Measuring system cable | iguPUR | chainflex® CF894

Example image

- For flexing applications
- iguPUR outer jacket
- Oil-resistant
- Shielded
- Flame retardant

Dynamic information

Bend radius	**e-chain® linear**	minimum 15 x d
	flexible	minimum 12 x d
	fixed	minimum 8 x d
Temperature	**e-chain® linear**	-20 °C to +80 °C
	flexible	-40 °C to +80 °C (following DIN EN 60811-504)
	fixed	-50 °C to +80 °C (following DIN EN 50305)
v max.	**unsupported**	3 m/s
a max.		20 m/s²
Travel distance		Unsupported travel distances up to 10 m, Class 1

Cable structure

Conductor	Conductor consisting of bare copper wires (following DIN EN 60228).
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	Foil taping of optimised, bending-resistant foil shield. Coverage approx. 100 % optical
Overall shield	Braiding made of tinned copper wires. Coverage approx. 60 % optical
Outer jacket	Low-adhesion iguPUR mixture, adapted to suit the requirements in e-chains®. Colour: Yellow-green (similar to RAL 6018)

Electrical information

Nominal voltage	50 V
Testing voltage	500 V

Class 3.1.3.1

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°			

Properties and approvals

UV resistance	Medium.
Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3.
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 1589 and 20236, 30 V, 80 °C
NFPA	Following NFPA 79-2012 chapter 12.9.
EAC	Certificate no. RU C-DE.ME77.B.01559 (TR ZU)
CTP	Certificate no. C-DE.PB49.B.00449 (Fire safety)
Lead-free	Following 2011/65/EU (RoHS-II).
CE	Following 2014/35/EU.

Guaranteed lifetime according to guarantee conditions (Page 22-23)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-20/-10	17.5	18.5	19.5
-10/+70	15	16	17
+70/+80	17.5	18.5	19.5

* Higher number of double strokes? Online lifetime calculation: www.igus.eu/chainflexlife

Typical mechanical application areas

- For flexing applications
- With influence of oil
- Indoor and outdoor applications without direct solar radiation
- Especially for unsupported travels
- Machining units/machine tools, low temperature applications

CF894
iguPUR
15 x d

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Class 3.1.3.1

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°

CF894
iguPUR
15 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]
CF894.001	(3x(2x0.14)C+(4x0.14)+(2x0.5))C	8.5	43	90
CF894.006	(3x(2x0.14)C+(4x0.14)+(4x0.22)+(2x0.5))C	9.0	53	113
CF894.011	(4x(2x0.34)+4x0.5)C	9.5	68	116
CF894.015	(4x(2x0.14)+4x0.5)C	8.5	47	90
CF894.022	((2x0.25)+5x0.5)C	8.0	44	83
CF894.028	(2x(2x0.15)+(2x0.38))C	7.5	43	66

Part No.	Core group	Colour code
CF894.001	3x(2x0.14)C	green/yellow, black/brown, red/orange
	4x0.14	grey, blue, white-yellow, white-black
	2x0.5	brown-red, brown-blue
CF894.006	3x(2x0.14)C	green/yellow, black/brown, red/orange
	4x0.14	grey, blue, white-yellow, white-black
	4 x 0.22	brown-yellow, brown-grey, green-black, brown-red
	2x0.5	brown-red, brown-blue
CF894.011	4x(2x0.34)	black/brown, red/orange, yellow/green, blue/violet
	4x0.5	blue-white, black-white, red-white, yellow-white
CF894.015	4x(2x0.14)	brown/green, violet/yellow, grey/pink, red/black
	4x0.5	blue, white, brown-green, white-green
CF894.022	5x0.5	blue, green, yellow, grey, pink
	2x0.25	white, brown
CF894.028	2x(2x0.15)	green/yellow, pink/blue
	2x0.38	red, black

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