

# EZ

Optimized  
for Multiple  
Dwelling  
Unit (MDU)  
Drop and  
In-Home  
Wiring  
Applications

[www.ofsoptics.com](http://www.ofsoptics.com)



A Furukawa Company

## EZ-Bend<sup>®</sup> Optical Cables

**EZ-Bend<sup>®</sup> Optical Cables help speed and simplify indoor optical drop cable installations using breakthrough technology pioneered by OFS.** They can be **routed around corners and stapled\*** using traditional fast and easy copper wire installation practices, with negligible signal loss. Ideal for aggressive routing environments where space is at a premium, EZ-Bend Cables offer **reliable support for MDU drop and in-home wiring applications**, and can support great-quality high-definition television (HDTV), on-demand video, ultra high speed data, voice, online gaming and many other revenue-generating services.

\* 3.0 mm cables and assemblies are not recommended for stapling.



## OFS Offers

EZ-Bend  
**3.0**  
Cable

Riser

Plenum

LS0H

EZ-Bend  
**4.8**  
Cable

Riser

Plenum

LS0H

Indoor/  
Outdoor

LS0H  
Indoor/  
Outdoor

### Features:

- 4.8 or 3.0 mm diameter ruggedized simplex cordage
- Less than 0.1 dB macrobending attenuation at 1550 nm for 1 turn at 5 mm fiber bend radius.
- Solid construction fiber with macrobending performance far better than ITU G.657B requirements
- Backward compatible with installed G.652D fibers
- Available in alternative colors upon request
- Conform to UL® Riser and Plenum fire ratings
- Compliant with Telcordia 409 & ICEA S-83-596 requirements
- Featuring EZ-Bend Optical Technology, a breakthrough developed by OFS Labs

### Benefits:

- **“Copper-like” installation process:** Can be routed around corners using familiar copper service wire practices
- **Faster, easier installation:** no extra steps to install bend limiters, conduits, or raceways
- **Compact installation and storage:** Conforms to building; slack fits in small storage spaces
- **Fast, easy, low loss splicing** to G.652D fiber with existing core and clad aligned splice equipment
- **Familiar, standard connector termination:** Solid fiber construction can be terminated using standard optical connectors and polishing techniques
- **Familiar connector endface cleaning** using same process as with existing G.652 fiber
- **MDU and in-home optimized:** Ideal for in-residence wiring and difficult installation routes in MDU overbuilds
- **Greener Solution:** Free of heavy metals and RoHS-compliant; solution uses less total materials and energy than copper solutions

