PVC | iguPUR | **PUR** | TPE

Data cable | PUR | chainflex® CF112

10 million
Double strokes guaranteed

10 x d
Bend radius, e-chain®

100m
Travel distance, e-chain®

- For extremely heavy duty applications
- PUR outer jacket
- Double shielded, twisted pair
- Oil-resistant and coolant-resistant
- Flame-retardant
- PVC and halogen-free
- Notch-resistant
- Hydrolysis and microbe-resistant

Example image

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**	-25°C up to +80°C
	flexible	-40°C up to +80°C (following DIN EN 60811-504)
	fixed	-50°C up to +80°C (following DIN EN 50305)
v max.	**unsupported**	10m/s
	gliding	5m/s
a max.		80m/s²
Travel distance		Unsupported travels and up to 100m 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.
Element shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) Colour: Anthracite grey (similar to RAL 7016)

Electrical information

Nominal voltage	300/300V (following DIN VDE 0298-3) 300V (following UL)
Testing voltage	1,500V (following DIN EN 50395)

EPLAN download, configurators ▶ www.igus.eu/CF112

Class 6.5.3.1

Basic requirements	low	1	2	3	4	5	6	7 highest
Travel distance	unsupported	1	2	3	4	5	6	≥ 400m
Oil resistance	none	1	2	3	4 highest			
Torsion	none	1	2	3	4 ±360°			

Properties and approvals

UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
Offshore	MUD-resistant following NEK 606 - status 2016
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)
Halogen-free	Following DIN EN 60754
UL verified	Certificate No. B129699: "igus 36-month 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/CF112
NFPA	Following NFPA 79-2018, chapter 12.9
DNV	Type Approval Certificate TAE00003X3
EAC	Certificate No. RU C-DE.ME77.B.00300/19
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 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
CE	Following 2014/35/EU
UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
-25/-15	12.5	13.5	14.5
-15/+70	10	11	12
+70/+80	12.5	13.5	14.5

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

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 100m for gliding applications, Class 5
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications with average sun radiation
- Machining units/machine tools, storage and retrieval units for high-bay warehouses, packaging industry, quick handling, refrigerating sector

CF112
PUR
10 x d

Data cable | PUR | chainflex® CF112

Class 6.5.3.1

Basic requirements	low	1	2	3	4	5	**6**	7	highest
Travel distance	unsupported	1	2	3	4	**5**	**6**		≥ 400m
Oil resistance	none	1	2	**3**	4				highest
Torsion	none	**1**	2	3	4				±360°

CF112
PUR
10 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]
CF112.02.02.02	(2x(2x0.25)C)C	9.5	57	118
CF112.02.03.02	(3x(2x0.25)C)C	10.0	71	133
CF112.02.04.02	(4x(2x0.25)C)C	11.0	78	153
CF112.02.05.02	(5x(2x0.25)C)C	11.5	99	178
CF112.05.02.02	(2x(2x0.5)C)C	11.5	75	163
CF112.05.04.02	(4x(2x0.5)C)C	13.0	117	217
CF112.05.06.02	(6x(2x0.5)C)C	14.5	160	285

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

Cables available in the chainflex® CASE

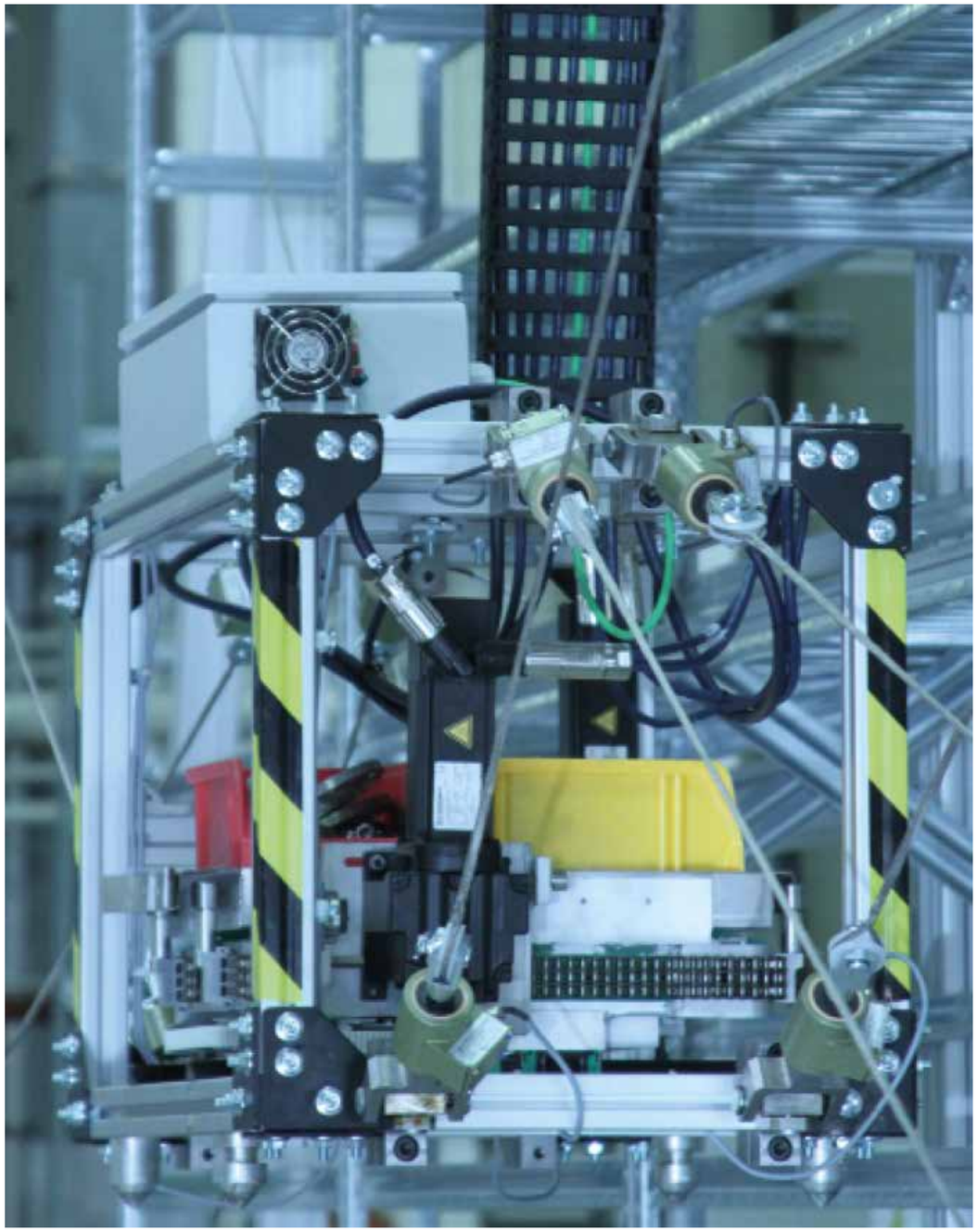
Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cf-case

Order example: CF112.02.02.02 **- to your desired length (0.5m steps)**
CF112 **chainflex® series** .02 **Code nominal cross section** .02 **Number of cores** .02 **Identification pairs**

Order online ▶ www.igus.eu/CF112

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



Hanging application with chainflex® CF112 data cables

EPLAN download, configurators ▶ www.igus.eu/CF112