
0.35/8.9	10492/3200	17765/5418	28169/8591	31203/9517	41000/12496					
0.36/9.1	9701/2959	16425/5010	26044/7943	28849/8799	41000/12496					
0.37/9.4	9389/2864	15896/4848	25206/7688	27921/8516	36819/11230	41000/12496				
0.49/12.4	n/a	9064/2764	14372/4383	15910/4853	20993/6403	26871/8196	34009/10373	41000/12496		
0.57/14.5	n/a	6698/2043	10621/3239	11765/3588	15514/4732	19858/6057	25132/7665	30950/9440	39187/11952	41000/12496
0.58/14.7	n/a	6469/1973	10258/3129	11362/3465	14984/4570	19179/5850	24273/7403	29892/9117	37847/11543	41000/12496
0.65/16.5	n/a	5151/1571	8157/2488	9047/2759	11930/3639	15270/4657	19127/5834	23800/7259	30134/9191	35000/10668
0.66/16.7	n/a	4996/1524	7922/2416	8775/2676	11571/3529	14311/4365	18745/5717	23085/7041	29228/8915	35000/10668
0.72/18.3	n/a	4198/1280	5656/1725	7373/2249	9723/2966	12446/3796	15751/4804	19398/5916	24560/7490	31500/9601
0.73/18.5	n/a	n/a	6475/1975	7173/2188	9459/2885	12107/3692	15323/4674	18870/5755	23892/7287	31500/9601
0.74/18.8	n/a	n/a	6302/1922	6980/2129	9205/2808	11782/3594	14911/4548	18363/5601	23250/7091	31500/9601
0.80/20.3	n/a	n/a	5392/1645	5972/1821	7976/2433	10081/3075	12759/3891	15712/4792	19893/6067	31000/9455
0.81/20.6	n/a	n/a	5259/1604	5826/1777	7682/2343	9834/3000	12446/3796	15326/4674	19405/5919	30000/9150
0.82/20.8	n/a	n/a	5132/1563	5685/1734	7496/2286	9595/2926	12114/3695	14955/4561	18935/5775	27000/8235
0.83/21.1	n/a	n/a	5009/1528	5548/1692	7317/2232	9365/2856	11853/3615	14597/4452	18481/5637	26000/7930
Tare Wt.(lb/kg)	100/45	125/57	205/93	358/163	477/217	559/254	685/311	785/356	935/425	1050/477
Lagging Wt.(lb/kg)	90/41	102/46	130/59	175/80	217/99	245/111	300/136	324/147	361/164	400/182

Indoor/outdoor and premises cables

Reel Size							
Cable Diameter inches/mm	18x12x12 ft/m	22x12x12 ft/m	30x12x12 ft/m	35x16x18 ft/m	42x24x24 ft/m	50x24x24 ft/m	54x30x30 ft/m
0.10/2.5	11521/3511	21945/6693	28500/7930				
0.12/3.0	8001/2440	15239/4648	28500/7930				
0.15/3.8	5120/1562	9753/2975	21945/6693	28500/7930			
0.18/4.6	3556/1084	6773/2066	15239/4648	28500/7930			
0.10/2.5 x.21/5.3	4387/1338	9789/2986	16385/4997	28500/7930			
0.12/3.0 x .25/6.4	3200/976	6100/1861	14000/4267	28500/7930			
0.20/5.0	2880/878	5486/1673	12344/3764	23942/7302	28500/7930		
0.22/5.6	2380/726	4534/1383	10202/3112	19787/6035	28500/7930		
0.25/6.4	1843/562	3511/1071	7900/2410	15323/4674	25280/7710	28500/7930	
0.27/6.9	1580/482	3010/918	6773/2066	13137/4007	21674/6611	28500/7930	
0.30/7.6	1280/390	2438/743	5486/1673	10641/3246	17556/5355	28500/7930	
0.32/8.1	1125/343	2143/653	4822/1471	9352/2852	15430/4706	25074/7647	28500/7930
0.35/8.9	940/287	1791/546	4031/1229	7818/2384	12898/3934	20960/6393	28500/7930
0.37/9.4	842/257	1603/488	3607/1100	6996/2134	11541/3520	18755/5720	24045/7333
0.40/10.1	720/220	1372/418	3086/941	5741/1751	9567/2918	15601/4758	20573/6275
0.45/11.4	569/174	1084/330	2438/743	4536/1383	7559/2305	12327/3760	16255/4958
0.50/12.7	461/141	878/268	1975/602	3674/1120	6123/1868	9985/3045	13167/4016
0.55/14.0	381/116	725/221	1632/498	3037/926	5060/1543	8252/2517	10882/3319
0.60/15.2	n/a	n/a	n/a	2552/778	4252/1297	6934/2115	9000/2745
0.65/16.5	n/a	n/a	n/a	2174/663	3623/1105	5908/1802	7725/2356
0.70/17.8	n/a	n/a	n/a	1875/572	3124/953	5094/1554	6718/2049
0.75/19.1	n/a	n/a	n/a	1633/498	2721/830	4438/1354	5650/1723
0.80/20.3	n/a	n/a	n/a	1435/438	2392/730	3900/1190	4700/1434
0.85/21.6	n/a	n/a	n/a	n/a	2187/667	3455/1054	4250/1296
0.90/21.6	n/a	n/a	n/a	n/a	1951/595	3170/967	3700/1129
0.95/24.1	n/a	n/a	n/a	n/a	1751/534	2845/868	3350/1022
1.00/25.4	n/a	n/a	n/a	n/a	1580/482	2568/783	3050/930
1.05/26.7	n/a	n/a	n/a	n/a	1433/437	2329/7103	2700/824
Tare Wt. (lb/kg)	9/4	12/5	21/10	90/41	135/61	170/77	205/93

