

Fibre Optic Cable | TPE | chainflex® CFLG.LB

36 10 million Double strokes guaranteed **5 x d** Bend radius, e-chain® **100m** Travel distance, e-chain®

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

Dynamic information

Bend radius	e-chain® linear flexible	minimum 5 x d
	fixed	minimum 4 x d
Temperature	e-chain® linear flexible	-35°C up to +80°C
	fixed	-50°C up to +80°C (following DIN EN 60811-504)
v max.	unsupported	10m/s
	gliding	6m/s
a max.		20m/s ²
Travel distance		Unsupported travels and up to 100m for gliding applications, Class 5 CFLG.12.LB: Unsupported travels and up to 400m for gliding applications, Class 6

Cable structure

Fibre Optic Cable	50/125µm, 62.5/125µm 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 aramid dampers.
Core identification	Orange or blue with black numbers.
Overall shield	Extremely bending-resistant aramid 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)

Basic requirements
Travel distance
Oil resistance
Torsion

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 400m	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			

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
UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1
CE	Following 2014/35/EU
UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For heaviest duty applications with 5-7.5 x d, Class 7
- Unsupported travels and up to 100m for gliding applications (horizontal + vertical), Class 5,
CFLG.12.LB: Unsupported travels and up to 400m in gliding applications (horizontal + vertical), Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Maximum EMC protection, with high transmission qualities
- Indoor and outdoor applications
- Crane applications, conveyor technology, storage and retrieval units, processing/ packaging machines, fast handling, semiconductor assembly, refrigeration area



igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



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igus® chainflex® CFLG.LB

Example image

EPLAN download, configurators ► www.igus.eu/CFLGLB

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2023

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UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 400m	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			



Example image

Part No.	Number of fibres/ Fibre diameter	Outer diameter (d) max. [mm]	Weight [kg/km]
CFLG.2LB.62.5/125	2x62.5/125	8.5	57
CFLG.4LB.62.5/125	4x62.5/125	9.0	68
CFLG.6LB.62.5/125	6x62.5/125	11.0	91
CFLG.12LB.62.5/125	12x62.5/125	14.0	150
CFLG.2LB.50/125	2x50/125	8.5	54
CFLG.4LB.50/125	4x50/125	9.0	64
CFLG.6LB.50/125	6x50/125	11.0	86
CFLG.12LB.50/125	12x50/125	14.0	150

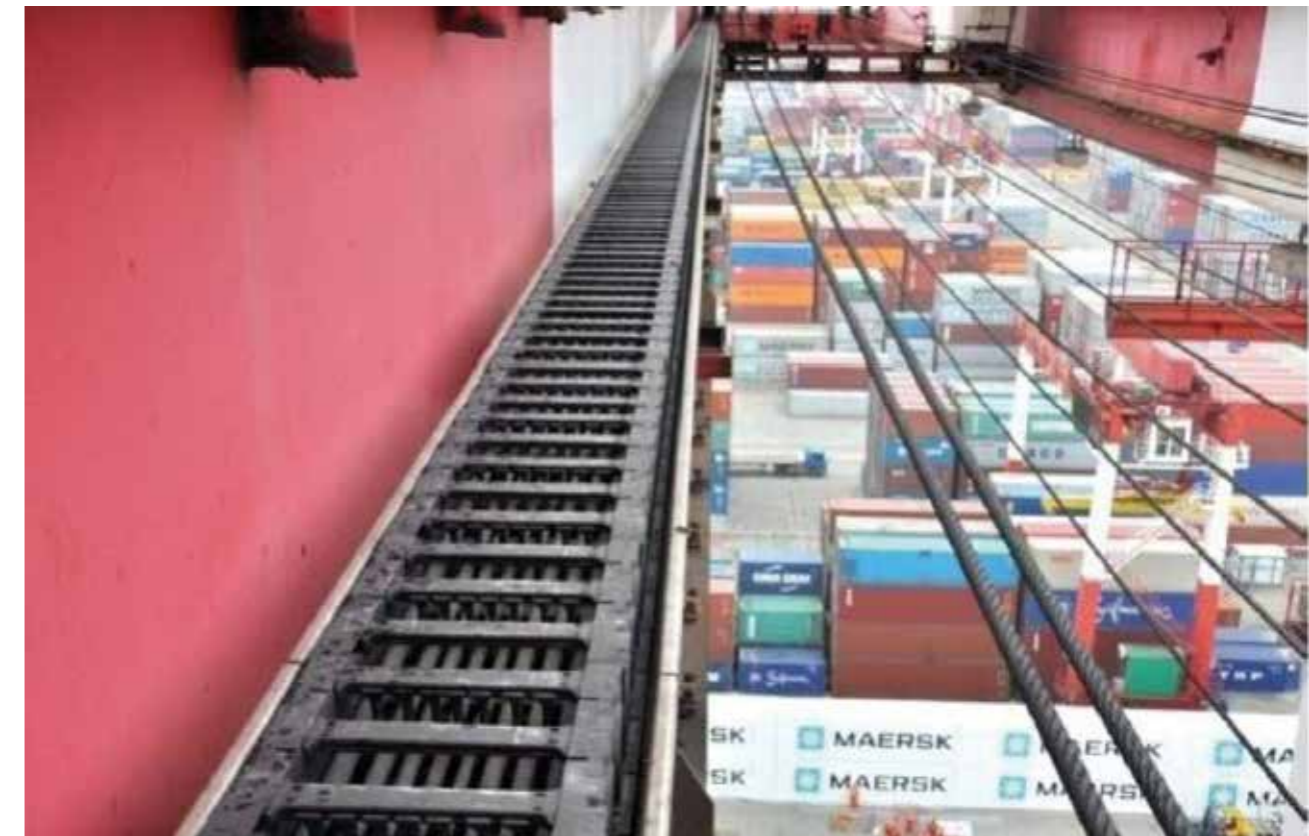
Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.

Part No.	Bandwidth [MHz x km] @ 850nm	Attenuation [dB/km] @ 850nm	Bandwidth [MHz x km] @ 1,300nm	Attenuation [dB/km] @ 1,300nm	Fibre identification
CFLG.2LB.62.5/125	≥ 200	≤ 3.5	≥ 500	≤ 1.5	orange with black numbers
CFLG.4LB.62.5/125	≥ 200	≤ 3.5	≥ 500	≤ 1.5	orange with black numbers
CFLG.6LB.62.5/125	≥ 200	≤ 3.5	≥ 500	≤ 1.5	orange with black numbers
CFLG.12LB.62.5/125	≥ 200	≤ 3.0	≥ 500	≤ 0.7	orange with black numbers
CFLG.2LB.50/125	≥ 500	≤ 3.0	≥ 500	≤ 1.0	blue with black numbers
CFLG.4LB.50/125	≥ 500	≤ 3.0	≥ 500	≤ 1.0	blue with black numbers
CFLG.6LB.50/125	≥ 500	≤ 3.0	≥ 500	≤ 1.0	blue with black numbers
CFLG.12LB.50/125	≥ 500	≤ 3.0	≥ 500	≤ 1.0	blue with black numbers

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

Order online ► www.igus.eu/CFLGLB

Delivery time 24hrs or today.
Delivery time means time until goods are shipped.



chainflex® fibre optic cable on an STS crane



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cf-case



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