

# Servo cable | iguPUR | chainflex® CF897

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

## Dynamic information

	<b>Bend radius</b>	<b>e-chain® linear</b>	minimum 15 x d
		<b>flexible</b>	minimum 12 x d
		<b>fixed</b>	minimum 8 x d
	<b>Temperature</b>	<b>e-chain® linear</b>	-20 °C to +80 °C
		<b>flexible</b>	-40 °C to +80 °C (following DIN EN 60811-504)
		<b>fixed</b>	-50 °C to +80 °C (following DIN EN 50305)
	<b>v max.</b>	<b>unsupported</b>	3 m/s
	<b>a max.</b>		20 m/s <sup>2</sup>
	<b>Travel distance</b>		Unsupported travel distances up to 10 m, Class 3

## Cable structure

	<b>Conductor</b>	Conductor consisting of bare copper wires (following DIN EN 60228).
	<b>Core insulation</b>	Mechanically high-quality, especially low-capacitance TPE mixture.
	<b>Core structure</b>	Power cores and control pair elements wound with an optimised pitch length.
	<b>Core identification</b>	<b>Power cores:</b> 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- <b>1 Control pair:</b> Black cores with white numerals. 1. Control core: 5 2. Control core: 6 <b>2 Control pairs:</b> Black cores with white numerals. 1. Control core: 5 2. Control core: 6 3. Control core: 7 4. Control core: 8
	<b>Element shield</b>	Foil taping of optimised, bending-resistant foil shield. Coverage approx. 100 % optical
	<b>Overall shield</b>	Braiding made of tinned copper wires. Coverage approx. 60 % optical
	<b>Outer jacket</b>	Low-adhesion iguPUR mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

## Electrical information

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

## Properties and approvals

	<b>UV resistance</b>	Medium.
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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°				

## Class 3.1.3.1

	<b>Oil resistance</b>	Oil-resistant (following DIN EN 50363-10-2), Class 3.
	<b>Flame retardant</b>	According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
	<b>Silicone-free</b>	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
	<b>UL/CSA</b>	Style 10492 and 21223, 1000 V, 80 °C
	<b>NFFPA</b>	Following NFFPA 79-2012 chapter 12.9.
	<b>EAC</b>	Certificate no. RU C-DE.ME77.B.01561 (TR ZU)
	<b>CTP</b>	Certificate no. C-DE.PB49.B.00450 (Fire safety)
	<b>Lead-free</b>	Following 2011/65/EU (RoHS-II).
	<b>CE</b>	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](http://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]
<b>1 Control pair shielded</b>				
<b>CF897.15.15.02.01</b>	(4G1.5+(2x1.5)C)C	12.5	132	202
<b>CF897.25.15.02.01</b>	(4G2.5+(2x1.5)C)C	13.5	194	271
<b>CF897.40.15.02.01</b>	(4G4.0+(2x1.5)C)C	14.5	252	353
<b>2 Control pairs shielded</b>				
<b>CF897.15.15.02.02</b>	(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

