## PVC Control cable | CF6

- for high load requirements
- PVC outer jacket
- shielded
- oil-resistant
- flame-retardant





Conductor

Fine-wire stranded conductor consisting of bare copper wires (following EN 60228).

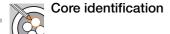
Core insulation

Cores < 0,5 mm<sup>2</sup>: Mechanically high-quality PP mixture.

Cores ≥ 0,5 mm<sup>2</sup>: Mechanically high-quality PVC mixture (following DIN VDE 0207 Part 4).

Core stranding

Number of cores < 12: cores stranded in a layer with short pitch length. Number of cores ≥ 12: cores combined in bundles and stranded together around a centre for high tensile stresses with adapted, short pitch lengths and pitch directions, especially lowtorsion structure.



Cores < 0,5 mm<sup>2</sup>: Colour code in accordance with DIN 47100 Cores ≥ 0,5 mm<sup>2</sup>: cores black with white numerals, one core

green-yellow

Inner jacket

Overall shield

Outer jacket

**CFRIP** 

PVC mixture adapted to suit the requirements in energy chains<sup>®</sup>.

Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical. Low-adhesion, oil-resistant mixture on the basis of PVC, adap-

ted to suit the requirements in energy chains® (following DIN VDE

0281 Part 13).

Colour: Moss green (similar to RAL 6005)

Strip cables 50% faster! The tear strip is in the inner jacket.

Video ▶ www.igus.eu/CFRIP

Bending radius

**moved** < 10 m travel moved minimum 6,8 x d ≥ 10 m travel moved minimum 7,5 x d

minimum 4 x d fixed

10 m/s, 5 m/s

moved +5 °C to +70 °C for use in energy chains®

with > 50.000 cycles

-5 °C to +70 °C following DIN EN 60811,

part 1-4 chapter 8.2

-20 °C to +70 °C fixed

unsupported/gliding

a max.

Temperature

80 m/s<sup>2</sup>

Travel distance

Freely suspended travel distances and up to 100 m for gliding

applications, Class 4

Class 5.4.2 (5 high load requirements 4 travel distance up to 100 m 2 oil-resistant)

Nominal voltage 300/500 V (following DIN VDE 0245).

2000 V (following DIN VDE 0281-2). Testing voltage

Oil-resistant (following DIN EN 50363-4-1), Class 2.

Flame-retardant According to IEC 60332-1-2, CEI 20-35, FT1, VW-1

Silicon-free Free from silicon which can affect paint adhesion

(following PV 3.10.7 - status 1992). **UL/CSA** < 0,5 mm<sup>2</sup>: Style 10492 and 2570, 600 V, 80 °C

Following CEI 20-35

≥ 0,5 mm<sup>2</sup>: Style 11113 and 2570, 600 V, 80 °C

**NFPA** Following NFPA 79-2012 chapter 12.9 NEPA

CEI 

oil €

G:

CE Following 2006/95/EG

Following 2011/65/EC (RoHS-II) Lead free

Clean room According to ISO Class 2. Outer jacket material complies with CF5.10.07, tested

by IPA according to standard 14644-1.

**CTP** Certified according to Nº C-DE.PB49.V.00396

EAC Certified according to Nº TC RU C-DE.ME77.B.00960

| New! Guaranteed lifetime for this series according to the "chainflex® guarantee club" conditions ▶ Page 22-25 |                 |                     |        |                     |        |                     |        |  |  |
|---|-----------------|---------------------|--------|---------------------|--------|---------------------|--------|--|--|
| Double strokes*   |                 | 5 million           |        | 7,5 million         |        | 10 million          |        |  |  |
| Temperature,  | Travel distance | R min. [factor x d] |        | R min. [factor x d] |        | R min. [factor x d] |        |  |  |
| from/to [°C]  | [m]             | < 10 m              | ≥ 10 m | < 10 m              | ≥ 10 m | < 10 m              | ≥ 10 m |  |  |
| +5/+15  |                 | 7,5                 | 10     | 8,5                 | 11     | 9,5                 | 12     |  |  |
| +15/+60   | ≤ 100           | 6,8                 | 7,5    | 7,8                 | 8,5    | 8,8                 | 9,5    |  |  |
| +60 / +70   |                 | 7,5                 | 10     | 8,5                 | 11     | 9,5                 | 12     |  |  |

<sup>\*</sup> higher number of double strokes possible

## Typical application area

- for high load requirements
- light oil influence
- preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- freely suspended travel distances and up to 100 m for gliding applications
- Storage and retrieval units for high-bay warehouses, machining units/packaging machines, quick handling, indoor cranes



CF6

PVC

6,8-7,5xd

















Strip cables 50% faster!

