

Measuring system cable | PVC | chainflex® CF211



10 million
Double strokes guaranteed



10 x d
Bend radius, e-chain®



10m
Travel distance, e-chain®

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

Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 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	5m/s
	a max.	gliding	3m/s
			30m/s²
	Travel distance	Unsupported travels and up to 10m for gliding applications, Class 2	

Cable structure

	Conductor	Very finely stranded special conductors of particularly bending resistant design made of tinned copper wires.
	Core insulation	Mechanically high-quality TPE mixture.
	Core structure	According to measuring system specification.
	Core identification	According to measuring system specification. ► Product range table
	Element shield	Extremely bending-resistant, tinned copper cover. Coverage approx. 90% optical
	Element shield	TPE mixture on pair shielding adapted to suit the requirements in e-chains®.
	Intermediate layer	Foil taping over the outer layer.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55%, optical approx. 80%
	Outer jacket	Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1). Colour: Yellow-green (similar to RAL 6018)

Electrical information

	Nominal voltage	50V 300V (following UL)
	Testing voltage	500V

EPLAN download, configurators ► www.igus.eu/CF211

4-years guarantee ... more than 1,350 cable types from stock ... no cutting charges

Class 4.2.2.1

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°			

Properties and approvals

	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)
	PFAS-free	Use of PFAS-free materials according to the content of the REACH directive and its rules for the production and processing of chemical substances
	UL verified	Certificate No. V293650: “igus 4-year 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/CF211
	NFPA	Following NFPA 79-2018, chapter 12.9
	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
	CE	Following 2014/35/EU

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [x d]	R min. [x d]	R min. [x d]
+5/+15	12.5	13.5	14.5
+15/+60	10	11	12
+60/+70	12.5	13.5	14.5

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

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- 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, handling, indoor cranes, wood/stone processing



igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year





Example image

New

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF211.001	(3x(2x0.14)C+(4x0.14)+(2x0.5))C	9.0	64	100
CF211.002	(3x(2x0.14)C+2x(0.5)C)C	9.5	66	106
CF211.004	(2x(2x(2x0.14))+(4x0.14)C+(4x0.5))C	10.0	70	115
CF211.006	(3x(2x0.14)C+(4x0.14)+(4x0.25)+(2x0.5))C	10.0	76	122
CF211.007 ²⁾	(4x0.34)C	5.5	25	45
CF211.009	(4x(2x0.25)+2x0.5)C	8.0	49	79
CF211.010	(4x(2x0.25)+2x1.0)C	8.5	61	92
CF211.011	(4x(2x0.34)+4x0.5)C	9.5	72	109
CF211.014	(4x(2x0.25)C+(2x0.5))C	10.5	77	124
CF211.015	(4x(2x0.14)+4x0.5)C	8.5	54	86
CF211.016	(3x(2x0.25)C)C	9.0	51	89
CF211.017	(4x(2x0.14)+(4x0.14)C+4x1.0)C	10.0	92	134
CF211.018	(2x(2x0.25)+2x0.5)C	6.5	34	54
CF211.019	(3x(2x0.25)C+(3x0.25)+2x1.0)C	10.0	86	125
CF211.022	((2x0.25)+5x0.5)C	7.0	46	71
CF211.024	((4x0.14)+2x(2x0.34))C	7.0	36	61
CF211.027	(5x(2x0.14)+2x0.5)C	8.0	45	75

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

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Part No.	Core group	Colour code
CF211.001	3x(2x0.14)C (4x0.14) (2x0.5)	green/yellow, black/brown, red/orange grey/blue/white-yellow/white-black brown-red, brown-blue
CF211.002	3x(2x0.14)C 2x(0.5)C	green/yellow, black/brown, red/orange black, red
CF211.004	2x(2x(2x0.14)) (4x0.14)C (4x0.5)	(brown/green)/(yellow/violet), (grey/pink)/(red/black) yellow-black/red-black/green-black/blue-black brown-green/white-green/blue/white
CF211.006	3x(2x0.14)C (4x0.14) (4x0.25) (2x0.5)	green/yellow, black/brown, red/orange grey/blue/white-yellow/white-black brown-yellow/brown-grey/green-black/green-red brown-red, brown-blue
CF211.007 ²⁾	4x0.34	white, green, brown, yellow (star-quad)
CF211.009	4x(2x0.25) 2x0.5	brown/green, blue/violet, grey/pink, red/black white, brown
CF211.010	4x(2x0.25) 2x1.0	brown/green, blue/violet, grey/pink, red/black white, brown
CF211.011	4x(2x0.34) 4x0.5	black/brown, red/orange, green/yellow, blue/violet black-white, red-white, yellow-white, blue-white
CF211.014	4x(2x0.25)C (2x0.5)	white/brown, green/yellow, grey/pink, blue/red black no. 1/black no. 2
CF211.015	4x(2x0.14) 4x0.5	brown/green, yellow/violet, grey/pink, red/black blue, white, brown-green, white-green
CF211.016	3x(2x0.25)C	white/brown, green/yellow, grey/pink
CF211.017	4x(2x0.14) (4x0.14)C 4x1.0	red/black, brown/green, yellow/violet, grey/pink blue-black/yellow-black/red-black/green-black white-green, brown-green, blue, white
CF211.018	2x(2x0.25) 2x0.5	red/black, grey/pink white, brown
CF211.019	3x(2x0.25)C (3x0.25) 2x1.0	brown/green, grey/pink, red/black blue/violet/yellow white, brown
CF211.022	(2x0.25) 5x0.5	white/brown green, yellow, grey, pink, blue
CF211.024	(4x0.14) 2x(2x0.34)	yellow/grey/violet/pink white-green/white, brown-green/blue
CF211.027	5x(2x0.14) 2x0.5	brown/green, yellow/grey, white/violet, red/black, pink/blue white-green, white-red

Further cable types ► [Page 242](#)

Guarantee
igus chainflex

4
YEARS

igus 4-year
chainflex cable
guarantee and
service life
calculator based
on 2 billion test
cycles per year





Example image

New

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF211.028	(2x(2x0.15)+(2x0.38))C	7.5	40	77
CF211.030	(3x(2x0.25)C+2x(2x0.25))C	8.5	60	87
CF211.032 ⁵⁾	3x(2x0.14)C+(3x0.14)C	8.0	35	79
CF211.033 ⁵⁾	4x(2x0.14)C+2x(1.0)C	9.5	64	112
CF211.036	(5x(2x0.25))C	8.0	42	69
CF211.037	(6x(2x0.25))C	8.5	51	83
CF211.038	(3x(2x0.14)+(2x0.34))C	7.5	33	62
CF211.039	(4x(2x0.14)C+2x(0.5)C)C	10.0	77	125
CF211.041	(2x(2x0.18)+5x0.5)C	7.5	49	79
CF211.042	(3x(2x0.18)+6x0.5)C	8.5	62	98

⁵⁾ Manufactured without overall shield

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
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Further cable types ► Page 240



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



cost down...



...life up

Reduce cost, improve technology, now!

Do the chainflex® price check ...

www.igus.eu/cf-price-check

... for example: reduce cost with CF884 ...



Order example: **CF211.038** – to your desired length (0.5m steps)
CF211 chainflex® series **.038** Code measuring system type



Order online ► www.igus.eu/CF211



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



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