

Digital Temperature Switch for Liquids



measuring
•
monitoring
•
analyzing

TDD



- Measuring Range: -58 ... 250 °F
- Max. Pressure: 1150 PSI
- Accuracy: ± 1.0 °F (for 14 ... 185 °F)
- Housing Material: Stainless Steel
- Connections:
 $\frac{1}{2}$ " NPT, $\frac{3}{4}$ " NPT, G $\frac{1}{2}$, G $\frac{3}{4}$, or M25 x 1.5



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**Description**

The KOBOLD TDD temperature switches 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. Common applications include: compressors, mechanical and plant engineering, and pumps.

**Technical Details**

Housing Cover: 303 Stainless Steel
Housing: 316L Stainless Steel
Sensor: 316/316L Stainless Steel

Connection

Standard Version: ½" NPT or ¾" NPT Male Thread
316L Stainless Steel
Option: G ½ or G ¾

Remote Version

Sensor: 100 mm, 6 mm
Cable: 2.5 m PTFE with M12x1 Plug
Housing: M25x1.5 with Backing Nut

Principle of Meas.: Semiconductor
Display: 3-digit LED, Digit-height: 7 mm
Resolution: 1.0 °F up to 212 °F
Max. Media Temp.:
Standard Version: -4 ... 250 °F
Remote Version: -58 ... 250 °F
Ambient Temp. Range: -4 ... 120 °F

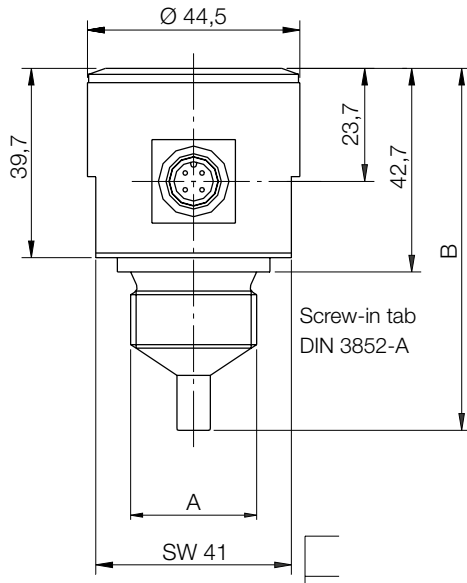
Max. Pressure: 1150 PSI
Power Supply: 24 Vdc ±20 %
Power Consumption: Approx. 50 mA
(without Switching Output)
Electrical Connection: M12x1 Plug
Type of Switch. Output: Semiconductor;
PNP or NPN (Factory Set),
Max. 300 mA, Short-circuit Proof
Contact Function: N/O / N/C, Window, Adjustable
Switch. Point Adj.: Adjustable via 2 Keys
Switching State Display: 1 (2) LED
Hysteresis: Adjustable via 2 Keys
ON/OFF-Switch. Delay: 0.5 ... 99.5 (Separately Adjustable)
Measuring Cycle: 0.5 s
t_{50/90}: approx. 13/30 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-153N4F210**)

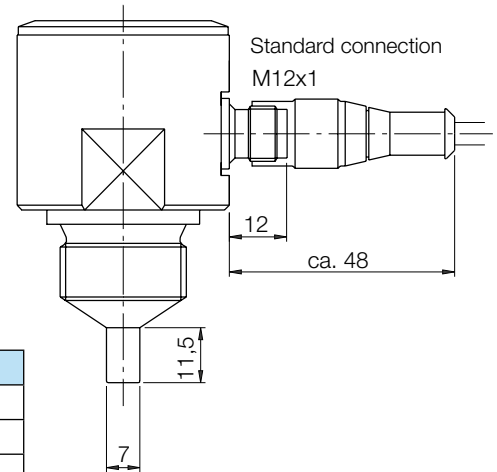
Model				Connection	Measuring Range	Sensor Length
Output 1 x PNP	Output 1 x NPN	Output 2 x PNP	Output 2 x NPN			
TDD-153..	TDD-353..	TDD-553..	TDD-753..	..N4.. = ½" NPT ..N5.. = ¾" NPT ..R4.. = G ½ ..R5.. = G ¾	..F2.. = 0...250 °F ..H2.. = -20...120 °C	..00 = 12 mm ..10 = 100 mm ..20 = 200 mm
				..D6.. = Remote Mount, No Fitting	..F3.. = -58...250 °F ..H3.. = -50...125 °C	..10 = 100 mm
Accessories						
Micro-DC Plug, 4-pin with 6 ft Cable					807.037	
6mm Bore Through Compression Fitting for D6 Connection - 1/4" NPT					FTFHG1/4SS	
6mm Bore Through Compression Fitting for D6 Connection - 1/2" NPT					FTFHG1/2SS	

Dimensions (mm)

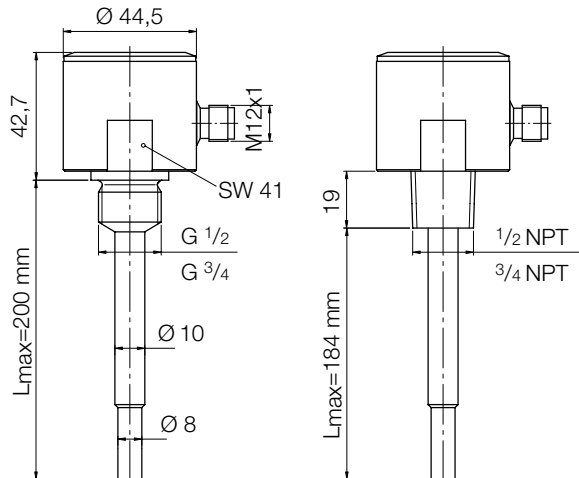
Standard Version, 12mm



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



Standard Version, 200mm



Remote Version

