

# Servo cable | iguPUR | chainflex® CF897

- 36** 5,000,000 Double strokes guaranteed
- 15 x d** Bend radius, e-chain®
- 10m** Travel distance, e-chain®

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

## Dynamic information

<b>Bend radius</b>	<b>e-chain® linear flexible</b>	minimum 15 x d
	<b>fixed</b>	minimum 12 x d
<b>Temperature</b>	<b>e-chain® linear flexible</b>	-20°C up to +80°C
	<b>fixed</b>	-40°C up to +80°C (following DIN EN 60811-504)
<b>v max.</b>	<b>unsupported</b>	3m/s
<b>a max.</b>		20m/s <sup>2</sup>
<b>Travel distance</b>		Unsupported travels up to 10m, Class 1

## Cable structure

<b>Conductor</b>	Conductor consisting of bare copper wires (according to 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 together in an optimised pitch length.
<b>Core identification</b>	<b>Power cores:</b> Black cores with white numbers, one green-yellow core. 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 numbers. 1. Control core: 5 2. Control core: 6 <b>2 control pairs:</b> Black cores with white numbers. 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.
<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>	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
<b>Testing voltage</b>	4,000V (following DIN EN 50395)

EPLAN download, configurators ► [www.igus.eu/CF897](http://www.igus.eu/CF897)

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



Basic requirements  
Travel distance  
Oil resistance  
Torsion

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 400m	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			

## Class 3.1.3.1

### Properties and approvals

<b>UV resistance</b>	Medium
<b>Oil resistance</b>	Oil-resistant (following DIN EN 50363-10-2), Class 3
<b>Flame-retardant</b>	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
<b>Silicone-free</b>	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
<b>UL verified</b>	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
<b>UL/CSA AWM</b>	See data sheet for details ► <a href="http://www.igus.eu/CF897">www.igus.eu/CF897</a>
<b>NFPA</b>	Following NFPA 79-2018, chapter 12.9
<b>EAC</b>	Certificate No. RU C-DE.ME77.B.00302/19
<b>REACH</b>	In accordance with regulation (EC) No. 1907/2006 (REACH)
<b>Lead-free</b>	Following 2011/65/EC (RoHS-II/RoHS-III)
<b>CE</b>	Following 2014/35/EU
<b>UK CA</b>	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

### Guaranteed service life (details see page 28-29)

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? Service life calculation online ► [www.igus.eu/chainflexlife](http://www.igus.eu/chainflexlife)

### Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- With influence of oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm <sup>2</sup> ]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
<b>1 control pair shielded</b>				
CF897.15.15.02.01	(4G1.5+(2x1.5)C)	12.5	124	201
CF897.25.15.02.01	(4G2.5+(2x1.5)C)C	13.5	182	248
CF897.40.15.02.01	(4G4.0+(2x1.5)C)C	14.5	236	329
<b>2 control pairs shielded</b>				
CF897.15.15.02.02	(4G1.5+2x(2x1.5)C)C	13.5	164	246

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

UL-verified chainflex® guarantee ... [www.igus.eu/ul-verified](http://www.igus.eu/ul-verified)



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