DEVAR Inc.

Applications

- Energy Management
- Climate Control
- Warehouses
- Greenhouses
- Clean Rooms
- Museums
- Food Storage
- Textiles
- Paper
- Food Processing



GENERAL DESCRIPTION

The Model HTW Relative Humidity Transmitter continuously measures the relative humidity in a room and provides a 4 to 20 mA output current directly proportional to 0 to 100% relative humidity.

The HTW is a true two-wire device, receiving its power and providing its output over the same pare of wires. This transmitter only requires 6 volts DC for internal operation and can easily transmit its output signal across thousands of feet of twisted wire.

Under normal operating conditions of 0 to 50 0C and 0 to 70% RH, the HTW will maintain a stable \pm 3% output for up to a year without recalibration.

For accuracies of $\pm 6\%$ the calibration period can be extended out to five years. Under more demanding operating conditions with airborne chemicals or high temperature or humidity more frequent calibrations would be required.

A The HTW is housed in an attractive low profile plastic enclosure designed for wall mounting. To install the HTW remove the rear mounting plate from the transmitter and screw it to the wall, then connect the signal wires to the terminal block attached to the front side of the back plate. After the back plate has installed. snap been simply the transmitter into place up against the back plate.

SPECIFICATIONS: HTW

Humidity Transmitter:

Measuring Range Operating Temperature Storage Temperature Output Accuracy @ 73°F

Response Time Stability

Temperature Influence Supply Voltage Supply Influence Weight 0 to 100% RH 14 to 125°F -40 to 170°F 4/20 mA Current Loop ±2% RH from 10-90% RH (High Accuracy, 2 point calibration) 10 sec typical (90% of change) ±1% RH/Year typical, Depending on environmental conditions 0.027% RH/°F 9 to 28 VDC ±0.01% RH/V typical 3 oz.



FIELD WIRING



GENERAL DIMENSIONS



HTW Circuit Board

CALIBRATION PROCEDURE

Place unit into Humidity chamber set to a known value, for example 50% RH. Adjust POT for correct output.



NOTE

Because relative humidity varies with ambient temperature, a more accurate measurement can be achieved if less power is dissipated inside of the transmitter. To prevent heating the air around the sensor, use a low voltage power supply or connect an external resistor in series with the loop to dissipate the excess power.



706 BOSTWICK AVE. BRIDGEPORT, CT 06605-2396 TEL: 203-368-6751 FAX: 203-368-3747 TOLL FREE: (800) 566-6822 www.devarinc.com