









Network

Network / Ethernet / FOC / Fieldbus

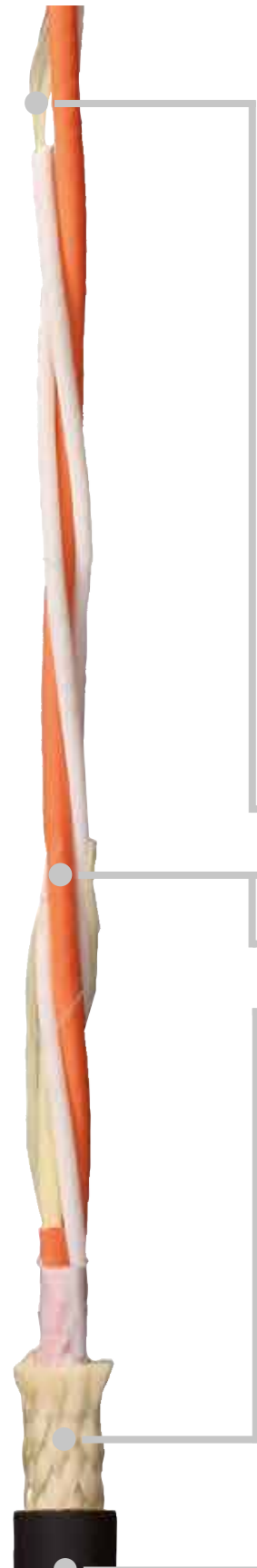


Chainflex® readycable®



	Cable type	Jacket	Page
Network / Ethernet / FOC / Fieldbus			
	CFLG-LB	Gradient fiber glass cable, pre-harnessed	TPE 472
	CFLG-G	Gradient fiber glass cable, pre-harnessed	TPE 474
	CAT5	Ethernet cable, pre-harnessed	PVC/PUR/TPE 477
	CAT5	Ethernet cable, pre-harnessed, L-/T- angle	PVC/PUR/TPE 482
	CAT6	Ethernet cable, pre-harnessed	TPE 487
	CAT7	Ethernet cable, pre-harnessed	PUR/TPE 492
	Profibus	Profibus cable, pre-harnessed	PVC/PUR/TPE 494
	Profinet	Profinet cable, pre-harnessed	PVC/PUR/TPE 500

TPE Fiber optic cable | CFLG-LB



- Gradient glass-fiber cable for maximum mechanical load requirements
- TPE outer jacket
- Metal-free
- Oil-resistant
- Low-temperature-flexible to -40 °F
- PVC-free/halogen-free
- UV-resistant

Dynamic information

	Bend radius	E-Chain®	min. 5 x d
	flexible		min. 4 x d
	fixed		min. 3 x d
	Temperature	E-Chain®	-31 °F to +176 °F (-35 °C to +80 °C)
	flexible		-58 °F to +176 °F (-50 °C to +80 °C)
	fixed		-67 °F to +176 °F (-55 °C to +80 °C)
	v max.	unsupported	32.81 ft/s (10 m/s)
	a. max.	gliding	19.69 ft/s (6 m/s)
	Travel distance	Unsupported travel distances and for gliding applications up to 328 ft (100 m), Class 5	

Cable structure

	Fibers	50/125 µm, 62.5/125 µm special fixed wire elements with aramide strain relief.
	Conductor construction	Optical Fibers cabled with high-tensile aramid dampers and especially short pitch length.
	Color code	Optical Fibers: Orange or blue with black numbers.
	Overall shield	Extremely bending-resistant aramide braid for torsion-protection.
	Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in E-Chains®. Color: Jet black (similar to to RAL 9005)

Properties and approvals

	UV resistance	High
	Oil resistance	Oil resistant (following DIN EN 60811-404), bio-oil resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following EN 50267-2-1
	Lead-free	Following 2011/65/EC (RoHS-II)
	Cleanroom	According to ISO Class 1. Outer jacket material complies with CF9-15-07, tested by IPA according to standard 14644-1
	CE	Following 2014/35/EG

Class 7.5.4.1

Typical application areas

- For maximum mechanical load requirements at 5-7.5 x d
- Maximum EMC safety, with high transmission qualities in terms of glass-specific requirements
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications
- Unsupported travel distances and for gliding applications (horizontal + vertical) up to 328 ft (100 m)
- Crane applications, conveyer technology, low temperature applications

Delivery program FOC (TPE) 6 and 12 Fibers

Delivery program	igus® Part No.	Number of fibers	Fiber diameter [µm]	Outer diameter [in.]	Outer diameter [mm]	Bend radius
CFLG-6LB-50/125	LWL9040091	6	50/125	0.43	11.0	5.0 x d
CFLG-6LB-62.5/125	LWL9040090	6	62.5/125	0.43	11.0	5.0 x d
CFLG-12LB-50/125	LWL90428938	12	50/125	0.55	14.0	5.0 x d
CFLG-12LB-62.5/125	LWL90428937	12	62.5/125	0.55	14.0	5.0 x d

Connector ST/ST Pre-harnessed on both sides



CFLG-6LB-50/125	LWL90428946	6	50/125	0.43	11.0	5.0 x d
CFLG-6LB-62.5/125	LWL90428945	6	62.5/125	0.43	11.0	5.0 x d
CFLG-12LB-50/125	LWL90428942	12	50/125	0.55	14.0	5.0 x d
CFLG-12LB-62.5/125	LWL90428941	12	62.5/125	0.55	14.0	5.0 x d

Connector LC/LC Pre-harnessed on both sides



CFLG-6LB-50/125	LWL90428944	6	50/125	0.43	11.0	5.0 x d
CFLG-6LB-62.5/125	LWL90428943	6	62.5/125	0.43	11.0	5.0 x d
CFLG-12LB-50/125	LWL90428940	12	50/125	0.55	14.0	5.0 x d
CFLG-12LB-62.5/125	LWL90428939	12	62.5/125	0.55	14.0	5.0 x d

