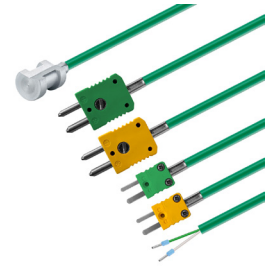


Pipe contact thermocouple Type K with PVC cable with silicone cable

Article no.: 802160 1211

Type K pipe contact thermocouples with aluminum prism and silicone cable precisely measure the surface temperature of bent objects such as pipes. The contact body with a special radius is ideal for pipes with a diameter of 30 mm to 110 mm. The measuring range extends from -30 to 180 °C. We offer various cable lengths and connection plugs so that you can adapt the thermocouple optimally to your installation situation. You will find suitable plugs and connection cables in our accessories.



Customizable options
 E - Material connection cable
 F - Length connection cable
 G - Connector
 H - Bend protection

General Information

Measuring range	-40 °C to +180 °C depending on chosen connection cable
Perm. °C range cable	-50 °C to +180 °C
Accuracy	-40 °C to +375 °C: ±1,5 °C according to DIN IEC 60584 Class 1

Supply and output

Measuring element	Thermocouple Type K
Measuring point	Measuring point isolated
Measurement signal	Thermovoltage

Ambient conditions

Protection class	IP54 according to DIN 60529 (depending on cable)
Humidity and moisture condensation resistance	according to application-specific qualification

Certificates and Standards

Standards	DIN EN 61326-1:2013 DIN EN IEC 63000:2019-05
Directive	RoHS 2011/65/EU 2014/30/EU

Contact body

Picture	Contact body	Dimensioning	Drawing
	Contact geometry	Prism	
	Material	Aluminium	
	Contact angle	162°	
	We offer other contact bodies on request.		
	Length (mm)	20	
	Total length (mm)	32	
	Ø (mm)	15	

E - Cable material and configuration connection cable

Picture	Code	Type	Color	IP	From (°C) ¹⁾	To (°C) ¹⁾	Outside material	Material strand	Ø (mm) ²⁾	Q (mm ²)	Color strand
	E8220	Thermocouple cable	Type K ³⁾	IP67	-50	+180	Silicone	FEP	3,6	0,22	gn, wt
	Insulation resistance: ≥ 100 MOhm a min. 100 VDC ¹⁾ Perm. range °C ²⁾ Tolerance ± 0,2 mm ³⁾ Color according to IEC 584 ⁴⁾ per thermocouple										

F - Length



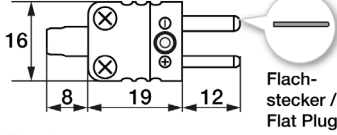

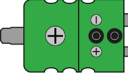
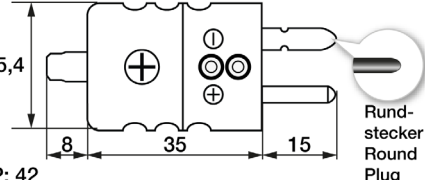
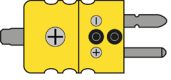
Code	F010	F020	F030	F040	F050	F100	F150	F200
m	1	2	3	4	5	10	15	20


Other lengths on request

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G - Connector			
Picture	Code	Feature	Technical drawing - Stecker
	G01	Insulated end ferrules (50 mm)	
	G12	Mini-TC connector Type K gn	 IP: 42
	G19	Mini-TC connector Type K ye	
	G32	TC connector Type K gn	 IP: 42
	G39	TC connector Type K ye	

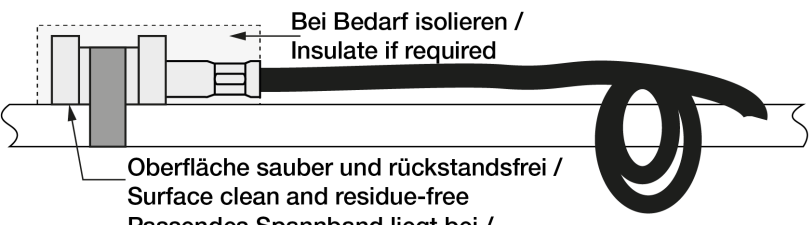
H - Bend protection				
Picture	Length (mm)	Material	Code	Feature
	50	Stainless steel spring 1.4310 SUS 302	H0	Without (Standard)
			H1	Metal bend protection