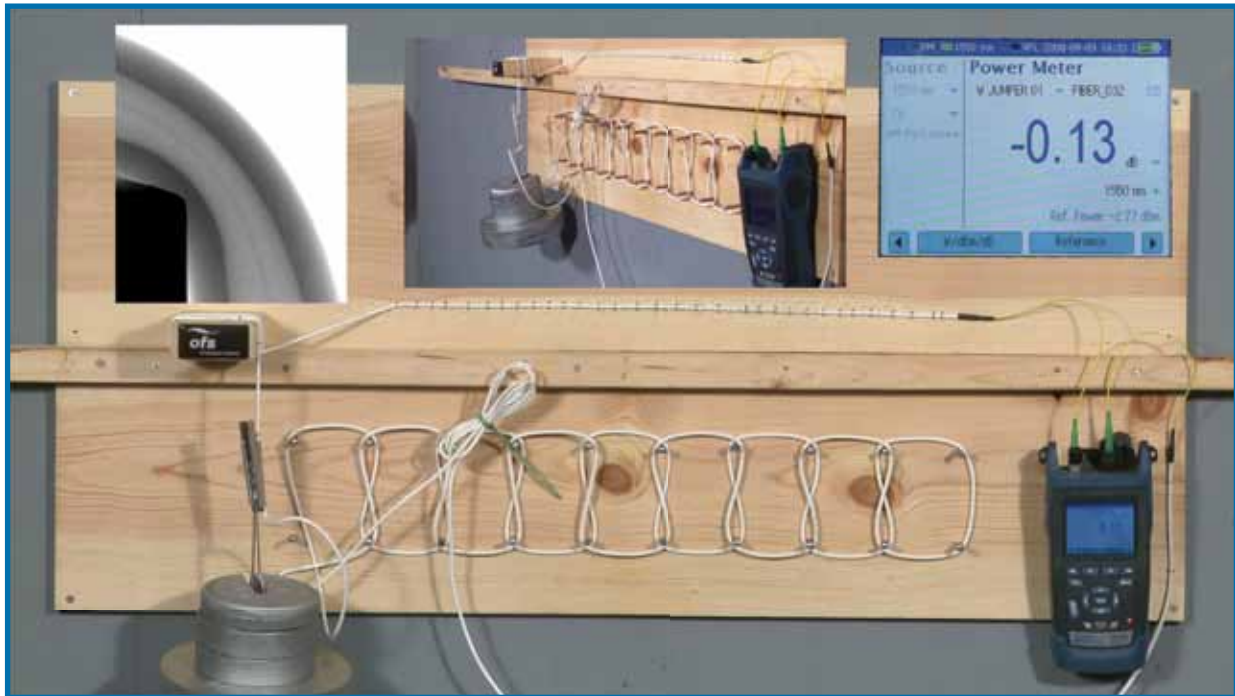


EZ-Bend Cables can be installed as easily as traditional in-home wiring (IHW), and do not require bend radius management hardware or conduits. EZ-Bend Cables offer remarkable installation advantages compared to Category 5/6 or COAX cables. The 25 mm minimum recommended bend radius for Category 5 and 6 cables, and the 60 mm recommended bend radius for RG59 COAX cables can in fact restrict and slow installation compared to EZ-Bend optical cables.



## Strong, Reliable Performance

Some tests performed on an EZ-Bend 4.8 mm Cable subjected to a more stringent configuration than specified by the rigorous Verizon MDU Simulation Test (TPR 9424), showed over 65% better loss performance than the 0.4 dB maximum specified for TPR 9424.



In one abusive test (pictured above), an EZ-Bend 4.8 mm Cable was subjected to the sum of 40 corners, 30 staples, and one 90 degree corner with 30 lbs tension applied, with additional cable slack secured tightly using a cable tie. As indicated on the power meter, total loss was only 0.13 dB for this difficult condition. The X-Ray micrograph on the top left corner shows the cable bent around a typical 90-degree corner, with the path of the glass fiber indicated by the dark line in the middle of the cable.

**EZ-Bend<sup>®</sup> Optical Technology**

Featuring EZ-Bend Optical Technology, a breakthrough developed by OFS Labs, the EZ-Bend Cables can provide up to a 500-fold improvement in bending performance over conventional single-mode fiber (SMF) optical cables, to help avoid service disruptions and lower installation costs.



Watch Solution Videos at:  
[www.ofsoptics.com](http://www.ofsoptics.com), "OFS Product Videos" section:

- EZ-Bend Optical Technology.

Videos are also available at:

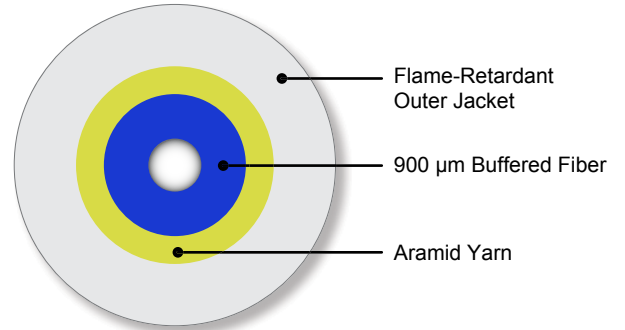
- [www.youtube.com/ofsmarcom](http://www.youtube.com/ofsmarcom)

# EZ-Bend® 4.8 Cable

Available in indoor/outdoor, riser, plenum, and low-smoke zero-halogen constructions, the EZ-Bend 4.8 Cable is the ideal solution for in-home wiring applications, and can be stapled or glued in place with the same simple practices and installation tools used for copper service cables.

## Extra Benefits and Features:

- Less than 0.1 dB macrobending attenuation at 1550 nm for a single turn at 3 mm radius
- Less than 0.3 dB macrobending attenuation at 1550 nm when subjected to MDU Simulation Test specified by the Verizon TPR.9424 FOC Document
- Indoor/Outdoor cables utilize UV and fungus resistant jacketing, and have a dry water-blocked core to protect against water ingress
- Reinforced solid jacket construction naturally limits cable bending to control macrobending attenuation and protect fiber reliability



EZ-Bend 4.8 Optical Cable Cross-Section



Aggressive stapling:  
19 mm bend radius for fiber  
(minimal bending)



90-degree bend, stapled 3/4" from corner:  
5 lb tension, 5.5 mm fiber bend radius

