Solidyne

ZTS-RH Room Temperature and Humidity Sensor

The ZTS-RH room temperature and humidity sensor is a universal Relative Humidity transmitter that can be powered with either a +8 to 36 VDC or 24 VAC supply voltage. The ZTS-RH converts resistance to a linear 0 to 10 VDC output for reading relative humidity. The ZTS-RH uses a half-wave bridge rectifier to convert the AC power to a useable DC voltage. Caution: When using a 24 VAC transformer, Solidyne recommends that you use an isolated transformer. If sharing the transformer with your controller, valve, actuator, or any other device, be sure to connect all of the devices with the proper polarity, since most devices are earth grounded. Failure to do so may result in damage to the ZTS-RH, your controller, or any other devices that are attached due to a ground loop problem. Accuracy is maintained over the operating range, using a thermistor for temperature compensation. Precision production tolerances maintain sensor interchangeability to within +/- 3% nominal without recalibration. Each ZTS-RH Series humidity transmitters are calibrated at 3 different points, using an NIST Traceable Temperature/Humidity chamber. The room temperature sensor in the ZTS-RH is a 10k thermistor.

All of the units come with a two year factory warranty.

Specifications

Input: 5 wire (3 for 0-10VDC, 2 for 10k thermistor)
Supply Voltage: +8 to 35VDC or 24VAC
Current Draw: Less than 4mA
Life Expectancy: 100,000 hours or 11.5 years
Enclosure Material: Beige ABS plastic
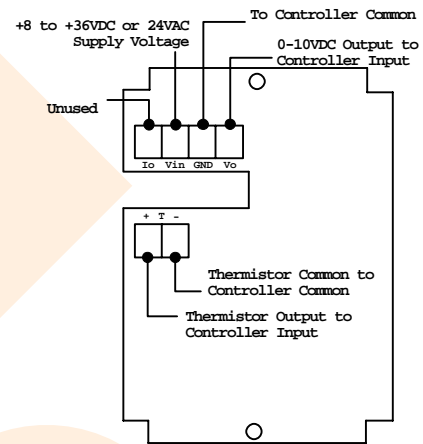
Wiring Connections

5 wires must be pulled for the ZTS-RH to work properly. Solidyne recommends the use of 18 to 22 AWG twisted pair wires or shielded cable for all sensor installations.

Mounting Instructions

The ZTS-RH should be placed away from areas of excessive moisture, corrosive fumes, vibration, or extremely high temperatures. The base of the housing was designed to mount over a standard 2" X 4" single gang junction box or flush to the wall.

- Mount the unit on an indoor wall, approximately 4 to 6 feet above the floor.
- Make sure that the unit receives adequate airflow.
- Connect the wires to the corresponding terminal blocks as shown in the wiring diagram below.
- Now snap the cover back into position.
- Finally turn out the (2) 1/16"Allen screws at the bottom of the enclosure until the cover cannot be removed.

Wiring Diagram

Dimensions