

SANITARY DIGITAL THERMOMETER/TRANSMITTER

REOTEMP's Sanitary Digital Thermometer/Transmitter is a high accuracy thermometer with digital display. It features an IP67/NEMA 4X enclosure, clean-in-place connection, and a 5 year battery life. The Digital Thermometer is perfect for brewing, food, beverage and pharmaceutical applications where a high accuracy digital readout is required.



Accuracy



Custom Logo



Made in the USA

FEATURES / BENEFITS

- 3-A Conformance Certificate Included
- High Accuracy 1,000Ω RTD (Class A)
- Water Resistant IP67/NEMA 4X
- 5 Year Battery Life
- 4-20 mA Output Available
- Low or High Temperature Range Models

SPECIFICATIONS

Accuracy $\pm (0.72 + 0.002 \times |t - 32|)$ °F,
 $\pm (0.42 + 0.002 \times |t|)$ °C, where
 t = temperature. Example: At 32°F
 accuracy is ± 0.72 °F.

Sensing Element RTD, Type Pt1000Ω, Class A

Temperature Ranges -58°F to 392°F (-50°C to 200°C) or
 -328°F to 1112°F (-200°C to 600°C)

Output (Optional) 4-20 mA, M12 Connector

Refresh Rate 3 Seconds

Display 4-digit LCD, 1/2" Height

Display Resolution See Table 1

RFI Effect 1% or Less Typical

Temperature Effect 32°F to 122°F (0°C to 50°C)

Storage Temperature Range -4°F to 158°F (-20°C to 70°C)

Housing Material Stainless Steel 316

Wetted Finish Ra 32 max., Ra 20 max. (optional)

Lens Plastic Polycarbonate (Standard) or Glass

Probe Material 304 Stainless Steel

Weight 12 oz., Varies by Configuration

Environmental Protection NEMA 4X/IP67

Power 1 x 3.6V AA Battery (M12 is loop powered 9-36 VDC.)

Battery Life 5 Years Minimum in Continuous Mode

Electronic Display Temperature Limit If the temperature of the electronics in the display housing exceeds 122°F (50°C), permanent damage to the display will occur. A remote mount is recommended for high temperature applications.

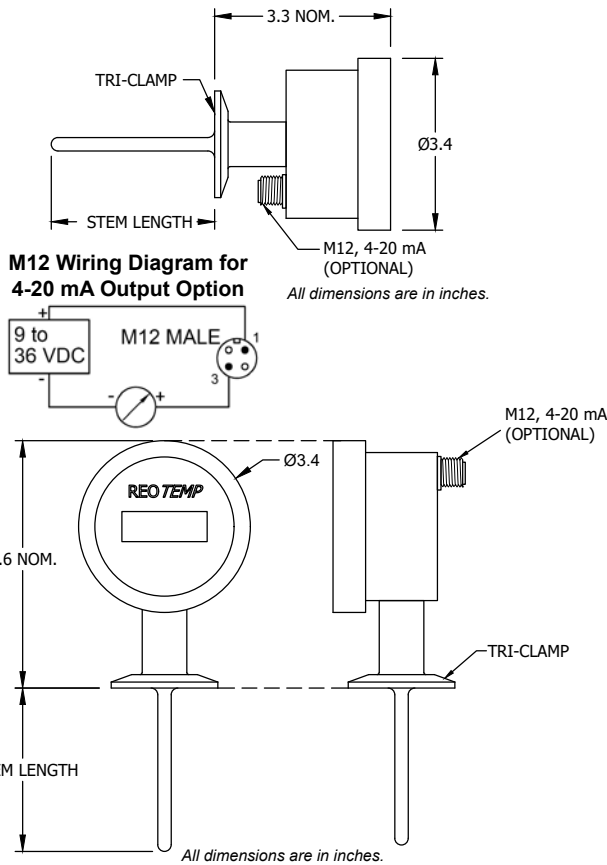


Table 1: Display Resolution

Model	Range	Decimal Point
Low Temp, Displays Decimal	-58°F to 392°F (-50C to 200C)	Yes
High Temp, No Decimal	-328°F to 1112°F (-200°C to 600°C)	No

SANITARY DIGITAL THERMOMETER/TRANSMITTER

HOW TO ORDER: Choose options to build a part number. For example: **DTXNC1A240A-R3**

MODEL	STYLE	4-20 mA OUTPUT LOCATION	PROCESS CONNECTION	TEMPERATURE RANGE															
DT Digital Sanitary Thermometer	A = Back Connect X = Bottom Connect E = Explosion Proof Enclosure (Bottom Connect Only, Battery Powered Only)	N = None S = M12 Upper Back (A & X Style Only) T = M12 Right Side (A & X Style Only) U = M12 Left Side (A & X Style Only) V = M12 Top Side (A & X Style Only) W = M12 Bottom Side (A Style Only)	C = 1.5" Tri-Clamp® L = 2" Tri-Clamp® A = 2.5" Tri-Clamp® P = 3" Tri-Clamp® M = 3/4" Tri-Clamp® K = 4" Tri-Clamp®	<table border="1"> <thead> <tr> <th>Code</th> <th>Temp. Range</th> <th>Decimal Point</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-58°F to 392°F</td> <td>Yes</td> </tr> <tr> <td>2</td> <td>-50°C to 200°C</td> <td>Yes</td> </tr> <tr> <td>3*</td> <td>-328°F to 1112°F ⚠</td> <td>No</td> </tr> <tr> <td>4*</td> <td>-200°C to 600°C ⚠</td> <td>No</td> </tr> </tbody> </table> <p>⚠ *If the temperature of the electronics in the display housing exceeds 122°F (50°C), permanent damage to the display will occur. A remote mount is recommended for high or low temperature applications.</p>	Code	Temp. Range	Decimal Point	1	-58°F to 392°F	Yes	2	-50°C to 200°C	Yes	3*	-328°F to 1112°F ⚠	No	4*	-200°C to 600°C ⚠	No
Code	Temp. Range	Decimal Point																	
1	-58°F to 392°F	Yes																	
2	-50°C to 200°C	Yes																	
3*	-328°F to 1112°F ⚠	No																	
4*	-200°C to 600°C ⚠	No																	
A	240	A	-R3																
STEM DIAMETER	STEM LENGTH	RTD	OPTIONS																