Your order code				
Article no.	Material connection cable	Length connection cable	Connector	Bend protection
802160 1211	E_____	F_____	G_____	H_____

Delivery and Assembly	
Assembly instructions	Using quick-release strap, clamping range Ø 30 mm to 110 mm
Delivery and Packaging	Probe, Quick-release strap, separately packaged in PE bag

Important assembly advices

The surface must be polished and free of residues. Please attach the probe securely. Use the quick-release strap provided. Ensure good thermal contact and use the thermal conduction paste provided. Depending on requirements, it may be advisable to insulate the probe to minimize the influence of the ambient temperature.

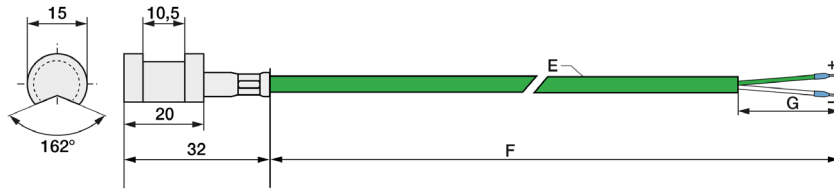


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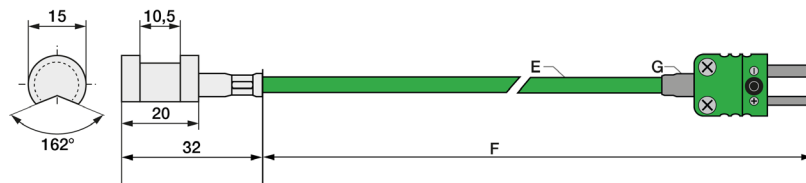
Technical drawing

Customizable options	E - Material connection cable F - Length connection cable	G - Connector H - Bend protection	All dimensions in mm
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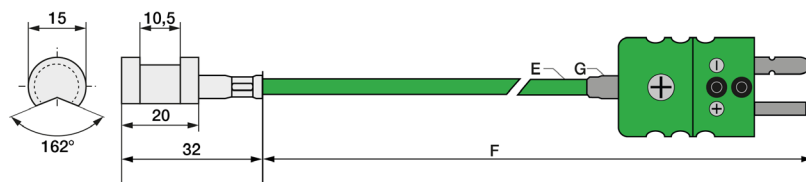
Version with insulated end ferrules



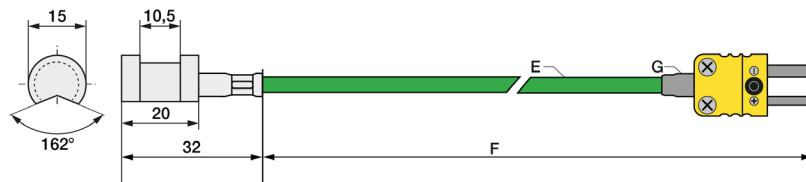
Version with Mini TE connector



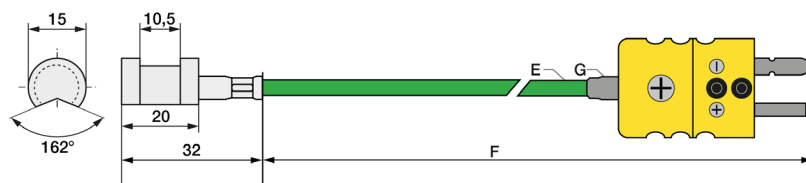
Version with TE connector



Version with Mini TE connector



Version with TE connector



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Matching accessories: Thermocouple cables

Thermocouple cables - Please select your desired cable first.

