


















# TPE Fibre optic cable (FOC) | CFLG

- Gradient glass-fibre cable for maximum load requirements
- TPE outer jacket
- PVC-free/halogen-free
- low-temperature-flexible to -40 °C
- hydrolysis-resistant and microbe-resistant

**Bending radius is reduced by 33%!**

|   |                            |   |
|---|----------------------------|---|
|    | <b>Fibre cable</b>         | 50/125 µm, 62,5/125 µm fibres in gel-filled hollow cores.   |
|    | <b>Stranding</b>           | Stranded GRP rods with integrated torsion protection braid in the outer jacket over gel-filled fibre sheath.  |
|    | <b>Identification</b>      | Fibres ► Schedule delivery program  |
|    | <b>Outer jacket</b>        | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®.<br>Colour: Jet black (similar to RAL 9005) |
|    | <b>Bending radius</b>      | <b>moved</b> minimum 10 x d<br><b>fixed</b> minimum 5 x d   |
|    | <b>Temperature</b>         | <b>moved</b> -40 °C to +70 °C<br><b>fixed</b> -40 °C to +70 °C  |
|    | <b>v max.</b>              | 10 m/s, 6 m/s   |
|  | <b>unsupported/gliding</b> |   |
|  | <b>a max.</b>              | 20 m/s²   |
|  | <b>Travel distance</b>     | Freely suspended travel distances and up to 400 m and more for gliding applications, Class 5  |
|  | <b>UV-resistant</b>        | High  |
|  | <b>Oil</b>                 | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4.   |
|  | <b>Silicon-free</b>        | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992).  |
|  | <b>Halogen-free</b>        | Following EN 50267-2-1.   |
|  | <b>CE</b>                  | Following 2006/95/EG  |
|  | <b>Lead free</b>           | Following 2011/65/EC (RoHS-II)  |
|  | <b>Clean room</b>          | According to ISO Class 1. Outer jacket material complies with CF9.15.07, tested by IPA according to standard 14644-1  |

 eplan download, configurator ► [www.igus.eu/CFLGGT](http://www.igus.eu/CFLGGT)

**1030 types from stock no cutting costs ...**  
(for up to 10 cuts of the same type)

## Class 7.5.4 (7 maximum load requirements 5 travel distance up to 400 m and more 4 oil-resistant)

**New! Guaranteed lifetime for this series according to the "chainflex® guarantee club" conditions ► Page 22-25**

| Temperature, from/to [°C] | v max. [m/s] |         | a max. [m/s²] | Travel distance [m] | 5 million           | 7,5 million         | 10 million          |
|---------------------------|--------------|---------|---------------|---------------------|---------------------|---------------------|---------------------|
|                           | unsupported  | gliding |               |                     | R min. [factor x d] | R min. [factor x d] | R min. [factor x d] |
| -40 / -30                 |              |         |               |                     | 12,5                | 13,5                | 14,5                |
| -30 / +60                 | 10           | 6       | 20            | > 400               | 10                  | 11                  | 12                  |
| +60 / +70                 |              |         |               |                     | 12,5                | 13,5                | 14,5                |

\* higher number of double strokes possible

### Typical application area

- for maximum load requirements
- maximum EMC protection, with high transmission qualities in terms of glass-specific requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications
- freely suspended travel distances and up to 400 m and more for gliding applications
- Ship to shore, crane applications, conveyer technology, low-temperature applications

Test data ► Page 46 or [www.igus.eu/test10](http://www.igus.eu/test10)

**... no minimum order quantity ...**

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IGUS® CHAINFLEX® CFLG .G



Image exemplary.

| Delivery program<br>Part No. | Number of fibres | Fibre diameter approx.<br>[µm] | External diameter max. [mm] | Weight [kg/km] |
|------------------------------|------------------|--------------------------------|-----------------------------|----------------|
| CFLG.6G.62,5/125.TC          | 6                | 62,5/125                       | 10,0                        | 80             |
| CFLG.12G.62,5/125.TC         | 12               | 62,5/125                       | 10,0                        | 80             |
| CFLG.6G.50/125.TC            | 6                | 50/125                         | 10,0                        | 80             |
| CFLG.12G.50/125.TC           | 12               | 50/125                         | 10,0                        | 80             |
| CFLG.12E.9/125.TC            | 12               | 9/125                          | 10,0                        | 80             |

Other number of fibres on request.

**Note:** The mentioned external diameters are maximum values and may tend toward lower tolerance limits.

| Part No.             | Bandwidth with 850 nm<br>[MHz x km] | Attenuation with 850 nm<br>[dB/km] | Bandwidth with 1300 nm<br>[MHz x km] | Attenuation with 1300 nm<br>[dB/km] |
|----------------------|-------------------------------------|------------------------------------|--------------------------------------|-------------------------------------|
| CFLG.6G.62,5/125.TC  | ≥ 200                               | ≤ 3,0                              | ≥ 500                                | ≤ 0,7                               |
| CFLG.12G.62,5/125.TC | ≥ 200                               | ≤ 3,0                              | ≥ 500                                | ≤ 0,7                               |
| CFLG.6G.50/125.TC    | ≥ 500                               | ≤ 2,5                              | ≥ 500                                | ≤ 0,7                               |
| CFLG.12G.50/125.TC   | ≥ 500                               | ≤ 2,5                              | ≥ 500                                | ≤ 0,7                               |

| Part No.          | Chromatic dispersion with 1310 nm<br>[ps/nm x km] | Attenuation with 1310 nm<br>[dB/km] | Chromatic dispersion with 1550 nm<br>[ps/nm x km] | Attenuation with 1550 nm<br>[dB/km] |
|-------------------|---|-------------------------------------|---|-------------------------------------|
| CFLG.12E.9/125.TC | 3   | ≤ 0,35                              | 18  | ≤ 0,23                              |

| Part No.             | Fibres identification   | Hollow core identification |
|----------------------|---|----------------------------|
| CFLG.6G.62,5/125.TC  | ecru, yellow, green, red, violet, blue  | orange                     |
| CFLG.12G.62,5/125.TC | ecru, yellow, green, red, violet, blue, lightblue, grey, brown, black, orange, pink | orange                     |
| CFLG.6G.50/125.TC    | ecru, yellow, green, red, violet, blue  | blue                       |
| CFLG.12G.50/125.TC   | ecru, yellow, green, red, violet, blue, lightblue, grey, brown, black, orange, pink | blue                       |
| CFLG.12E.9/125.TC    | ecru, yellow, green, red, violet, blue, lightblue, grey, brown, black, orange, pink | yellow                     |

 **Order example: CFLG.6G.62,5/125.TC – in your desired length (0,5 m steps)**  
CFLG chainflex® series .6G Number of cores .62,5/125 Type of fibres .TC Special identification

 **prices** price list online  
[www.chainflex.eu/CFLGGT](http://www.chainflex.eu/CFLGGT)

 **delivery time** despatched in 24 hours or today

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