



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



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 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

3m/s



a max.

20m/s²



Travel distance

Unsupported travels up to 10m, Class 1

Cable structure



Conductor

Conductor consisting of bare copper wires (according to DIN EN 60228).



Core insulation

Mechanically high-quality, especially low-capacitance TPE mixture.



Core structure

Power cores and control pair elements wound together in an optimised pitch length.



Core identification

Power cores: 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-

1 control pair: Black cores with white numbers.

1. Control core: 5 2. Control core: 6

2 control pairs: Black cores with white numbers.

1. Control core: 5 2. Control core: 6

3. Control core: 7 4. Control core: 8

Foil taping of optimised, bending-resistant foil shield.



Element shield



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

600/1,000V (following DIN VDE 0298-3)

1,000V (following UL)



Testing voltage

4,000V (following DIN EN 50395)

Class 3.1.3.1

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, 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)



PTFE-free

The design of these products does not contain PTFE



UL-verified

Certificate No. V293650: „igus 4-year 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.sk/CF897

NFPA

Following NFPA 79-2018, chapter 12.9



REACH

In accordance with regulation (EC) No. 1907/2006 (REACH)



Lead-free

Following 2011/65/EC (RoHS-II/RoHS-III)



CE

Following 2014/35/EU

Guaranteed service life (details see page 14-15)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [x d]	R min. [x d]	R min. [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.sk/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 [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]	Shop and prices online
1 control pair shielded					 www.igus.sk CF897
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	
2 control pairs shielded					
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

