

Fibre optic cable | TPE | chainflex® CFLG.LB

- Graded index glass-fibre cable for heaviest duty applications
- TPE outer jacket
- Metal-free
- Oil-resistant, bio-oil-resistant
- Low-temperature-flexible
- PVC and halogen-free
- UV-resistant

Dynamic information

	Bend radius	e-chain® linear	minimum 5 x d
		flexible	minimum 4 x d
		fixed	minimum 3 x d
	Temperature	e-chain® linear	-35 °C to +80 °C
		flexible	-50 °C to +80 °C (following DIN EN 60811-504)
		fixed	-55 °C to +80 °C (following DIN EN 50305)
	v max.	unsupported	10 m/s
		gliding	6 m/s
	a max.		20 m/s ²
	Travel distance	Unsupported travel distances and up to 100 m for gliding applications, Class 5	

Cable structure

	Conductor	50/125 µm, 62.5/125 µm especially bending-resistant solid glass fibre optic cores, with aramid strain relief elements.
	Core structure	FOC cores wound with a short pitch length with high-tensile aramide dampers.
	Core identification	FOC cores: Orange or blue with black numerals. Copper cores: Black with white numerals.
	Overall shield	Extremely bending-resistant aramide braid for torsion protection.
	Outer jacket	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)

Electrical information

	Nominal voltage	Copper cores: 300/500 V (following DIN VDE 0298-3)
	Testing voltage	Copper cores: 2000 V (following DIN EN 50395)

Example image

igus® chainflex® CFLG.LB

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°				

Class 7.5.4.1

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	

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

Double strokes*	5 million		7.5 million		10 million	
	CFLG.LB	CFLG.LB.CU	CFLG.LB	CFLG.LB.CU	CFLG.LB	CFLG.LB.CU
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	7.5	10	8.5	11	9.5	12
-25/+70	5	7.5	6	8.5	7	9.5
+70/+80	7.5	10	8.5	11	9.5	12

* Higher number of double strokes? Online lifetime calculation: www.igus.eu/chainflexlife

Typical mechanical application areas

- For heaviest duty applications with 5-7.5 x d
- 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 100 m for gliding applications (horizontal + vertical)
- Crane applications, Conveyor technology, Storage and retrieval units for high-bay warehouses, machining units/packages machines, quick handling equipment, semiconductor handling, refrigerating sector



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°				

igus® chainflex® CFLG.2LB

Example image

Part No.	Number of fibres	Fibre diameter [µm]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFLG.2LB.200/230	2	200/230	8.5	-	57
CFLG.2LB.62.5/125	2	62.5/125	8.5	-	57
CFLG.4LB.62.5/125	4	62.5/125	9.0	-	68
CFLG.6LB.62.5/125	6	62.5/125	11.0	-	91
CFLG.12LB.62.5/125	12	62.5/125	14.0	-	150
CFLG.2LB.50/125	2	50/125	8.5	-	57
CFLG.4LB.50/125	4	50/125	9.0	-	68
CFLG.6LB.50/125	6	50/125	11.0	-	91
CFLG.12LB.50/125	12	50/125	14.0	-	150
CFLG.2LB.CU2.50/125	2	50/125	9.5	16	87

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	Attenuation [dB/km] @ 850 nm	Bandwidth [MHz x km] @ 1300 nm	Attenuation [dB/km] @ 1300 nm	Fibre identification
CFLG.2LB.200/230	≥ 20	≤ 6.0			black with white numerals
CFLG.2LB.62.5/125	≥ 200	≤ 3.0	≥ 500	≤ 0.7	orange with black numerals
CFLG.4LB.62.5/125	≥ 200	≤ 3.0	≥ 500	≤ 0.7	orange with black numerals
CFLG.6LB.62.5/125	≥ 200	≤ 3.0	≥ 500	≤ 0.7	orange with black numerals
CFLG.12LB.62.5/125	≥ 200	≤ 3.0	≥ 500	≤ 0.7	orange with black numerals
CFLG.2LB.50/125	≥ 500	≤ 2.5	≥ 500	≤ 0.7	blue with black numerals
CFLG.4LB.50/125	≥ 500	≤ 2.5	≥ 500	≤ 0.7	blue with black numerals
CFLG.6LB.50/125	≥ 500	≤ 2.5	≥ 500	≤ 0.7	blue with black numerals
CFLG.12LB.50/125	≥ 500	≤ 2.5	≥ 500	≤ 0.7	blue with black numerals
CFLG.2LB.CU2.50/125	≥ 500	≤ 2.5	≥ 500	≤ 0.7	blue with black numerals



Order example: CFLG.4LB.62.5/125 – to your desired length (0.5 m steps)
CFLG.LB chainflex® series .4 Number of fibres 62.5/125 Fibre diameter



Online order ► www.chainflex.eu/CFLG.LB



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

