TD-01

Digital Thermometer

Features

/ Large size LCD-display

/ Optional analogue output

/ Various process connections

/ Completely from stainless steel

/ Protection class IP65

Description:

A temperature-sensitive resistor is located in the stainless steel sensor TD-01, which responds to a change of the upcoming temperature. The electronic modul of the unit evaluates this process and either purely indicates the temperature on a large LCD display. The purely indicating version of the TD-01 is supplied via a 3.6 VDC long life lithium battery and doesn´t need any auxiliary energy. The version with power output however needs a 17 to 30 VDC supply voltage. To connect the TD-01 to the monitored process seven standard threads are available and can even be supplemented by customized versions. The electronic housing of the unit is either rigidly or cable connected to the stem and it is fixed either directly to the measuring spot by means of the process connection or wall or surface mounted by 3-hole flanges and wall brackets.

Application:

With the material-version (wetted parts stainless steel) and an IP65 protection class for the NG100 stainless steel housing, the TD-01 is well prepared for duty in common machine-, apparatus-, tank- or pipe-constructions, as well as in chemical- and food-production. Besides the standard versions (see ordering codes) special versions of the digital thermometer can be manufactured on demand. The advantage of this is that existing measuring points (protective tubes) as well as outdated, defective temperature indicators or transmitters can easily be replaced.

Technical Specifications:

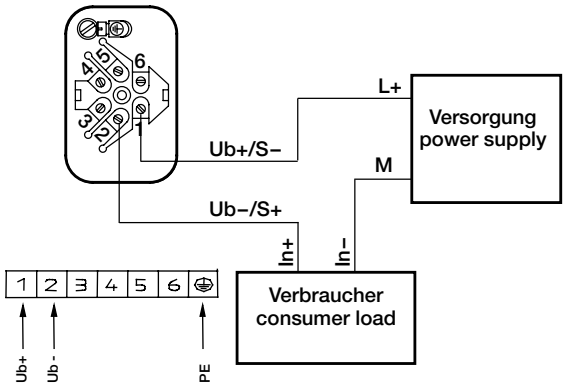
Temp. range /	-200. . .+600°C DIN EN 60751
Ambient temp. /	-10. . .+50°C
Storage temp. /	-20. . .+70°C
Protection class /	IP65 EN 60529
Neck tube /	beginning with medium temperatures of +120°C a 120 mm neck tube is standard (customized version e.g. for thicker pipe or vessel isolations are possible)
Accuracy /	Display: 0,3% FS ± 1 Digit Sensor: ± 0,3K at 0°C; ±(0,3 + 0,005*|t|) Version with transmitter: Pt 100 Class 0,5 Temperature indicator: Pt1000 Class B, DIN EN 60751
Display /	4-digit LCD display, character height 18 mm
Housing /	Ø 100mm, stainless steel 1.4301
Protective tube /	Stainless steel 1.4571
Cable material /	PTFE

Electrical Specifications:

Supply voltage /	Temperature indicator: 3.6 V lithium battery, AA, changeable, life span 5 year (lifespan in months, dep. on use, about 56h cont. operation) Temperature indicator with 2-wire transmitter: 17. . .30 VDC
Power consumption /	P max: 1 W
Output /	4. . .20 mA 2-wire
Load /	Temperature indicator with transmitter: $R_B = (U_B - 17V) / 20$ mA max. R_B = burden, U_B = supply voltage
El. connection /	Cable housing

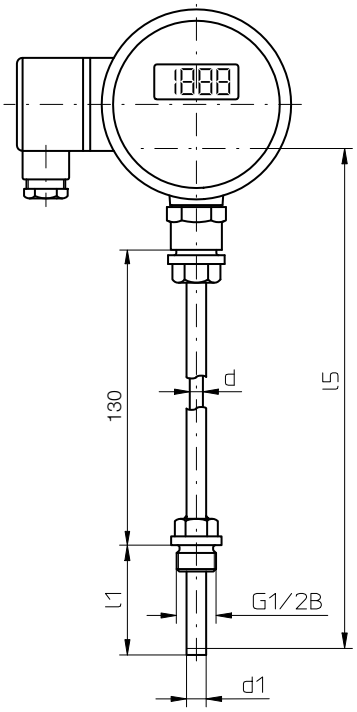
Electrical Connection:

2-Leitersystem / 2 wire-system

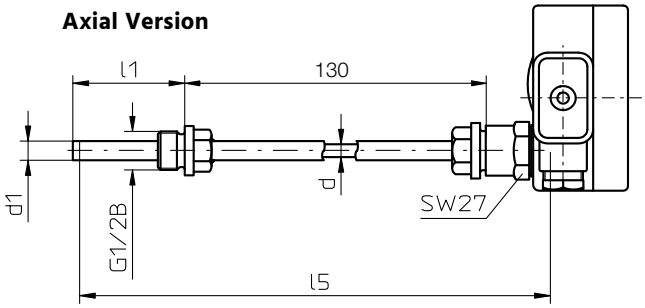


Dimensions in mm:

Vertical Version



Axial Version



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Ordering Codes:

Order number	TD-01.	1.	3.	B.	[].	1.	[].	[].	[].	A.	0.

TD-01 Digital Thermometer

Sensor /
1 = sensor directly mounted to the electronic housing (rigid)
2 = sensor cable mounted to the electronic housing (flexible)

Process connection /
1 = without thread
2 = G 1/2"-AG turnable
3 = G 3/4"-AG turnable
4 = G 1"-AG turnable
5 = M 18 x 1.5 turnable
6 = M 20 x 1.5 turnable
7 = M 24 x 1.5 turnable
8 = M 27 x 1.5 turnable

Version /
A = Batterieversion mit reinem Temperaturanzeiger (Pt1000)
B = Anzeige der Temperatur mit zusätzlichem 4. . .20 mA Ausgang (Pt100)

Insertion length L1 /
□□□□ insertion length from sealing surface in mm

Shaft diameter d1 /
1 = 6 mm
2 = 8 mm
3 = 10 mm

Cable length for flexible sensor /
0 = no cable, connected to the housing
□□□□ = cable length in meter

Temperature range start value /
□□□□ start value in °C (for transmitter = 4 mA)

Temperature range end value /
□□□□ end value in °C (for transmitter = 20 mA)

Mounting position /
F = flexible sensor with cable connection on the side of the electronic housing
A = rigid sensor mounted to the back of the electronic housing
V = rigid sensor mounted to the bottom of the electronic housing

Housing /
0 = standard housing without mounting flange
1 = prepared for wall mounting with separate wall bracket
2 = 3 hole front ring for flush mounting
3 = 3 hole ring at the back for surface mounting

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