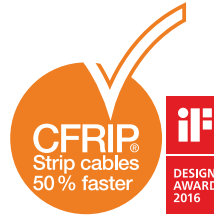


Control cable | TPE | chainflex® CF9

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



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 to +100 °C flexible -50 °C to +100 °C (following DIN EN 60811-504) fixed -55 °C to +100 °C (following DIN EN 50305)
v max.	unsupported 10 m/s gliding 6 m/s
a max.	100 m/s ²
Travel distance	Unsupported travel distances and up to 400 m and more for gliding applications, Class 6
Torsion	± 90°, with 1 m cable length, Class 2

Cable structure

Conductor	Stranded conductor in especially bending-resistant design 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 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 < 0.75 mm²: Colour code in accordance with DIN 47100. Cores ≥ 0.75 mm²: Black cores with white numerals, one core green-yellow. CF9.02.03.INI: brown, blue, black CF9.03.04.INI: brown, blue, black, white CF9.03.05.INI: brown blue, black, white, green-yellow CF9.03.16.07.03.INI: 0.34 mm²: violet/red/grey/red-blue, green/grey-pink/white-green/white-yellow, white-grey/black/yellow-brown/brown-green, white/yellow/pink/grey-brown 0.75 mm²: blue/green-yellow/brown
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 outer jacket Video ► www.igus.eu/CFRIP

Example image

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 7.6.4.2

Electrical information

Nominal voltage	300/500 V (following DIN VDE 0298-3)
Testing voltage	2000 V (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.
EAC	Certificate no. RU C-DE.ME77.B.01254 (TR ZU)
Lead-free	Following 2011/65/EU (RoHS-II).
Cleanroom	According to ISO Class 1, material/cable tested by IPA according to ISO 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]	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? Online lifetime calculation: www.igus.eu/chainflexlife

Typical mechanical application areas

- For heaviest duty applications
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV resistant
- Unsupported travel distances and up to 400 m and more for gliding applications
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling equipment, Clean room, semiconductor handling, outdoor cranes, low temperature applications



chainflex® CF9 for outdoor crane systems. e-chain®: Series E4/00



Control cable | TPE | chainflex® CF9

Class 7.6.4.2

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

Strip cables 50% faster

igus® chainflex® CF9

Example image

Part No.	Number of cores and conductor nominal cross section	Outer diameter (d) max.	Copper index	Weight
	[mm²]	mm	kg/km	kg/km
CF9.02.02	2x0.25	4.5	6	18
CF9.02.03.INI	3x0.25	4.5	8	22
CF9.02.06	6x0.25	5.5	16	37
CF9.02.07	7x0.25	6.5	19	44
CF9.02.08	8x0.25	6.5	22	50
CF9.02.12	12x0.25	8.0	32	73
CF9.02.18	18x0.25	9.5	48	105
CF9.02.20	20x0.25	9.5	53	111
New CF9.02.25	25x0.25	11.0	66	144
CF9.03.04.INI	4x0.34	5.0	15	32
CF9.03.05.INI	5x0.34	5.5	18	38
CF9.03.06	6x0.34	6.0	22	45
CF9.03.08	8x0.34	7.0	29	59
CF9.03.16.07.03.INI	4x(4x0.34)+(3x0.75)	11.0	82	159
CF9.05.02	2x0.5	5.0	11	26
CF9.05.03	3x0.5	5.0	16	32
CF9.05.04	4x0.5	5.5	22	40
CF9.05.05	5x0.5	6.0	27	48
CF9.05.07	7x0.5	7.0	37	66
CF9.05.12	12x0.5	10.0	64	120
CF9.05.18	18x0.5	11.5	96	177
CF9.05.25	25x0.5	13.0	132	236
CF9.05.36	36x0.5	15.5	191	334
CF9.07.04	4G0.75	6.0	32	55
CF9.07.05	5G0.75	6.5	40	68
CF9.07.07	7G0.75	8.0	56	94
CF9.07.12	12G0.75	11.0	96	170
CF9.07.20	20G0.75	13.5	159	267
CF9.07.25	25G0.75	14.5	198	329
CF9.10.03	3G1.0	6.0	32	54
CF9.10.04	4G1.0	6.5	43	69
CF9.10.05	5G1.0	7.5	53	84
CF9.10.12	12G1.0	12.0	127	214
CF9.10.18	18G1.0	14.5	191	314
CF9.10.25	25G1.0	17.0	264	450

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

Part No.	Number of cores and conductor nominal cross section	Outer diameter (d) max.	Copper index	Weight
	[mm²]	mm	kg/km	kg/km
CF9.15.02	2x1.5	6.5	32	60
CF9.15.04	4G1.5	7.5	64	90
CF9.15.05	5G1.5	8.0	81	110
CF9.15.07 ¹⁷⁾	7G1.5	9.5	114	151
CF9.15.12	12G1.5	13.5	191	290
CF9.15.18	18G1.5	16.5	286	413
CF9.15.25	25G1.5	20.0	396	632
CF9.15.36	36G1.5	23.5	571	839
CF9.25.04	4G2.5	9.0	106	152
CF9.25.05	5G2.5	10.0	132	197
CF9.25.07 ¹⁷⁾	7G2.5	12.0	187	245
CF9.25.12	12G2.5	17.5	317	515
CF9.25.16	16G2.5	19.5	423	687
CF9.25.18 ⁷⁾	18G2.5	23.0	476	830
CF9.25.25	25G2.5	24.5	660	1059
CF9.40.04	4G4.0	10.5	170	229
CF9.60.04	4G6.0	12.5	254	332
CF9.60.05	5G6.0	13.5	317	410
CF9.100.04	4G10.0	16.5	423	580
CF9.160.04	4G16.0	18.0	528	719
CF9.350.04 ¹¹⁾	4G35.0	28.0	1479	1769

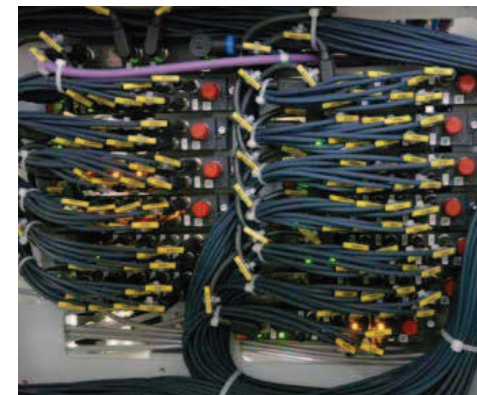
⁷⁾ Nominal voltage 600/1000 V

¹¹⁾ Phase-out model

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



für höchste Dynamik und kleine Radien in einer Anlage zur Herstellung von Medizinprodukten

Guarantee
igus chainflex
36
month guarantee

igus

NFFA

igus

EAC

igus

igus

RoHS-II

Clean-Room

igus

CE