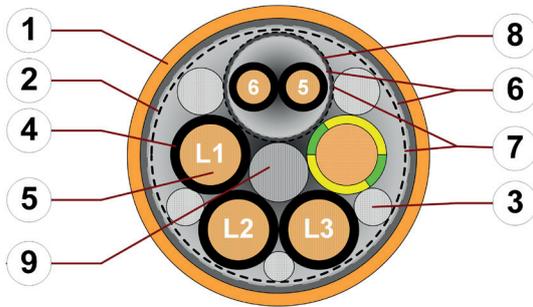


Data sheet

chainflex® CF887



Servo cable (Class 3.1.1.1) ● For flexing applications ● PVC outer jacket ● Shielded ● Flame-retardant



1. Outer jacket: Pressure extruded PVC mixture
2. Overall shield: Braiding made of tinned copper wires
3. Filling: Plastic yarns
4. Core insulation: Mechanically high-quality, especially low-capacitance TPE mixture
5. Conductor: Stranded conductor consisting of bare copper wires
6. Shield foil: Aluminium clad plastic foil
7. Banding: Plastic foil
8. Element shield: Wrapping made of tinned copper wires
9. Strain relief: Plastic centre element

Example image
For detailed overview please see design table

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	<p>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-</p> <p>1 Control pair: Black cores with white numbers. 1. Control core: 5 2. Control core: 6</p> <p>2 Control pairs: Black cores with white numbers. 1. Control core: 5 2. Control core: 6 3. Control core: 7 4. Control core: 8</p>
	Element shield	Foil taping of optimised, bending-resistant foil shield.
	Overall shield	Braiding made of tinned copper wires. Coverage approx. 60% optical
	Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003) Printing: black

„00000 m** igus chainflex M CF887.---.---.---① ---② 600/1000V E310776

cRUus AWM Style 2570 VW-1 AWM I/II A/B 80°C 1000V FT1

CE UKCA RoHS-II conform www.igus.de +++ chainflex cable works +++

* **Length printing:** Not calibrated. Only intended as an orientation aid.
 ① / ② Cable identification according to Part No. (see technical table).
 Example: ... chainflex **CF887.15.15.02.01 (4G1.5+(2x1.5)C)C 600/1000V ...**



Data sheet

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Servo cable (Class 3.1.1.1) ● For flexing applications ● PVC outer jacket ● Shielded ● Flame-retardant



Dynamic information

	Bend radius	e-chain® linear flexible fixed	minimum 15 x d minimum 12 x d minimum 8 x d
	Temperature	e-chain® linear flexible fixed	+5°C up to +70°C -5°C up to +70°C (following DIN EN 60811-504) -15°C up to +70°C (following DIN EN 50305)
	v max.	unsupported	3m/s
	a max.		20m/s ²
	Travel distance		Unsupported travels up to 10m, Class 1

These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Guaranteed service life according to guarantee conditions

Double strokes	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [x d]	R min. [x d]	R min. [x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5

Minimum guaranteed service life of the cable under the specified conditions. The installation of the cable is recommended within the middle temperature range.

Electrical information

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



Example image

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Servo cable (Class 3.1.1.1) ● For flexing applications ● PVC outer jacket ● Shielded ● Flame-retardant



Properties and approvals

- 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 table UL/CSA AWW for details
- 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



Properties and approvals

UL/CSA AWM Details

Conductor nominal cross section [mm ²]	UL style core insulation	UL style outer jacket	UL Voltage Rating [V]	UL Temperature Rating [°C]
0.5	10492	2570	1000	80
0.75	10492	2570	1000	80
1	10492	2570	1000	80
1.5	10492	2570	1000	80
2.5	10492	2570	1000	80
4	10492	2570	1000	80

