

Model- TTD



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Digital Temperature Indicator

Specifications

Sensor: Thermocouple (Type J or K)

Accuracy: 1% Full Scale \pm 1 LSD

Ambient Operating

Temperature: -30°F to 140°F (-35°C to 60°C)

Ambient Storage Temperature: -40°F to 180°F
(-40°C to 82°C)

Power: 12 VAC/DC

Package: Panel Mount Epoxy Encapsulated

Display: 3 Digit LED (0.56" (14 mm) High)

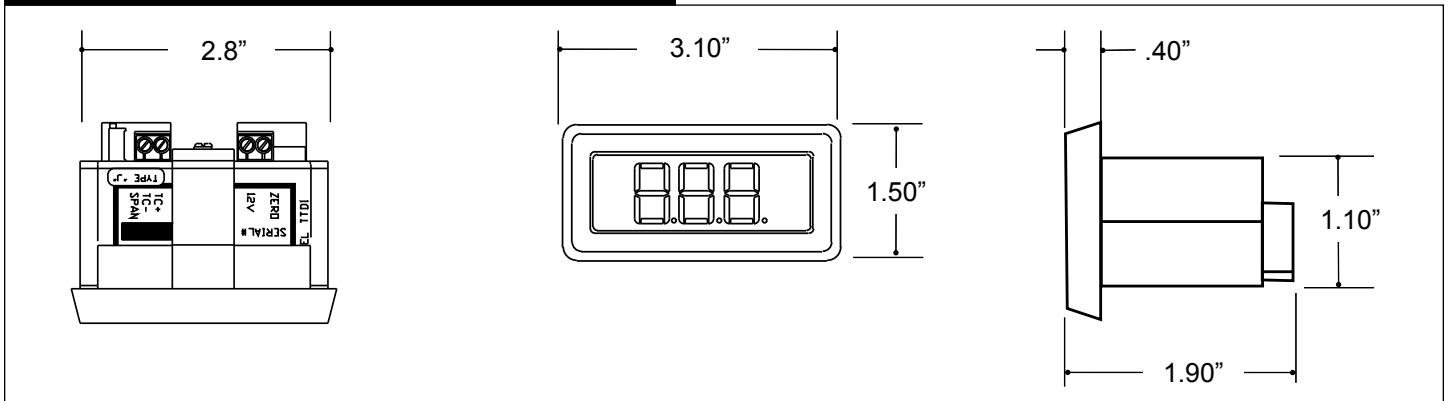
Connections: Screw Terminal

Temperature Range: 50°F to 940°F (10°C to 530°C)

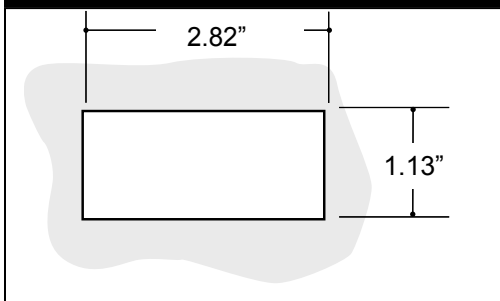
These temperature controllers are compact and easily installed. Please read these instructions carefully to assure correct installation.

This equipment must be installed by a licensed electrician. Prior to being put into operation, check all wiring and function of unit.

Dimensions

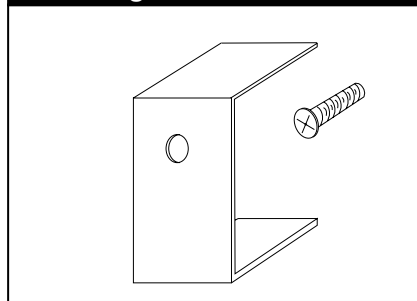


Panel Cut-out



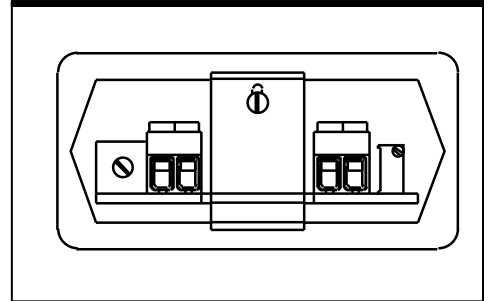
The indicator requires a panel cut-out 2.82" wide x 1.13" high, (71.6 mm x 28.7 mm). The unit is inserted into

