Digital Temperature Sensor

for Liquids



measuring

monitoring

analyzing

TDA



Measuring Range: -58...250°F

• Pressure: Max. 1150 PSI

• Accuracy: ±1.0°F (for 14...185°F)

Housing Material: Stainless Steel

Connection:

½" NPT, ¾" NPT, G ½, G ¾, or M25 x 1.5



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Digital Temperature Sensor Model TDA



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. 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: G½ or G¾

Remote Version

Sensor: 100 mm x 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

2.0°F (212°F Onwards)

Max. Media Temp: 0...250 °F (Standard Version)

-58...250°F (Remote Version)

Max. Ambient Temp.: 0...120°F Max. Pressure: 1150 PSI



Power Supply: $24 \text{ V}_{DC} \pm 20 \%$

Power Consumption: ~40 mA (TDA-...L3M); ~70 mA

(TDA-...P3M, TDA-...N3M) (not including switch current)

Electrical Connection: Plug M12x1

Type of Switch Output: PNP or NPN Transistor,

Max. 300 mA, Short-circuit Proof N/O / N/C, Window, Adjustable

Switch Point Adj.: Adjustable via 2 Keys

Switching State Display: 1(2) LED

Contact Function:

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 ± 1.0 °F (between 14 ... 185 °F)

±3.6 °F (between 185 ... 250 °F

and -58 ... -14 °F)

Protection: IP 65

Order Details (Example: TDA-15F2N40L3M)

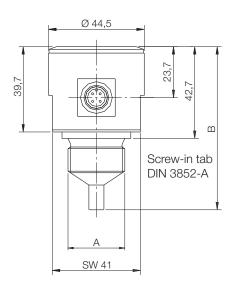
Measuring Range	Model	Connection	Probe length	Output		Electrical Connection	
0 250 °F	TDA-15F2	N4 = ½" NPT N5 = ¾" NPT	0 = 11.5 mm 1 = 100 mm 2 = 200 mm	L = 4 -20 mA		3M = M12x1 Plug Connector	
-20120 °C	TDA-15H2	R4 = G ½R5 = G ¾ D6 = Remote		P. . = 4 -20 mA, PNP-Switch Ou N = 4 -20 mA,	tput		
-58 250 °F	TDA-15F3		1 = 100 mm	NPN-Switch Output			
-50125°C	TDA-15H3	Mount, No Fitting					
Accessories							
Micro-DC Plug with 6 ft Cable, 4-pin for Output L						807.037	
Micro-DC Plug with 6 ft Cable, 5-pin for Outputs P or N						807.007	
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	

Digital Temperature Sensor Model TDA

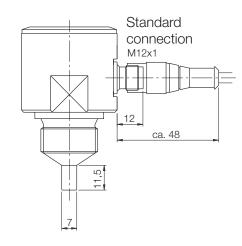


Dimensions (mm)

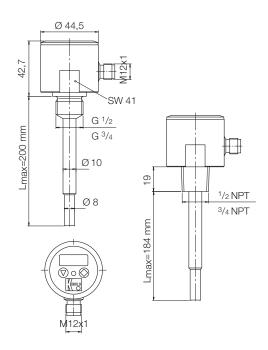
Standard Version, 12mm



Α	В		
½" NPT	70.2		
34" NPT	70.5		
G1/2	72.3		
G¾	75.9		



Standard Version, 200mm



Remote Version

