



Electronic Temperature Sensor for liquids

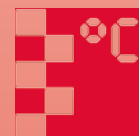


measuring
•
monitoring
•
analysing

TDD



- Measuring range: -50 ... +125 °C
- Pressure: max. 80 bar
- Accuracy: ± 0.5 °C (for -10 ... +85 °C)
- Housing material: stainless steel
- Connection:
G 1/2, G 3/4, 1/2" NPT, 3/4" 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 1/2 or G 3/4 male thread
 option: 1/2" NPT or 3/4" 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

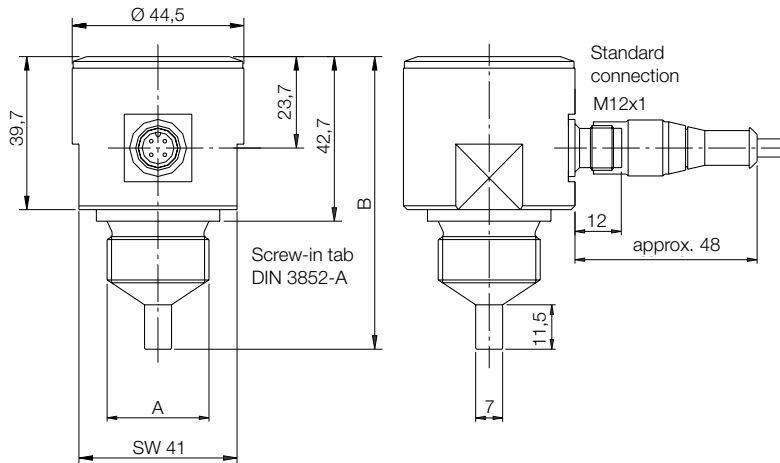
Order Details (Example: TDD-153 R4H2 00)

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 1/2; -20 ... +120 °C R5H2 = G 3/4; -20 ... +120 °C N4H2 = 1/2" NPT; -20 ... +120 °C N5H2 = 3/4" 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.

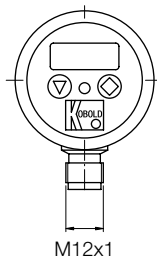
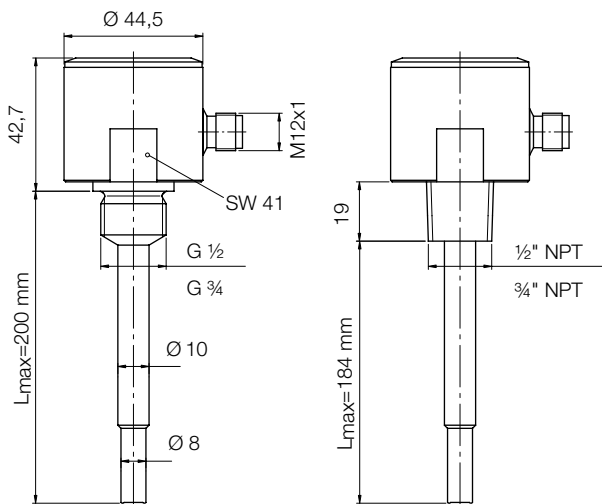
Dimensions [mm]

Compact version, short



A	B
G 1/2	72.3
G 3/4	75.9
1/2 - 14" NPT	70.2
3/4 - 14" NPT	70.5

Compact version, long



Separately mounted version