Fiber Cross Reference New to Old



OUTSIDE	PLANT - ARMORED AND	
Stranded Loose Tube	NEW O- XXX -LN- XY -F12NS	OLD A-XXX-LN-XY-F12
	O- XXX -LA- XY -F12NS	A-XXX-LA-XY-F12
	M- XXX -LN- XY -F12NS	O-XXX-LT-XY-FN
	M- XXX -LA- XY -F12NS	O-XXX-LT-XY-FA
	H- XXX -LN- XY -F12NS	H-XXX-LT-XY-DN
	F- XXX -LN- XY- F12NS	ORF-XXX-DNS and O-XXX-LT-XY-DN
	F-XXX-LA-XY-F12NS	ORF-XXX-DAS and O-XXX-LT-XY-DA
	F- XXX -LS- XY -F12NS	ORF-XXX-DDS and O-XXX-LT-XY-2A
	F- XXX -L2- XY -F12NS	ORF-XXX-DCS and O-XXX-LT-XY-2J
Fiber Feeder	O -XXX -FA- XY -F12NS	ORF-XXX-FMS and O-XXX-FF-XY-DA
	O- XXX -FN- XY -F12NS	ORF-XXX-FNS and O-XXX-FF-XY-DN
	O- XXX -FS- XY -F12NS	ORF-XXX-FSS and O-XXX-FS-XY-DA
Central Tube	O- XXX -CA- XY -F12NS	ORF-XXX-LMS and O-XXX-CT-XY-DA
	O -XXX -CN- XY -F12NS	ORF-XXX-LNS and O-XXX-CT-XY-DN
Cordage	U-001-SP- XY -F25BK	U-001-SP-XY-25
	U-001-SP- XY -F29BK	U-001-SP-XY-29
	U-002-ZC- XY -F29BK	U-002-ZC-XY-29
Distribution	U- XXX -DS- XY -FSDBK	U-XXX-DS-XY-S0

INDOOR/OUTDOOR DESIGNS - RISER RATED AND LSZH NEW OLD				
Triathlon Distribution	Z- XXX -DS- XY -FSDBK	Z-XXX-DS-XY-S0		
Triathlon Simplex	Z-001-SP- XY -F20BK	Z-001-SP-XY-20		
	Z-001-SP- XY -F2 <i>5</i> BK	Z-001-SP-XY-25		
	Z-001-SP- XY -F29BK	Z-001-SP-XY-29		
Triathlon Duplex	Z-002-DU- XY -F20BK	Z-002-DU-XY-20		
	Z-002-DU- XY -F25BK	Z-002-DU-XY-25		
	Z-002-DU- XY -FHDBK	Z-002-DU-XY-H0		
Triathlon Interconnect	Z-002-IC- XY -FSDBK	Z-002-IC-XY-S0		
Triathlon Zipcord	Z-002-ZC- XY -F25BK	Z-002-ZC-XY-25		
	Z-002-ZC- XY -F29BK	Z-002-ZC-XY-29		
Stranded Loose Tube	R- XXX -LH- XY -F12BK	R-XXX-LT-XY-HO		
	R- XXX -LN- XY -F12BK	R-XXX-LT-XY-SO		
Fiber Feeder	R- XXX -FN- XY -F12BK	R-XXX-FF-XY-DN		
Central Tube	R- XXX -CN- XY -F12BK	R-XXX-CT-XY-DN		

