

Fibre Optic Cable | PUR | chainflex® CFLG.LB.PUR

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
- PUR outer jacket
- Metal-free
- 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	-25°C up to +80°C
	fixed	-40°C up to +80°C (following DIN EN 60811-504)
v max.	unsupported	10m/s
a max.	gliding	6m/s
Travel distance	Unsupported travels and up to 100m for gliding applications, Class 5	

Cable structure

Fibre Optic Cable	50/125 µm, 62.5/125 µm, 9/125 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 aramid dampers.
Core identification	Orange, blue or yellow with black numbers.
Overall shield	Extremely bending-resistant aramid braid for torsion protection.
Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) 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 6.5.3.1

Properties and approvals

UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
Offshore	MUD-resistant following NEK 606 - status 2016
Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
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"
DNV	Type Approval Certificate TAE000048J
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 CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU
CE	
UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

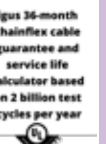
Guaranteed service life (details see page 28-29)

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]
-25/-15	7.5	8.5	9.5
-15/+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 6
- Unsupported travels and up to 100 m for gliding applications (horizontal + vertical), Class 5
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Maximum EMC protection, with high transmission qualities
- Indoor and outdoor applications
- Offshore, ships, storage and retrieval units, processing/packaging machines, fast handling, semiconductor assembly, refrigeration area



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°			



igus® chainflex® CFLG.LB.PUR

Example image

Part No.	Number of fibres/ Fibre diameter	Outer diameter (d) max. [mm]	Weight [kg/km]
CFLG.2LB.PUR.62.5/125	2x62.5/125	8.5	62
CFLG.4LB.PUR.62.5/125	4x62.5/125	9.0	68
CFLG.6LB.PUR.62.5/125 ¹¹⁾	6x62.5/125	11.0	96
CFLG.12LB.PUR.62.5/125	12x62.5/125	14.0	150
CFLG.6LB.PUR.50/125	6x50/125	11.0	95
CFLG.12LB.PUR.50/125	12x50/125	14.0	160
CFLG.6LB.PUR.9/125	6x9/125	11.0	95

¹¹⁾ Phase-out model
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.PUR.62.5/125	≥ 200	≤ 3.5	≥ 500	≤ 1.5	orange with black numbers
CFLG.4LB.PUR.62.5/125	≥ 200	≤ 3.5	≥ 500	≤ 1.5	orange with black numbers
CFLG.6LB.PUR.62.5/125	≥ 200	≤ 3.5	≥ 500	≤ 1.5	orange with black numbers
CFLG.12LB.PUR.62.5/125	≥ 200	≤ 3.0	≥ 500	≤ 0.7	orange with black numbers
CFLG.6LB.PUR.50/125	≥ 500	≤ 3.0	≥ 500	≤ 1.0	blue with black numbers
CFLG.12LB.PUR.50/125	≥ 200	≤ 3.0	≥ 500	≤ 1.0	blue with black numbers

Part No.	Attenuation [dB/km] @ 1,310nm	Chromatic dispersion [ps/nm/km] @ 1,310nm	Attenuation [dB/km] @ 1,550nm	Chromatic dispersion [ps/nm/km] @ 1,550nm	Fibre identification
CFLG.6LB.PUR.9/125	≤ 0.35	3.5	≤ 0.25	18	yellow with black numbers

- Order example:** CFLG.4LB.PUR.62.5/125 - to your desired length (0.5m steps)
CFLG.LB.PUR chainflex® series .4 Number of fibres .62.5/125 Fibre diameter
- Order online ► www.igus.eu/CFLGLBPUR
- Delivery time 24hrs or today.
Delivery time means time until goods are shipped.

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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