

## SANITARY DIGITAL THERMOMETER/TRANSMITTER

The Reotemp Sanitary Digital Thermometer/Transmitter is a durable high accuracy thermometer with digital display. It features an IP67/NEMA 4X enclosure, 5 year battery life and optional transmitter output (Note: 4-20mA models are loop powered 9-36VDC). The clean-in-place connection is perfect for brewing, food, beverage and pharmaceutical applications.



Certified



Accuracy



Custom Logo



Made in USA

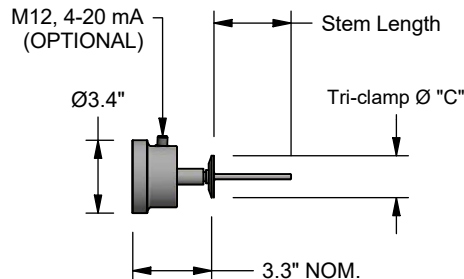
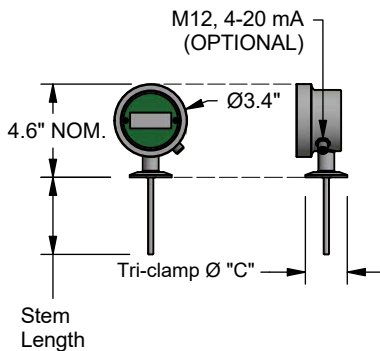


Table 1: Display Resolution

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

### FEATURES / BENEFITS

- 3-A Conformance Certificate Included
- High Accuracy 1,000Ω RTD (Class A)
- Water Resistant IP67/NEMA 4X
- 5 Year Battery Life (4-20mA Models are Loop Powered)
- 4-20 mA Output Available (Loop Powered 9-36VDC)

### SPECIFICATIONS

<b>Accuracy</b>	$\pm (0.72 + 0.002 \times  t - 32 ) ^\circ\text{F}$ , $\pm (0.40 + 0.002 \times  t ) ^\circ\text{C}$ , where t = temperature. Example: At 32°F accuracy is $\pm 0.72 ^\circ\text{F}$ .
<b>Sensing Element</b>	RTD, Type Pt1000Ω, Class A
<b>Temperature Ranges</b>	-58°F to 392°F (-50°C to 200°C) or -328°F to 1112°F (-200°C to 600°C)
<b>Output (Optional)</b>	4-20 mA, M12 Connector, Loop Powered 9-35 VDC
<b>Refresh Rate</b>	3 Seconds
<b>Display</b>	4-digit LCD, 1/2" Height
<b>Display Resolution</b>	See Table 1
<b>RFI Effect</b>	1% or Less Typical
<b>Temperature Effect</b>	<0.01% FS/°C
<b>Ambient Temp. Range</b>	32°F to 122°F (0°C to 50°C)
<b>Storage Temp. Range</b>	-4°F to 158°F (-20°C to 70°C)
<b>Housing Material</b>	Stainless Steel 316
<b>Wetted Finish</b>	Ra 32 Max. / Ra 20 Max.(Optional)
<b>Lens</b>	Plastic Polycarbonate (Standard) or Glass
<b>Probe Material</b>	304 Stainless Steel
<b>Weight</b>	12 oz., Varies by Configuration
<b>Environmental Protection</b>	NEMA 4X/IP67
<b>Power</b>	1 x 3.6V AA Battery (M12 is loop powered 9-36 VDC.)
<b>Battery Life</b>	5 Years Minimum in Continuous Mode, (Note: 4-20mA Models are Loop Powered 9-36 VDC, No Battery Option)
<b>Electronic Display Temperature Limit</b>	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.

