

Control cable | TPE | chainflex® CF10

**12.5 million**
Double strokes guaranteed**5 x d**
Bend radius, e-chain®**400m**
Travel distance, e-chain®

- For heaviest duty applications
- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant
- PVC and halogen-free
- Low-temperature-flexible
- Hydrolysis and microbe-resistant

Now available
with UL approval
& 25% longer
service life

Dynamic information

	Bend radius	e-chain® linear	minimum 5 x d
		flexible	minimum 4 x d
		fixed	minimum 3 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.	gliding	6m/s
			100m/s²
	Travel distance	Unsupported travels and up to 400m 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	Number of cores < 12: Cores wound in a layer with short pitch length. Number of cores ≥ 12: Cores wound in bundles which are then wound around a high tensile strength centre element, all with optimised short pitch lengths and directions. Especially low-torsion structure.
	Core identification	Cores < 0.75mm²: Colour code in accordance with DIN 47100. Cores ≥ 0.75mm²: Black cores with white numbers, one green-yellow core. CF9.03.05.INI: brown, blue, black, white, green-yellow
	Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	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)
	CFRIP®	Strip cables faster: a tear strip is moulded into the inner jacket Video ► www.igus.eu/CFRIP

EPLAN download, configurators ► www.igus.eu/CF10

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

igus

EU2023

EU2023

igus

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°			

Class 7.6.4.1

Electrical information

	Nominal voltage	300/500V (following DIN VDE 0298-3) Cores < 0.5mm²: 300V (following UL) Cores ≥ 0.5mm²: 1000V (following UL)
	Testing voltage	2,000V (following DIN EN 50395)

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
	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/CF10 (from production date 01/2022)
	EAC	Certificate No. RU C-DE.ME77.B.00300/19
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	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 Following 2014/35/EU
	CE	
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

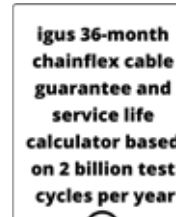
Guaranteed service life (details see page 28-29)

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	6.8	7.5	8.5
-25/+90	5	6	7
+90/+100	6.8	7.5	8.5

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

Typical application areas

- For heavy-duty applications, Class 7
- 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
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications



119

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

Control cable | TPE | chainflex® CF10

Strip cables 50% faster with CFRIP® tear strip

igus® chainflex® CF10

Example image

Class 7.6.4.1

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°			

- **Order example: CF10.01.12 - to your desired length (0.5m steps)**
CF10 chainflex® series .01 Code nominal cross section .12 Number of cores
- **Order online** ► www.igus.eu/CF10
- **Delivery time 24hrs or today.**
Delivery time means time until goods are shipped.



chainflex CF10 control cable in storage and retrieval units e-chain®: E2 system



Cables available in the chainflex® CASE
Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.
More on this on page 24/25 and online: www.igus.eu/cf-case



¹¹⁾ Phase-out model
¹⁷⁾ When using the cables with "7G1.5mm²" and "7G2.5mm²" minimum bend radius must be 17.5xd with gliding travel distance ≥ 5m.
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

EPLAN download, configurators ► www.igus.eu/CF10

120 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2023

EU2023



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

121



igus 36-month
chainflex cable
guarantee and
service life
calculator based
on 2 billion test
cycles per year



igus 36-month
chainflex cable
guarantee and
service life
calculator based
on 2 billion test
cycles per year

