






# Fibre optic cable | TPE | chainflex® CFLG.G





- Glass-fibre cable for heaviest duty applications
- TPE outer jacket
- Oil-resistant, bio-oil-resistant
- PVC and halogen-free
- Low-temperature-flexible
- Hydrolysis and microbe-resistant

Bend radius  
is reduced by  
33%!

### Dynamic information

 <b>Bend radius</b>	<b>e-chain® linear flexible</b>	minimum 10 x d minimum 8 x d minimum 5 x d
 <b>Temperature</b>	<b>e-chain® linear flexible</b>	-40 °C to +80 °C -50 °C to +80 °C (following DIN EN 60811-504) -55 °C to +80 °C (following DIN EN 50305)
 <b>v max.</b>	<b>unsupported gliding</b>	10 m/s 6 m/s
 <b>a max.</b>		20 m/s <sup>2</sup>
 <b>Travel distance</b>		Unsupported travel distances and up to 400 m and more for gliding applications, Class 6

### Cable structure

 <b>Conductor</b>		50/125 µm, 62.5/125 µm, 9/125 µm fibres in gel-filled hollow tube.
 <b>Core structure</b>		Gel-filled fibre tube surrounded by GRP rods and torsion protection braid in the outer jacket.
 <b>Core identification</b>		Fibres u Product range table
 <b>Outer jacket</b>		Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. Colour: Jet black (similar to RAL 9005)








Example image

igus® chainflex® CFLG.G

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	≥ 400 m
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	±180°				

## Class 7.6.4.1

### 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 DIN EN 60754.
-  **Lead-free** Following 2011/65/EU (RoHS-II).
-  **Cleanroom** According to ISO Class 1. Outer jacket material complies with CF9.15.07, tested by IPA according to standard 14644-1.  
Following 2014/35/EU.
-  **CE**
-  **Info** For hanging applications, please use cables of the series CFLG.LB - see page 198!

### Guaranteed lifetime according to guarantee conditions (Page 22-23)

Double strokes* Temperature, from/to [°C]	5 million	7.5 million	10 million
	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-40/-30	12.5	13.5	14.5
-30/+70	10	11	12
+70/+80	12.5	13.5	14.5

\* Higher number of double strokes? Online lifetime calculation: [www.igus.eu/chainflexlife](http://www.igus.eu/chainflexlife)

### Typical mechanical application areas

- For heaviest duty applications
- Maximum EMC protection, with high transmission qualities
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications
- Unsupported travel distances and up to 400 m and more for gliding applications (horizontal)
- crane applications, Conveyor technology, low temperature applications



Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	≥ 400 m	
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	±180°				



Example image

Part No.	Number of fibres	Fibre diameter	Outer diameter (d) max.	Weight [kg/km]
		[µm]	[mm]	
CFLG.6G.62.5/125.TC	6	62.5/125	10.0	80
CFLG.12G.62.5/125.TC	12	62.5/125	10.0	80
CFLG.6G.50/125.TC	6	50/125	10.0	80
CFLG.12G.50/125.TC	12	50/125	10.0	80
CFLG.12E.9/125.TC	12	9/125	10.0	80

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.  
G = with green-yellow earth core x = without earth core

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

Part No.	Attenuation [dB/km] @ 1310 nm	Attenuation [dB/km] @ 1550 nm	Chromatic dispersion [ps/nm x km] @ 1310 nm	Chromatic dispersion [ps/nm x km] @ 1550 nm
	CFLG.12E.9/125.TC	≤ 0.35	≤ 0.23	3,5

Part No.	Fibre identification	Hollow core identification
CFLG.6G.62.5/125.TC	ecru, yellow, green, red, violet, blue	orange
CFLG.12G.62.5/125.TC	ecru, yellow, green, red, violet, blue, light-blue, grey, brown, black, orange, pink	orange
CFLG.6G.50/125.TC	ecru, yellow, green, red, violet, blue	blue
CFLG.12G.50/125.TC	ecru, yellow, green, red, violet, blue, light-blue, grey, brown, black, orange, pink	blue
CFLG.12E.9/125.TC	ecru, yellow, green, red, violet, blue, light-blue, grey, brown, black, orange, pink	yellow



Order example: CFLG.6G.62.5/125.TC – to your desired length (0.5 m steps)  
CFLG.G chainflex® series .6G Number of fibres .62,5/125 Fibre diameter .TC Special identification



Online order ► [www.chainflex.eu/CFLG.G](http://www.chainflex.eu/CFLG.G)



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

