



Bimetal Thermometers

Dual-Mode Thermometer



REOTEMP DUAL MODE THERMOMETER (model DMT) is a convenient, multipurpose indicator for local and remote temperature monitoring. This rugged dual-sensor system puts TWO SENSORS in ONE THERMOWELL, and allows easy tie-in to process control. Both sensors are NIST traceable, and easily calibrated. Special sensor encapsulation and optional liquid filling make the DMT the most rugged, durable instrument of its kind.



Bimetal Thermometer

- Local easy-to-read Temperature Indication
- Self-actuating, Dampened Bimetal Helix
- Choice of three Dial Sizes, with Back, Bottom, or Adjustable Angle Connection
- Hermetically Sealed per ASME B40.3
- Thermometer is Easily Calibrated, and Field Replaceable
- NIST Traceable Calibration

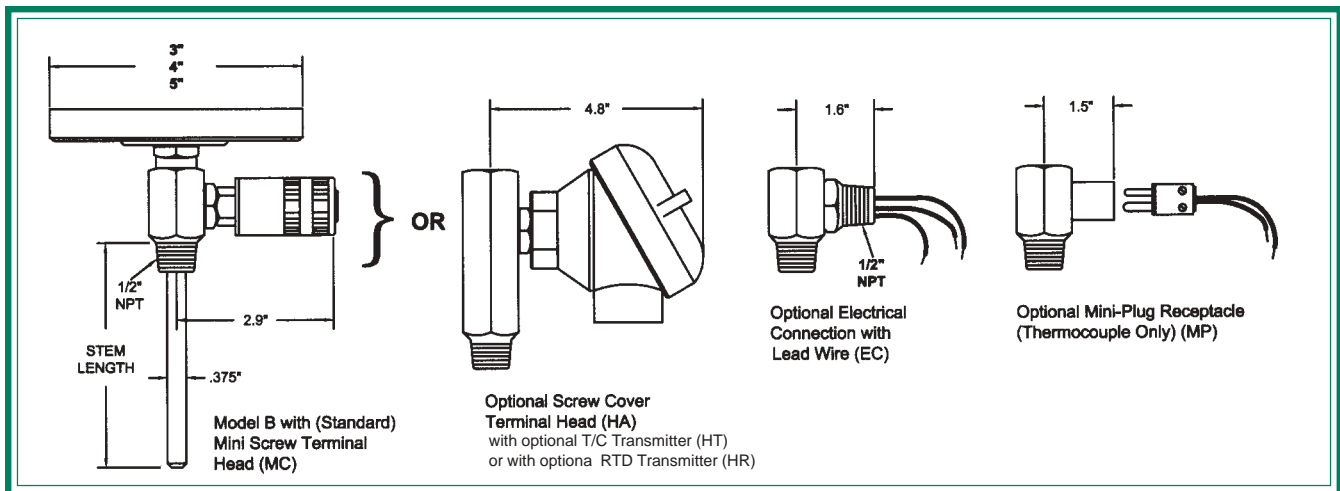
Thermocouple or RTD

- Remote and Local Indication
- Data Acquisition for Process Control
- Choice of Connection Styles (see drawing below)
- 4-20mA Transmitter Output Available

Model DMT with Screw Cover Terminal Head, and Adjustable-Angle Head

DMT Advantages:

- Allows local and remote reading (Up to 1000°F) from one thermowell.
- Bimetal dependability with RTD (or thermocouple) accuracy.
- Redundant sensors for simple, effective calibration or spot checking without removing instrument from thermowell!
- Easily installed in any standard thermowell.
- Interchangeable with existing thermometer, RTD, Thermocouple.



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How to Order

Model	Style/Stem (Table 1)	Stem Length (Table 2)	Temp Range (Table 3)	Sensor (Table 4)	Output Connection (Table 5)	Thermowell (Table 6)
DM	TA	04	F24	TK	MC	046

Table 1 - Style & Stem Dia.

Code		Description
3/8" Stem	1/4" Stem	
TA	4A	3" Back Connected
TC	4C	4" Back Connected
TB	4B	5" Back Connected
TL	4L	3" Adjustable-Angle
TM	4M	4" Adjustable-Angle
TJ	4J	5" Adjustable-Angle

Table 2 - Stem Length

Code	Length	Code	Length
02*	2.5"	15	15"
04	4"	18	18"
06	6"	24	24"
09	9"	30	30"
12	12"	36	36"

Table 3 - Temperature Range

* available only with 3/8" dia. stem.

