

SCREW-IN TEMPERATURE SENSOR PT100



- PT100 · 4...20 mA
- MEDIUM UP TO +200 °C
- ACCURACY 0.1 %
- DISPLAY AND 2 LIMITS
- IP 65



KEY DATA

Property	Value	Property	Value
Input	Pt100, 4-wire	Medium	-50 ... +200 °C
Output	4 ... 20 mA, 2-wire	Ambient	-40 ... +85 °C (1)
Accuracy	max. 0.1 % of span	Supply	12 ... 35 VDC from the loop
Resolution	24 bit	Limit contacts	2× PNP or NPN
Display	4 digits, red, rotatable by 180°	Product code	OR

Screw-in temperature sensor with a Pt100, its own transmitter, a display and two electronic limit contacts. It measures, displays and switches — with no further electronics in the cabinet.



TECHNICAL DATA

INPUT AND OUTPUT

Sensor	Pt100, 4-wire
Measuring range	-50 ... +200 °C, minimum span 50 °C
	higher ranges up to 250 °C on request
Sensor class	A · B · AA (B1/3 DIN)
Current signal	4 ... 20 mA, 2-wire
Current range	3.8 ... 20.5 mA
Fault signal	3.6 mA short circuit · 21 mA break

PERFORMANCE

Accuracy	max. 0.1 % of span + sensor error
Resolution	24 bit
Filter setting	5 ... 5000 ms
Switch-on delay	5 ms
Display error	±0.2 % of span, ±1 digit
Temperature drift	100 ppm/K
Display	7-segment, 8.5 mm, red, 4 digits
	mirrorable by 180°, head turns 330°
Limit contacts	2x PNP or NPN, 30 VDC, 200 mA
	option 1000 mA · one red LED each
Switching delay	0.0 ... 999.9 s · failsafe adjustable
Operation	3 keys (TouchM) · VDMA 24574-1 to -4

SUPPLY AND ENVIRONMENT

Supply	12 ... 35 VDC from the current loop
Reverse protection	yes
Short-circuit proof	yes
Ambient	-40 ... +85 °C (1)
Medium	-50 ... +200 °C
Storage	-40 ... +100 °C
Condensation	harmless

MECHANICS

Process connection	1/4" · 3/8" · 1/2" · 3/4" · 1" · 1 1/4" · 1 1/2" · 2" · 2 1/2" · 3" · 4" · 6" · 8" · 10" · 12" · 16" · 20" · 24" · 30" · 36" · 42" · 48" · 54" · 60" · 66" · 72" · 78" · 84" · 90" · 96" · 102" · 108" · 114" · 120" · 126" · 132" · 138" · 144" · 150" · 156" · 162" · 168" · 174" · 180" · 186" · 192" · 198" · 204" · 210" · 216" · 222" · 228" · 234" · 240" · 246" · 252" · 258" · 264" · 270" · 276" · 282" · 288" · 294" · 300" · 306" · 312" · 318" · 324" · 330" · 336" · 342" · 348" · 354" · 360"
	1/4NPT · 3/8NPT · 1/2NPT
Neck tube	100 mm (option)
Sheath	1.4571, standard Ø 6 × 0.5 mm
Housing	PBT GF30
Mounting position	any
System pressure	PN 25
Protection	at least IP 65, boards potted
Display top	polycarbonate
Weight	approx. 150 g

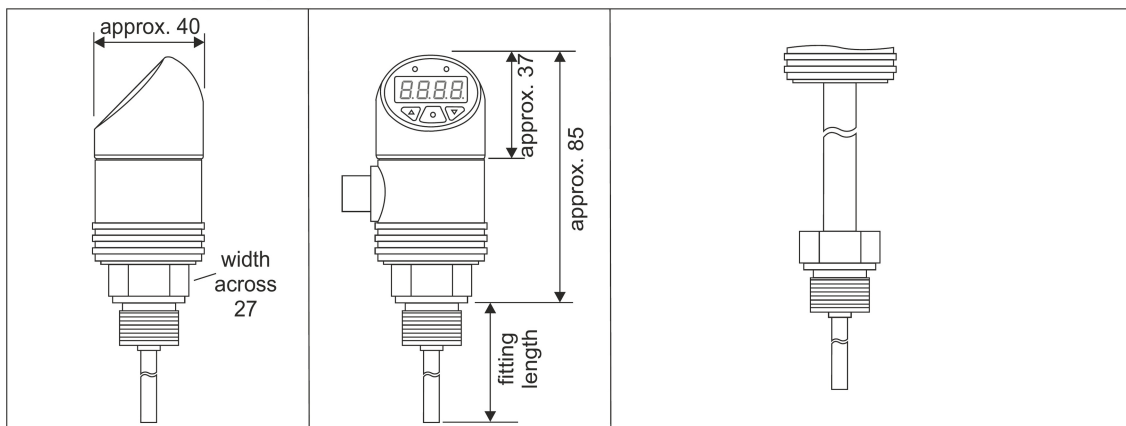
(1) The ambient temperature is not the medium temperature: the medium may be hotter than the electronics in the head.

ELECTRICAL CONNECTION

Ten electrical connections are available: M12x1 four-, five- and eight-pole, Deutsch DT04 three- and four-pole, Super Seal 1.5 three-pole, bayonet (DIN) four-pole, valve plug four-pole, MIL six-pole and cable. Two limit contacts are available on M12 five- and eight-pole, MIL and cable only.



DIMENSIONS



Dimensions in mm.



CONFORMITY

Protection	at least IP 65 at the electronics
Material to the medium	stainless steel 1.4571

ORDER INFORMATION

Accessories

- Configurator DEV-KMA with the TrComm software. Without it the sensor cannot be programmed; the software is included with the configurator and is also available separately on request.

ORDER KEY

Field	Value	Meaning
Product code	OR	stands at the beginning of every order code
Input	0	Pt100, 4-wire
Sensor class	0 · 1 · 3	class A · class B · class AA (B1/3 DIN)
Sheath	0 ... 3	Ø 6x0.5 mm · other · Ø 6x0.5 with 100 mm neck · other with neck
Fitting length	0 ... 7	50 · 100 · 200 · 250 · 400 · 600 · 1000 mm · other
Process connection	0 ... 7	1/4" · 3/8" · 1/2" · 3/4" · 1" · 1/4NPT · 3/8NPT · 1/2NPT
Limit contact	0 ... 8	2x or 1x PNP/NPN, 30 VDC, 200 mA or 1000 mA · 2 = none
Electrical connection	0 ... 9	M12 4/5/8-pole · Deutsch DT04 3/4-pole · Super Seal 3-pole · bayonet · valve · cable · MIL
Configuration	0 · 1	factory setting · customer-specific, please state

The order code is formed from the product code and the fields of the key.

