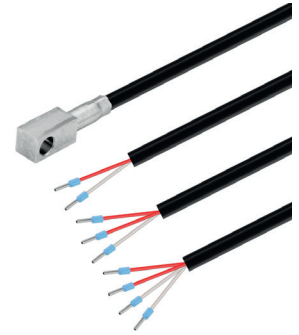


Contact probe with PVC cable

Article no.: 802053 1011

Our surface probes are used for temperature measurements on smooth surfaces in machine and apparatus construction. They are fastened by means of a screw connection. The PVC cable makes them the most cost-efficient solution for most applications in the temperature range up to +105 °C. To order your probe, select your configuration and send us the order code.



General Information	
Measuring range	-30 °C to +105 °C depending on sensor Type and connection cable
Perm. °C range cable	-30 °C to +105 °C
Accuracy	depending on sensor Type
Response time	t63 / t99: information is available on request
Supply and output	
Max. meas. current	max. 1 mA
Supply voltage	approx. 5 V depending on measurement current
Measurement signal	passive (resistance value)
Ambient conditions	
Protection class	IP54 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
A022	Pt500	Cl. B dT = ±(0,30 °C + 0,005 t) ¹⁾	-70 °C	+500 °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
A105	NTC 5 kOhm	R25 = 5 KOhm ±1 %	-40 °C	+125 °C
A110	NTC 10 kOhm	R25 = 10 KOhm ±1 %	-40 °C	+125 °C
A120	NTC 20 kOhm	R25 = 20 KOhm ±1 %	-40 °C	+125 °C
A210	Ni1000	-60 °C to 0 °C: dT = ±(0,4 °C + 0,028 · T) 0 °C to +150 °C: dT = ±(0,4 °C + 0,007 · T)	-60 °C	+150 °C
A323	LM235Z	typical ±1 °C	-40 °C	+125 °C
A421	KTY 81-210	R25 = 2 KOhm ±1 %	-50 °C	+150 °C
A411	KTY 81-110	R25 = 1 KOhm ±1 %	-50 °C	+150 °C

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	✓	✓	✓
NTC	✓		
Ni	✓	✓	✓
LM235Z	✓		
KTY	✓		

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.



Probe head					
Bild	Contact body		Dimensioning		Zeichnung
	Contact geometry	Square	Length (mm)	15	
			Width (mm)	8	
	Material	Stainless Steel			
	We offer other contact bodies on request.				

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 (mm ²) ³⁾	Ω / m ⁴⁾
	E0000	IP67	2-Wire	black	-30	+105	PVC	PVC	rd, wt	4,8	0,22	0,07
	E0001	IP67	3-Wire	black	-30	+105	PVC	PVC	rd, wt, rd	4,8	0,22	0,07
	E0002	IP67	4-Wire	black	-30	+105	PVC	PVC	rd, wt, rd, wt	4,8	0,22	0,07

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)	

Your order code					
Article no.	Measuring element	Connection Type	Material connection cable	Length connection cable	Connector
802053 1011	A_____	B_____	E_____	F_____	G_____

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

Important assembly advices	
	<p>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.</p>

RL / KS / 18.11.2021



Technical drawing

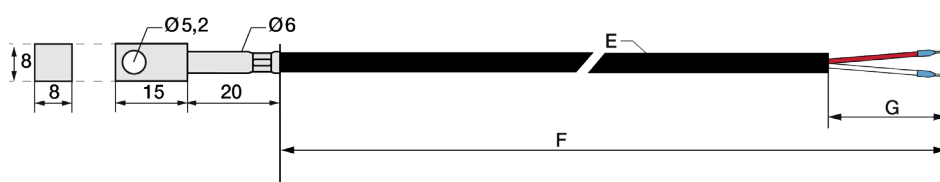
Customizable options

- A - Measuring element
- B - Connection Type

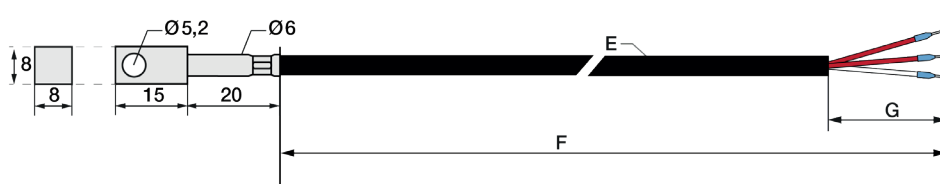
- E - Material connection cable
- F - Length connection cable
- G - Connector

All dimensions in mm

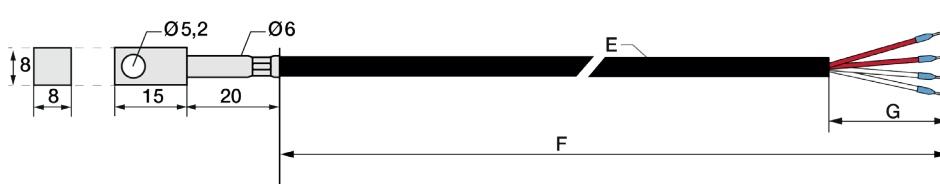
Ausführung 2-Leiter / 2-Wire version



Ausführung 3-Leiter / 3-Wire version




Ausführung 4-Leiter / 4-Wire version



Matching accessories: Connection cable

Connection cable

Please select your desired cable first.

Picture	Code	Connection Type	Color	IP	From (°C) ¹⁾	To (°C) ¹⁾	Outside material	Material strand	Ø (mm) ²⁾	Q (mm ²) ³⁾	Color strand	Ω / m ⁴⁾
	809200 0	2-Wire	black	IP67	-30	+105	PVC	PVC	4,8	0,22	rd, wt	0,07
	809200 1	3-Wire	black	IP67	-30	+105	PVC	PVC	4,8	0,22	rd, wt, rd	0,07
	809200 2	4-Wire	black	IP67	-30	+105	PVC	PVC	4,8	0,22	rd, wt, rd, wt	0,07

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 | Please also note the connection Type of your selected temperature sensor.

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: Heat-conducting paste

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