Order code	Type	Color	IP	From (°C) ¹⁾	To (°C) ¹⁾	Outside material	Material strand	Ø (mm) ²⁾	Q (mm ²)	Color strand	Ω / m ⁴⁾
809310 2	Thermocouple cable	Type K ³⁾	IP67	-50	+180	Silicone	FEP	3,6	0,22	gn, wt	4,50

Insulation resistance: ≥ 100 MOhm at min. 100 VDC | ¹⁾per. °C range | ²⁾Tolerance ± 0.2 mm | ³⁾ Color according to IEC 584 | ⁴⁾per thermocouple

Now please select the length and add the code to the article no. of the cable.

Length (m)	1	2	5	10	20
Code	010	020	050	100	200

Please append these digits to the part number of your desired cable.

Matching accessories: Connector

G - Connector

Picture	Code	Feature	Picture	Code	Feature
	809140 2000	Mini-TC connector Type K gn		809100 2000	Mini-TC coupling Type K gn
	809150 2000	TC connector Type K gn		809110 2000	TC coupling Type K gn
	809140 2001	Mini-TC connector Type K ye		809100 2001	Mini-TC coupling Type K ye
	809150 2001	TC connector Type K ye		809110 2001	TC coupling Type K ye

Technical drawing - Connector


	Mini-TC connector		Mini-TC coupling
	TC connector		TC coupling

Other connectors available on request


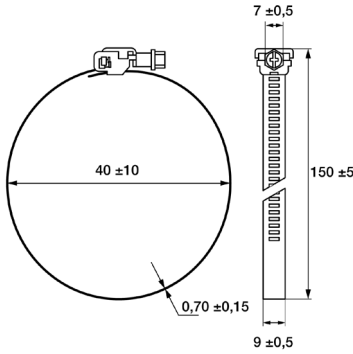
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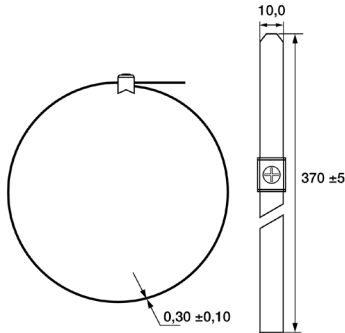
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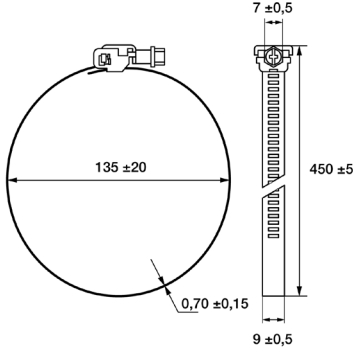
Matching accessories: Heat-conducting paste

Heat-conducting paste		
Picture	Article no.	809540 1000
	Content	10 ml
	Thermal conductivity	>2.5 W/mK
	Min / Max °C	-30 °C to +280 °C
	Thermal resistance	< 0.126

Matching accessories: Quick-release strap

Quick-release strap	
	
Article no.	809550 1000
Clamping range (mm)	Ø 25 to 40
Material	Stainless Steel
Dimensions (L/W) (mm)	150 ¹⁾ / 9 ²⁾
Closure	Screw closure
¹⁾ ± 5 mm ²⁾ ± 0,5 mm	

Quick-release strap	
	
ArtikelnrArticle no.	809550 2000
Clamping range (mm)	Ø 30 to 110
Material	Stainless Steel
Dimensions (L/W) (mm)	370 ¹⁾ / 10
Closure	Screw closure
¹⁾ ± 5 mm ²⁾ ± 0,5 mm	

Quick-release strap	
	
Article no.	809550 3000
Clamping range (mm)	Ø 25 to 135
Material	Stainless Steel
Dimensions (L/W) (mm)	450 ¹⁾ / 9 ²⁾
Closure	Screw closure
¹⁾ ± 5 mm ²⁾ ± 0,5 mm	

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