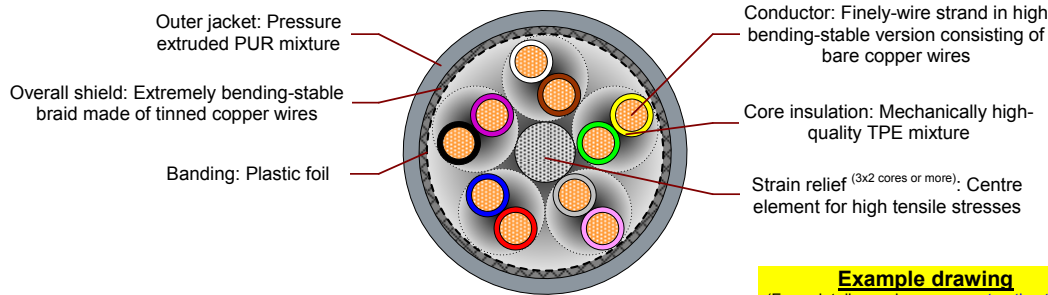


# chainflex<sup>®</sup> CF211.PUR

cable works.

**PUR - e-chain<sup>®</sup> - twisted pair data cable for high load requirements (class 5.5.3): shielded, oil- and coolant-resistant, hydrolysis- and microbe-resistant, PVC- and halogen-free, notch-resistant as well as flame-retardant.**



**Example drawing**  
(For a detail overview see [construction table](#))

## Core design:

- Conductor:** Finely-wire strand in high bending-stable version consisting of bare copper wires.
- Core insulation:** Mechanically high-quality TPE mixture.
- Core identification:** Colour code in accordance with DIN 47100. (see [colour code table](#))

## Shield design:

- Material:** Extremely bending-stable braid made of tinned copper wires.
- Shield coverage:** **Linear:** approx. 70%      **Optical:** approx. 90%

## Jacket design:

- Outer jacket:** Low-adhesion mixture on the basis of PUR (following DIN VDE 0281-10), highly abrasion- and bending-stable, adapted to suit the requirements in e-chains<sup>®</sup>.
- oil-resistant (following DIN EN 50363-10-2)
  - coolant-resistant
  - flame-retardant (according to IEC 60332-1-2, CEI 20-35, VW-1, FT-1)
  - PVC- and halogen-free (following DIN EN 50267-2-1)
  - hydrolysis-resistant (following DIN VDE 0282 Part 10 - A)
  - microbe-resistant (following DIN EN 50396)
  - MUD-resistant (following NEK 606 - status 2009)
  - silicon-free (following PV 3.10.7 - status 1992)
  - lead-free (following 2011/65/EU (RoHS-II))
  - clean room ISO class 1 (according to DIN ISO 14644-1 tested by IPA)
  - UV-resistance: Medium

**Colour outer jacket:** Silver grey (similar to RAL 7001)

**Bedruckung (Schwarz):** „00000 m<sup>\*\*</sup> igus chainflex CF211.PUR.---.02<sup>⊙</sup> ----<sup>⊙</sup> E310776 cAUus

AWM Style 20233 VW-1 AWM I/II A/B 80°C 300V FT-1 EAC/CTP CE

RoHS-II conform www.igus.de +++ chainflex cable works +++

\* **Length printing:** Not calibrated. Only intended as an orientation aid.

⊙ / ⊚: Cable identification according to part no. (see [technical table](#) for details).

Ex.: CF211.PUR.02.04.02: ⇒ ...x CF211.PUR.02.04.02 (4x(2x0,25))C C...

## General mechanical values:

(for individual details see [technical table](#))

Guaranteed lifetime for this series according to the "chainflex <sup>®</sup> guarantee club" conditions (see chainflex <sup>®</sup> catalogue and <a href="http://www.igus.eu/chainflex-guarantee">www.igus.eu/chainflex-guarantee</a> )				
Double strokes*		5 million	7,5 million	10 million
Temperature (from/to) [°C]	Travel distance (TD)	Min. bending radius for e-chain <sup>®</sup> use [Factor multiplied by outer diameter (d)] (Ex.: CF211.PUR.02.01.02 at 20°C: 7,5 x 5,0 mm → Min. bending radius 37,5 mm)		
-25 / -15	≤ 100 m	10,0	11,0	12,0
-15 / +70		7,5	8,5	9,5
+70 / +80		10,0	11,0	12,0

\*: Minimum guarantee lifetime of the cable under the specified conditions.

The installation of the cable is recommended within the middle temperature range.

Temperature range	-40 °C ←	-20 °C ←	-10 °C ↔ +70 °C	→ +80 °C
Min. bending radius for fixed installation	10,0 x d	6,8 x d	5,0 x d	6,8 x d
Torsion (at 1 m cable length)	---	±0 °	±30 °	±0 °

Subject to misprints and errors. Technical modifications are possible at any time.  
Maybe older batches do not have all or other features.

Please refer regarding the availability of the items especially the information in the latest chainflex<sup>®</sup> catalogue.

