Thermocouple cable | PUR | chainflex® CFTHERMO

Basic requirements Travel distance unsupported Oil resistance Torsion

Medium



12.5 x d

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

Dynamic information

\leftarrow	R
	D
((—R	

end radius

e-chain® linear minimum 12.5 x d

flexible fixed

 20m/s^2

minimum 10 x d minimum 5 x d

Temperature

e-chain® linear -25°C up to +80°C flexible -40°C up to +80°C (following DIN EN 60811-504)

1m/s

-50°C up to +80°C (following DIN EN 50305) fixed 2m/s

v max.

unsupported gliding

a max.

Travel distance

Unsupported travels and up to 50m for gliding applications, Class 4

Cable structure



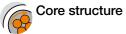
Conductor consisting of a flexible special alloy.

► Product range table



Core insulation

Mechanically high-quality TPE mixture.



The individual cores are wound in layers with a short pitch length.



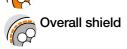
Core identification

According to thermo specification.



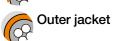
Intermediate layer

► Product range table Fleece taping over the external layer.





Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%



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)

1,500V Testing voltage

Class 5.4.3.1

Properties and approvals

UV resistance



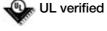
Oil-resistant (following DIN EN 50363-10-2), Class 3 Oil resistance



Silicone-free Free from silicone which can affect paint adhesion (following PV 3.10.7 - status



Following DIN EN 60754 Halogen-free



Certificate No. B129699: "igus 36-month chainflex cable guarantee and

service life calculator based on 2 billion test cycles per year"



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

Certificate No. RU C-DE.ME77.B.00300/19



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



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

C€_{CE}

Following 2014/35/EU



In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Typical application areas

Cleanroom

- 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 [mm²]	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	(2x0.23)C	+ green, - white
		Cu	3G0.5	brown, blue, yellow-green

