

## Digital Temperature Switch for Liquids



measuring  
•  
monitoring  
•  
analyzing

TDD



- Measuring Range: -58 ... 250 °F
- Max. Pressure: 1150 PSI
- Accuracy:  $\pm 1.0$  °F (for 14 ... 185 °F)
- Housing Material: Stainless Steel
- Connections:  
1/2" NPT, 3/4" NPT, G 1/2, G 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  
**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:** 0 ... 250 °F  
    **Remote Version:** -58 ... 250 °F  
**Ambient Temp. Range:** 0 ... 120 °F

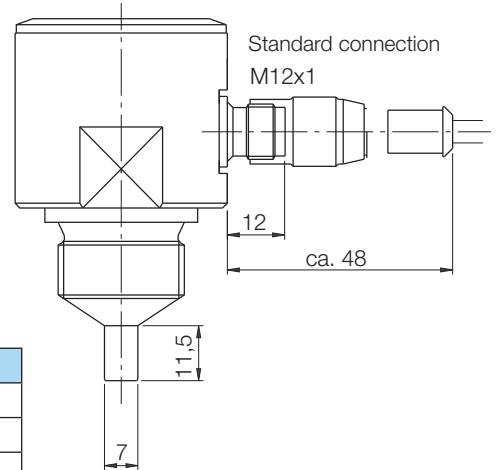
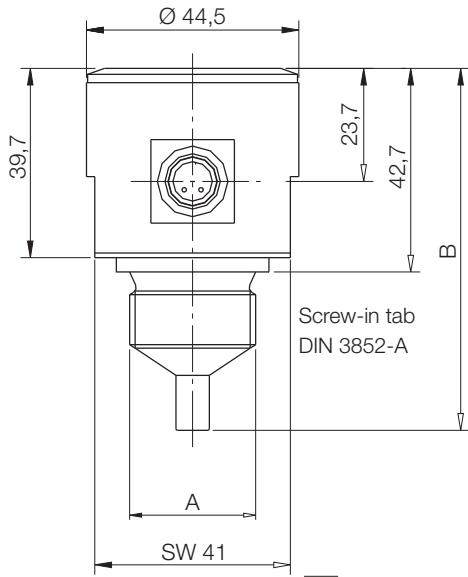
**Max. Pressure:** 1150 PSI  
**Power Supply:** 24 Vdc ±20 %  
**Power Consumption:** Approx. 50 mA  
(without Switching Output)  
**Electrical Connection:** M12x1 Plug  
**Type of Switch. Output:** Semiconductor;  
PNP or NPN (Factory Set),  
Max. 300 mA, Short-circuit Proof  
**Contact Function:** 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<sub>50</sub>: 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-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 ..D6.. = Remote Mount, No Fitting	..F2.. = 0...250 °F ..H2.. = -20...120 °C ..F3.. = -58...250 °F ..H3.. = -50...125 °C	..00 = 12 mm ..10 = 100 mm ..20 = 200 mm ..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	

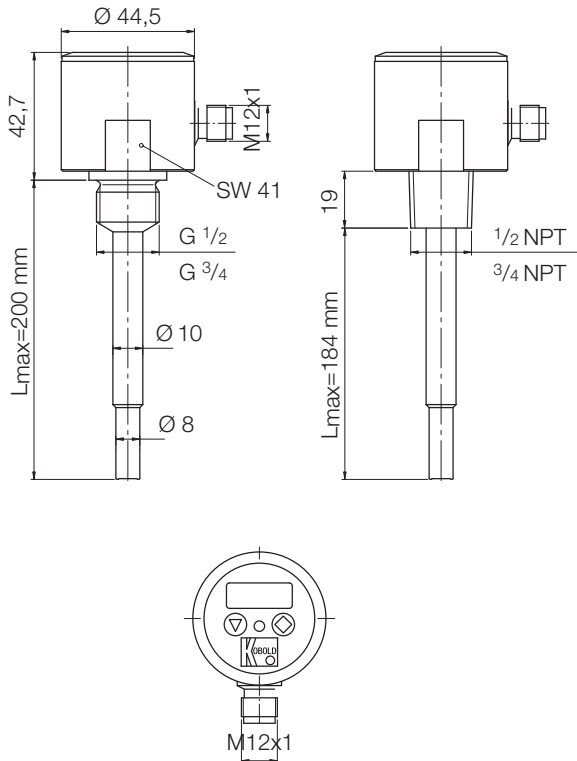
Dimensions (mm)

Standard Version, 12mm

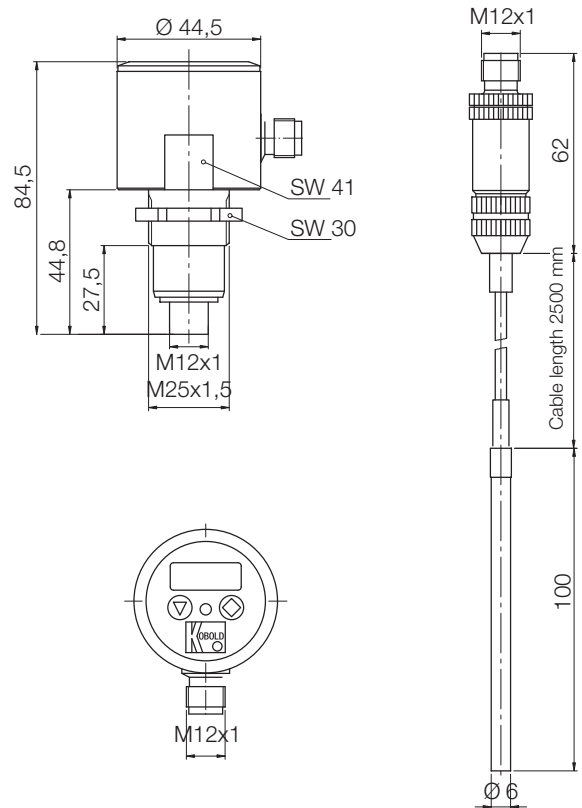


A	B
½" NPT	70.2
¾" NPT	70.5
G ½	72.3
G ¾	75.9

Standard Version, 200mm



Remote Version



No responsibility taken for errors; subject to change without prior notice.