

Fibre optic cable | PUR | chainflex® CFLG.LB.PUR

FOC with offshore approval!

- 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	min. 5 x d (CFLG.LB.PUR) min. 7.5 x d (CFLG.LB.PUR.CU)
		flexible	min. 4 x d (CFLG.LB.PUR) min. 6 x d (CFLG.LB.PUR.CU)
		fixed	min. 3 x d (CFLG.LB.PUR) min. 4 x d (CFLG.LB.PUR.CU)
	Temperature	e-chain® linear	-35 °C to +80 °C
		flexible	-40 °C to +80 °C (following DIN EN 60811-504)
		fixed	-50 °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, 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 aramide dampers.
	Core identification	FOC cores: Orange, blue or yellow with black numerals. Copper cores: Black with white numerals.
	Overall shield	Extremely bending-resistant aramide braid for torsion protection.
	Outer jacket	Low-adhesion, 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)

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

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	≥ 400 m
Oil resistance	none	1	2	3	4	5	6	7	highest
Torsion	none	1	2	3	4	5	6	7	±180°

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 2009.
	Flame retardant	According to IEC 60332-1-2, CEI 20-35, 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.
	DNV-GL	Certified according to GL type testing – Certificate no.: 13 655-14 HH
	Lead-free	Following 2011/65/EU (RoHS-II).
	Cleanroom	According to ISO Class 1. Outer jacket material complies with CF77.UL.05.12.D, tested by IPA according to standard 14644-1.
	CE	Following 2014/35/EU.

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

Double strokes*	5 million		7.5 million		10 million	
	CFLG.LB.PUR R min. [factor x d]	CFLG.LB.CU.PUR R min. [factor x d]	CFLG.LB.PUR R min. [factor x d]	CFLG.LB.CU.PUR R min. [factor x d]	CFLG.LB.PUR R min. [factor x d]	CFLG.LB.CU.PUR 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
- Indoor and outdoor applications
- Unsupported travel distances and up to 100 m for gliding applications (horizontal + vertical)
- Offshore, ship, Storage and retrieval units for high-bay warehouses, machining units/packaging machines, quick handling equipment, semiconductor handling, refrigerating sector



igus® chainflex® CFLG.LB.PUR

Example image

Part No.	Number of fibres	Fibre diameter	Outer diameter (d) max.	Copper index	Weight
		[µm]	[mm]	[kg/km]	[kg/km]
CFLG.2LB.PUR.62.5/125	2	62.5/125	8.5	-	62
CFLG.4LB.PUR.62.5/125	4	62.5/125	9.0	-	68
CFLG.6LB.PUR.62.5/125	6	62.5/125	11.0	-	96
CFLG.12LB.PUR.62.5/125	12	62.5/125	14.0	-	150
CFLG.2LB.PUR.50/125	2	50/125	8.5	-	62
CFLG.6LB.PUR.50/125	6	50/125	11.0	-	96
CFLG.12LB.PUR.50/125	12	50/125	14.0	-	150
CFLG.6LB.PUR.9/125	6	9/125	11.0	-	96
CFLG.2LB.CU2.PUR.62.5/125	2	62.5/125	9.5	17	87
CFLG.2LB.CU2.PUR.50/125	2	50/125	9.5	17	87
CFLG.2LB.CU4.PUR.62.5/125	2	62.5/125	10.0	32	107

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	Bandwidth [MHz x km] @ 1300 nm	Attenuation [dB/km] @ 850 nm	Attenuation [dB/km] @ 1300 nm	Fibre identification
	CFLG.2LB.PUR.62.5/125	≥ 200	≥ 500	≤ 3.0	≤ 0.7
CFLG.4LB.PUR.62.5/125	≥ 200	≥ 500	≤ 3.0	≤ 0.7	orange with black numerals
CFLG.6LB.PUR.62.5/125	≥ 200	≥ 500	≤ 3.0	≤ 0.7	orange with black numerals
CFLG.12LB.PUR.62.5/125	≥ 200	≥ 500	≤ 3.0	≤ 0.7	orange with black numerals
CFLG.2LB.PUR.50/125	≥ 500	≥ 500	≤ 2.5	≤ 0.7	blue with black numerals
CFLG.6LB.PUR.50/125	≥ 500	≥ 500	≤ 2.5	≤ 0.7	blue with black numerals
CFLG.12LB.PUR.50/125	≥ 500	≥ 500	≤ 2.5	≤ 0.7	blue with black numerals
CFLG.2LB.CU2.PUR.62.5/125	≥ 200	≥ 500	≤ 2.5	≤ 0.7	orange with black numerals
CFLG.2LB.CU2.PUR.50/125	≥ 500	≥ 500	≤ 2.5	≤ 0.7	blue with black numerals
CFLG.2LB.CU4.PUR.62.5/125	≥ 200	≥ 500	≤ 2.5	≤ 0.7	orange with black numerals

Part No.	Attenuation [dB/km] @ 1310 nm	Attenuation [dB/km] @ 1550 nm	Chromatic dispersion [ps/nm x km] @ 1310 nm	Chromatic dispersion [ps/nm x km] @ 1550 nm	Fibre identification
	CFLG.6LB.PUR.9/125	≤ 0.35	≤ 0.25	3.5	18



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



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



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

