DTM
DIGITAL TEMPERATURE GAUGE

KOBOLD

Flow
Pressure
Level
Temperature
measurement
monitoring
control

T2

- ● **Remote and Fixed Probe Versions**
- ● **Highly Visible Green LED Readout**
- ● **Standard & Custom Ranges Available**
- ● **Analog Output Standard**
- ● **Peak Hold/RS232 Options**
- ● **Up to four SPDT Switches**
- ● **316 SS Construction**

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Features

- Highly Visible Green LED Readout
- Standard & Custom Ranges Available
- Analog Output Standard
- Up to Four SPDT Switches
- 316 SS Construction

With the DTM, KOBOLD addresses all the fundamental issues of industrial temperature sensing. A digital display, built-in transmission capability, and optional set-point switches, cover all aspects of indication and control. The DTM is designed as a direct replacement for gas or liquid bulb thermometers.

Constructed for industrial use, these meters feature 316-Ti SS wetted parts and 304 stainless steel enclosures. We offer a number of standardized temperature sensing ranges in units of Fahrenheit or Celsius. However, because of its electronic nature, any desired units or temperature ranges are possible (within the device's operating limits). If you don't see what you want, give us a call, and we'll customize the range for you.

The KOBOLD DTM comes standard with a local digital display and analog output . . . ideal for remote monitoring. Setpoint relays are available as options. These SPDT relays come in pairs of either two or four switches. Setpoints are fully adjustable via the front keypad making the DTM ideal for thermostatic temperature control of multiple processes.

If your application requires the installation of a thermowell see the TSH series thermowells.
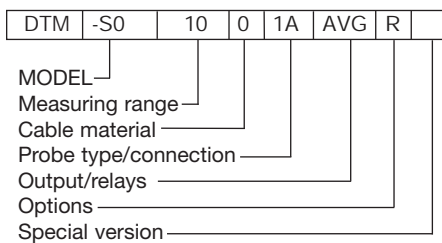
DTM Order Key

DTM	-S0	10	0	1A	AVG	R	

MODEL
Measuring range
Cable material
Probe type/connection
Output/relays
Options
Special version

Use Table 1 through 6 on the following pages to completely specify your model.

KOBOLD DTM Digital Temperature Gauge

Specifications

Ranges:	−30 °F to 750 °F (see table)	**Electrical Information**	
Sensor Type:	Pt-100 RTD	**Supply:**	15–30 VDC @ 200 mA
Accuracy:	±0.5% FS ±1 digit	**Analog Output**	
Linearity:	±0.2% FS	**Current:**	0–20 mA, 4–20 mA, 3-wire into 500 Ω max.
Repeatability:	±0.1% FS ±1 digit		
Response Time		**Voltage:**	0–10 VDC, 3-wire into 500 Ω min.
Display:	<100ms		
Relays:	<30ms	**Zero Adjust:**	±25% of full scale
Operating Temperature		**Relays**	
Medium:	Per Range Code	**Type:**	SPDT, Qty. 2 or 4
Ambient:	−5 °F to 140 °F	**Setpoints:**	fully adjustable
Storage:	−40° to 160 °F	**Hysteresis:**	fully adjustable
Displays		**Max. Voltage:**	250 VAC, 220 VDC
Temperature:	4 digit, 1/2" green LED	**Max. Current:**	3 A
Switches:	4 digit backlit LCD	**Max. Power:**	50 VA, 60 W
Materials of Construction		**Connections:**	via terminal strip
Wetted Parts:	316-Ti SS	**Protection:**	IP65
Housing:	304 SS, Polyamide		

Table 1: Base Model

	Straight probe DTM-S0...		Remote probe wall mount DTM-F0...
	Bent probe DTM-SA... DTM-SB... DTM-SC... DYM-SD...		Remote probe panel mount DTM-F5...

Table 2: Measuring Range

...34..=-30 to +40℉	...31.. = -30 to +100℉	...32.. = -30 to +120℉	...36.. = -30 to +160℉
...37.. = 0 to 100℉	...14.. = 0 to 140℉	...22.. = 0 to 220℉	...33.. = 32 to 300℉
...39.. = 32 to 390℉	...57.. = 32 to 570℉	...75.. = 32 to 750℉	...24.. = -20 to +40℃
...26.. = -20 to +60℃	...44.. = -30 to +40℃	...35.. = -30 to +50℃	...46.. = -30 to +60℃
...60.. = 0 to 60℃	...80.. = 0 to 80℃	...10.. = 0 to 100℃	...12.. = 0 to 120℃
...16.. = 0 to 160℃	...20.. = 0 to 200℃	...30.. = 0 to 300℃	...40.. = 0 to 400℃
...YY.. = non standard range, specify desired scale and units when ordering			

Table 3: Options

...0..	=	no cable required
...P..	=	PVC cable, specify desired cable length when ordering
...S..	=	Silicone cable, specify desired cable length when ordering
*Note: Process temperature limits for cables with fitting style A0, PVC: 100℃ (212℉), Silicone: 200℃ (392℉)		

Table 4: Probe Type/connection (probe diameter 8 mm/0.31")

	Description	Fitting	Order Code
	Smooth Shank 8 mm Dia.	None	...A0..
	Union nut for insertion into TSH series Thermowells. Allows indicator to rotate	1/2" BSP	...B1..
	Union nut and shoulder nipple. Allows indicator to rotate when thermowell not used	1/2" NPT 3/4" NPT 1" NPT	...1A.. ...1B.. ...1C..
*Note: Specify desired probe length when ordering.			

Table 5: Output Type/Contacts

Output Type	Relays	
	2 relays	4 relays
4-20mA	..A4G..	..A4M..
0-20 mA	..A0G..	..A0M..
0-10 VDC	..AVG..	..AVM..

Table 6: Options

...S.. = Peak Hold
...R.. = RS232 Serial Interface
...K.. = Peak Hold & RS232

Dimensions (mm)