

Data cable | PVC | chainflex® CF211



igus® chainflex® CF211

Example image

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

Dynamic information

	Bend radius	e-chain® linear	minimum 7.5 x d
		flexible	minimum 6 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	5 m/s
		gliding	3 m/s
	a max.		50 m/s ²
	Travel distance	Unsupported travel distances and up to 100 m for gliding applications, Class 5	

Cable structure

	Conductor	Very finely stranded special conductors of particularly bending-resistant design made of bare copper wires.
	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	Colour code in accordance with DIN 47100.
	Intermediate layer	Foil taping over the outer layer.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70 % inear, 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: Silver-grey (similar to RAL 7001)

Electrical information

	Nominal voltage	300/300 V (following DIN VDE 0298-3)
	Testing voltage	1500 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	7	> 400 m
Oil resistance	none	1	2	3	4	5	6	7	highest
Torsion	none	1	2	3	4	5	6	7	±180°

Class 5.5.2.1

Properties and approvals

	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	Style 10493 and 2464, 300 V, 80 °C
	NFA	Following NFA 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 1. Outer jacket material complies with CF240.02.24, 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]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	10	11	12
+15/+60	7.5	8.5	9.5
+60/+70	10	11	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, Handling, indoor cranes



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Example image

Part No.	Number of cores and conductor nominal cross section mm ²	Outer diameter (d) max. mm	Copper index kg/km	Weight kg/km
CF211.02.01.02	(2x0.25)C	5.0	17	32
CF211.02.02.02 ¹⁾	(2x(2x0.25))C	6.0	24	43
CF211.02.03.02	(3x(2x0.25))C	7.0	34	69
CF211.02.04.02	(4x(2x0.25))C	8.0	42	74
CF211.02.05.02	(5x(2x0.25))C	8.5	50	90
CF211.02.06.02	(6x(2x0.25))C	9.0	59	106
CF211.02.08.02	(8x(2x0.25))C	10.5	75	142
CF211.02.10.02	(10x(2x0.25))C	12.0	95	174
CF211.02.14.02	(14x(2x0.25))C	12.0	115	196
CF211.03.03.02	(3x(2x0.34))C	8.0	47	84
CF211.03.08.02	(8x(2x0.34))C	11.5	97	174
CF211.03.10.02	(10x(2x0.34))C	13.0	119	197
CF211.05.01.02	(2x0.5)C	5.5	25	43
CF211.05.02.02 ²⁾	(2x(2x0.5))C	7.0	39	64
CF211.05.03.02	(3x(2x0.5))C	9.0	58	106
CF211.05.04.02	(4x(2x0.5))C	9.5	71	132
CF211.05.05.02	(5x(2x0.5))C	10.5	87	154
CF211.05.06.02	(6x(2x0.5))C	11.5	96	179
CF211.05.08.02	(8x(2x0.5))C	13.0	133	233
CF211.05.10.02	(10x(2x0.5))C	15.5	181	295
CF211.05.14.02	(14x(2x0.5))C	15.5	200	301

The chainflex® types marked with ²⁾ are cables designed as a star-quad.
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