Fiber Cross Reference New to Old



PRFA	AISES - RISER (R) AND PLENUM	A (P) CABLES
1 NL/	NEW	OLD
Harsh Environment	R-002-DU-8H-FHDYL	R-002-DU-8H-H0
	P-XXX-DS-8H-FHDYL	P-XXX-DS-8H-H0
Distribution Plenum	P- XXX -DS-8H-FSDYL	P-XXX-DS-8H-SO
	P-XXX-DS-XY-FHDOR	P-XXX-DS-6F-H0
	P- XXX -DS- XY -FSDOR	P-XXX-DS-6F-S0
product pr	R-XXX-DS-8H-FSDYL	R-XXX-DS-8H-H0
Distribution Riser	R- XXX -DS-8H-FSDYL	R-XXX-DS-8H-SO
	R-XXX-DS-XY-FHDOR	R-XXX-DS-6F-H0
	R-XXX-DS-XY-FSDOR	R-XXX-DS-6F-S0
B 1 .	P- XXX -BO-8H-FSDYL	P-XXX-BO-8Y-SO
Breakout	P-XXX-BO-XY-FSDOR	P-XXX-BO-6F-S0
	R-XXX-BO-8H-FHDYL	R-XXX-BO-8H-H0
	R-XXX-BO-XY-FHDOR	R-XXX-BO-6F-H0
	P-001-SP-8H-F20YL	P-001-SP-8H-20
Cordage Plenum	P-001-SP-8H-F25YL	P-001-SP-8H-25
	P-001-SP-8H-F29YL	P-001-SP-8H-29
	P-001-SF-XY-F20OR	P-001-SP-6F-20
	P-001-SF- XY -F25OR	P-001-SP-6F-25
	P-001-SP- XY -F29OR	P-001-SP-6F-29
	P-002-DU-8H-F20YL	P-002-DU-8H-20
	P-002-DU-8H-F25YL	P-002-DU-8H-25
	P-002-DU-8H-FHDYL	P-002-DU-8H-H0
	P-002-DU- XY -F20OR	P-002-DU-6F-20
	P-002-DU- XY -F25OR	P-002-DU-6F-25
	P-002-DU- XY -FHDOR	P-002-DU-6F-H0
	P-002-IC-8H-FSDYL	P-002-IC-8H-S0
	P-002-IC- XY -FSDOR	P-002-IC-6F-S0
	P-002-ZC-8H-F25YL	P-002-ZC-8H-25
	P-002-ZC-8H-F29YL	P-002-ZC-8H-29
	P-002-ZC- XY -F25OR	P-002-ZC-6F-25
	P-002-ZC- XY -F29OR	P-002-ZC-6F-29
Cordage Riser	R-001-SP-8H-F20YL	R-001-SP-8H-20
	R-001-SP-8H-F25YL	R-001-SP-8H-25
	R-001-SP-8H-F29YL	R-001-SP-8H-29
	R-001-SP- XY -F20OR	R-001-SP-6F-20
	R-001-SP- XY -F25OR	R-001-SP-6F-25
	R-001-SP- XY -F29OR	R-001-SP-6F-29
	R-002-DU-8H-F20YL	R-002-DU-8H-20
	R-002-DU-8H-F25YL	R-002-DU-8H-25
	R-002-DU- XY -F20OR	R-002-DU-6F-20
	R-002-DU- XY -F25OR	R-002-DU-6F-25
	R-002-DU- XY -FHDOR	R-002-DU-6F-H0
	R-002-IC-8H-FSDYL	R-002-IC-8H-S0
	R-002-IC- XY -FSDOR	R-002-IC-6F-S0
	R-002-ZC-8H-F25YL	R-002-ZC-8H-25
	R-002-ZC-8H-F29YL	R-002-ZC-8H-29
	R-002-ZC- XY -F25OR	R-002-ZC-6F-25
	R-002-ZC- XY -F29OR	R-002-ZC-6F-29

Fiber Feeder® Armored Self Supporting 2-24 Fiber



Sag and Tension for O-XXX-FS-XY-F12SS (see page 10)