X-Ray of bent and stapled EZ-Bend 4.8 Optical Cable

## Specifications

Cable Type	Jacket Color *	Part Number	Maximum Tensile Rating N (lb)	Nominal Weight kg/km (lb/100 ft)	Standard REELEX Box Length †
Riser	White	LG4.8C-001C-DRW	440 N (100 lb)	21.5 kg/km (1.44 lb/100 ft)	457.2 m (1500 ft)
Plenum	White	LG4.8C-001C-DPW	440 N (100 lb)	26.1 kg/km (1.75 lb/100 ft)	457.2 m (1500 ft)
Low-Smoke Zero Halogen	White	LG4.8C-001D-DHW	440 N (100 lb)	23.3 kg/km (1.57 lb/100 ft)	457.2 m (1500 ft)
Indoor/Outdoor Riser	Black	IO4.8C-001C-DRK	440 N (100 lb)	23.3 kg/km (1.57 lb/100 ft)	457.2 m (1500 ft)
Low-Smoke Zero Halogen Indoor/Outdoor	Black	IO4.8C-001D-DHK	440 N (100 lb)	23.3 kg/km (1.57 lb/100 ft)	457.2 m (1500 ft)

\* Other colors available upon customer request.

† Alternative lengths available on standard premise spools. Contact OFS for more details.

### Example of Standard Sheath Marking [Custom sheath marking available upon request]

White-Jacketed Riser-Rated Ruggedized Drop Cable with EZ-Bend Technology:

**OFS EZ BEND ULTRA BEND INSENSITIVE OPTICAL DROP CABLE -C- LG4.8C-001C-DRW C(UL) US TYPE OFNR [CSA OFN FT4] {lot number} ~nnnnn FEET**

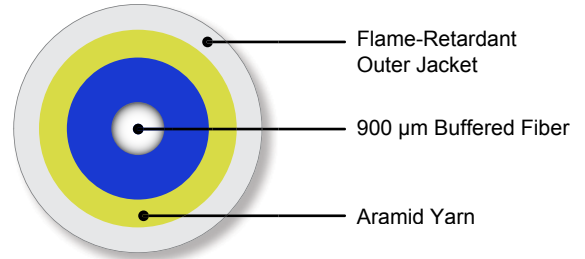
## Performance

Flame Performance	Mechanical and Environmental Performance	Temperature Range
Riser: UL 1666 compliant	Telcordia GR-409, ICEA S-83-596 compliant	Installation: 32° F to 104° F (0° C to 40° C )
Plenum: NFPA 262 (UL 910) compliant		Operation: -40° F to 158° F ( -40° C to 70° C )
Non-Halogen: IEC 60332-3c and IEC 61034-2 compliant		Storage: -40° F to 158° F ( -40° C to 70° C )
Attenuation @	1310 nm	1550 nm
Maximum Attenuation	0.4 dB/km	0.3 dB/km
Typical Attenuation	0.35 dB/km	0.25 dB/km



# EZ-Bend<sup>®</sup> 3.0 Cable

Available in riser, plenum, and low-smoke zero-halogen constructions, the EZ-Bend 3.0 Cable is the ideal solution for in-home wiring applications, and can be routed around corners, and **behind moldings** and furniture with the same simple practices and installation tools used for copper service cables\*



EZ-Bend 3.0 Optical Cable Cross-Section



## Extra Benefits and Features:

- Less than 0.1 dB macrobending attenuation at 1550 nm for a single turn at 3.5 mm radius
- Less than 0.4 dB macrobending attenuation at 1550 nm when subjected to MDU Simulation Test specified by the Verizon TPR.9424 FOC Document

## Specifications

Cable Type	Jacket Color*	Part Number	Maximum Tensile Rating N (lb)	Nominal Weight kg/km (lb/100 ft)	Standard REELEX Box Length †
Riser	White	LG3.0C-001C-DRW	260 N (60 lb)	6.41 kg/km (0.43 lb/100 ft)	457.2 m (1500 ft)
Plenum	White	LG3.0C-001C-DPW	260 N (60 lb)	7.94 kg/km (0.53 lb/100 ft)	457.2 m (1500 ft)
Low-Smoke Zero Halogen	White	LG3.0C-001D-DHW	260 N (60 lb)	6.17 kg/km (0.42 lb/100 ft)	457.2 m (1500 ft)

\* Other colors available upon customer request.

† Alternative lengths available on standard premise spools. Contact OFS for more details.

