

Screw-in probe M8x1 with Lemo socket

Article no.: 803213 1011

Screw-in probes M8x1 with Lemo socket 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. To order your probe, select the required configuration and send us the order code.



| 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) |



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

| 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 |

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

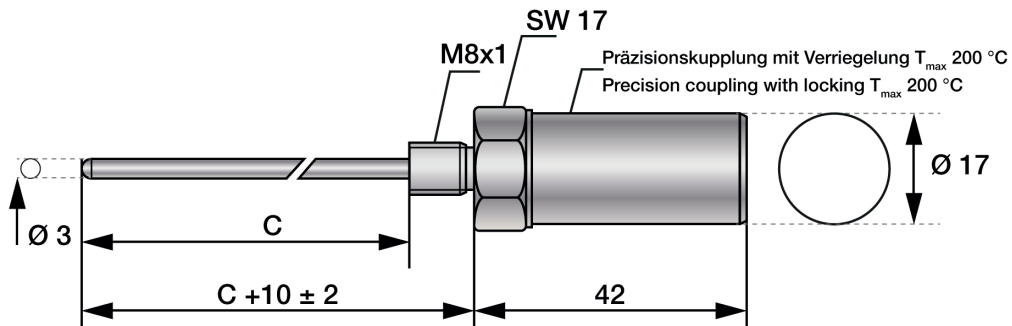
| B - Connection Type | |
|---------------------|-------------|
| Code | Conn. Type |
| B2 | 2-Wire (2W) |
| B3 | 3-Wire (3W) |
| B4 | 4-Wire (4W) |

| Possible connections | | | |
|----------------------|----|----|----|
| Sensor | 2W | 3W | 4W |
| Pt | ✓ | ✓ | ✓ |
| NTC | ✓ | | |

| Connector | |
|-----------------------|---------------|
| Electrical connection | M12 Connector |
| Length connector (mm) | 42 |
| Tmax | +200 °C |

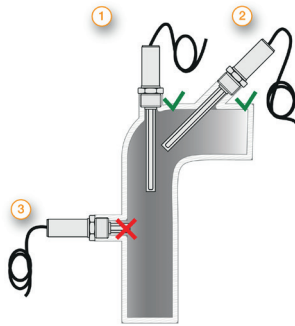
| Screw-in thread | | Protection sleeve | | C - Mounting length | | | |
|---|------|----------------------|--------------------------------|---------------------|------------------|-------|-------------------|
| Length (mm) | 10 | Material | Stainless steel 1.4571 316TI | Code | Length (mm) | Code | Length (mm) |
| Process connection | M8x1 | Mounting length (mm) | please choose | C0020 | 20 ¹⁾ | C0100 | 100 ¹⁾ |
| Wrench size | 17 | 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 |

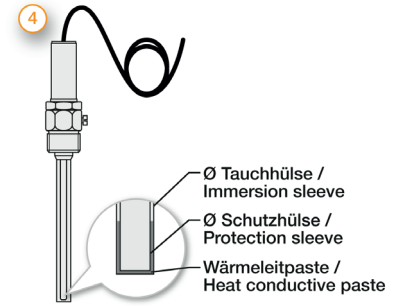


| Delivery and Assembly | |
|------------------------|---|
| Delivery and Packaging | Probe, Instruction manual, seperatly packaged in PE bag |

| Your order code | | | |
|-----------------|-------------------|-----------------|-----------------|
| Article no. | Measuring element | Connection Type | Mounting length |
| 803213 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.