Mounting Bracket and Screw

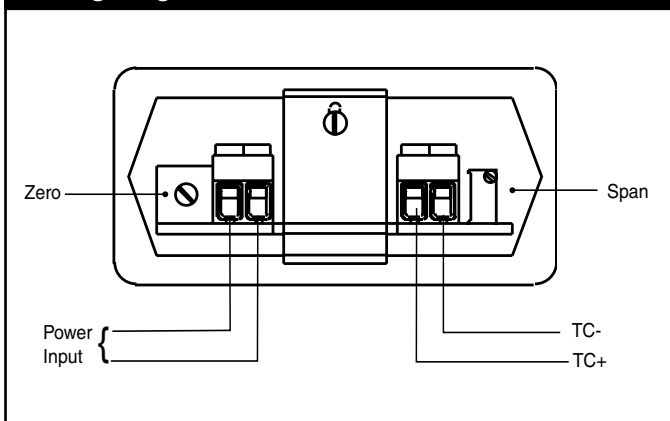


the panel from the front, and secured in place with the mounting bracket and screw supplied with the unit.

Bracket and Screw Positions



Wiring Diagram



power terminals as shown. Refer to wiring diagram for transformer and thermocouple connections.

For long thermocouple wire runs the proper thermocouple extension wire must be used, and the correct polarity must be maintained. If these precautions are not observed, the unit may not meet specifications.

Wiring Information

Power and thermocouple wire should not be placed in the same conduit or wiring trough. However, wires from several thermocouples may be in the same conduit or wiring trough.

If shielded thermocouples are used, the shields should be insulated electrically from the thermocouple wires and terminated to earth ground.

Ungrounded thermocouples are required when multiple controllers/indicators are used or if the transformer is grounded.

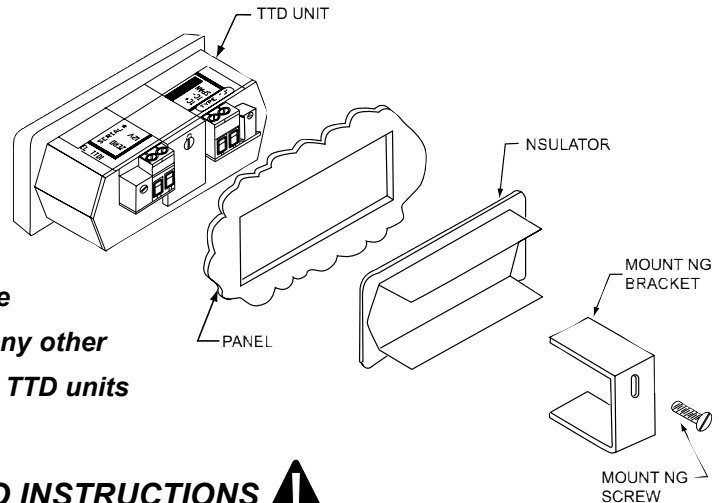
12 VAC/DC at 250 mA must be supplied to the indicator for power. This is connected to the power terminals as shown. If the indicator is to be powered by a transformer, then 115 VAC or 230 VAC must be supplied to the transformer primary (as required by the transformer type), and the 12 VAC output of the transformer is connected to the indicator

TTD Unit to Panel Instruction

Assembly Instructions:

