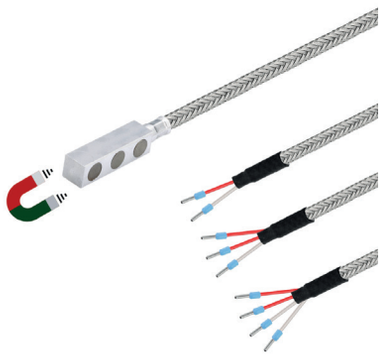
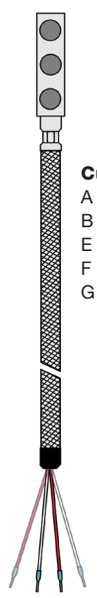
Contact probe bar magnet with glass fibre cable

Order nr.: 802081 2011

Surface probes are used for temperature measurements on smooth surfaces. The probe sits securely at the measuring point due to the particularly strong holding magnet without having to be permanently installed. Glass fiber cables are shielded and measure temperature up to +400 °C. They are crimped and also have a poorer seal than other cables due to the insulation material used. To order your probe, select your configuration and send us the order code.



General Information	
Measuring range	-50 °C to +200 °C depending on the connecting cable and contact body
Perm. °C range cable	-50 °C to +400 °C
Accuracy	depending on sensor type
Response time	t63 / t99: information is available on request
Supply and output	
Max. measurement current	max. 1 mA
Supply voltage	approx. 5 V depending on measurement current
Measurement signal	passive (resistance value)
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
Certificates	Certificate of suitability (on request)



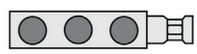
Customizable options
A - Measuring element
B - Connection type
E - Material connection cable
F - Length connection cable
G - Connector

A - Measuring element				
Code	**Sensor**	**Accuracy / Tolerance resistance**	**min[2)]**	**max[2)]**
A012	Pt100	Cl. B dT = ±(0,30 °C + 0,005|t|)[1)]	-50 °C	+400 °C
A011	Pt100	Cl. A dT = ±(0,15 °C + 0,002|t|)[1)]	-50 °C	+300 °C
A032	Pt1000	Cl. B dT = ±(0,30 °C + 0,005|t|)[1)]	-50 °C	+400 °C
A031	Pt1000	Cl. A dT = ±(0,15 °C + 0,002|t|)[1)]	-50 °C	+300 °C

[1)]according to IEC 751 / EN 60751 | [2)] Perm. range °C | Please note that the measuring range depends on the measuring element and the connecting cable. | Detailed information and the characteristics can be found in our download area.

B - Connection type	
Code	**Conn. type**
B2	2-Wire (2W)
B3	3-Wire (3W)
B4	4-Wire (4W)

Possible connections			
Sensor	**2W**	**3W**	**4W**
Pt	✓	✓	✓

probe head					
Bild	**Contact body**		**Dimensioning**		**Zeichnung**
	Contact geometry	Square	Length (mm)	30	
	Material	Aluminium	Width (mm)	8	
	Magnet	3 x Sm2Co17 magnets to 200 °C	Height (mm)	8	
	Holding magnet strength	Counter material adhesion ≥45 N			
	Perm. °C-Range (mm)	-50 °C to +200 °C			

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E - Cable material and configuration connection cable

Picture	Code	IP	Connection type	Color	From (°C)[1]	To (°C)[1]	Outside material	Material strand	Color strand	Ø (mm)[2]	Q (mm²)[3]	Ω / m[4]
	E3300	IP20	2-Wire	steel	-50	+400	Varnish	Glass fibre	rd, wt	3,2	0,22	0,09
	E3301	IP20	3-Wire	steel	-50	+400	Varnish	Glass fibre	rd, wt, rd	3,2	0,22	0,09
	E3302	IP20	4-Wire	steel	-50	+400	Varnish	Glass fibre	rd, wt, rd, wt	3,4	0,22	0,09

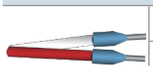
Insulation resistance: ≥ 100 MOhm at min. 100 VDC | [1]Perm. range °C | [2]Tolerance ± 0,2 mm | [3] Tolerance ± 0,03 mm² | [4] per single strand

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

	Code	Feature
	G01	Insulated end ferrules (50 mm)

H - Bend protection

Picture	Length (mm)	Material	Code	Feature
	50	Stainless steel spring 1.4310 | SUS 302	H0	Without (Standard)
			H1	Metal bend protection [1]

[1]on request

Your order code

Order nr.	Measuring element	Connection type	Material connection cable	Length connection cable	Connector
802081 2011	A_____	B_____	E_____	F_____	G_____

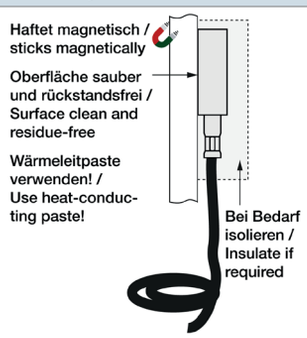
Matching accessories: Heat-conducting paste

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

Delivery and Assembly

Assembly instructions	via magnet
Delivery and Packaging	Probe, seperatly packaged in PE bag

Important assembly advices



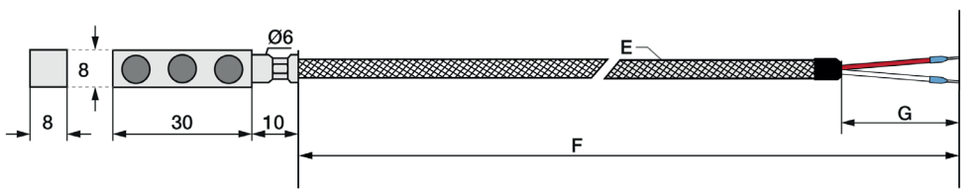
The contact probe is attached directly to the measuring point with the holding magnet. The surface should be clean, even and free of residues. If necessary, you can use thermal paste for better thermal coupling.

RL / KS / 27.07.2021

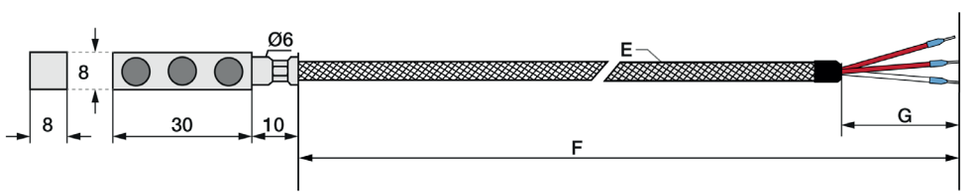
Technical drawing

Customizable options A - Measuring element B - Connection type	E - Material connection cable F - Length connection cable G - Connector	All dimensions in mm

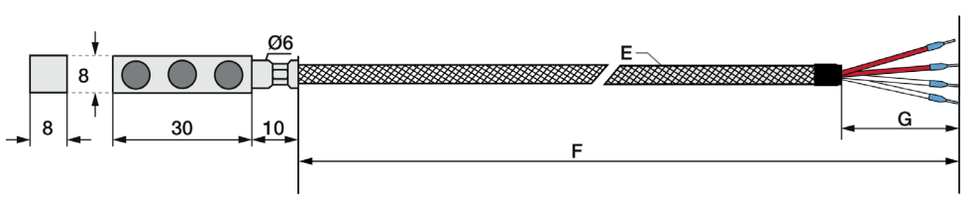
Ausführung 2-Leiter / 2-Wire version



Ausführung 3-Leiter / 3-Wire version



Ausführung 4-Leiter / 4-Wire version



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