## 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 "C"	TEMPERATURE RANGE															
<b>DT</b> 	<b>X</b> 	<b>N</b> 	<b>C</b> 	<b>1</b> 															
<b>DT</b> = Digital Sanitary Thermometer	<b>A</b> =  Back Connect <b>X</b> =  Bottom Connect <b>E</b> =  Explosion Proof Enclosure (Bottom Connect Only, Battery Powered Only)	<b>N</b> = None (Battery Operated) <b>S</b> =  M12 Upper Back (X Style Only, Loop Powered 9-36VDC) <b>T</b> =  M12 Right Side (A & X Style Only, Loop Powered 9-36VDC) <b>U</b> =  M12 Left Side (A & X Style Only, Loop Powered 9-36VDC) <b>V</b> =  M12 Top Side (A & X Style Only, Loop Powered 9-36VDC) <b>W</b> =  M12 Bottom Side (A Style Only, Loop Powered 9-36VDC)	<b>C</b> = 1.5" Tri-Clamp <b>L</b> = 2" Tri-Clamp <b>A</b> = 2.5" Tri-Clamp <b>P</b> = 3" Tri-Clamp <b>M</b> = 3/4" Tri-Clamp <b>K</b> = 4" Tri-Clamp	<table border="1"> <thead> <tr> <th>Code</th> <th>Temp. Range</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td><b>1</b></td> <td>-58°F to 392°F</td> <td>0.1°</td> </tr> <tr> <td><b>2</b></td> <td>-50°C to 200°C</td> <td>0.1°</td> </tr> <tr> <td><b>3</b></td> <td>-328°F to 1112°F</td> <td>1°</td> </tr> <tr> <td><b>4</b></td> <td>-200°C to 600°C</td> <td>1°</td> </tr> </tbody> </table>	Code	Temp. Range	Resolution	<b>1</b>	-58°F to 392°F	0.1°	<b>2</b>	-50°C to 200°C	0.1°	<b>3</b>	-328°F to 1112°F	1°	<b>4</b>	-200°C to 600°C	1°
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<b>M12 Wiring Diagram for 4-20 mA Output Option</b> 																			
<b>A</b> 	<b>240</b> 	<b>A</b> 	<b>-R3</b> 																
STEM DIAMETER	STEM LENGTH	RTD	OPTIONS																

**Straight Stems**  
**A** = 1/4" Diameter (Standard)  
**F** = 3/8" Diameter

**Fast Response Stems**  
**B** = 3/8" Diameter Reduced to 3/16" Diameter 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

**-TS** = Stainless Steel Tag  
**-RA** = Ra 20 Max Wetted Finish with Certificate  
**-R3** = Calibration Certification, 3 Points (32°F, 100°F, 190°F)  
**-R1** = Calibration Certification, 1 Point (100°F)  
**-C3** = Calibration Certification, 3 Points (Customer Picks)  
**-C1** = Calibration Certification, 1 Point (Customer Picks)  
**-CL** = Custom Logo Dial

For additional options see page 147.



Explosion Proof Head

**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 Approvals (Explosion Proof Head Option 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.

SANITARY

## THERMOCOUPLE & RTD OPTIONS

		Thermocouple	RTD	Digital Thermometers	Handheld Digital
<b>CERTIFICATION OPTIONS</b>					
<b>-R1</b>	1 Point Calibration Certification, Reotemp Chooses	✓	✓	✓	✓
<b>-R3</b>	3 Point Calibration Certification, Reotemp Chooses	✓	✓	✓	✓
<b>-C1</b>	1 Point Calibration Certification, Customer Chooses	✓	✓	✓	✓
<b>-C3</b>	3 Point Calibration Certification, Customer Chooses	✓	✓	✓	✓
<b>-CC</b>	Certificate of Conformance	✓	✓	✓	✓
<b>-CS</b>	NIST Calibration Sticker (No Logged Points)	✓	✓	✓	✓
<b>OTHER OPTIONS</b>					
<b>-VB</b>	Hi-Vibration	N/A	✓	✓	✓
<b>-AC</b>	Hi-Accuracy	N/A	✓	N/A	N/A
<b>-PS</b>	Pointed Stem	✓	✓	✓	✓
<b>-TF</b>	Teflon Coating	✓	✓	✓	✓
<b>-SS</b>	316 SS stem	N/A	STD	✓	✓
<b>-NL</b>	No Logo	✓	✓	✓	✓
<b>-HT</b>	Heat Transfer Compound (2 oz)	✓	✓	✓	N/A
<b>-GL</b>	Plain Glass Lens	N/A	N/A	✓	✓
<b>-CL</b>	Custom Logo Dial	N/A	N/A	✓	✓
<b>-BP</b>	Replacement Battery Pack	N/A	N/A	✓	✓
<b>-WD</b>	White Dial	N/A	N/A	✓	✓
<b>-AS</b>	Allows to Fit 1-1/4-18 Industrial Thermowell	✓	✓	✓	N/A
<b>TAG OPTION</b>					
<b>-TS</b>	Stainless Steel Tag (1-10 Characters)			✓	
<b>-TM</b>	Stainless Steel Tag (11-80 Characters)			✓	
<b>-TP</b>	Paper Tag			✓	

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