### Example of Standard Sheath Marking [Custom sheath marking available upon request]

White-Jacketed Riser-Rated Ruggedized Drop Cable with EZ-Bend Technology

OFS EZ BEND ULTRA BEND INSENSITIVE OPTICAL DROP CABLE -C- LG3.0C-001C-DRW C (UL) US TYPE OFNR [CSA OFN FT4] {lot number} ~nnnnn FEET

## Performance

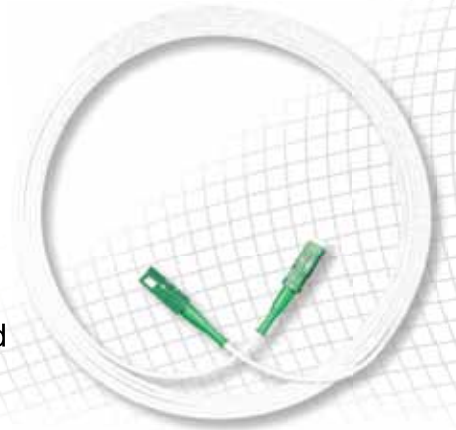
Flame Performance	Mechanical and Environmental Performance	Temperature Range
Riser: UL 1666 compliant	Telcordia GR-409, ICEA S-83-596 compliant	Installation: 32° F to 104° F (0° C to 40° C)
Plenum: NFPA 262 (UL 910) compliant		Operation: -40° F to 158° F (-40° C to 70° C)
Non-Halogen: IEC 60332-3c and IEC 61034-2 compliant		Storage: -40° F to 158° F (-40° C to 70° C)
Attenuation @	1310 nm	1550 nm
Maximum Attenuation	0.4 dB/km	0.3 dB/km
Typical Attenuation	0.35 dB/km	0.25 dB/km

\* 3.0 mm cables are not recommended for stapling.

# EZ-Bend<sup>®</sup> Assemblies

## Factory Terminated

The robust, leading-edge EZ-Bend Assemblies offer all the advantages of bend-insensitive EZ-Bend Cables plus the benefits of factory-tuned termination. OFS' EZ-Bend Assemblies allow for customization (i.e, cable diameter and construction, cable length, and termination type) and help save time and money on installation. Their innovative design can conquer sharp corners and moldings\*, and provide an ideal solution for MDU and in-home wiring applications where space is at a premium.



*EZ-Bend 3.0 Assembly*

### Benefits and Features:

- Utilize EZ-Bend 4.8 Cable and EZ-Bend 3.0 Ultra Bend-Insensitive Cables in all available constructions
- Offered as single or double ended SC-Angled terminated cables with 0.15 dB Mean Loss (single fiber constructions)
- Also available as boxed cable for splicing that can be easily managed by a single technician
- **Insertion Loss:** 0.5 dB
- **Return Loss:** - 65 dB
- **Mating Durability:** 100



With a size (12" x 13" x 9") and a weight (24 lbs) that are familiar to installers, these boxes can be easily handled by a single technician

### Example Ordering Codes

Code	Description
JR5DK001SCASCAnnnF	4.8 mm Riser Indoor/Outdoor Single Fiber SCA to SCA
JR5DK001SCAUNCnnnF	4.8 mm Riser Indoor/Outdoor Single Fiber SCA to Unconnectorized
JH5DK001SCAUNCnnnF	4.8 mm Low Halogen Black Indoor/Outdoor Black Single Fiber SCA to Unconnectorized
JR4DW001SCASCAnnnF	4.8 mm Riser White Single Fiber SCA to SCA
JR4DW001SCAUNCnnnF	4.8 mm Riser White Single Fiber SCA to Unconnectorized
JP4DW001SCAUNCnnnF	4.8 mm Plenum White Single Fiber SCA to Unconnectorized
JR3DW001SCASCAnnnF	3.0 mm Riser White Single Fiber SCA to SCA
JR3DW001SCAUNCnnnF	3.0 mm Riser White Single Fiber SCA to Unconnectorized
JH3DW001SCAUNCnnnF	3.0 mm Low Halogen White Single Fiber Indoor SCA to Unconnectorized
JH4DW001SCAUNCnnnF	3.0 mm Low Halogen White Single Fiber Indoor SCA to Unconnectorized

**Notes:**

- 3.0 mm assemblies are not recommended for stapling
- nnn = footage (Lengths in boxes up to 1,500 feet)



*Example diagram of cable assembly with length information*

\* Assemblies are not recommended for stapling.





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[www.ofsoptics.com](http://www.ofsoptics.com) - Use less paper

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UL is a registered trademark of Underwriters Laboratories Inc.

For additional information please contact your sales representative. You can also visit our website at [www.ofsoptics.com](http://www.ofsoptics.com) or call 1-888-fiberhelp (1-888-342-3743) from inside the USA or 1-770-798-5555 from outside the USA.

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