Connector SC/SC Pre-harnessed on both sides



CFLG-6LB-50/125	LWL90428944	6	50/125	0.43	11.0	5.0 x d
CFLG-6LB-62.5/125	LWL90428943	6	62.5/125	0.43	11.0	5.0 x d
CFLG-12LB-50/125	LWL90428940	12	50/125	0.55	14.0	5.0 x d
CFLG-12LB-62.5/125	LWL90428939	12	62.5/125	0.55	14.0	5.0 x d

Connectors



Tube sinking

Tube sinking



LWL90428935

Closed corrugated tube to feed in fiber optic cables (image shown cut open)

Note: The mentioned outer diameters are maximum values.

TPE Fiber optic cable (FOC) | CFLG-G

- Glass-fiber cable for maximum mechanical load requirements
- TPE outer jacket
- PVC-free/halogen-free
- Low-temperature-flexible to -40 °F
- Hydrolysis-/microbe-resistant

Dynamic information

	Bend radius	E-Chain®	min. 10 x d
	flexible		min. 8 x d
	fixed		min. 5 x d
	Temperature	E-Chain®	-40 °F to +176 °F (-40 °C to +80 °C)
	flexible		-58 °F to +176 °F (-50 °C to +80 °C)
	fixed		-67 °F to +176 °F (-55 °C to +80 °C)
	v max.	unsupported	32.81 ft/s (10 m/s)
	a. max.	gliding	19.69 ft/s (6 m/s)
	Travel distance	Unsupported travel distances and for gliding applications up to 1312 ft (400 m) and more, Class 6	

Cable structure

	Fibers	9/125 µm, 50/125 µm, 62.5/125 µm fibers in gel-filled hollow cores.
	Conductor construction	Strengthening rods with integrated torsion-protection braid in the outer jacket over a central gel-filled fiber tube.
	Color code	Fibers See Table
	Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in E-Chains®. Color: Jet black (similar to RAL 9005)

Properties and approvals

	UV resistance	High
	Oil resistance	Oil resistant (following DIN EN 60811-404), bio-oil resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following EN 50267-2-1
	Lead-free	Following 2011/65/EC (RoHS-II)
	Cleanroom	According to ISO Class 1. Outer jacket material complies with CF9-15-07, tested by IPA according to standard 14644-1
	CE	Following 2014/35/EU

Class 7.6.4.1

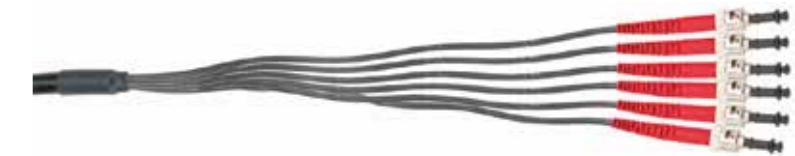
Typical application areas

- For maximum mechanical load requirements
- Maximum EMC safety, with high transmission qualities in terms of glass-specific requirements
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications
- Unsupported travel distances and for gliding applications (horizontal) up to 1312 ft (400 m) and more
- Ship to shore, crane applications, conveyer technology, low temperature applications

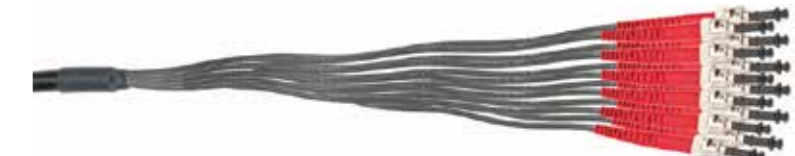
Delivery program CFLG-G (TPE) 6 and 12 Fibers

Delivery program	igus® Part No.	Number of fibers	Fiber diameter [µm]	Outer diameter [in.]	Outer diameter [mm]	Bend radius
	LWL9040030	6	50/125	0.45	11.5	10 x d
incl. conversion to SC	LWL9040031	6	50/125	0.45	11.5	10 x d
incl. conversion to LC	LWL9040032	6	50/125	0.45	11.5	10 x d
	LWL9040045	6	62.5/125	0.45	11.5	10 x d
incl. conversion to SC	LWL9040046	6	62.5/125	0.45	11.5	10 x d
incl. conversion to LC	LWL9040047	6	62.5/125	0.45	11.5	10 x d

6 Fibers, on both sides with ST connectors



12 Fibers, on both sides with ST connectors



	LWL9040060	12	50/125	0.45	11.5	10 x d
incl. conversion to SC	LWL9040061	12	50/125	0.45	11.5	10 x d
incl. conversion to LC	LWL9040062	12	50/125	0.45	11.5	10 x d
	LWL9040075	12	62.5/125	0.45	11.5	10 x d
incl. conversion to SC	LWL9040076	12	62.5/125	0.45	11.5	10 x d
incl. conversion to LC	LWL9040077	12	62.5/125	0.45	11.5	10 x d

Tube sinking

Tube sinking



LWL90428936

Closed corrugated tube to feed in fiber optic cables (image shown cut open)

Fiber Identification

Part no.	Fiber identification	Hollow core identification
CFLG-6G-62.5/125-TC	light beige, yellow, green, red, violet, blue	orange
CFLG-6G-50/125-TC	light beige, yellow, green, red, violet, blue	blue
CFLG-12G-62.5/125-TC	light beige, yellow, green, red, violet, blue, lightblue, grey, brown, black, orange, pink	orange
CFLG-12G-50/125-TC	light beige, yellow, green, red, violet, blue, lightblue, grey, brown, black, orange, pink	blue

