

Control cable | PVC | chainflex® CF6



10 million
Double strokes guaranteed



6.8 x d
Bend radius, e-chain®



100m
Travel distance, e-chain®

- For heavy duty applications
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame-retardant

Dynamic information



Bend radius	e-chain® linear	minimum 6.8 x d
	flexible	minimum 5 x d
	fixed	minimum 4 x d
Temperature	e-chain® linear	+5°C up to +70°C
	flexible	-5°C up to +70°C (following DIN EN 60811-504)
	fixed	-15°C up to +70°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	5m/s
a max.		80m/s ²



Travel distance Unsupported travels and up to 100m for gliding applications, Class 5

Cable structure



Conductor Finely stranded conductor consisting of bare copper wires (following DIN EN 60228).



Core insulation Cores ≤ 0.5mm²: mechanically high-quality TPE mixture.
Cores ≥ 0.75mm²: mechanically high-quality PVC 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 < 0.5mm²: Colour code in accordance with DIN 47100.
Cores ≥ 0.5mm²: Black cores with white numbers, one green-yellow core.



Inner jacket PVC 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, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1).
Colour: Moss green (similar to RAL 6005)



CFRIP® Strip cables faster: a tear strip is moulded into the inner jacket
Video ► www.igus.eu/CFRIP

Electrical information



Nominal voltage 300/500V (following DIN VDE 0298-3)
600V (following UL)



Testing voltage 2,000V (following DIN EN 50395)

EPLAN download, configurators ► www.igus.eu/CF6

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



EU2023

EU2023



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 5.5.2.1

Properties and approvals



UV resistance Medium



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



Flame-retardant According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame



Silicone-free Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)



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



UL/CSA AWM See data sheet for details ► www.igus.eu/CF



NFPA Following NFPA 79-2018, chapter 12.9



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 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1
Following 2014/35/EU



CE 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		10 million	
	< 10m	≥ 10m	< 10m	≥ 10m	< 10m	≥ 10m
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	7.5	10	8.5	11	9.5	12
+15/+60	6.8	7.5	7.8	8.5	8.8	9.5
+60/+70	7.5	10	8.5	11	9.5	12

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

Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 100m for gliding applications, Class 5
- Light oil influence, Class 2
- No torsion, Class 1
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Storage and retrieval units, machining units/packages machines, quick handling, indoor cranes



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



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

87



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



Control cable | PVC | chainflex® CF6

Strip cables 50% faster with CFRIP® tear strip

igus® chainflex® CF6

Example image

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF6.02.04	(4x0.25)C	7.0	29	61
CF6.02.25	(25x0.25)C	14.5	111	260
CF6.03.05	(5x0.34)C	7.5	37	90
CF6.05.02	(2x0.5)C	7.0	30	77
CF6.05.05	(5G0.5)C	8.5	49	106
CF6.05.07	(7G0.5)C	10.0	64	127
CF6.05.09	(9G0.5)C	12.0	80	154
CF6.05.12	(12G0.5)C	13.0	98	232
CF6.05.18	(18G0.5)C	15.0	145	286
CF6.05.25	(25G0.5)C	17.5	192	399
CF6.07.03	(3G0.75)C	8.0	46	98
CF6.07.04	(4G0.75)C	8.5	56	113
CF6.07.05	(5G0.75)C	9.0	67	128
CF6.07.07	(7G0.75)C	10.5	87	152
CF6.07.12	(12G0.75)C	14.0	128	266
CF6.07.18	(18G0.75)C	17.5	196	400
CF6.07.25	(25G0.75)C	19.5	265	536
CF6.10.03	(3G1.0)C	8.0	54	107
CF6.10.04	(4G1.0)C	9.0	65	116
CF6.10.05	(5G1.0)C	9.5	77	136
CF6.10.07	(7G1.0)C	12.0	103	205
CF6.10.12	(12G1.0)C	15.0	161	319
CF6.10.18	(18G1.0)C	19.0	245	482
CF6.10.25	(25G1.0)C	21.0	322	595
CF6.15.03	(3G1.5)C	9.0	72	122
CF6.15.04	(4G1.5)C	9.5	88	155
CF6.15.05	(5G1.5)C	10.5	105	177
CF6.15.07 ¹⁷⁾	(7G1.5)C	12.5	146	258
CF6.15.12	(12G1.5)C	17.0	225	375
CF6.15.18	(18G1.5)C	21.0	345	581
CF6.15.25	(25G1.5)C	24.0	462	865
CF6.25.03	(3G2.5)C	10.5	107	180
CF6.25.04	(4G2.5)C	11.5	131	222

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

Class 5.5.2.1

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: **CF6.02.04** - to your desired length (0.5m steps)
CF6 chainflex® series .02 Code nominal cross section .04 Number of cores

Order online ► www.igus.eu/CF6

Delivery time 24hrs or today.
Delivery time means time until goods are shipped.



chainflex® CF5 and CF6 control cables (green) as well as CF211 measuring system cables (grey) in a screwing station of a car factory. e-chain®: E4/00 system with chainfix clip strain relief devices.



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



EPLAN download, configurators ► www.igus.eu/CF6

Guarantee
igus chainflex
36
months

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

CFRIP
igus chainflex

UL
LISTED

CE
UL

nec
NFPA

NFPA

CUPA

DNV

EAC

REACH

RoHS

clean-room

igus

CE
UK
CA

Guarantee
igus chainflex
36
months

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

