Control cable | PVC | chainflex® CF6

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

CFRIP® Strip cables 50 % faster

DESIGN AWARD 2016

Example image

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 to +70 °C
	flexible	-5 °C to +70 °C (following DIN EN 60811-504)
	fixed	-15 °C to +70 °C (following DIN EN 50305)
v max.	unsupported	10 m/s
	gliding	5 m/s
a max.		80 m/s²
Travel distance		Unsupported travel distances and up to 100 m for gliding applications, Class 5

Cable structure

Conductor	Finely stranded conductor consisting of bare copper wires (following DIN EN 60228).
Core insulation	**Cores ≤ 0,5 mm²:** Mechanically high-quality TPE mixture. **Cores ≥ 0.75 mm²:** Mechanically high-quality PVC mixture.
Core structure	**Number of cores < 12:** Cores wound in a layer with a 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.
Core identification	**Cores ≤ 0,34 mm²:** Colour code in accordance with DIN 47100. **Cores ≥ 0.5 mm²:** Black cores with white numerals, one core green-yellow.
Inner jacket	PVC mixture, adapted to suit the requirements in e-chains®.
Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70 % linear, approx. 90 % optical
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	300/500 V (following DIN VDE 0298-3)
Testing voltage	2000 V (following DIN EN 50395)

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6		≥ 400 m
Oil resistance	none	1	2	3	4				highest
Torsion	none	1	2	3					±180°

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, CEI 20-35, FT1, VW-1
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
UL/CSA	**Cores < 0.5 mm²:** Style 10492 and 2570, 600 V, 80 °C **Cores ≥ 0.5 mm²:** Style 11113 and 2570, 600 V, 80 °C
NFPA	Following NFPA 79-2012 chapter 12.9.
EAC	Certificate no. RU C-DE.ME77.B.01254 (TR ZU)
CTP	Certificate no. C-DE.PB49.B.00416 (Fire safety)
CEI	Following CEI 20-35.
Lead-free	Following 2011/65/EU (RoHS-II).
Cleanroom	According to ISO Class 2. Outer jacket material complies with CF5.10.07, tested by IPA according to standard 14644-1.
CE	Following 2014/35/EU.

Guaranteed lifetime according to guarantee conditions (Page 22-23)

Double strokes*	5 million		7.5 million		10 million	
Temperature, from/to [°C]	< 10 m	≥ 10 m	< 10 m	≥ 10 m	< 10 m	≥ 10 m
	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? Online lifetime calculation: www.igus.eu/chainflexlife

Typical mechanical application areas

- For heavy duty applications
- Light oil influence
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Unsupported travel distances and up to 100 m for gliding applications
- Storage and retrieval units for high-bay warehouses, machining units/ packaging machines, quick handling equipment, indoor cranes

CF6
PVC
6.8 x d

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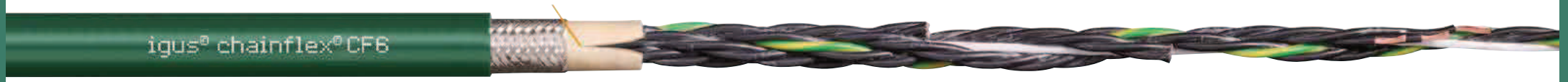
Class 5.5.2.1

Basic requirements	low	1	2	3	4	**5**	6	7	highest	
Travel distance	unsupported	1	2	3	4	**5**	6		≥ 400 m	
Oil resistance	none	1	**2**	3	4	highest				
Torsion	none	**1**	2	3	±180°					

CF6
PVC
6.8 x d



Example image

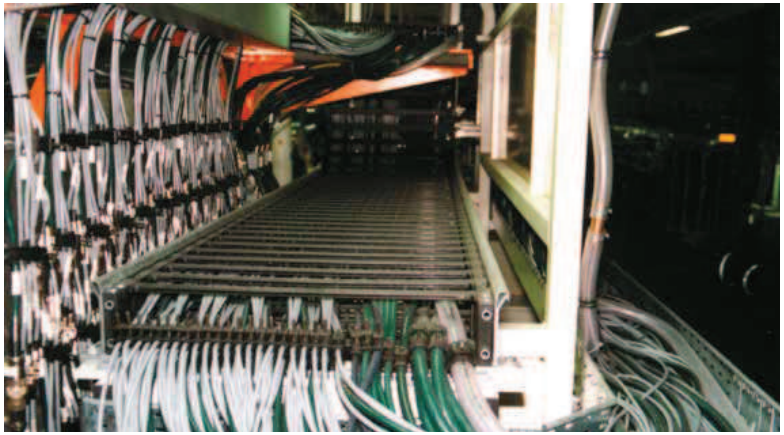
Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. mm	Copper index kg/km	Weight kg/km
CF6.02.04	(4x0.25)C	7.0	30	62
CF6.02.25	(25x0.25)C	14.5	118	267
CF6.03.05	(5x0.34)C	7.5	39	92
CF6.05.02	(2x0.5)C	7.0	31	78
CF6.05.05	(5G0.5)C	8.5	52	109
CF6.05.07	(7G0.5)C	10.0	67	131
CF6.05.09	(9G0.5)C	12.0	74	157
CF6.05.12	(12G0.5)C	13.0	104	238
CF6.05.18	(18G0.5)C	15.0	154	295
CF6.05.25	(25G0.5)C	17.5	205	412
CF6.07.03	(3G0.75)C	8.0	49	101
CF6.07.04	(4G0.75)C	8.5	59	116
CF6.07.05	(5G0.75)C	9.0	71	132
CF6.07.07	(7G0.75)C	10.5	91	157
CF6.07.12	(12G0.75)C	14.0	137	275
CF6.07.18	(18G0.75)C	17.5	209	413
CF6.07.25	(25G0.75)C	19.5	283	554
CF6.10.03	(3G1.0)C	8.0	57	110
CF6.10.04	(4G1.0)C	9.0	68	120
CF6.10.05	(5G1.0)C	9.5	81	141
CF6.10.07	(7G1.0)C	12.0	109	211
CF6.10.12	(12G1.0)C	15.0	172	330
CF6.10.18	(18G1.0)C	19.0	261	498
CF6.10.25	(25G1.0)C	21.0	344	617
CF6.15.03	(3G1.5)C	9.0	76	126
CF6.15.04	(4G1.5)C	9.5	92	160
CF6.15.05	(5G1.5)C	10.5	112	184
CF6.15.07 [17)]	(7G1.5)C	13.0	156	268
CF6.15.12	(12G1.5)C	17.0	240	390
CF6.15.18	(18G1.5)C	21.0	368	604
CF6.15.25	(25G1.5)C	24.0	493	896
CF6.15.36	(36G1.5)C	30.0	728	1346
CF6.25.04	(4G2.5)C	11.5	140	231

[17)] When using the cables with „7 G 1.5 mm²“ and „7 G 2.5 mm²“ minimum bend radius must be 17.5 x d with gliding travel distance ≥ 5 m.
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

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

Online order ▶ www.chainflex.eu/CF6

Delivery time 24h or today.
Delivery time means time until shipping of goods.



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