

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 minimum 4 x d
	Temperature	e-chain® linear flexible	-25°C up to +80°C -40°C up to +80°C (following DIN EN 60811-504)
	v max.	unsupported	10m/s
	a max.	gliding	6m/s
	Travel distance		20m/s²
			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	7	≥ 400m
none	1	2	3	4	5	6	7	highest
none	1	2	3	4	5	6	7	±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](http://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/packages machines, fast handling, semiconductor assembly, refrigeration area

Guarantee  
igus chainflex

36

months

igus 36-month  
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guarantee and  
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calculator based  
on 2 billion test  
cycles per year

CE

UKCA

UL

UL

REACH

REACH

RoHS

RoHS

Cleanroom

Cleanroom

CE

CE

UKCA

UKCA

UL

UL

UL

UL

UL

UL

UL

UL

EPLAN download, configurators ► [www.igus.eu/CFLGLBPUR](http://www.igus.eu/CFLGLBPUR)

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



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UL-verified chainflex® guarantee ... [www.igus.eu/ul-verified](http://www.igus.eu/ul-verified)

225

Example image



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 <sup>11)</sup>	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

<sup>11)</sup> 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](http://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](http://www.igus.eu/cf-case)



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227

