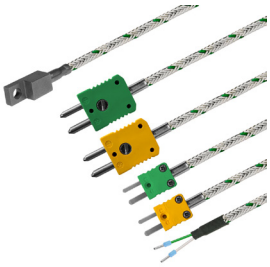
Be sure. testo

Stepped contact thermocouple Type K
with glass fibre cable

Article no.: 802083 3211



Our stepped type K contact thermocouple with glass-fiber cable is used for temperature measurements on smooth surfaces in mechanical and apparatus engineering. The sensor is attached via a screw connection and is suitable for use at temperatures up to +400 °C due to the glass silk insulation. Despite a lower level of sealing compared to other materials, the glass fiber cable offers a reliable solution for high-temperature resistant applications. We offer various cable lengths and connection plugs so that you can adapt the thermocouyple optimally to your installation situation. You will find suitable plugs and connection cables in our accessories.

General Information	
Measuring range	-40 °C to +400 °C depending on chosen connection cable
Perm. °C range cable	-50 °C to +400 °C
Accuracy	-40 °C to +375 °C: ±1,5 °C | 375 °C to 1.000 °C: ±0,004 |t| according to DIN IEC 60584 Class 1

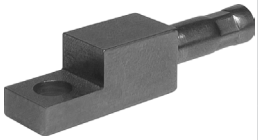
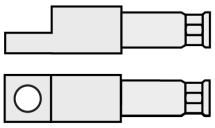
Supply and output	
Measuring element	Thermocouple Type K
Measuring point	Measuring point isolated
Measurement signal	Thermovoltage

Ambient conditions	
Protection class	IP20 according 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

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

Contact body

Picture	Contact body		Dimensioning		Drawing
	Contact geometry	Square with step	Length (mm)	20	
	Material	Stainless Steel	Width (mm)	8	
	Mounting hole (mm)	4,5	Height (mm)	8	
	We offer other contact bodies on request.				

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 (mm²)	Color strand
	E8320	Thermocouple cable	Type K[3]	IP20	-50	+400	Varnish	Glass fibre	3,0	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										

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Testo Sensor GmbH
Testo-Straße 1
D-79853 Lenzkirch
+49 7653 96597-71
webshop@testo-sensor.de
Managing Director: Prof. Burkart Knospe, Timo Löffler
Amtsgericht Freiburg HRB 706025 | Umsatzsteuer-ID.: DE274417683
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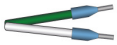
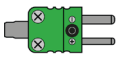
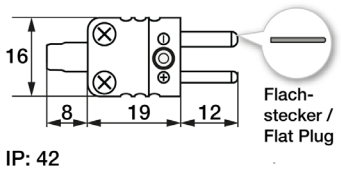
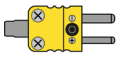
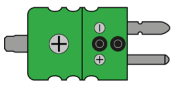
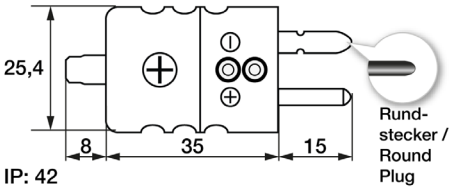
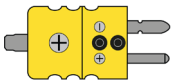
F - Length								
Code	F010	F020	F030	F040	F050	F100	F150	F200
m	1	2	3	4	5	10	15	20
Other lengths on request								

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

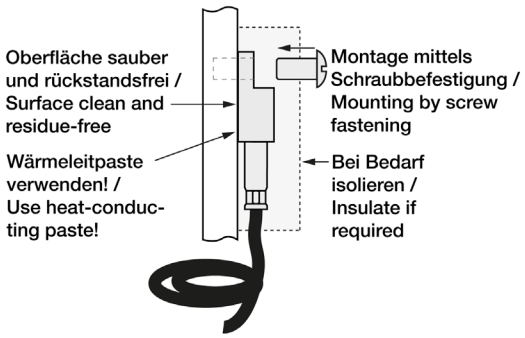
H - Bend protection				
Picture	**Length (mm)**	**Material**	**Code**	**Feature**
	50	Stainless steel spring 1.4310 | SUS 302	H0	Without (Standard)
			H1	Metal bend protection

Your order code				
Article no.	Material connection cable	Length connection cable	Connector	Bend protection
802083 3211	E_____	F_____	G_____	H_____

Delivery and Assembly	
Assembly instructions	by means of screw fastening or mounting adhesive
Delivery and Packaging	Probe, seperatly packaged in PE bag

Important assembly advices

The surface must be brightly polished and free of residues. Please attach the probe firmly. Please ensure good thermal contact, use thermal paste if necessary. Depending on the requirements, it may be useful to insulate the probe to minimize the influence of the ambient temperature.



