

Data cable | TPE | chainflex® CF12

**12.5 million**
Double strokes guaranteed**10 x d**
Bend radius, e-chain®**400m**
Travel distance, e-chain®

- For extremely heavy duty applications
- TPE outer jacket
- Double-shielded
- Oil and bio-oil-resistant
- PVC and halogen-free
- Hydrolysis and microbe-resistant

Dynamic information

**Bend radius****e-chain® linear**

minimum 10 x d

flexible

minimum 8 x d

fixed

minimum 5 x d

**Temperature****e-chain® linear**

-35°C up to +100°C

flexible

-50°C up to +100°C (following DIN EN 60811-504)

fixed

-55°C up to +100°C (following DIN EN 50305)

**v max.****unsupported**

10m/s

**a max.**100m/s²**Travel distance**

Unsupported travels and up to 400m and more for gliding applications, Class 6

Cable structure

**Conductor**

Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228).

**Core insulation**

Mechanically high-quality TPE mixture.

**Core structure**

Cores twisted in pairs with a short pitch length, core pairs then wound with short pitch lengths.

**Core identification****Cores < 0.5mm²:** Colour code in accordance with DIN 47100.**Cores ≥ 0.5mm²:** Black cores with white numbers.**Element shield**

Extremely bending-resistant braiding made of tinned copper wires.

**Element shield**

TPE mixture on pair shielding adapted to suit the requirements in e-chains®.

**Inner jacket**

TPE mixture adapted to suit the requirements in e-chains®.

**Overall shield**

Highly flexible shield consisting of galvanised steel wire braid.

**Outer jacket**

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

Colour: Steel blue (similar to RAL 5011)

Electrical information

**Nominal voltage**

300/300V (following DIN VDE 0298-3)

300V (following UL)

**Testing voltage**

1,500V (following DIN EN 50395)

Properties and approvals

**UV resistance**

High

**Now available
with UL approval
& 25% longer
service life**

Class 6.6.4.1

**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

**UL verified**

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

**UL AWM**See data sheet for details ► www.igus.eu/CF12**EAC**

(from production date 01/2022)

**REACH**

Certificate No. RU C-DE.ME77.B.00300/19

**Lead-free**

In accordance with regulation (EC) No. 1907/2006 (REACH)

**Cleanroom**

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

**CE**

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

**UKCA**

Following 2014/35/EU

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	12.5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	12.5	13.5	14.5
-25/+90	10	11	12
+90/+100	12.5	13.5	14.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- For maximum EMC protection
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

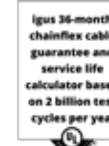
Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF12.02.04.02	(4x(2x0.25)C)C	11.5	52	172
CF12.05.03.02	(3x(2x0.5)C)C	13.5	65	224
CF12.05.04.02	(4x(2x0.5)C)C	14.5	83	267
CF12.05.06.02	(6x(2x0.5)C)C	17.0	128	376
CF12.05.08.02	(8x(2x0.5)C)C	20.5	163	503
CF12.05.10.02 ¹⁾	(10x(2x0.5)C)C	22.5	203	605
CF12.05.14.02	(14x(2x0.5)C)C	22.5	297	679
CF12.10.06.02	(6x(2x1.0)C)C	20.0	198	529

¹⁾ Phase-out model**Note:** The given outer diameters are maximum values and may tend toward lower tolerance limits.

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

Basic requirements
Travel distance
Oil resistance
Torsion

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 400m	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			



36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



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