Zertifiziertes QM-System
DIN EN ISO 9001
Zertifikat-Nr. 01017

Electronic Temperature Sensor

for liquids

measuring • monitoring • analysing

TDD

TDD-1
TDD-3

TDD-5
TDD-7

- Measuring range: -50 ... +125 °C
- Pressure: max. 80 bar
- Accuracy: ±0.5 °C (for -10 ... +85 °C)
- Housing material: stainless steel
- Connection:
  G ½, G ¾, ½" NPT, ¾" NPT or M25 x 1.5

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Description

KOBOLD temperature switches of model TDD are used for economical measurement and monitoring of temperature. They are suited for applications where temperature must be monitored with a high degree of switching accuracy. A semiconductor, which outputs a digital signal to the evaluating electronics in 0.5 °C steps, serves as sensor element.

The current measured value is displayed on a 3-digit LED display. Two switch points, on-/off-switching delay and hysteresis are adjustable within the measuring range.

Applications

- Compressors
- Mechanical engineering
- Plant engineering
- Pumps

Accessories: Electrical Connection

Description	Model
M12x1 box with terminal	**ZUB-KAB-12D500**
M12x1 box with 2 m cable	**ZUB-KAB-12K002**
M12x1 box with Quickon plug	**ZUB-KAB-12Q000**

Technical Details

Housing cover:	stainless steel 1.4305
Housing:	stainless steel 1.4404
Sensor :	stainless steel 1.4401 / 1.4404
Connection compact version:	G ½ or G ¾ male thread option: ½" NPT or ¾" NPT
Connection separately mounted version:	Sensor: 100 mm, 6 mm Cable: 2.5 m PTFE with M12x1 plug Housing: M25 x 1.5 with counter nut
Principle of measurement:	semiconductor
Display:	3-digit LED, digit-height: 7 mm
Resolution:	0.5 (up to 99.9 °C) 1 °C (from 100 °C)
Max. temperature of measured medium:	-20 ... +120 °C (compact version) -50 ... +125 °C (separate version)
Max. ambient temp.:	-20 ... +50 °C
Max. pressure:	80 bar
Power supply:	24 V_{DC} ±20 %
Power consumption:	approx. 50 mA (without switching current output)
Electrical connection:	plug M12 x 1
Switching output:	semiconductor; PNP or NPN (factory set), max. 300 mA, short-circuit proof
Contact function:	N/O / N/C, window, adjustable
Switching point adjustment:	adjustable via 2 keys
Switching display:	adjustable
Switch. state display:	1 (2) LED
Hysteresis:	adjustable via 2 keys
ON/OFF-switching delay:	0.5 ... 99.5 s (separately adjustable)
Measuring cycle:	0.5 s
Response time:	$t_{50/90}$: approx. 13/30 s
Accuracy (sensor):	±0.5 °C (between -10 ... +85 °C) ±2 °C (between +85 ... 125 °C and -50 ... -10 °C)
Protection:	IP 65

Order Details (Example: **TDD-153 R4H2 00**)

Model				Version	Sensor length*
Switching output 1x PNP	Switching output 1x NPN	Switching output 2x PNP	Switching output 2x NPN		
TDD-153	**TDD-353**	**TDD-553**	**TDD-753**	**R4H2** = G ½; -20 ... +120 °C **R5H2** = G ¾; -20 ... +120 °C **N4H2** = ½" NPT; -20 ... +120 °C **N5H2** = ¾" NPT; -20 ... +120 °C **D6H3** = separate version; smooth sensor; -50 ... +125 °C	**00** = short **10** = 100 mm **20** = 200 mm

* Maximum length for NPT screw thread is 184 mm instead of 200 m.

