

**Digital  
Temperature Sensor**  
for Liquids



measuring  
•  
monitoring  
•  
analyzing

**TDA**



TDA-...P3M  
TDA-...N3M

TDA-...L3M

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



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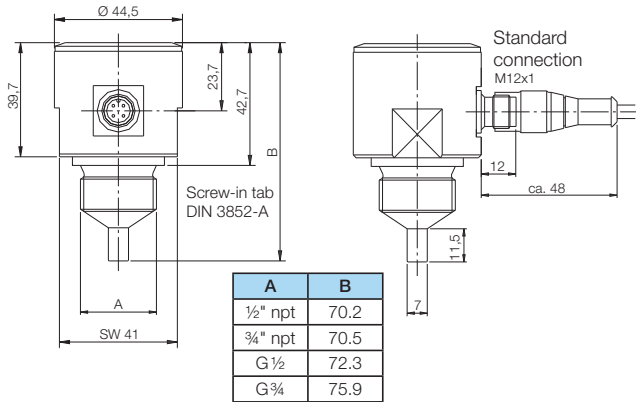
**Description**

The KOBOLD Model TDA temperature sensor is used for economical measuring and monitoring of temperature. It can be used for any application in which temperatures must be monitored and controlled.

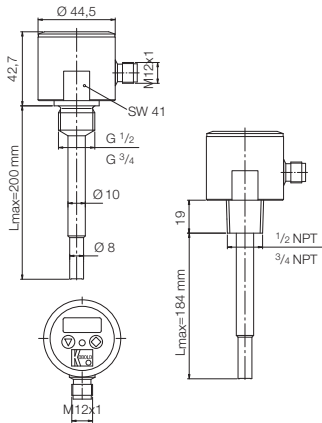
The sensor element is a semiconductor that outputs a digital signal to the electronics in 1.0°F steps. The measured values are shown on a 3-digit LED display. The analog output can be adjusted as required within the measuring range.

**Dimensions:**

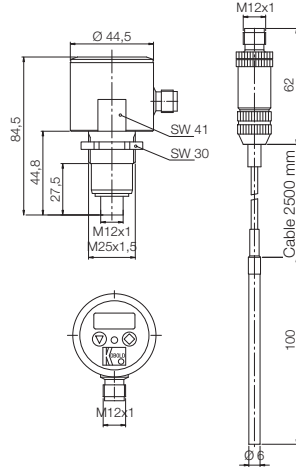
Compact version, short



Compact version, long



Remote mount version



**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 separately mounted version:
  - Sensor: 100 mm x 6 mm
  - Cable: 2.5 m PTFE with M12x1 plug
  - Housing: M25x1.5 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 media: 0...250°F (compact version), -58...250°F (separate version)
  - Max. ambient temp.: 0...120°F
  - Max. pressure: 1150 psi
  - Power supply: 24 V<sub>DC</sub> ±20%
  - Power consumption: 40 mA (TDA-...L3M); app. 70 mA (TDA-...P3M, TDA-...N3M) (without switching current 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<sub>50/90</sub>: 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

**Applications**

- Compressors
- Plant engineering
- Mechanical engineering
- Pumps

**Order Details** (Example: TDA-15F2N40L3M)

Model / Measuring range	Connection	Probe length	Output	Electrical connection	Option
TDA-15F2 = 0 ... 250 °F	N4 = 1/2" NPT N5 = 3/4" NPT	0 = 11.5 mm 1 = 100 mm 2 = 184 mm*	L = 4 -20 mA P = 4 -20 mA, PNP-switch output N = 4 -20 mA, NPN-switch output	3M= M12x1 plug connector	EC = Extended cable length**
TDA-15H2 = -20... 120 °C	R4 = G 1/2 R5 = G 3/4				
TDA-15F3 = -58 ... 250 °F TDA-15H3 = -50 ... 125 °C	D6 = Remote mount, no fitting	1 = 100 mm			
<b>Accessories</b>					
Micro-DC plug with 6 foot cable - Part# 807.037 4-pin for output L - Part# 807.007 - 5-pin for outputs P or N					
6mm bore through compression fitting for remote probe installation - Part# TD-FTFHG1/4SS for 1/4" NPT - Part# TD-FTFHG1/2SS for 1/2" NPT					

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