

Digital Temperature Switch for Liquids



measuring
•
monitoring
•
analyzing

TDD



- Measuring switching range: $-58 \dots 250^{\circ}\text{F}$
- Pressure: max. 1150 psi
- Accuracy: $\pm 1.0^{\circ}\text{F}$ (for $14 \dots 185^{\circ}\text{F}$)
- Housing material: stainless steel
- Connection:
 $\frac{1}{2}$ " NPT, $\frac{3}{4}$ " NPT, G $\frac{1}{2}$, G $\frac{3}{4}$, or M25 x 1.5



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Digital Temperature Switch model TDD



Description

KOBOLD temperature switches 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 1.0 °F 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:

Description	Model
Micro-DC plug, 4-pin with 6 foot cable	807.037
6mm bore through compression fitting - 1/4" npt	TD-FTFHG1/4SS
6mm bore through compression fitting - 1/2" npt	TD-FTFHG1/2SS

Technical Details

Housing cover:	stainless steel 303
Housing:	stainless steel 316L
Connection compact version:	1/2 NPT or 3/4 NPT male thread stainless steel 316L option: G 1/2 or G 3/4
Connection separate version:	
Sensor:	100 mm, 6 mm
Cable:	2.5 m PTFE with M12x1 plug
Housing:	M25 x 1.5 with backing nut
Principle of measurement:	semiconductor
Display:	3-digit LED, digit-height: 7 mm
Resolution:	1.0 °F up to 212 °F 2.0 °F (212 °F onwards)
Max. temperature of measured medium:	0 ... 250 °F (compact version) -58 ... 250 °F (separate version)
Max. ambient temp.:	0 ... 120 °F
Max. pressure:	1150 psi
Power supply:	24 V _{DC} ±20%
Power consumption:	approx 50 mA (without switching output)
Electrical connection:	plug M12 x 1
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 t ₅₀ : approx. 13 s
Accuracy (sensor):	±1.0 °F (between 14 ... 185 °F) ±3.6 °F (between 185 ... 250 °F and -58 ... -14 °F)
Protection:	IP 65

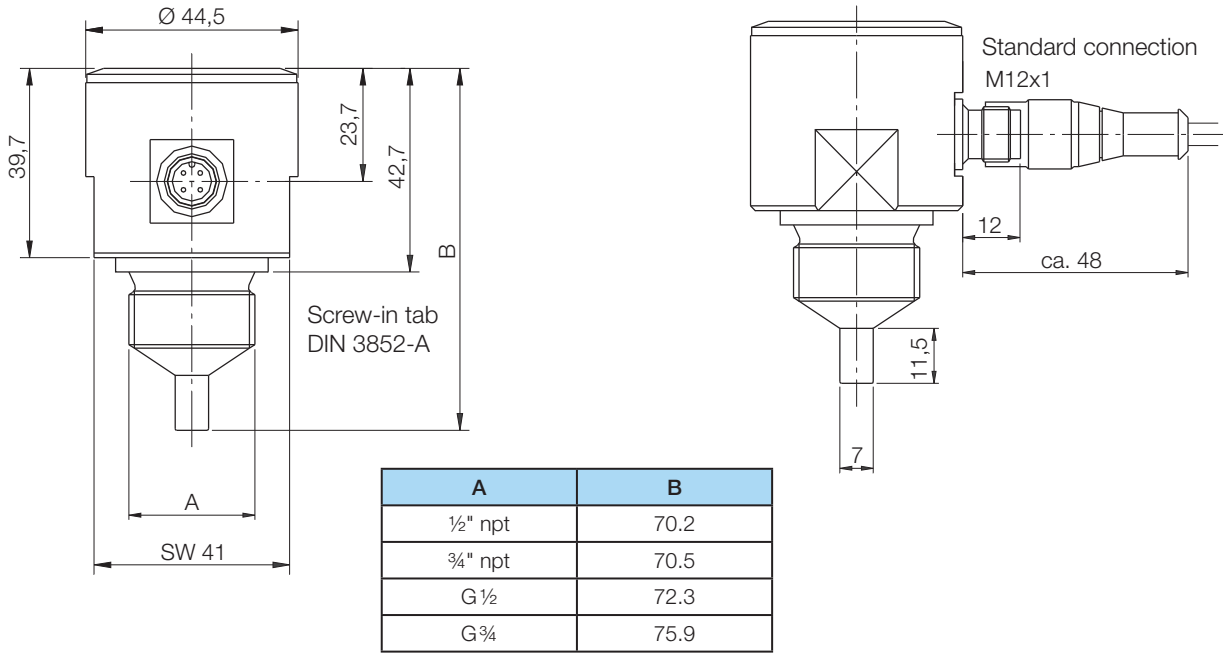
Order Details (Example: TDD-153N4F20L3M)

Model				Connection	Measuring Range	Sensor length*	Option*
Output 1 x PNP	Output 1 x NPN	Output 2 x PNP	Output 2 x NPN				
TDD-153	TDD-353	TDD-553	TDD-753	N4 = 1/2 NPT N5 = 3/4 NPT R4 = G 1/2 R5 = G 3/4	F2 = 0 ... 250 °F H2 = -20 ... 120 °C	00 = 12 mm 10 = 100 mm 20 = 184 mm*	
				D6 = Remote mount version, no fitting	F3 = -58 ... 250 °F H3 = -50 ... 125 °C	10 = 100 mm	EC = Extended cable length**

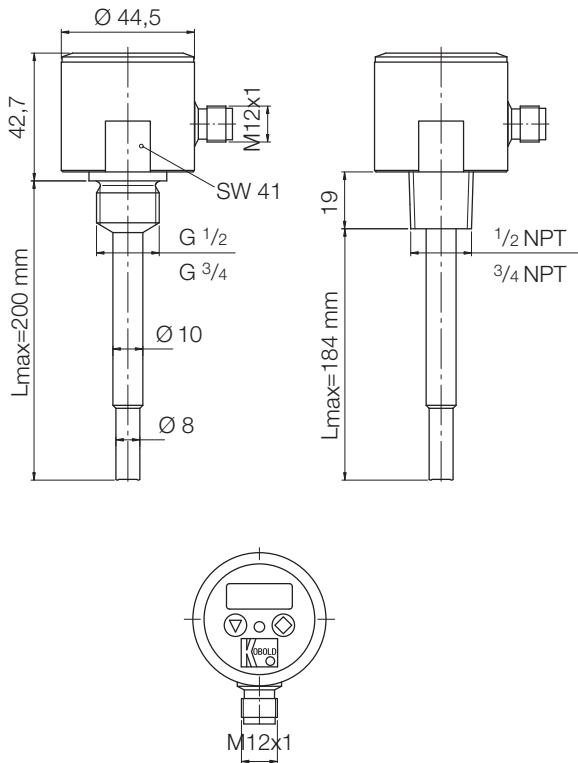
* Overall fitting/probe length with G thread is 200 mm. **Specify desired cable length when ordering, TDD-..D6.. versions only.

Dimensions

Compact version, short



Compact version, long



Remote mount version

