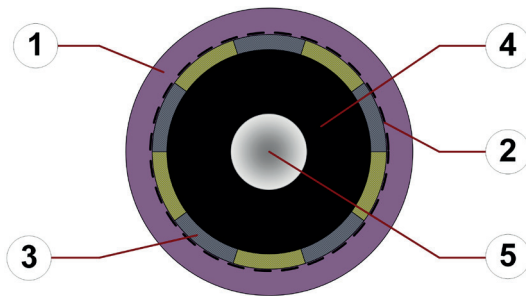


Data sheet

chainflex® CFLK



Fibre Optic Cable (Class 5.3.3.1) ● POF fibre for heavy duty applications and interference-free transmission ● PUR outer jacket ● Oil resistant and coolant-resistant



1. Outer jacket: Pressure extruded PUR mixture
2. Banding: Plastic fleece
3. Reinforcement: Tensile strength composite of alternating inlaid synthetic yarn and aramid yarn
4. Element jacket: Pressure extruded TPE mixture
5. Fibre: Polymer optical fibre (POF)

Example image

For detailed overview please see design table

Cable structure

	Fibre Optic Cable	980/1000 µm fibre with PE isolation.
	Core structure	POF fibre with stranded high-tensile plastic reinforcement.
	Core identification	► Design table
	Outer jacket	Low-adhesion, halogen-free PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2). Colour: Red lilac (similar to RAL 4001) Printing: black

„00000m“^{***} igus chainflex CFLK.L1.--① -----② CE RoHS-II conform

www.igus.de +++ chainflex cable works +++

* **Length printing:** Not calibrated. Only intended as an orientation aid.

① / ② Cable identification according to Part No. (see technical table).

Example: ... chainflex **CFLK.L1.01 1x980/1000** ...



Data sheet

chainflex® CFLK



Fibre Optic Cable (Class 5.3.3.1) ● POF fibre for heavy duty applications and interference-free transmission ● PUR outer jacket ● Oil resistant and coolant-resistant



Dynamic information

	Bend radius	e-chain® linear flexible fixed	minimum 12.5 x d minimum 10 x d minimum 7 x d
	Temperature	e-chain® linear flexible fixed	-20°C up to +60°C -40°C up to +60°C (following DIN EN 60811-504) -50°C up to +60°C (following DIN EN 50305)
	v max.	unsupported gliding	10m/s 5m/s
	a max.		20m/s ²
	Travel distance	Unsupported travels and up to 20m for gliding applications, Class 3	

These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Guaranteed service life according to guarantee conditions

Double strokes	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [x d]	R min. [x d]	R min. [x d]
-20/-10	15	16	17
-10/+50	12.5	13.5	14.5
+50/+60	15	16	17

Minimum guaranteed service life of the cable under the specified conditions.
The installation of the cable is recommended within the middle temperature range.



Example image

igus® chainflex® CFLK

Fibre Optic Cable (Class 5.3.3.1) ● POF fibre for heavy duty applications and interference-free transmission ● PUR outer jacket ● Oil resistant and coolant-resistant

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754
	PTFE-free	The design of these products does not contain PTFE
	UL-verified	Certificate No. V293650: „igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year“
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	CE	Following 2014/35/EU

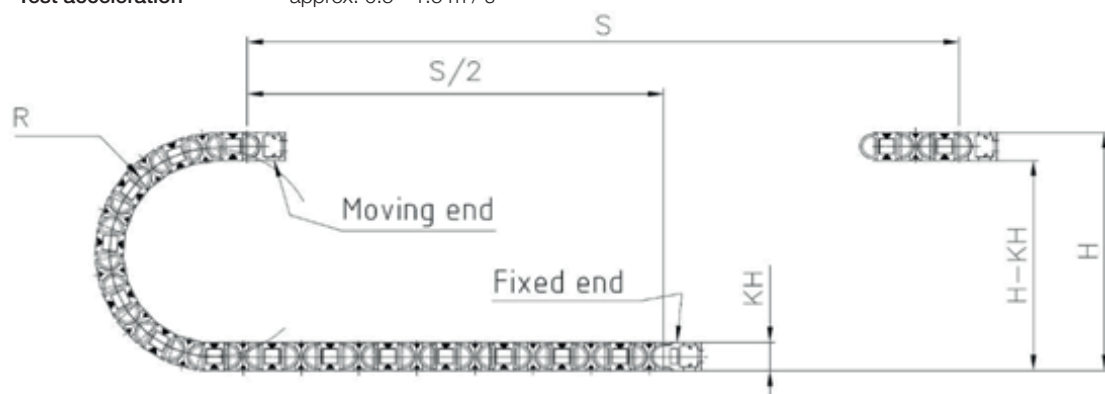


igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



Typical lab test setup for this cable series

Test bend radius R	approx. 75 mm
Test travel S	approx. 1 - 15 m
Test duration	minimum 2 - 4 million double strokes
Test speed	approx. 0.5 - 2 m / s
Test acceleration	approx. 0.5 - 1.5 m / s ²



Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 20m for gliding applications, Class 3
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Highest EMC safety
- Preferably indoor applications
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

Example image

igus® chainflex® CFLK

Data sheet

chainflex® CFLK



Fibre Optic Cable (Class 5.3.3.1) ● POF fibre for heavy duty applications and interference-free transmission ● PUR outer jacket ● Oil resistant and coolant-resistant

Technical tables:

Mechanical information

Part No.	Number of fibres/Fibre diameter/ Conductor nominal cross section	Outer diameter (d) max. [mm]	Weight [kg/km]
POF (Plastic FOC)			
CFLK.L1.01	1x980/1000	6.0	27
CFLK.L1.02	2x980/1000	7.0	31

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.

Optical features

Fibre diameter [μm]	Wave length [nm]	Bandwidth [MHz x km] [MHz x km]	Attenuation [dB/km] [dB/km]
980/1000	650	2	200

Design table

Fibre diameter: 980/1000

Part No. (No. of cores)	Core design
CFLK.L1.01 (1x980/1000)	
CFLK.L1.02 (2x980/1000)	

Example image



igus 4-year
chainflex cable
guarantee and
service life
calculator based
on 2 billion test
cycles per year