Date	Author
08. May. 2015	J. Esch



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## Technical tables:

### Mechanical values:

① Part no.	② Number of cores & nominal cross section [mm <sup>2</sup> ]	External diameter (d) <sup>***</sup> [max. mm]	Copper index [kg / km]	Weight [kg / km]
CF211.PUR.02.01.02	(2x0,25)C	5,0	17	30
CF211.PUR.02.02.02	(4x0,25)C****	6,0	24	40
CF211.PUR.02.03.02	(3x(2x0,25))C	7,0	34	64
CF211.PUR.02.04.02	(4x(2x0,25))C	7,5	42	67
CF211.PUR.02.05.02	(5x(2x0,25))C	8,5	50	84
CF211.PUR.02.06.02	(6x(2x0,25))C	9,0	59	100
CF211.PUR.02.08.02	(8x(2x0,25))C	10,5	75	128
CF211.PUR.02.10.02	(10x(2x0,25))C	12,0	95	160
CF211.PUR.02.14.02	(14x(2x0,25))C	12,0	115	182
CF211.PUR.03.03.02	(3x(2x0,34))C	8,0	47	84
CF211.PUR.03.08.02	(8x(2x0,34))C	12,0	97	152
CF211.PUR.03.10.02	(10x(2x0,34))C	13,0	119	197
CF211.PUR.05.01.02	(2x0,5)C	5,5	25	42
CF211.PUR.05.02.02	(4x0,5)C****	7,0	39	61
CF211.PUR.05.03.02	(3x(2x0,5))C	9,0	58	101
CF211.PUR.05.04.02	(4x(2x0,5))C	9,5	71	122
CF211.PUR.05.05.02	(5x(2x0,5))C	10,5	87	154
CF211.PUR.05.06.02	(6x(2x0,5))C	11,5	96	179
CF211.PUR.05.08.02	(8x(2x0,5))C	13,0	133	220
CF211.PUR.05.10.02	(10x(2x0,5))C	15,0	181	277
CF211.PUR.05.14.02	(14x(2x0,5))C	15,0	200	301

\*\*\* External diameters are maximum values and may tend toward lower tolerance limits.

\*\*\*\* Star quad design (see [construction table](#) for details).

### Electrical values:

Nominal cross section [mm <sup>2</sup> ]	Conductor resistance [approx. Ω / km] at 20 °C	Max. current rating [A] at 30 °C*
(following)	DIN EN 60228 - A	DIN VDE 0298-4
0,25	77,8	5
0,34	56,8	7
0,5	39,0	10

\* The max. current rating depends on factors such as the individual environmental conditions and the type of installation.

### DIN 47100 colour code:

No.	Colour	No.	Colour	No.	Colour
01	white	11	greypink	21	whiteblue
02	brown	12	redblue	22	brownblue
03	green	13	whitegreen	23	whitered
04	yellow	14	browngreen	24	brownred
05	grey	15	whiteyellow	25	whiteblack
06	pink	16	yellowbrown	26	brownblack
07	blue	17	whitegrey	27	greygreen
08	red	18	greybrown	28	yellowgrey
09	black	19	whitepink	29	pinkgreen
10	violet	20	pinkbrown	30	yellowpink

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

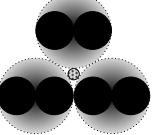
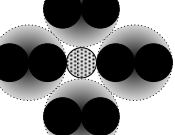
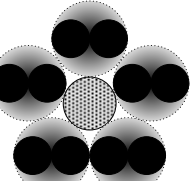
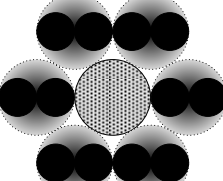
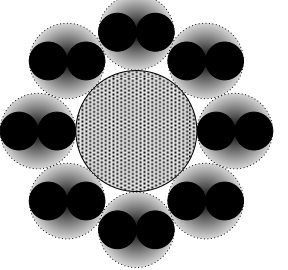
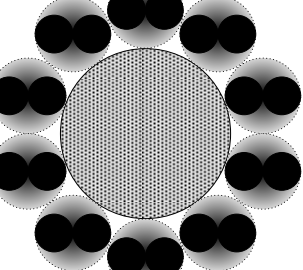
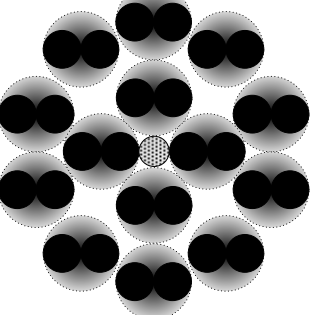
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## Construction table:

Part no.	Core stranding	Part no.	Core stranding
No. of cores		No. of cores	
CF211.PUR.XX.01.02		CF211.PUR.XX.02.02	
2		4	Star-quad design
CF211.PUR.XX.03.02		CF211.PUR.XX.04.02	
3x2		4x2	
CF211.PUR.XX.05.02		CF211.PUR.XX.06.02	
5x2		6x2	
CF211.PUR.XX.08.02		CF211.PUR.XX.10.02	
8x2		10x2	
CF211.PUR.XX.14.02			
14x2			

+++ chainflex<sup>®</sup> cable works +++

igus<sup>®</sup> chainflex<sup>®</sup> CF211.PUR

Image exemplary



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