No responsibility taken for errors;
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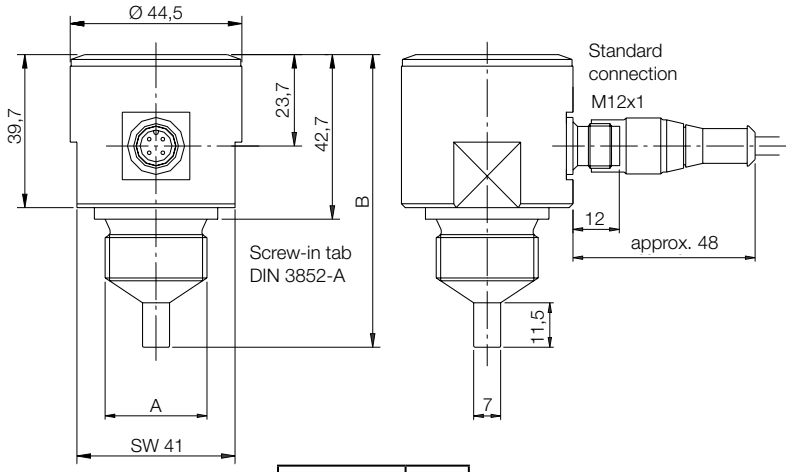
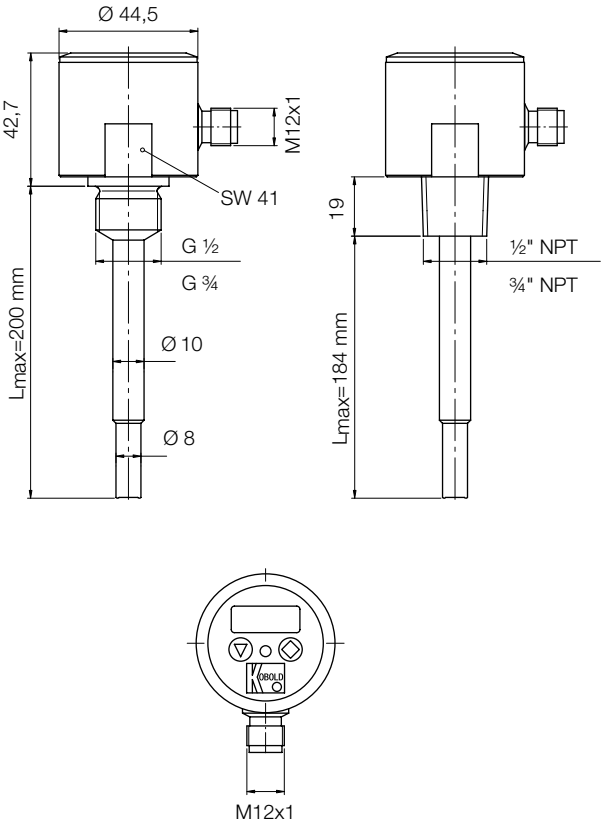
Dimensions [mm]

Compact version, short

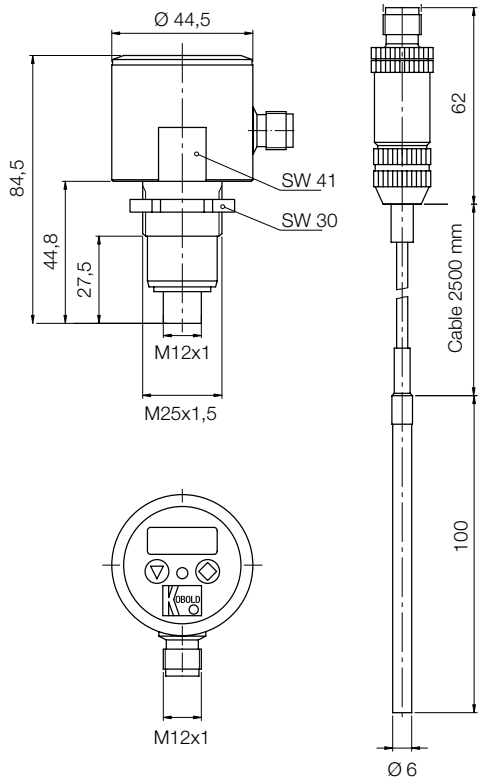


A	B
G ½	72.3
G ¾	75.9
½ - 14" NPT	70.2
¾ - 14" NPT	70.5

Compact version, long



Separately mounted version



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