

Screw-in probe with M8x1 connector

Article no.: 803214 1011

Screw-in probes with M8x1 connector are used in process measurement technology and measure the temperature in cables or vessels in the range from -50 °C to +400 °C in gaseous or liquid media. The protection sleeve is made of stainless steel and can be inserted into the process permanently, pressure proof and vibration resistant with the M8x1 thread. A suitable connection cable can be found in the accessories. To order your probe, select the required configuration and send us the order code.



Customizable options

- A-Measuring element
- B-Connection Type
- C-Mounting length

General Information	
Measuring range	-50 °C to +400 °C depending on the sensor Type
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	IP65 according DIN 60529
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)

A - Measuring element				
Code	Sensor	Accuracy / Tolerance resistance	From (°C) ¹⁾	To (°C) ¹⁾
A011	Pt100	Cl. A dT = ±(0,15 °C + 0,002 t) ¹⁾	-50 °C	+300 °C
A012	Pt100	Cl. B dT = ±(0,30 °C + 0,005 t) ¹⁾	-50 °C	+400 °C
A013	Pt100	1/3 Cl. B dT = ±(1/3 · (0,30 °C + 0,005 t)) ¹⁾	-50 °C	+200 °C
A014	Pt100	1/10 Cl. B dT = ±(1/10 · (0,30 °C + 0,005 t)) ¹⁾	±0 °C	+100 °C
A022	Pt500	Cl. B dT = ±(0,30 °C + 0,005 t) ¹⁾	-70 °C	+500 °C
A031	Pt1000	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
A106	NTC 5 kOhm	R25 = 5 kOhm ±1 %	-40 °C	+150 °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

¹⁾according to IEC 751 / EN 60751 | ²⁾ Perm. range °C | Detailed information and the characteristics can be found in our download area.

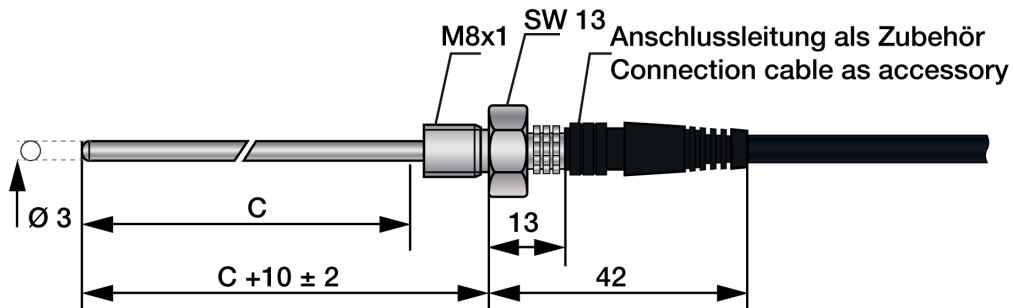
B - Connection Type	
Code	Conn. Type
B2	2-Wire (2W)
B3	3-Wire (3W)
B4	4-Wire (4W)

Possible connections			
Sensor	2W	3W	4W
Pt	✓	✓	✓
NTC	✓		
Ni	✓	✓	✓

Connector	
Electrical connection	M12 Connector
Length connector (mm)	13
Tmax	+80 °C

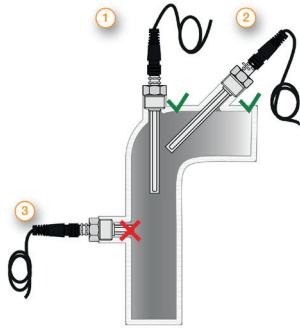
Screw-in thread		Protection sleeve		C - Mounting length			
Length (mm)	10	Material	Stainless steel 1.4571 316TI	Code	Length (mm)	Code	Length (mm)
Process connection	M8x1	Mounting length (mm)	please choose	C0020	20 ¹⁾	C0100	100 ¹⁾
Wrench size	13	Ø (mm)	3 ²⁾	C0040	40 ¹⁾	C0200	200 ¹⁾
Other mounting lengths on request ¹⁾ Tolerance ± 1% ²⁾ Tolerance ± 0,1 mm				C0050	50 ¹⁾	C0300	300 ¹⁾
				C0060	60 ¹⁾		

Technical drawing			
Customizable options A - Measuring element	B - Connection Type	C - Mounting length	All dimensions in mm

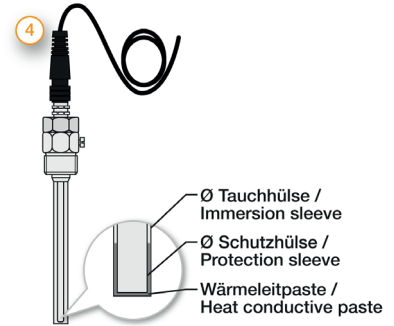


Delivery and Assembly	
Assembly instructions	via process connection
Delivery and Packaging	Probe, Instruction manual, seperatly packaged in PE bag

Your order code			
Article no.	Measuring element	Connection Type	Mounting length
803214 1011	A_____	B_____	C_____

Important assembly advices

Measurement errors can occur due to heat dissipation to the environment. To keep these as small as possible, we recommend immersing the protection sleeve of your temperature probe as deeply as possible in the medium to be measured during installation. The optimum installation depth should be 10-15 times the \varnothing of the protection sleeve or, when using an immersion sleeve, the \varnothing of the immersion sleeve. When installing in pipelines whose \varnothing does not have a sufficiently deep installation depth, you should install the probe either at an angle or in a pipe elbow. Make sure that you have sufficient space so that the probe can be removed again. 1) Installation with sufficient installation depth 2) Installation at an angle with small pipe \varnothing 3) Not like this: Minimum installation depth not reached



Installation by using an immersion sleeve (4): Please ensure that the \varnothing and length of the immersion sleeve are selected to suit the installation situation so that the minimum immersion depth can be achieved. Please also pay attention to the correct process connection. Since the probe is not inserted directly into the medium, but via the immersion sleeve, the response times are somewhat slower. The probe should be selected in such a way that the protection sleeve touches the bottom of the immersion sleeve and that the air cushion around the protection sleeve is as small as possible. The use of thermal conduction paste can improve the response times.