ofs
A Furukawa Company

Your Optical Fiber Solutions Partner™

Industrial Networking Solutions
Minutes to learn, seconds to connect

Electrical Substation Automation

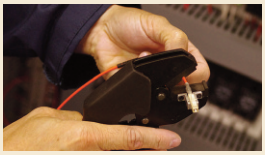
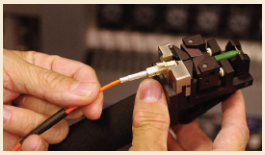
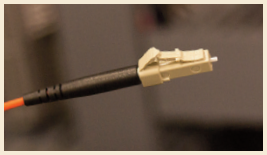
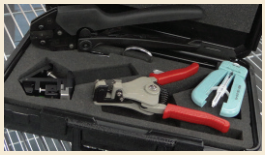
Ethernet for Electrical Substation Automation and Control

The GiHCS® industrial cabling solution from OFS answers the call

New and improved! Industrial Cables, Crimp and Cleave LC Connectors, and Kits

Utilities and industries across the world face increasing pressure to deliver reliable, high-quality electric power at affordable rates and with minimum environmental impact. The need for "smart Grid" technologies using Ethernet-based automation processes in power generation, transmission, and distribution systems is on the rise. OFS is committed to supporting substation automation with highly reliable, industrial-grade fiber optic cable and connectivity with GiHCS high-bandwidth, strength-enhanced optical fibers and cables, and easy-to-use crimp/cleave LC connectivity. Optical fiber in substation automation offer wide ranging advantages, including:

- Immunity to EMI/RFI
- All dielectric fiber optic cables to minimize ground potential
- High bandwidth that supports higher data rates over longer distances
- Ability to safely bridge high potential differences for applications where fumes or sparks exist
- Field connectorization designed for electrical technicians
- More secure data communications
- Cables and connectors with wide operating temperature range

GiHCS, LSZH/OFNR Riser Rated Industrial Cables:

- For Fast (100Mb/sec) and Gigabit Ethernet (1000 Mb/sec)
- -20 to +80 °C
- For use indoors or outdoors
- High tensile strength
- Abrasion, vibration, and chemically resistant
- Aramid free subunits for simplified field connectorization
- PVC-free design
- RoHS and REACH compliant

Crimp and Cleave LC Connectors and Kits:

- Compatible with SFP transceivers
- No power, no epoxy, no gels, no polishing
- Minutes to learn, seconds to connect
- Fiber optic specialists not required

GiHCS® Optical Fiber Cables

GiHCS Graded-Index Hard Coat Silica*	Cable Construction	Part Number	Use	Outer Cable Diameter	Outer Jacket Color	Outer Jacket Material	Cable Weight	Min. Bend Radius Under Load	Min. Bend Radius Unloaded	Max. Installation Tensile Load	Max. Operating Tensile Load	Attenuation	Operating Temperature
GiHCS 50/200/230/500 µm	Zipcord 	**C26136**	Indoor	2.2 ± 0.1 x 4.6 mm	Orange	LSZH	<12.0 kg/km	33 mm	22 mm	25 lbs (111 N)	5 lbs (22 N)	≤5 dB/km @850nm ≤3 dB/km @1300nm	-20 to +80 °C
	2-Fiber Waterblocked 	**C26138**	Indoor/ Outdoor	8.0 ± 0.4 mm	Black	LSZH	<70 kg/km	120 mm	80 mm	530 lbs (2358 N)	265 lbs (1179 N)		-20 to +80 °C
	4-Fiber Waterblocked 	**C26140**	Indoor/ Outdoor	8.0 ± 0.4 mm	Black	LSZH	<70 kg/km	120 mm	80 mm	530 lbs (2358 N)	265 lbs (1179 N)		-20 to +80 °C
GiHCS 62.5/200/230/500 µm	Zipcord 	**C26135**	Indoor	2.2 ± 0.1 x 4.6 mm	Orange	LSZH	<12.0 kg/km	33 mm	22 mm	25 lbs (111 N)	5 lbs (22 N)	≤5 dB/km @850nm ≤3 dB/km @1300nm	-20 to +80 °C
	2-Fiber Waterblocked 	**C26137**	Indoor/ Outdoor	8.0 ± 0.4 mm	Black	LSZH	<70 kg/km	120 mm	80 mm	530 lbs (2358 N)	265 lbs (1179 N)		-20 to +80 °C
	4-Fiber Waterblocked 	**C26139**	Indoor/ Outdoor	8.0 ± 0.4 mm	Black	LSZH	<70 kg/km	120 mm	80 mm	530 lbs (2358 N)	265 lbs (1179 N)		-20 to +80 °C

Fire Safety

Qualified to the following US, Canadian and International Standards.
OFNR/FT-4 Riser, US and Canadian UL 1666, Flammability IEC 60332-3 (for zipcord, 2-Fiber & 4-Fiber cables), Smoke Density IEC 61034, Halogen Gas Emissions IEC 60745-1

Crimp and Cleave LC Connectors
for GiHCS® Optical Fiber Cables

Connector Type	Part Number	Cable Type	Termination Kit Part #	Insertion Loss Kit Part #
Simplex	**P26763-01** (Beige Boot) **P26763-02** (Black Boot)	Aramid Free and 2.2 mm Sub-unit Cables	**DT03732-LC1**	**P10188-15**
Duplex	**P26764-01** (2 Beige Boots) **P26764-02** (2 Black Boots) **P26764-03** (One Beige, One Black Boot)			

LC Connector Insertion Loss (dB)

	850 nm		1300 nm	
	Typical	Maximum	Typical	Maximum
50/200/230 GiHCS	1.0	1.5	1.2	1.7
62.5/200/230 GiHCS	1.0	1.5	1.2	1.7

GiHCS® Optical Fibers

Fiber*	Dimensions	Numerical Aperture	Bandwidth		Attenuation	
GiHCS 50 µm	50/200/230/500 µm	0.20 ± 0.02	>400 MHz-km @850 nm	>400 MHz-km @1300 nm	≤2.8 dB/km @850 nm	≤1.0 dB/km @1300 nm
GiHCS 62.5 µm	62.5/200/230/500 µm	0.275 ± 0.020	>200 MHz-km @850 nm	>500 MHz-km @1300 nm	≤3.5 dB/km @850 nm	≤1.2 dB/km @1300 nm