

### **AMETEK®**

# Panel Mount Digital Thermometer Model TM165 and TM166

#### **FEATURES**

- Heavy-duty stainless steel front plate and all metal case for rugged environments
- Easy-to-read digital display
- Temperature sensing range of -25°F to 99°F (-32°C to 38°C)
- Front panel selectable °F to °C operation
- Alarm temperature setting; programmable via front panel buttons
- Alarm relay
- Low voltage AC or DC operation
- TM166 fits in a standard electrical box

National Controls' panel mount thermometer allows the constant monitoring of temperature in critical environments and equipment, enabling a higher degree of operating efficiency.

The high temperature alarm alerts personnel to a high temperature condition, protecting temperature sensitive equipment and operations. When the temperature rises to the setpoint temperature, the display flashes and an audible alarm sounds. When the temperature falls below the setpoint temperature, the alarm condition ceases. If during the alarm condition, it is desired to turn off the alarm, depressing the front panel push-button will interrupt the audible alarm for approximately 2-1/2 hours, but the display will continue to flash.

The heavy-duty stainless steel front plate protects the unit from mechanical shock and abuse, and is designed to blend visually with other stainless steel equipment.

The thermometer can be mounted directly on the equipment it is monitoring, or on a remote panel up to 250 feet away. The thermometer is powered from low-voltage AC or DC, thus eliminating the high costs of installation to NEC or other high voltage electrical standard wiring.

The control can also detect an open or shorted temperature probe. If the probe is open or shorted the display will show PRB, the alarm will sound and the relay contacts will close. The alarm will continue to sound until the probe error condition is corrected. In addition, the output relay's contacts will close during a high temperature ALARM condition.

**Setting the High Temperature Alarm:** On the front of the TM165 and TM166 there are up and down arrow buttons for changing the set point temperature. The set point can be adjusted to any temperature within the specified range of that particular model.

**Setting** °F or °C Operation: Using the front panel buttons the display can be adjusted to display temperature in °F or °C.

#### **SPECIFICATIONS**

Temperature Sensing Range: -25°F to 99°F

(-32°C to 38°C)

Temperature Reading Accuracy: ±3°F (2°C)

Resolution: ±1°F or °C

Setpoint Range: -15°F to 50°F (-26°C to 10°C) Input Voltage: 10.5 to 28 VAC, 50/60 Hz or 12 to

28 VDC

Power Consumption: 5 VA max at 28 VAC Operating Temperature Range: 0°C to 65°C Output Relay: Form A relay contact, 1 A max. at 30 VAC or DC

. AC 01 DC

Temperature Probe: NTC thermistor, 3000 ohms

at 25°C, J-Curve



#### ORDERING INFORMATION

MOUNTING CONFIGURATION	PART NUMBER
Thermometer, Panel Cutout	TNC-TM165-010
Thermometer, Standard Utility Box	TNC-TM166-010

ACCESSORY	PART NUMBER
6' Refrigerator / Freezer Probe	ASP-TM165-011
20' Refrigerator / Freezer Probe	ASP-TM165-012
60' Refrigerator / Freezer Probe	ASP-TM165-013

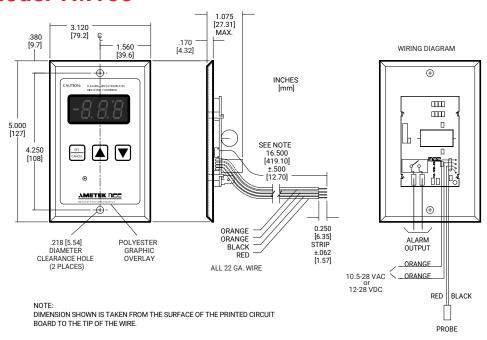
The TM165 and TM166 panel mount digital thermometers are available in two distinct sizes. When ordering the thermometers, be sure to select the above depending on your specific application (refer to actual dimensions below).

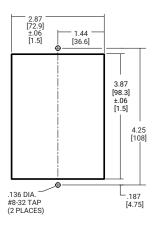




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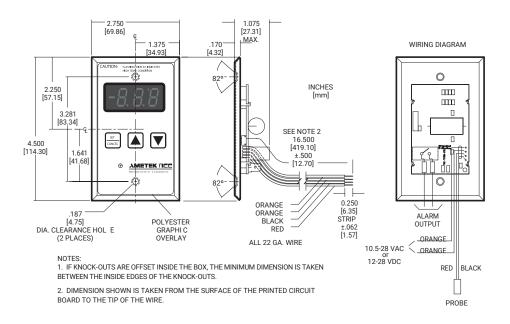
# **Model TM165**

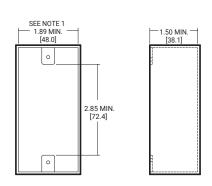




SUGGESTED PANEL CUTOUT

# **Model TM166**





MINIMUM INTERIOR DIMENSIONS
FOR INSTALLATION INTO A STANDARD UTILITY BOX