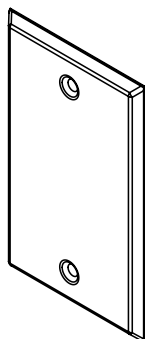


Room Temperature Transmitter

Installation Instructions



INTRODUCTION

The room temperature transmitter is designed for temperature measurement of occupied spaces and utilizes a precision sensor and a transmitter that provides a high accuracy signal with excellent long term stability, low hysteresis and fast response. It is available in various ranges. The transmitter is housed within an attractive, low profile wall mount enclosure.

BEFORE INSTALLATION

Read these instructions carefully before installing and commissioning the temperature sensor. Failure to follow these instructions may result in product damage. Do not use in an explosive or hazardous environment, with combustible or flammable gases, as a safety or emergency stop device or in any other application where failure of the product could result in personal injury. **Do not exceed device ratings.**

MOUNTING

The plate sensor installs directly on a standard electrical box and should be mounted five feet from the floor of the area to be controlled. Do not mount the sensor near doors, opening windows, supply air diffusers or other known air disturbances. Avoid areas where the sensor is exposed to vibrations or rapid temperature changes.

Before mounting the enclosure, first complete the wiring instructions outlined below. Once wiring is complete, secure the plate to the junction box using the supplied mounting screws as shown in Figure 2.

WIRING

Use shielded twisted pair wiring of at least 22 AWG for all connections and do not run the signal or power wires in the same conduit with wiring used to supply inductive loads such as motors. Disconnect the power supply before making any connections to prevent electrical shock or equipment damage. Make all connections in accordance with national and local electrical codes.

The transmitter is available with either 4-20 mA, 0-5 Vdc or 0-10 Vdc output signals. Follow the example wiring diagrams to determine the correct wiring for the product. All models have the same terminal functions. For 4-20 mA loop powered operation, only PWR and OUT are required. The COM terminal is only used for voltage output types or for AC power.

Ensure the controller Analog Input (AI) matches the transmitter output signal type before power is applied. The device is reverse voltage protected and will not operate if connected backwards. The voltage output signal has a minimum load that it is able to drive and the current signal has a maximum load. Follow the ratings in the Specification section or inaccurate readings may result. If the product has a dual sensor probe, connect the RTD (Red/Black) leads to the SENSOR terminals. The second sensor is Green/White.

Figure 1

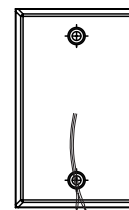


Figure 2

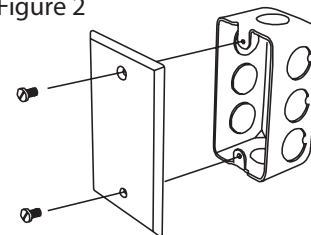


Figure 3

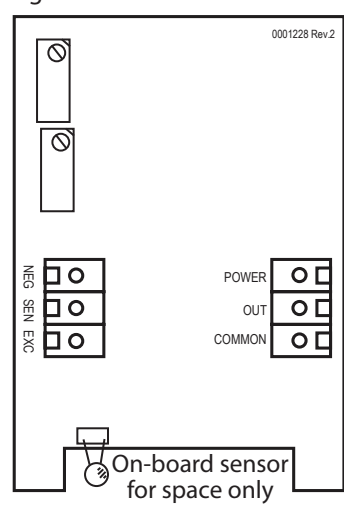
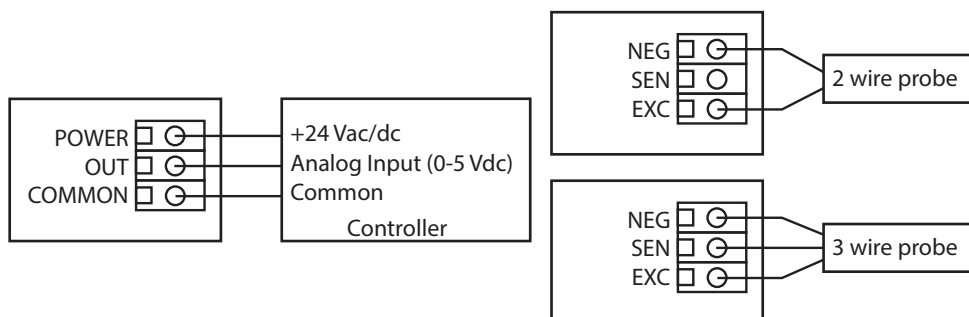


Figure 4

Voltage Connection with Controller 24 Vdc Power



OPERATION

The product should be allowed to warm-up for several minutes before attempting to verify accuracy. Allow the transmitter to operate for 20 minutes before any calibration is performed. Operation can be verified by measuring the output signal. For voltage output models, measure the voltage between the OUT and COM terminals. The voltmeter should read between 0-5 or 0-10 Vdc depending on the model. For current output models, insert a mA meter in series with the OUT terminal and it should read between 4 and 20 mA.

