



Electronic Temperature Switch for Liquids



measuring
•
monitoring
•
analysing



- Measuring/switching range: -20 to +125 °C
- Pressure: max. 80 bar
- Accuracy: $\pm 0.5^{\circ}\text{C}$ (for -10 to +85 °C)
- Housing material: st. steel
- Connection:
G 1/2, G 3/4, 1/2 NPT, 3/4 NPT or M25 x 1.5



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KOBOLD Messring GmbH
Nordring 22-24
D-65719 Hofheim/Ts.
☎ +49(0)6192 299-0
Fax +49(0)6192 23398
E-Mail: info.de@kobold.com
Internet: www.kobold.com

Model:
TDD-



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: st. steel 1.4305
 Housing: st. steel 1.4404 (compact version)
 st. steel 1.4305 (separate version)

Connection compact version:

G 1/2 or G 3/4 male thread
 st. steel 1.4404
 option: 1/2 NPT or 3/4 NPT

Connection separate version:

Sensor: 100 mm, 6 mm, st. steel 1.4404
 Cable: 2.5 m PTFE with M12x1 plug
 Housing: M25x1.5 with counter nut

Principle of measurement: semiconductor
 Display: 3-digit LED, digit-height: 7 mm
 Resolution: 0.5 °C up to 99.9 °C
 1 °C (100 °C onwards)

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 %

Current consumption: approx 50 mA
 (without switching output)

Electrical connection: plug M12x1

Type of switching output: semiconductor;
 PNP or NPN (factory set),
 max. 300 mA, short-circuit proof

Contact function: N/O / N/C, window, adjustable

Switch. point adjustment: adjustable via 2 keys

Switching state display: 1 (2) LED

Hysteresis: adjustable via 2 keys

ON/OFF-switching delay: 0.5...99.5 (separately adjustable)

Measuring cycle: 0.5 s
 t₅₀: approx. 13 s

Accuracy (sensor): ±0.5 °C (between -10...+85 °C)
 ±2 °C (between +85...125 °C)
 ±2 °C (between -50...-10 °C)

Protection: IP 65

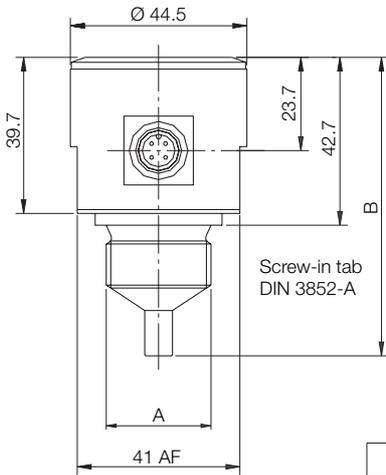
Order Codes (Example: TDD-153 R4H2 00)

Model				Version	Sensor length*
Switching output 1 x PNP	Switching output 1 x NPN	Switching output 2 x PNP	Switching output 2 x 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

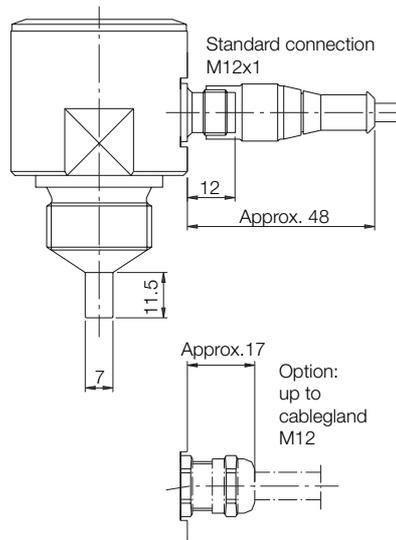
*Separate version only with 100 mm sensor; maximum length at NPT-threads is 184 mm instead 200 mm

Dimensions

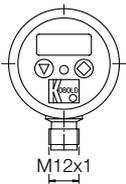
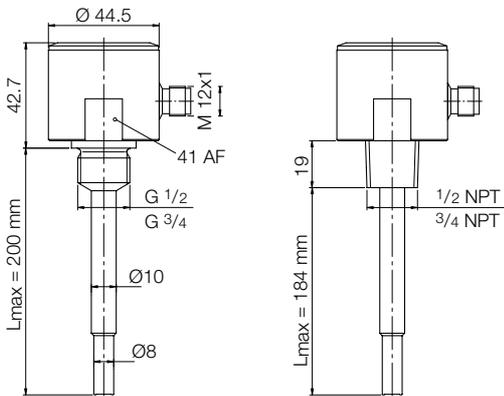
Separate version short



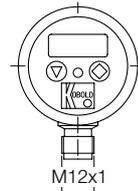
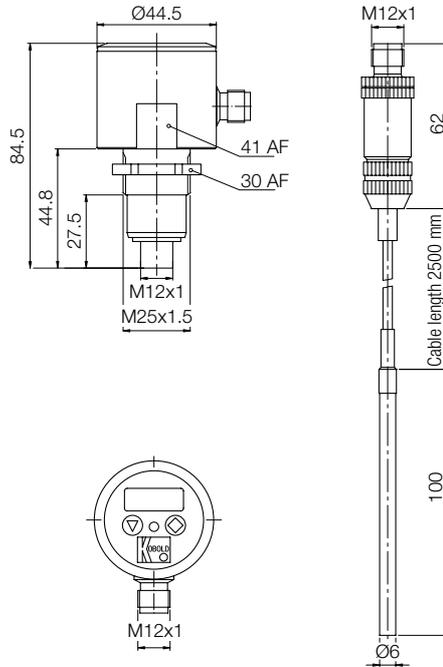
A	B
G 1/2	72,3
G 3/4	75,9
1/2 -14 NPT	70,2
3/4 -14 NPT	70,5



Compact version long



Separate version



11