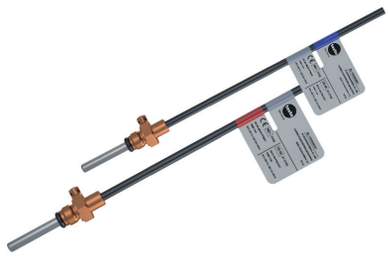
Temperature probe for direct installation (DS)

Order number: 8999 1101

The temperature probes from Testo Sensor GmbH for heat and cold meters offer the highest measurement accuracy, the fastest response behaviour and conformity to MID and MessEV. In addition, our approvals cover a wide range of configuration options for your probe. This allows you to configure it exactly to suit your heat or cold meter.



General informationen	
Measuring range (depending on sensor and connection cable)	±0 °C to +105 °C (PUR / PVC cable)
	±0 °C to +130 °C (TPE cable)
	±0 °C to +150 °C (Silicone cable)
Limit value temperature difference	3 K to 150 K
Response time	< 4s (depending on the design e.g. Ø 5.0 / 5.2 mm significantly faster)
Measurement stability	10 years (Please note recalibration cycles according to MID / MessEV)
Measuring elements and connection type	
Measuring elements	Please config (Pt100, Pt500 or Pt1000)
Tolerance	Class B according to EN60751
Connection type	Two-wire technology
Measuring principle	resistiv (resistance value)
Maximum measurement current (calculated from the maximum permissible power loss of of 0.5 mW)	Pt100: 1178 µA at 2,5 m and 0,0095 Ohm/m
	Pt500: 795 µA at 12,5 m and 0,0095 Ohm/m
	Pt1000: 562 µA at 255 m and 0,0095 Ohm/m
Installation	
Installation	direct, type DS according to DIN EN 1434
Minimum immersion depth	≥ 20 mm
Maximum pressure	P S 25 at flow velocity water 2 m/s
Cable lengths acc. to DIN EN 1434	Pt100 max 2,5 m | Pt500 max 12,5 m | Pt1000 max 25 m
Environmental conditions	
Protection class: IP 65 (according to DIN 40050) | Electrical: E1| Mechanical: M3 | Climatic: -25 °C to +70 °C	

Poss. configuration

A = Measuring elements
B = Ø Probe shaft
C = Mounting length
D = Material cable
E = Length cable
J = Process connection
G = Cable end
P = Standard

Please configure your temperature probe for heat and cold meters

A - Measuring element			**B - Ø Probe shaft**		**C - Mounting length**	
Code	**Meas.element**	**Genauigkeit**	**Code**	**Ø Probe shaft**	**Code**	**Mount. length**
A13	Pt100	Cl. B [1]	B01	5,0 mm	C01	26,0 mm
A15	Pt500	Cl. B [1]	B02	5,2 mm	C02	27,5 mm
A23	Pt1000	Cl. B [1]	B03	6,0 mm	C03	38,0 mm
[1] dT = ±(0,30 °C + 0,005 · T) acc. to IEC 751|EN 60751 |conn. type: 2-Wire					C04	60,0 mm

Other probe shaft Ø between 5.0 and 6.0 mm as well as other mounting lengths and customised screw connections are available on request.

J - Process connection		**D - Material connection cable**							
Code	**Standard**	**Code**	**Conn.**	**Color**	**from °C**	**to °C**	**Out**	**Color**	**Q mm²**
J00	without screw connection	D01	2-Wire	black	±0	+105	PVC	rd, wh	0,22
		D02	2-Wire	black	±0	+150	Silicone	rd, wh	0,22
J02	M10 x 1 incl. locking screw & sealing device	D03	2-Wire	black	±0	+130	TPE	rd, wh	0,22
		D04	2-Wire	black	±0	+105	PUR	rd, wh	0,22
		Further or customised screw fittings are available on request							