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Testo Sensor GmbH

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webshop@testo-sensor.de

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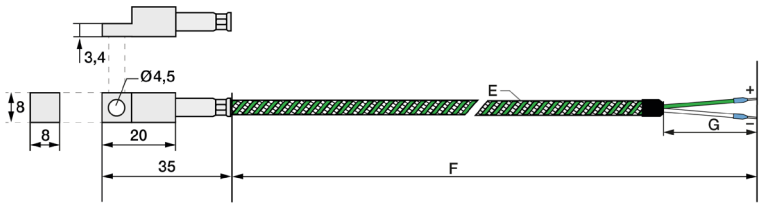
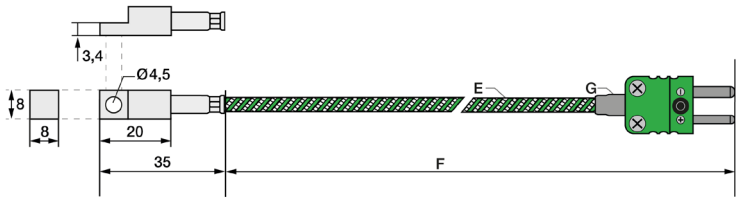
Technical drawing

Customizable options	E - Material connection cable F - Length connection cable	G - Connector H - Bend protection	All dimensions in mm

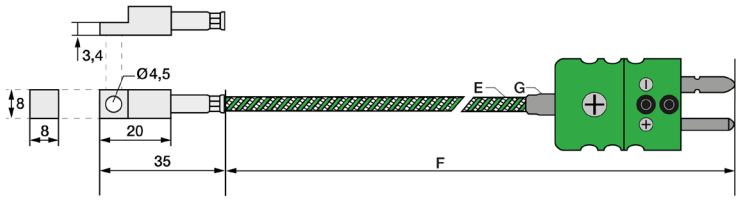
Version with insulated end ferrules



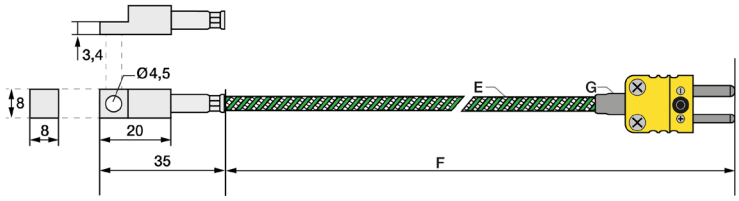
Version with Mini TE connector



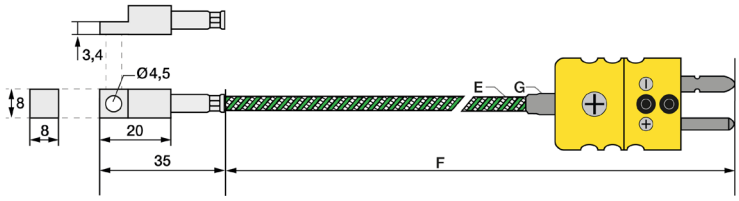
Version with TE connector



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 (mm²)	Color strand	Ω / m[4]
	809340 2	Thermocouple cable	Type K[3]	IP20	-50	+400	Varnish	Glass fibre	3,0	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

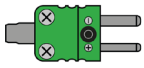
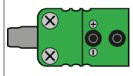
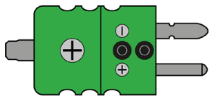
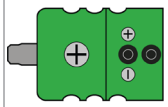
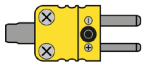
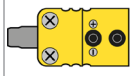
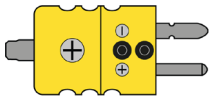
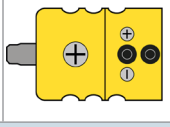
Now please select the length and add the code to the article no. of the cable.

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

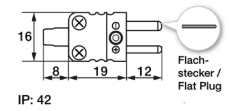
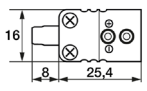
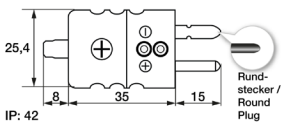
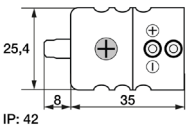
Please append these digits to the part number of your desired cable.

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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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

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