Straight Stems
A = 1/4" Dia. (Standard)
F = 3/8" Dia.

Fast Response Stems
B = 3/8" Dia. Reduced to 3/16" Dia. Tip

025 = 2.5"
040 = 4"
060 = 6"
090 = 9"
120 = 12"
150 = 15"
180 = 18"
240 = 24"
300 = 30"
360 = 36"
??? = Custom stem length in inches.

Millimeter Stem Lengths
M???? = Use a code beginning in M to specify a mm stem length ex: 100mm = M0100

A = Class A RTD, 1,000Ω

-R1 = Cal Cert, 1 point (REOTEMP Picks Point)
-R3 = Cal Cert, 3 point (REOTEMP Picks Points)
-C1 = Cal Cert, 1 point (Customer Picks Point)
-C3 = Cal Cert, 3 points (Customer Picks Points)
-GL = Glass Lens
-TS = Tag, Stainless
-TP = Tag, Paper
-CL = Custom Logo Dial

For Additional Options See Page 134

For Thermowells See Pages 160-166

Note: Thermowells should be used whenever the stem or bulb would be exposed to pressure, corrosion, velocity, abrasion or shear forces. Thermowells also make it possible to remove the thermometer without losing pressure or the contents of the process.



Explosion Proof Head

Explosion Proof Head Approvals: FM Approved Enclosure Only: CL. I. GR. A,B,C,D; CL. II. GR E,F,G; CL. III.; Type 4X. For CSA Class I, Group A, conduit seal is required within 18 inches. CL. I, ZONE 1, ATEX: d IIC, IP66. ATEX: II 2GD Ex d tD A21 IIC, FTZU 04 ATEX 0265U. IECEx FMG 06.0003U, Ex d II C, IP68.

DIAL INDICATING THERMOMETER OPTIONS

Part #	Description	Industrial AA, RR, CC, CN, BB, SS, XR, XX, YY, YN, VR, VV, LL, MM, JJ	Small Dial OEM QQ, GG, HH	Digital DT, DTR, BT	Dual Mode Thermometer DMT
CASE FILL OPTIONS					
-SF	Silicone Filled Case	✓	N/A	N/A	✓
LENS OPTIONS					
-PC	Acrylic Window	✓	✓	N/A	✓
-PY	Polycarbonate Window	✓	✓	STD	✓
-TG	Tempered Safety Glass Lens	✓	N/A	N/A	✓
-SG	Laminated Safety Glass Lens	✓	N/A	N/A	✓
-GL	Plain Glass	STD	STD	✓	STD
STEM OPTIONS					
-PS	Pointed Tip	✓	✓	✓	N/A
-SS	316 Stainless Steel Stem	✓	✓	✓	✓
-F5	5/16" Diameter Stem (Not Available with 316SS Stem)	✓	✓	✓	N/A
-S3	3/8" Diameter Stem	✓	✓	✓	✓
-TF	Teflon Coating (Stem Only)	✓	✓	✓	✓
DIAL OPTIONS					
-CL	Custom Logo Dial	✓	✓	✓	✓
-HV	Hi-Vis Dial	✓	MQ	N/A	✓
-CB	Color Band	✓	MQ	N/A	✓
-CP	Color Pie	✓	MQ	N/A	✓
-WD	White Dial (Standard Ranges Only)	✓	✓	✓	✓
-MM	Min/Max Pointer	✓	N/A	N/A	✓
NL	No Logo	✓	✓	✓	✓
TAG OPTION					
-TS	Stainless Steel Tag (1-10 Characters)	✓	✓	✓	✓
-TP	Paper Tag	✓	✓	✓	✓
CERTIFICATION OPTIONS					
-R1	1pt. Calibration Certification (REOTEMP Chooses the Point)	✓	✓	✓	✓
-R3	3 pt. Calibration Certification (REOTEMP Chooses the Points)	✓	✓	✓	✓
-C1	1 pt. Calibration Certification (Customer Chooses the Point)	✓	✓	✓	✓
-C3	3 pt. Calibration Certification (Customer Chooses the Points)	✓	✓	✓	✓
-CS	NIST Calibration Sticker (No Logged Points)	✓	✓	✓	✓
-CC	Certificate of Conformance	✓	✓	✓	✓
OTHER					
-3H	316 Stainless Steel Head & Bezel	✓	N/A	STD	✓
-HT	Heat Transfer Compound	✓	✓	✓	✓
-CH	Spring Handle (T-27)	✓	✓	✓	N/A
-AS	Allows Bimet to Fit 1-1/4-18 Industrial Thermowell	✓	✓	✓	✓

THERMOMETERS

✓	Indicates that the option is available with the model.	N/A	Indicates the option is not available with this model.
STD	Indicates standard options with no additional cost.	MQ	Minimum order quantity applies.