

PUR Fiber optic cable | CFLG-LB-PUR

- Gradient glass-fiber cable for maximum mechanical load requirements
- PUR outer jacket
- Metal-free
- Oil-resistant
- Low-temperature-flexible to -40 °F
- PVC-free/halogen-free
- UV-resistant

FOC with offshore approval!

Dynamic Information

	Bend radius	E-Chain®	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®	-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 ft (100 m), Class 5

Cable structure

	Fibers	50/125 µm, 62.5/125 µm, 9/125 µm special fixed wire elements with aramid strain relief.
	Conductor construction	Optical Fibers cabled with high-tensile aramid dampers and especially short pitch length.
	Color code	Optical Fibers: Orange, blue or yellow with black numbers. Copper cores: Black with white numbers.
	Overall shield	Extremely bending-resistant aramide braid for torsion-protection.
	Outer jacket	Low-adhesion, highly abrasion-resistant mixture on the basis of PUR, adapted to suit the requirements in E-Chains® (following DIN VDE 0282 Part 10). Color: Jet black (similar to to RAL 9005)

Electrical Information*

	Nominal voltage	300 V
	Test voltage	CFLG-2LB-PUR-CU: 2000 V (following DIN VDE 0281-2)

* If the part number contains "CU", then these FOC cables have copper conductors included

Configurators ► www.igus.com/CFLGLBPUR

Requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	1,312 ft +	
Oil-resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	±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 resistance	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 EN 50267-2-1
	DNV-GL	Certified according to DNVGL type testing – Certificate no.: 13 655-14 HH
	Lead-free	Following 2011/65/EC (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/EG

Guaranteed lifetime according to guarantee conditions (Page 22-25)

Cycles*	Temperature, from/to [°F]	v max. [ft/s]		a max. [ft/s²]	Travel distance [ft]	5 million	7.5 million	10 million
		unsupported	gliding			R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
CFLG-LB-PUR	-31 / -13			65.62	≤ 328.1	7.5	8.5	9.5
	-13 / +158	32.81	19.69			5	6	7
	+158 / +176					7.5	8.5	9.5
CFLG-LB-CU-PUR	-31 / -13			65.62	≤ 328.1	10	11	12
	-13 / +158	32.81	19.69			7.5	8.5	9.5
	+158 / +176					10	11	12

* Higher number of cycles possible - please ask for your individual calculation.

Typical application areas

- For heaviest duty applications at 5-7.5 x d
- Maximum EMC safety, with high transmission qualities in terms of glass-specific requirements
- Almost unlimited resistance to oil
- Indoor and outdoor applications
- Unsupported travel distances and for gliding applications (horizontal + vertical) up to 328 ft (100 m)
- Offshore, ship, Storage and retrieval units for high-bay warehouses, machining units/packages machines, quick handling, semiconductor insertion, refrigerating sector

IGUS® CHAINFLEX® CFLG.LB.PUR

Image exemplary.

Part No.	Fiber Count	Fiber Diameter approx. [µm]	Outer diameter max.		Copper index		Weight	
			in.	mm	lbs/mft	kg/km	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	0.59	15.0	-	-	120.3	179
CFLG-2LB-PUR-50/125 ^{1.6)}	2	50/125	0.33	8.5	-	-	41.7	62
CFLG-4LB-PUR-50/125 ^{1.6)}	4	50/125	0.35	9.0	-	-	45.7	68
CFLG-6LB-PUR-50/125	6	50/125	0.43	11.0	-	-	64.5	96
CFLG-12LB-PUR-50/125 ^{1.6)}	12	50/125	0.59	15.0	-	-	120.3	179
New CFLG-6LB-PUR-9/125	6	9/125	0.43	11.0	-	-	64.5	96
CFLG-2LB-CU2-PUR-62.5/125	2	62.5/125 + 2x0.75 (18AWG)	0.37	9.5	11.4	17	58.5	87
CFLG-2LB-CU2-PUR-50/125	2	50/125 + 2x0.75 (18AWG)	0.37	9.5	11.4	17	58.5	87
CFLG-2LB-CU4-PUR-62.5/125	2	62.5/125 + 2x1.5 (16AWG)	0.39	10.0	21.5	32	71.9	107

¹⁾ Delivery time upon request

Note: The mentioned outer diameters are maximum values.

Part No.	Bandwidth	Bandwidth	Attenuation	Attenuation	Fiber identification
	[MHz x km] @ 850 nm	[MHz x km] @ 1300 nm	[dB/km] @ 850 nm	[dB/km] @ 1300 nm	
CFLG-2LB-PUR-62.5/125	≥ 200	≥ 500	≤ 3.0	≤ 0.7	orange with black numerals
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-4LB-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
New CFLG-6LB-PUR-9/125					
CFLG-2LB-CU2-PUR-62.5/125	≥ 500	≥ 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	≥ 500	≥ 500	≤ 2.5	≤ 0.7	orange with black numerals



Order example: CFLG-4LB-PUR-62.5/125 – In your desired length
CFLG-LB-PUR Chainflex® series -4 Number of fibers -62.5/125 Diameter of fiber



Online order ► www.chainflex.com/CFLGLBPUR



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

