








Thermocouple cable | PUR | chainflex® CFTHERMO

- For heavy duty applications
- PUR outer jacket
- Oil-resistant and coolant-resistant
- PVC and halogen-free
- Notch-resistant
- Hydrolysis and microbe-resistant



Dynamic information

 Bend radius	e-chain® linear flexible	minimum 12.5 x d
	fixed	minimum 10 x d
 Temperature	e-chain® linear flexible	-25°C up to +80°C
	fixed	-40°C up to +80°C (following DIN EN 60811-504)
 v max.	unsupported	2m/s
	gliding	1m/s
 a max.		20m/s ²
 Travel distance		Unsupported travels and up to 50m for gliding applications, Class 4

Cable structure

 Conductor	Conductor consisting of a flexible special alloy. ▶ Product range table
 Core insulation	Mechanically high-quality TPE mixture.
 Core structure	The individual cores are wound in layers with a short pitch length.
 Core identification	According to thermo specification. ▶ Product range table
 Intermediate layer	Fleece taping over the external layer.
 Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
 Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) Colour: According to thermo specification ▶ Product range table












Electrical information

 Nominal voltage	300/300V (following DIN VDE 0298-3)
 Testing voltage	1,500V

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	≥ 400m
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	4	±360°			

Class 5.4.3.1

Properties and approvals

 UV resistance	Medium
 Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
 Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
 Halogen-free	Following DIN EN 60754
 UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year" Certificate No. RU C-DE.ME77.B.00300/19
 EAC	
 REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
 Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
 Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU
 CE	
 UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 50m for gliding applications, Class 4
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications with average sun radiation
- Machining units/machine tools, storage and retrieval units for high-bay warehouses, packaging industry, quick handling, refrigerating sector

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFTHERMO.J.001	(2x0.23)C	5.5	9	36
CFTHERMO.K.001	(2x0.23)C	5.5	9	37
CFTHERMO.K.002 *	(2x0.23)C+3G0.5	7.5	24	67

* The cross-section of the copper conductor is equivalent to the electrically effective cross-section.

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

Part No.	Jacket colour	Thermo materials	Core group	Colour code
CFTHERMO.J.001 *	black	Fe-CuNi	(2x0.23)C	+ black, - white
CFTHERMO.K.001	green	NiCr-Ni	(2x0.23)C	+ green, - white
CFTHERMO.K.002	green	NiCr-Ni Cu	(2x0.23)C 3G0.5	+ green, - white brown, blue, yellow-green



Example image

igus® chainflex® CFTHERMO