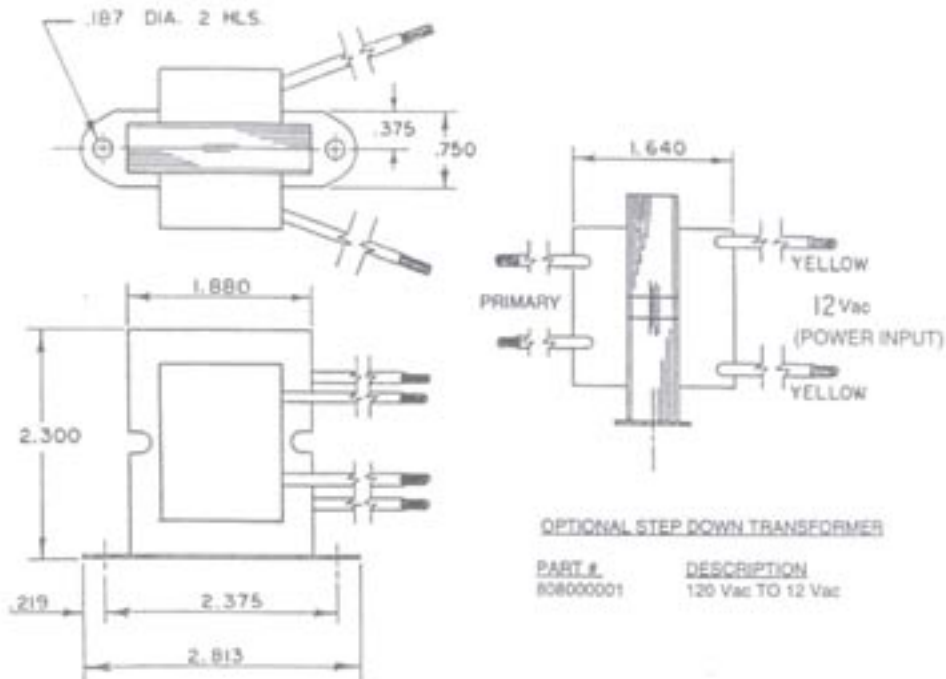
1. Remove Bracket and insulator from TTD Unit.
2. Place TTD Unit through panel cut-out.
3. Place insulator on TTD Unit and attach bracket.

Note: Bracket is not to touch metal surface of panel. Bracket must rest on insulator. Any other method of mounting will cause damage to TTD units internal operation.



! MUST INSTALL ACCORDING TO INSTRUCTIONS !

Transformer Power Connections



Each transformer can power up to four display units. If transformers other than those supplied by Antunes Controls are used, the transformer colors/leads and power capabilities may not be the same.

The unit will read "EEE" for over range conditions and "---" for under range conditions.

If field calibration is required, a two point calibration with a millivolt generator can be used. Calibrate the low reading by adjusting the zero pot. Enter a second calibration higher than the first and adjust the span. Recall these two points if needed. Allow 30 minutes under power for unit to stabilize before calibration.

Note: Transformer must be Class II to maintain UL recognition.

Limitation of Liability

It is understood and agreed that seller's liability whether in contract, in tort, under any warranty, in negligence or otherwise shall not exceed the return of the amount of the purchase price paid by purchaser and under no circumstances shall seller be liable for special, indirect or consequential damages.

The price stated for the equipment is a consideration in limiting seller's liability. No action, regardless of form, arising out of the transactions may be brought by purchaser more than one year after the cause of action has accrued.

Warranty

1. Antunes Controls products are guaranteed to be free from mechanical and electrical defects for a period of one year from date of shipment under normal use and service provided installation is made in accordance with manufacturers' recommendations.
2. Parts deemed defective shall be repaired or replaced at manufacturers option and at manufacturers expense but shall not include foreign or federal excise taxes, state or municipal sale or use taxes, all such taxes not limited to the foregoing being responsibility of the purchaser.
3. No charge for travel and/or mileage will be allowed to purchaser.
4. Antunes Controls reserves the right to make changes in design or make any improvements on any products. The right is always reserved to modify our equipment because of new technology, underwriter's requirements and/or government regulations.
5. The following are not covered under warranty:
 - a. Failure from neglect, abuse, careless handling and mis-application of unit.
 - b. Failure to observe guidelines for installation or improper voltage hook-up.
 - c. Failure caused by improper maintenance. (See maintenance guidelines found in operation instructions.)
 - d. Unless specifically allowed by Antunes Controls, no other charges may be included under warranty.