Example image

igus® chainflex® CF887

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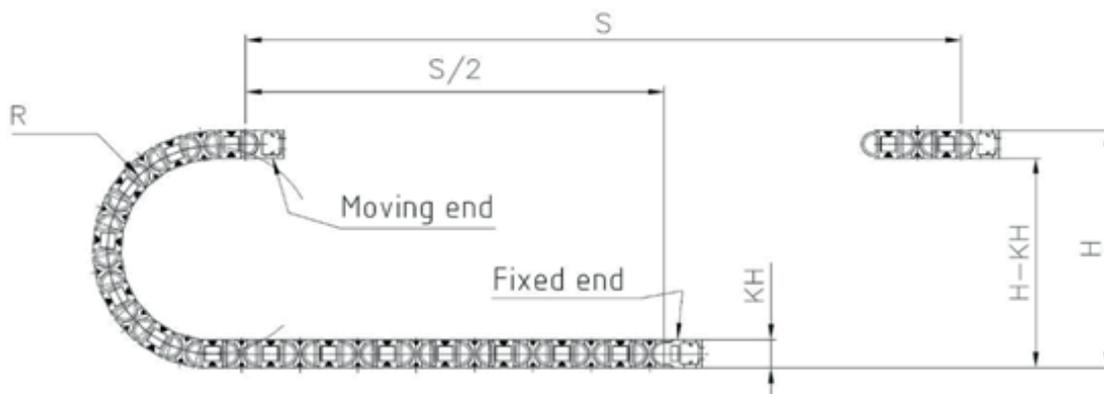


Servo cable (Class 3.1.1.1) ● For flexing applications ● PVC outer jacket ● Shielded ● Flame-retardant



Typical lab test setup for this cable series

Test bend radius R	approx. 75 - 225 mm
Test travel S	approx. 1 - 15 m
Test duration	minimum 2 - 4 million double strokes
Test speed	approx. 0.5 - 2 m / s
Test acceleration	approx. 0.5 - 1.5 m / s ²



Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- No torsion, Class 1
- Preferably indoor applications
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices



igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



Example image

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Servo cable (Class 3.1.1.1) ● For flexing applications ● PVC outer jacket ● Shielded ● Flame-retardant

Technical tables:

Mechanical information

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
1 Control pair shielded				
CF887.07.05.02.01	(4G0.75+(2x0.5)C)C	10.0	69	119
CF887.15.15.02.01	(4G1.5+(2x1.5)C)C	12.5	124	200
CF887.25.15.02.01	(4G2.5+(2x1.5)C)C	13.5	182	254
CF887.40.15.02.01	(4G4.0+(2x1.5)C)C	14.5	236	340
2 Control pairs shielded				
CF887.10.07.02.02	(4G1.0+2x(2x0.75)C)C	11.5	110	184
CF887.15.15.02.02	(4G1.5+2x(2x1.5)C)C	13.5	164	253
CF887.25.15.02.02	(4G2.5+2x(2x1.5)C)C	14.5	217	325

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

Electrical information

Conductor nominal cross section [mm ²]	Maximum conductor resistance at 20 °C (following DIN EN 50289-1-2) [Ω/km]	Max. current rating at 30 °C [A]
0.5	39	10
0.75	26	13
1	19.5	15
1.5	13.3	19
2.5	8	27
4	4.95	37

The final maximum current rating depends among other things on the ambient conditions, the type of the installation and the number of loaded cores.

Capacity

Part No.	Power cores		Control cores	
	Core/Core Capacity [approx. pF / m]	Core/Shield Capacity [approx. pF / m]	Core/Core Capacity [approx. pF / m]	Core/Shield Capacity [approx. pF / m]
1 Control pair shielded				
CF887.15.15.02.01	80	190	150	220
CF887.25.15.02.01	90	190	150	220
CF887.40.15.02.01	130	200	150	220
2 Control pairs shielded				
CF887.10.07.02.02	80	18	140	200
CF887.15.15.02.02	80	190	150	220
CF887.25.15.02.02	90	190	150	220

Example image

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Servo cable (Class 3.1.1.1) ● For flexing applications ● PVC outer jacket ● Shielded
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Design table

Art.-Nr.	Number of cores	Core design
CF887.XX.XX.XX.01	4+1x2	
CF887.XX.XX.02.02	4+2x2	



igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



Example image

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