



Outside Air Temperature Transmitter

Catalog Number(s) 1414-ITZ03FA0AA,
1414-ITZ02FA0AA, 1414-CTZ03FA0AA



About Outside Air Temperature Transmitter

Designed specifically for outside air temperature measurement, this single-unit device comes in a weather-proof gasketed PVC enclosure with a sun and wind shield to protect it from false readings.

The temperature transmitter is designed to convert 1000 ohm RTD signal into an analog output with $\pm 0.15^{\circ}\text{C}$ Class A, $\pm 0.30^{\circ}\text{C}$ Class B and 0.1% FSO accuracy for the board..

Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. *Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls* (Publication SGI-1.1 available from your local Rockwell Automation sales office or online at <http://www.literature.rockwellautomation.com>) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

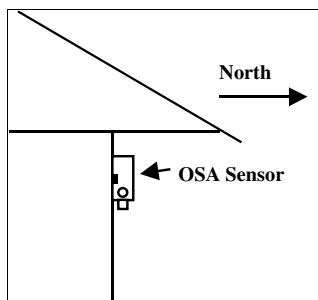
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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

<p>WARNING</p> 	Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.
<p>IMPORTANT</p>	Identifies information that is critical for successful application and understanding of the product.
<p>ATTENTION</p> 	Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard and recognize the consequences.
<p>SHOCK HAZARD</p> 	Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that dangerous voltage may be present.
<p>BURN HAZARD</p> 	Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that surfaces may be dangerous temperatures.

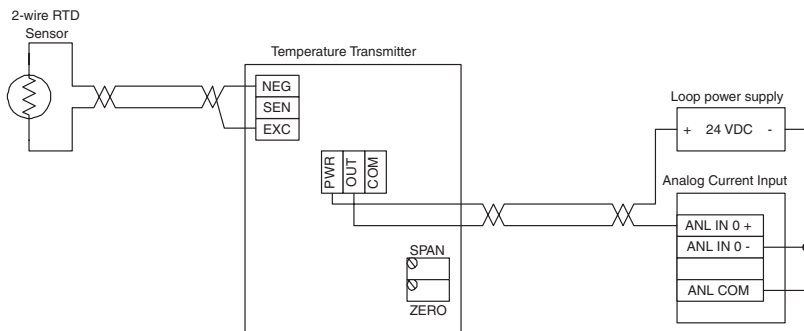
Install the Outside Air Temperature Transmitter

For best results locate the sensor on the north side of the structure high under an eave to prevent incorrect readings from direct sunlight and damage due to the elements. Mount the OSA enclosure with the sensor module facing down to prevent the accumulation of dirt or water.



Wire/Connect the Outside Air Temperature Sensor

The wiring diagram shows typical connections to a controller. For 4 to 20 mA loop signal, only the PWR and OUT terminals are used.



Field Calibration

The unit can be calibrated in the field by using precision resistor values equal to the zero and span of the transmitter temperature range.

1. Disconnect the sensor from the transmitter and connect the resistor that represents the zero value to the EXC and NEG terminals.

TIP

If the unit uses a three-wire sensor, a jumper must be placed between EXC and SEN.

2. Adjust the ZERO pot until the desired output is achieved.
3. Connect the resistor that represents the span value to the EXC and NEG terminals.
4. Adjust the SPAN pot until the desired output is achieved.

Repeat these steps until no further adjustment is required.

Specifications

Duct Temperature Sensor Specifications

Specification	Value
Operating Temperature Range	-50 ... 50 °C (-58 ... 122 °F)
Wiring Connections	Terminal blocks
Enclosures	Metal 1/2 LBA
Sensor Types	1000 Ω platinum Class A 0.15°C, Class B 0.3°C, 0.1% FSO for the board

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