Self Supporting Fiber Feeder Cable

Span Length350 feetInstallation Temperature70° FInstallation Sag5 feetInstallation Tension285 lb	Span Length200 feetInstallation Temperature.70° FInstallation Sag.2 feetInstallation Tension.233 lb
NESC Light - Rule 151	NESC Light - Rule 151
Vector Sag8.16 feet	Vector Sag
Horizontal Sag 8.16 feet	Horizontal Sag
Vertical Sag 2.21 feet	Vertical Sag 0.94 feet
Tension	Tension
NESC Medium - Rule 151	NESC Medium - Rule 151
NESC Medium - Rule 151 Vector Sag	NESC Medium - Rule 151 Vector Sag 4.24 feet
Vector Sag9.76 feet	Vector Sag4.24 feet
Vector Sag 9.76 feet Horizontal Sag 6.96 feet	Vector Sag 4.24 feet Horizontal Sag
Vector Sag9.76 feetHorizontal Sag6.96 feetVertical Sag9.89 feet	Vector Sag4.24 feetHorizontal Sag3.02 feetVertical Sag2.97 feet
Vector Sag9.76 feetHorizontal Sag6.96 feetVertical Sag9.89 feet	Vector Sag4.24 feetHorizontal Sag3.02 feetVertical Sag2.97 feet
Vector Sag9.76 feetHorizontal Sag6.96 feetVertical Sag9.89 feetTension1005 lb	Vector Sag4.24 feetHorizontal Sag3.02 feetVertical Sag2.97 feetTension.755 lb
Vector Sag 9.76 feet Horizontal Sag 6.96 feet Vertical Sag 9.89 feet Tension 1005 lb NESC Heavy - Rule 151	Vector Sag 4.24 feet Horizontal Sag 3.02 feet Vertical Sag 2.97 feet Tension .755 lb NESC Heavy - Rule 151
Vector Sag 9.76 feet Horizontal Sag 6.96 feet Vertical Sag 9.89 feet Tension 1005 lb NESC Heavy - Rule 151 Vector Sag 12.10 feet	Vector Sag 4.24 feet Horizontal Sag 3.02 feet Vertical Sag 2.97 feet Tension .755 lb NESC Heavy - Rule 151 Vector Sag 5.37 feet

Additional Sag and Tension information is available through CommScope's SpanMaster™ software, available by request. For hardware and construction information, please refer to our HFC Upgrade Manual, Vol. 2 (Fiber).

Fiber Optic Cable that Performs Better, Installs Easier, Costs Less & Survives Longer!

Thank you for your interest in CommScope quality cable. You are the reason CommScope is a leading source for top quality fiber optic cable around the world. Years of experience building cable networks for countless applications is what enables us to offer innovative cable solutions. Our new catalog includes the products which you request most often. However, if you do not see the product that you need listed in this catalog, let us know – chances are we make it too! To place an order or to request more information, you can reach us by contacting the sales representative in your area, or contacting our service personnel at:

Toll Free Number.1-800-982-1708Customer Service.828-324-2200.custserv@commscope.comDomestic Fax.828-328-3400International Fax.828-323-4989Technical Service.828-431-2552.tecsuprt@commscope.com

Additional CommScope Fiber Optic Cable Literature

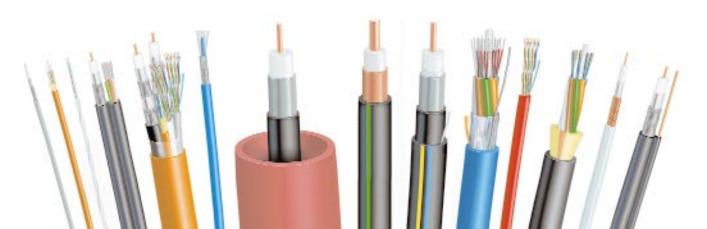
Please call Customer Service at 1-800-982-1708 and request from the following:

☐ HFC Upgrade Manual (Volume 2: Fiber)	☐ Triathlon Applications Report
☐ Fiber that Faces the Facts Brochure	☐ Indianapolis Power & Light Case Study
☐ Fiber Mini Catalog	☐ When It Comes Down to the Wire Brochure
☐ UltraFiber Brochure	☐ Reprints of Recent Articles
☐ UltraFiber Features and Benefits Sheet	Featuring CommScope Fiber Optic Cable
Aricebo Applications Report	☐ Specification Sheets
☐ Triathlon Features and Benefits Sheet	□ SpanMaster™ Sag & Tension Worksheet

Other CommScope Catalogs Which Include Application-Specific Fiber Optic Cable

🗌 International C	CATV Catalog (English, Portuguese, Chinese & Spanish versions available)
☐ LAN Catalog	(English, Portuguese & Spanish versions available)
🗌 Telecom Catal	og
🗌 Multimedia Si	gnal Processing Cable Catalog
	Jio/Video Catalog (Featuring CommScope's Millenium™ Fiber Optic Cable
CCTV Security	Catalog
🗌 Industrial Cató	ılog
☐ Home Automo	tion Catalog (Featuring CommScope's UltraHome™ Multimedia Cable)





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