TPE Fiber optic cable | CFLG-G

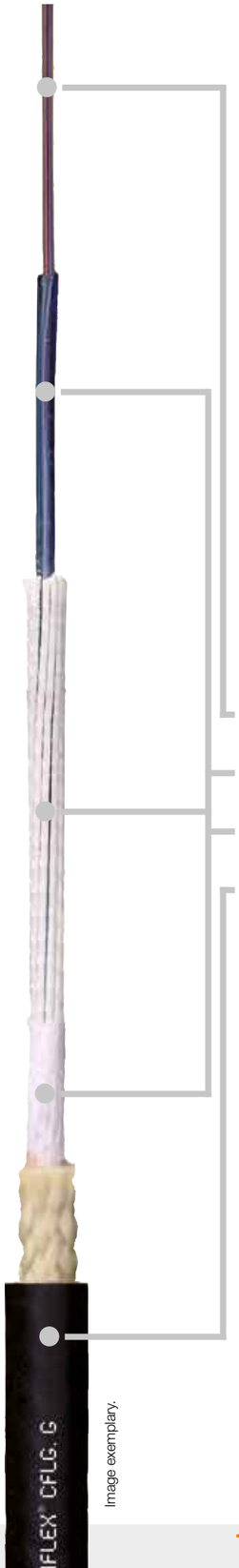

Image exemplary.

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

Bend radius reduced by 33%!

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)
	gliding	19.69 ft/s (6 m/s)
a max.		65.6 ft/s² (20 m/s²)
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)

Configurators ▶ www.igus.com/CFLG

Class 7.6.4.1

Requirements	low	1	2	3	4	5	6	**7**	highest
Travel distance	unsupported	1	2	3	4	5	**6**	1,312 ft +	
Oil-resistance	none	1	2	3	**4**	highest			
Torsion	none	**1**	2	3	±180°				

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
Info	For hanging applications, please use cables of the series CFLG-LB - see page 226!

Guaranteed lifetime according to guarantee conditions (Page 22-25)

Cycles*					5 million	7.5 million	10 million
Temperature, from/to [°F]	v max. [ft/s] unsupported	v max. [ft/s] gliding	a max. [ft/s²]	Travel distance [ft]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
-40 / -22					12,5	13,5	14,5
-22 / +158	32.81	19.69	65.62	> 1,312	10	11	12
+158 / +176					12,5	13,5	14,5

* Higher number of cycles possible - please ask for your individual calculation.

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

Test data ▶ page 52

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CFLG-G
TPE
10 x d

Image exemplary.

Part No.	Fiber Count	Fiber Diameter approx. [µm]	Outer diameter max.		Weight	
			in.	mm	lbs/mft	kg/km
CFLG-6G-62.5/125-TC	6	62.5/125	0.39	10.0	53.8	80
CFLG-12G-62.5/125-TC	12	62.5/125	0.39	10.0	53.8	80
CFLG-6G-50/125-TC	6	50/125	0.39	10.0	53.8	80
CFLG-12G-50/125-TC	12	50/125	0.39	10.0	53.8	80
CFLG-12E-9/125-TC	12	9/125	0.39	10.0	53.8	80

Other numbers of fibres on request.
Note: The mentioned outer diameters are maximum values.

Part No.	Bandwidth [MHz x km] @ 1300 nm	Bandwidth [MHz x km] @ 850 nm	Attenuation [dB/km] @ 1300 nm	Attenuation [dB/km] @ 850 nm
CFLG-6G-62.5/125-TC	≥ 500	≥ 200	≤ 0.7	≤ 3.0
CFLG-12G-62.5/125-TC	≥ 500	≥ 200	≤ 0.7	≤ 3.0
CFLG-6G-50/125-TC	≥ 500	≥ 500	≤ 0.7	≤ 3.0
CFLG-12G-50/125-TC	≥ 500	≥ 500	≤ 0.7	≤ 3.0

Part No.	Chromatic dispersion [ps/nm x km] @ 1310 nm	Chromatic dispersion [ps/nm x km] @ 1550 nm	Attenuation [dB/km] @ 1310 nm	Attenuation [dB/km] @ 1550 nm
CFLG-12E-9/125-TC	3	18	≤ 0.35	≤ 0.23

Part No.	Fiber identification	Hollow core identification
CFLG-6G-62.5/125-TC	natural, yellow, green, red, violet, blue	orange
CFLG-12G-62.5/125-TC	natural, yellow, green, red, violet, blue, lightblue, gray, brown, black, orange, pink	orange
CFLG-6G-50/125-TC	natural, yellow, green, red, violet, blue	blue
CFLG-12G-50/125-TC	natural, yellow, green, red, violet, blue, lightblue, gray, brown, black, orange, pink	blue
CFLG-12E-9/125-TC	natural, yellow, green, red, violet, blue, lightblue, gray, brown, black, orange, pink	yellow

Configurators ▶ www.igus.com/CFLGGT

Order example: CFLG-6G-62.5/125-TC **– In your desired length**
CFLG-G **Chainflex® series** -6G **Number of fibers** -62.5/125 **Diameter of fiber** -TC **Special Identification**

Online order ▶ www.chainflex.com/CFLG

Delivery time 24hr or today.
Delivery time means time until shipping of goods.