## IGUS" CHAINFLEX\* CF6

Image exemplary.

| Delivery program            | Number of cores and | External  | Copper  | Weight  |
|-----------------------------|---------------------|-----------|---------|---------|
| Part No.                    | conductor nominal   | diameter  | index   | [kg/km] |
|                             | cross section [mm²] | max. [mm] | [kg/km] |         |
| CF6.02.04                   | (4 x 0,25)C         | 7,0       | 28      | 75      |
| CF6.02.24 <sup>(3/11)</sup> | (24 x 0,25)C        | 13,5      | 113     | 231     |
| CF6.02.25                   | (25 x 0,25)C        | 14,0      | 118     | 267     |
| CF6.03.05                   | (5 x 0,34)C         | 7,5       | 38      | 96      |
| CF6.05.02                   | (2 x 0,5)C          | 7,0       | 31      | 78      |
| CF6.05.05                   | (5 G 0,5)C          | 9,0       | 51      | 121     |
| CF6.05.07                   | (7 G 0,5)C          | 10,0      | 67      | 131     |
| CF6.05.09                   | (9 G 0,5)C          | 12,0      | 98      | 226     |
| CF6.05.12                   | (12 G 0,5)C         | 13,0      | 104     | 238     |
| CF6.05.18                   | (18 G 0,5)C         | 15,0      | 154     | 295     |
| CF6.05.24 <sup>(3/11)</sup> | (24 G 0,5)C         | 17,5      | 200     | 399     |
| CF6.05.25                   | (25 G 0,5)C         | 17,5      | 205     | 412     |
| CF6.07.03                   | (3 G 0,75)C         | 8,0       | 49      | 101     |
| CF6.07.04                   | (4 G 0,75)C         | 8,5       | 59      | 116     |
| CF6.07.05                   | (5 G 0,75)C         | 9,0       | 71      | 132     |
| CF6.07.07                   | (7 G 0,75)C         | 10,5      | 91      | 157     |
| CF6.07.12                   | (12 G 0,75)C        | 14,0      | 137     | 275     |
| CF6.07.18                   | (18 G 0,75)C        | 17,5      | 209     | 413     |
| CF6.07.24 <sup>(3/11)</sup> | (24 G 0,75)C        | 19,5      | 266     | 530     |
| CF6.07.25                   | (25 G 0,75)C        | 19,5      | 283     | 554     |
| CF6.10.03                   | (3 G 1,0)C          | 8,0       | 57      | 110     |
| CF6.10.04                   | (4 G 1,0)C          | 9,0       | 68      | 120     |
| CF6.10.05                   | (5 G 1,0)C          | 9,5       | 81      | 141     |
| CF6.10.07                   | (7 G 1,0)C          | 12,0      | 109     | 211     |
| CF6.10.12                   | (12 G 1,0)C         | 15,0      | 172     | 330     |
| CF6.10.18                   | (18 G 1,0)C         | 19,0      | 261     | 498     |
| CF6.10.24 <sup>(3/11)</sup> | (24 G 1,0)C         | 21,0      | 335     | 586     |
| CF6.10.25                   | (25 G 1,0)C         | 21,0      | 344     | 617     |

The chainflex® types marked with a (3) refer to cables that are based on a bundling of 4 cores each. Due to their excellent electrical properties (star-quad with especially minimum crosstalk), these cables can virtually be used in all cases in which otherwise twisted-pair cables are required. (11) Phase-out model

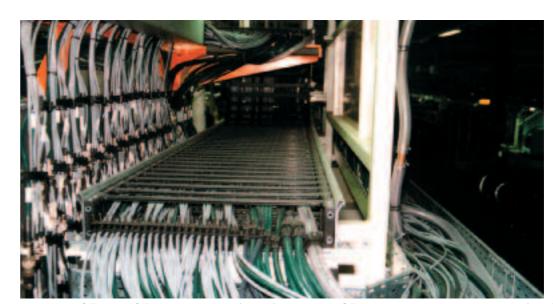
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.

G = with green-yellow earth core x = without earth core
\* New in this catalogue.

| Delivery program | Number of cores and | External  | Copper  | Weight  |  |
|------------------|---------------------|-----------|---------|---------|--|
| Part No.         | conductor nominal   | diameter  | index   | [kg/km] |  |
|                  | cross section [mm²] | max. [mm] | [kg/km] |         |  |
| CF6.15.03        | (3 G 1,5)C          | 9,0       | 76      | 126     |  |
| CF6.15.04        | (4 G 1,5)C          | 9,5       | 92      | 160     |  |
| CF6.15.05        | (5 G 1,5)C          | 10,5      | 112     | 184     |  |
| CF6.15.07        | (7 G 1,5)C          | 13,0      | 156     | 268     |  |
| CF6.15.12        | (12 G 1,5)C         | 17,0      | 240     | 390     |  |
| CF6.15.18        | (18 G 1,5)C         | 21,0      | 368     | 604     |  |
| CF6.15.25        | (25 G 1,5)C         | 24,0      | 493     | 896     |  |
| CF6.15.36        | (36 G 1,5)C         | 30,0      | 728     | 1346    |  |
| CF6.25.04        | (4 G 2,5)C          | 11,5      | 140     | 231     |  |

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

G = with green-yellow earth core x = without earth core



chainflex® CF5 and CF6 control cable (green) as well as CF211 measuring system cable (grey) in a screwing station of a motor factory. e-chain®: System E4/00 with chainfix Clip Strain Relief Devices













