Fiber optic cable | PUR | chainflex® CFLG-LB-PUR

10,000,000 Cycles guaranteed

5 x d Bend radius E-Chain®

328.1 ft Travel distance E-Chain®

- Gradient glass-fiber cable for maximum mechanical load requirements
- PUR outer jacket
- Metal-free
- Oil-resistant
- Low-temperature-flexibility
- PVC and halogen-free
- UV-resistant

Dynamic Information

Bend radius	E-Chain® linear	min. 5 x d
	flexible	min. 4 x d
	fixed	min. 3 x d
Temperature	E-Chain® linear	-31 °F to +176 °F (-35 °C to +80 °C)
	flexible	-40 °F to +176 °F (-40 °C to +80 °C)
	fixed	-58 °F to +176 °F (-50 °C to +80 °C)
v max.	unsupported	32.81 ft/s (10 m/s)
	gliding	19.69 ft/s (6 m/s)
a max.		65.6 ft/s² (20 m/s²)
Travel distance		Unsupported travel distances and for gliding applications up to 328.1 ft (100 m), Class 5

Cable structure

Fibre Optic Cable	50/125 µm, 62.5/125 µm, 9/125 µm.
Conductor construction	Optical Fibers cabled with high-tensile aramid dampers and especially short pitch length.
Color code	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 mixture on the basis of PUR, adapted to suit the requirements in E-Chains® (following DIN EN 50363-10-2). Color: Jet black (similar to RAL 9005)

Example image

Configurators ▶ www.igus.com/CFLG-LB-PUR

36 month guarantee ... 1,354 types from stock ... no cutting charges

Class 6.5.3.1

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6		≥ 1312 ft
Oil resistance	none	1	2	3	4				highest
Torsion	none	1	2	3	4				±360°

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 2009
Flame resistance	According to IEC 60332-1-2, FT1, VW-1
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-GL	Type approval certificate No. 13 655-14 HH
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
CE	Following 2014/35/EU

Guaranteed service life (details see page 26-27)

Cycles*	5 million	7.5 million	10 million
Temperature, from/to [°F]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-13/+5	7.5	8.5	9.5
+5/+158	5	6	7
+158/+176	7.5	8.5	9.5

* Higher number of cycles? Online lifetime calculation ▶ www.chainflex.com/chainflexlife

Typical application areas

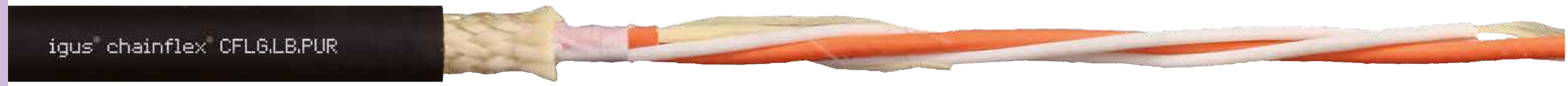
- For maximum mechanical load requirements with 5 x d, Class 6
- Unsupported travel distances and for gliding applications (horizontal + vertical) up to 328 ft (100 m), Class 5
- Almost unlimited resistance to oil, Class 3
- Maximum EMC protection, with high transmission qualities
- Indoor and outdoor applications
- Offshore, ship, Storage and retrieval units for high-bay warehouses, machining units/ packaging machines, quick handling, semiconductor insertion, refrigerating sector

CFLG-LB-PUR PUR 5 x d

Fiber optic cable | PUR | chainflex® CFLG-LB-PUR

Class 6.5.3.1

Basic requirements	low	1	2	3	4	5	6	7 highest
Travel distance	unsupported	1	2	3	4	5	6	≥ 1312 ft
Oil resistance	none	1	2	3	4	highest		
Torsion	none	1	2	3	4	±360°		



Example image

Part No.	Fiber Count	Fiber Diameter approx. [µm]	Outer diameter max. [in.]	[mm]	Weight [lbs/mft]	[kg/km]
CFLG-2LB-PUR-62-5/125	2	62,5/125	0.33	8.5	41.7	62
CFLG-4LB-PUR-62-5/125	4	62,5/125	0.35	9.0	45.7	68
CFLG-6LB-PUR-62-5/125	6	62,5/125	0.43	11.0	64.5	96
CFLG-12LB-PUR-62-5/125	12	62,5/125	0.55	14.0	100.8	150
CFLG-2LB-PUR-50/125	2	50/125	0.33	8.5	43.7	65
CFLG-6LB-PUR-50/125	6	50/125	0.43	11.0	63.8	95
CFLG-12LB-PUR-50/125	12	50/125	0.55	14.0	107.5	160
CFLG-6LB-PUR-9/125	6	9/125	0.43	11.0	63.8	95

Note: The given outer diameters are maximum values.
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	Fiber identification
CFLG-2LB-PUR-62-5/125	≥ 200	≥ 500	≤ 3.5	≤ 1.5	orange with black numbers
CFLG-4LB-PUR-62-5/125	≥ 200	≥ 500	≤ 3.5	≤ 1.5	orange with black numbers
CFLG-6LB-PUR-62-5/125	≥ 200	≥ 500	≤ 3.5	≤ 1.5	orange with black numbers
CFLG-12LB-PUR-62-5/125	≥ 200	≥ 500	≤ 3.0	≤ 0.7	orange with black numbers
CFLG-2LB-PUR-50/125	≥ 500	≥ 500	≤ 3.0	≤ 1.0	blue with black numbers
CFLG-6LB-PUR-50/125	≥ 500	≥ 500	≤ 3.0	≤ 1.0	blue with black numbers
CFLG-12LB-PUR-50/125	≥ 500	≥ 500	≤ 3.0	≤ 1.0	blue with black numbers

Part No.	Attenuation [dB/km] @ 1310 nm	Attenuation [dB/km] @ 1550 nm	Chromatic dispersion [ps/nm/km] @ 1310 nm	Chromatic dispersion [ps/nm/km] @ 1550 nm	Fiber identification
CFLG-6LB-PUR-9/125	≤ 0.35	≤ 0.25	3.5	18	yellow with black numbers

Order example: CFLG-4LB-PUR-62,5/125 **– To your desired length**
CFLG-LB-PUR **chainflex® series** -4 **Number of fibers** -62,5/125 **Fiber diameter**

Online order ▶ www.chainflex.com/CFLG-LB-PUR

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

Configurators ▶ www.igus.com/CFLG-LB-PUR