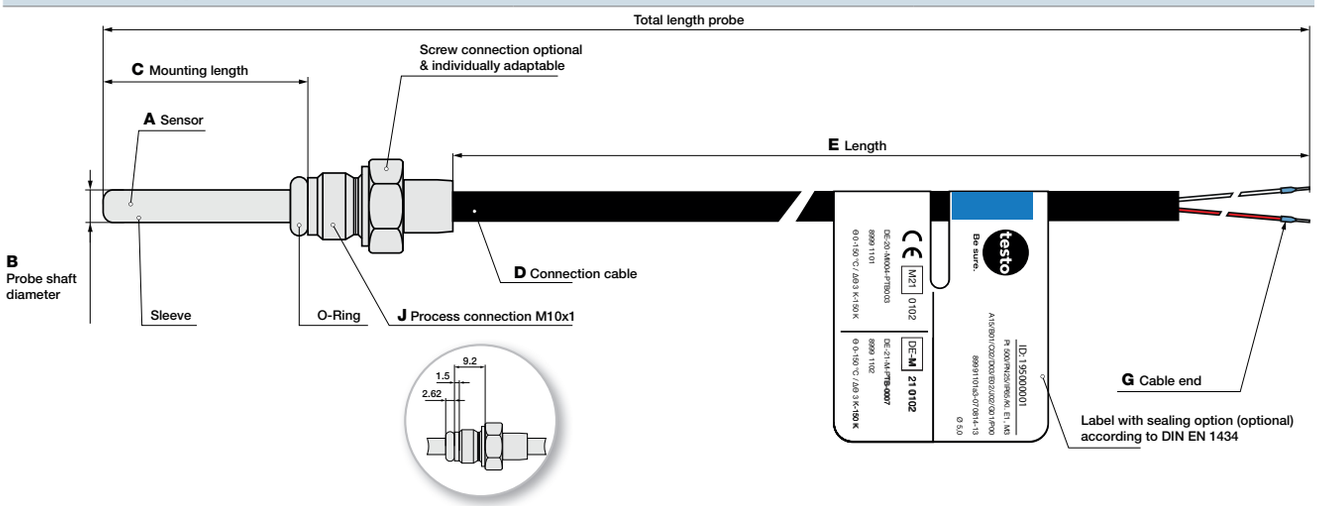
Certificates and approvals
EU type examination certificate according to module B of the guideline 2014/32/EU (MID) for heat meters
Type examination certificate according to module B of the Measuring and Calibration Ordinance (MessEV) of 11.12.2014 for cold meters
Recognised production quality assurance systems according to Module D of Directive 2014/32/EU (MID)
Recognised quality assurance systems for production in accordance with Module D of the Ordinance on Measurement and Verification (MessEV) of 1.12.2014
Suitability test according to the list of pronounced toleration of stockpile crushes
DIN EN 61326-1:2013 | DIN EN IEC 63000:2019-05

KS / 17.08.2022

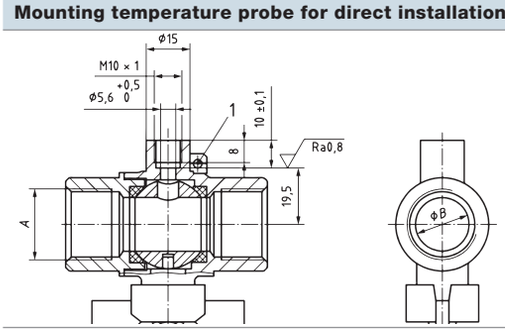
E - Length		G - End seleeves		P - Norm	
Code	**Length**	**Code**	**Standard**	**Code**	**Standard**
E01	1,5 m	G01	Wire end ferrules (standard)	P00	not paired
E02	2,5 m	G02	Tin-plated connection leads (only for probes permanently connected to the calculator)	P01	paired according to DIN EN 1434
				P02	paired according to DIN EN 1434 with conformity assessment / marking according to MID (heat)
				P04	paired according to DIN EN 1434 with conformity assessment / marking according to MessEG (cold Austria)

We offer other cable lengths between 0.3 m and 25 m in increments of 0.5 m. Please note the maximum lengths (depending on the sensor): Pt100 max 2.5 m | Pt500 max 12.5 m | Pt1000 max 25 m

Technical drawing



Mounting temperature probe for direct installation (DS)



The installation of temperature probes in pipelines (qp ≤ 6) must be carried out directly in new installations in Germany. Please carry out direct installation of temperature probes in accordance with DIN EN 1434-2 and the technical guideline TR-K8 (see following figure).

Thread size A	Thread size B
G ½ B	18,5 mm
G ¾ B	24,0 mm
G 1 B	30,5 mm
G 1¼ B	39,0 mm
G 1½ B	45,0 mm

- The following drawing shows the sensor installation according to DIN EN 1434.
- Proceed as follows for probe mounting: In case of replacement, the old temperature probe and the old O-ring must first be removed from the installation location without leaving any residue.
- Seals and sealing surfaces must be clean and free of damage.
- Strip the new O-ring from the probe and insert it into the installation location.
- Push the process thread of the temperature probe with open locking screw onto the temperature probe sleeve as far as it will go.
- Screw in the process connection as far as it will go (tightening torque: 4 Nm) and tighten the locking screw (tightening torque: 4 cNm).
- At the end of each installation, a leak test must be carried out.
- Seal the probe in accordance with DIN EN 1434, using the existing sealing points.