Code	Degrees F	Code	Degrees C	Code	Degrees F & C
F03	-100 TO 100°F	C03	-70 TO 70°C	D03	-100 TO 100°F & -70 TO 70°C
F23	40 TO 160°F	C23	-40 TO 70°C	D23	140 TO 160°F & -40 TO 70°C
F55*	25 TO 125°F	C55*	0 TO 50°C	D55	25 TO 125°F & 0 TO 50°C
F43	0 TO 200°F	C43	0 TO 100°C	D43	0 TO 200°F & 0 TO 100°C
F47	0 TO 250°F	C47	-20 TO 120°C	D47	0 TO 250°F & -20 TO 120°C
F53	20 TO 240°F	C53	-10 TO 110°C	D53	20 TO 240°F & -10 TO 115°C
F63	50 TO 300°F	C59	0 TO 150°C	D63	50 TO 300°F & 10 TO 150°C
F65	50 TO 400°F	C65	0 TO 200°C	D65	50 TO 400°F & 10 TO 200°C
F69	50 TO 550°F	C69	0 TO 300°C	D69	50 TO 550°F & 10 TO 290°C
F79	100 TO 800°F	C79	50 TO 400°C	D79	100 TO 800°F & 40 TO 400°C
F85**	200 TO 1000°F	C85**	100 TO 500°C	D85**	200 TO 1000°F & 100 TO 500°C

* min. stem length 4" **continuous use over 800F not recommended.

DMT Specifications

Case and Bezel:	304 SS (316 SS Available)
Case Style:	Back, Bottom or Adjustable Angle connection.
Dial Size:	3", 4" or 5"
Process	
Connection:	1/2" NPT Standard, (1/2" NPT Union available)
External Reset:	Slotted Hex Screw
Crystal:	Glass Standard, Plastic or Tempered Glass optional
Hermetic Seal:	Bi-Metal Thermometer per ASME B40.3
Stem:	304 SS, 0.375" O.D. (1/4" O.D. - specify "DMT4") Lengths from 2-1/2" to 36"
RTD-T/C Encapsulation Sleeve (Pat.pending):	304 SS
RTD:	100Ω (or 1000Ω optional) Platinum; 0.00385Ω/Ω°C, 3-wire std.
Thermocouple:	Type K grounded junction std. (Optional: types T, E, J, or ungrounded.)

Table 6 - Thermowell (.385" & .260" bore)

Process Connection	Stem Length	"U" Dim	3/8" Stem		1/4" Stem	
			304 SS	316 SS	304 SS	316 SS
1/2" NPT	4"	2.5	071	171	011	111
	6"	4.5	072	172	012	112
	9"	7.5	073	173	013	113
	12"	10.5	074	174	014	114
3/4" NPT	4"	2.5	046	146	018	118
	6"	4.5	047	147	019	119
	9"	7.5	048	148	020	120
	12"	10.5	049	149	021	121
1" NPT	4"	2.5	053	153	025	125
	6"	4.5	054	154	026	126
	9"	7.5	055	155	027	127
	12"	10.5	056	156	028	128

Table 5 - Output Connection

Code	Description
MP	Mini - Plug Receptacle (Thermocouple Only)
MC	Mini - Connection Head, w/screw terminals & protection head
EC	1/2" NPT Male Electrical Connection, w/Lead Wire
Aluminum screw - Cover Head w/3/4" NPT Conduit Connection	
HA	with Terminal Block
HT	with 4-20 mA Transmitter (for Thermocouple)
HR	with 4-20 mA Transmitter (for RTD)

Table 4 - Sensor

Code	Description
TK	Thermocouple, Type K (grounded)
TJ	Thermocouple, Type J (grounded)
TE	Thermocouple, Type E (grounded)
TT	Thermocouple, Type T (grounded)
UK	Thermocouple, Type K (ungrounded)
UJ	Thermocouple, Type J (ungrounded)
UE	Thermocouple, Type E (ungrounded)
UT	Thermocouple, Type T (ungrounded)
RC	RTD, 100 ohm, 3-wire
RK	RTD, 1000 ohm, 3-wire
	} max. 550°F

Connection:	T/C plug, Mini connection head, or Standard screw-cover connection head are available, Special customer requirements accommodated.
Ranges:	Std. REOTEMP ranges and divisions to 1000F (500C)
Over Ranges:	50% over range to 550F, 1000F max.
Accuracy:	(+/-) 1% of full scale
Thermowell:	Model DMT fits any standard 0.385" bore thermowell. (See table for Std. Models).
Options:	Silicone Case Fill for Vibration. (3/8" stem only)
NOTE:	Model DMT is intended for use ONLY in a thermowell. 3-A and NACE conformity available.