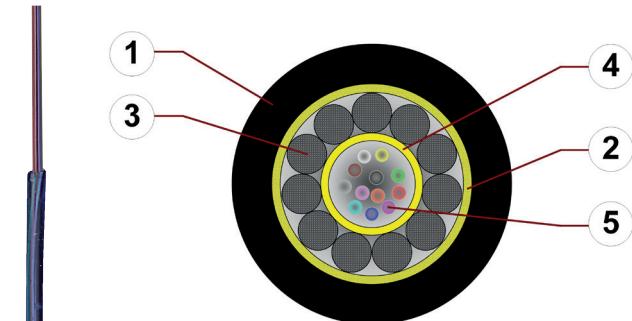


Data sheet chainflex® CFLG.G



Fibre Optic Cable (Class 7.4.4.1) ● Glass-fibre cable for heaviest duty applications

- TPE outer jacket
- Oil and bio-oil resistant
- PVC and halogen-free
- Low-temperature-flexible
- Hydrolysis and microbe-resistant



1. Outer jacket: Pressure extruded, halogen-free TPE mixture
2. Reinforcement: Tensile strength aramid braiding
3. Torsion protection: Stranded fibre reinforced plastic rods (GRP rods)
4. Fibre tube: Highly flexible, gel filled loose tube
5. Fibre: Glass optical fibre (GOF)



Example image

For detailed overview please see design table



Cable structure



Fibre Optic Cable

9/125 µm, 50/125 µm, 62.5/125 µm fibres in gel-filled tubes.



Core structure

Gel-filled fibre sheath surrounded by GRP rods and torsion protection braid in the outer jacket.



Core identification

Fibres

► Design table



Outer jacket

Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®.

Colour: Jet black (similar to RAL 9005)

Printing: white

„00000 m** igus chainflex CFLG.----.----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 **CFLG.12E.9/125.TC 12x9/125 ...**

Example image



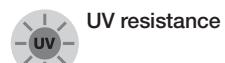
Data sheet chainflex® CFLG.G



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Properties and approvals



UV resistance

High



Oil resistance

Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4



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)



RoHS

Following 2011/65/EC (RoHS-II/RoHS-III)



Cleanroom

According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1



Dry cleanroom

Tested in „dry cleanroom“ according to DIN EN ISO 14644-1, Report No. IG 2405-1526



CE

Following 2014/35/EU



Example image



Data sheet chainflex® CFLG.G

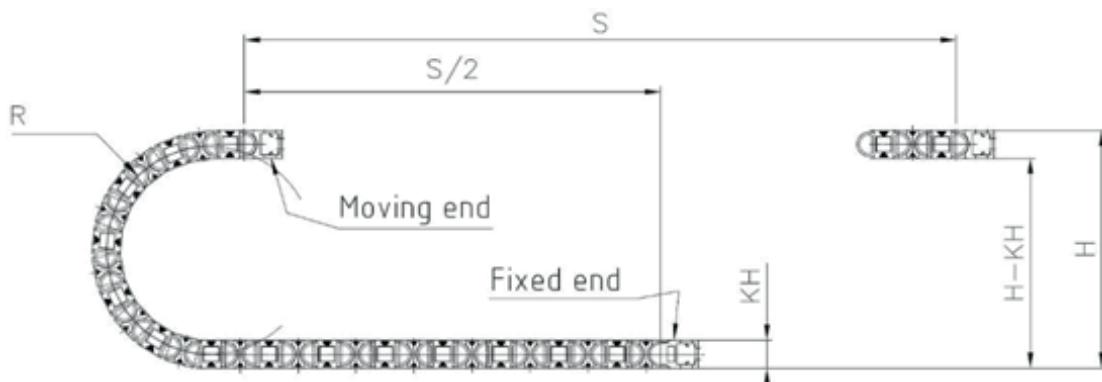


Fibre Optic Cable (Class 7.4.4.1) • Glass-fibre cable for heaviest duty applications

- TPE outer jacket
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Typical lab test setup for this cable series

Test bend radius R	approx. 150 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 7
- Unsupported travels and up to 50m for gliding applications (horizontal), Class 4
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Maximum EMC protection, with high transmission qualities
- Indoor and outdoor applications
- Crane applications, conveyor technology, low temperature applications

Example image
igus® chainflex® CFLG.G

Data sheet

chainflex® CFLG.G



Fibre Optic Cable (Class 7.4.4.1) • Glass-fibre cable for heaviest duty applications

- TPE outer jacket
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Technical tables:

Mechanical information

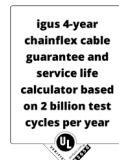
Part No.	Number of fibres/ Fibre diameter	Outer diameter (d) max. [mm]	Weight [kg/km]
Monomode			
CFLG.12E.9/125.TC	12x9/125	10.0	75
Multimode (Graded index)			
CFLG.6G.50/125.TC	6x50/125	10.0	60
CFLG.12G.50/125.TC	12x50/125	10.0	75
CFLG.6G.62.5/125.TC	6x62.5/125	10.0	80
CFLG.12G.62.5/125.TC	12x62.5/125	10.0	80

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]	Attenuation [dB/km]	Chromatic dispersion [ps/nm x km]
9/125	1310	-	≤ 0.4	≤ 3.5
9/125	1550	-	≤ 0.3	≤ 18
50/125	850	≥ 1500	≤ 3.0	-
50/125	1300	≥ 500	≤ 1.0	-
62.5/125	850	≥ 200	≤ 3.5	-
62.5/125	1300	≥ 500	≤ 1.0	-

Example image



Data sheet chainflex® CFLG.G

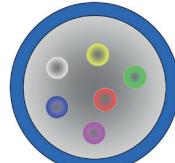
igus®

Design table

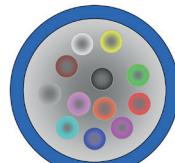
Fibre diameter: 50/125

Part No. (No. of cores)	Core design
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CFLG.6G.50/125.TC
(6x50/125)



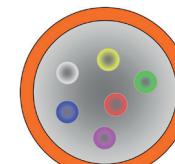
CFLG.12G.50/125.TC
(12x50/125)



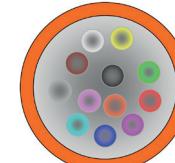
Fibre diameter: 62.5/125

Part No. (No. of cores)	Core design
----------------------------	-------------

CFLG.6G.62.5/125.TC
(6x62,5/125)



CFLG.12G.62.5/125.TC
(12x62,5/125)



Fibre diameter: 9/125

Part No. (No. of cores)	Core design
----------------------------	-------------

CFLG.12E.9/125.TC
(12x9/125)

