

Servo cable | iguPUR | chainflex® CF897

- 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, especially low-capacitance TPE mixture.
	Core structure	Power cores and control pair elements wound with an optimised pitch length.
	Core identification	Power cores: Black cores with white numerals, one core green-yellow. 1. Core: U / L1 / C / L+ 2. Core: V / L2 3. Core: W / L3 / D / L- 1 Control pair: Black cores with white numerals. 1. Control core: 5 2. Control core: 6 2 Control pairs: Black cores with white numerals. 1. Control core: 5 2. Control core: 6 3. Control core: 7 4. Control core: 8
	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: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1000 V (following DIN VDE 0298-3)
	Testing voltage	4000 V (following DIN EN 50395)

Properties and approvals

	UV resistance	Medium.
---	----------------------	---------

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 3.1.3.1

	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 10492 and 21223, 1000 V, 80 °C
	NFPA	Following NFPA 79-2012 chapter 12.9.
	EAC	Certificate no. RU C-DE.ME77.B.01561 (TR ZU)
	CTP	Certificate no. C-DE.PB49.B.00450 (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

Part No.	Number of cores and conductor nominal cross section	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
1 Control pair shielded				
CF897.15.15.02.01	(4G1.5+(2x1.5)C)C	12.5	132	202
CF897.25.15.02.01	(4G2.5+(2x1.5)C)C	13.5	194	271
CF897.40.15.02.01	(4G4.0+(2x1.5)C)C	14.5	252	353
2 Control pairs shielded				
CF897.15.15.02.02	(4G1.5+2x(2x1.5)C)C	13.5	175	262

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