

Warranty

GE Sensing & Inspection Technologies warrants equipment of its manufacture to the original buyer against defective materials or workmanship, for a period of one year for the sensor tip and two years for the rest of the product, from the date of shipment. The sensor element and calibration are not covered by this warranty.

Calibration

All GE Sensing & Inspection Technologies RH/Dewpoint and Temperature Products are fully tested and calibrated in accordance with the National Institute of Standards and Technology (NIST) prior to shipment. This is the highest quality calibration standard available.

Power Requirements

12–30 VDC power supply (furnished by the customer).

Specifications

Environmental Conditions

| | |
|-----------------------|--|
| Operating Range: | –40°F to 140°F (–40°C to 60°C) 0-99% RH non-condensing. |
| Storage Temperature: | –67°F to +185°F (–55°C to +85°C) |
| Sensing Element: | Capacitive Sensor |
| Long Term Stability: | Less than 1% drift per year, typical. |
| Temperature Effect:** | Delta %RH = (0.0014 × %RH + 0.1325) × T°C – (0.0317 × %RH + 3.0876) <small>**Not needed for Signal-Conditioned Temperature units.</small> |
| Signal Outputs: | 4-20 mA, 0-5V or 0-10V (user selectable) |

Space (Wall Mount) Range

| | |
|-----------|-----------------------------|
| Dew Point | 40° to 90°F (4.4 to 32.2°C) |
| Enthalpy | 0-50 BTU/lb (0-116.3 kJ/kg) |
| Wet Bulb | 40° to 90°F (4.4 to 32.2°C) |
| Dry Bulb | 40° to 90°F (4.4 to 32.2°C) |

Duct/Outside Air Mount Range

| | |
|-----------|--------------------------------|
| Dew Point | –20° to 120°F (–28.8° to 49°C) |
| Enthalpy | 0-50 BTU/lb (0-116.3 kJ/kg) |
| Wet Bulb | 0° to 100°F (–17.8° to 37.8°C) |
| Dry Bulb | –20° to 120°F (–28.8° to 49°C) |

Accuracy

| | |
|-----------|------------------------|
| Dew Point | ±1.8°F (±1°C) |
| Enthalpy | ±2 BTU/lb (±4.7 kJ/kg) |
| Wet Bulb | ±3°F (±1.7°C) |
| Dry Bulb | ±0.5°C (±0.9°F) |

Certification

CE Marked
Complies with EMC Directive 89/336/EEC and LVD 73/23/EEC.
IP 42 rating for Duct Mount and Outside Air Transmitters.

Contact Information

To contact the factory, use the following information:

GE Sensing & Inspection Technologies
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Billerica, MA 01821-4111
Web: www.gesensing.com
Telephone: +1 814-834-9140 or 800-321-4878

HumiTrac Information

For information specific to the HumiTrac, see the website www.humitrac.com.

Installation

For your convenience, the transmitters can be mounted using the base as a mounting template (see Figure 1 or 2).

Wall Mount

Locate the transmitter where it will be exposed to an unrestricted air circulation that is representative of the average humidity and/or temperature of the controlled space. Avoid locations where excessive moisture, corrosive fumes, vibration, or high ambient temperatures are present.

The wall mount transmitter is designed to install onto a standard electric switch box. Mount the transmitter on an indoor wall approximately 4 to 6 feet above the floor. The base assembly should be positioned with the letters **FR/ABS** located on the left side.

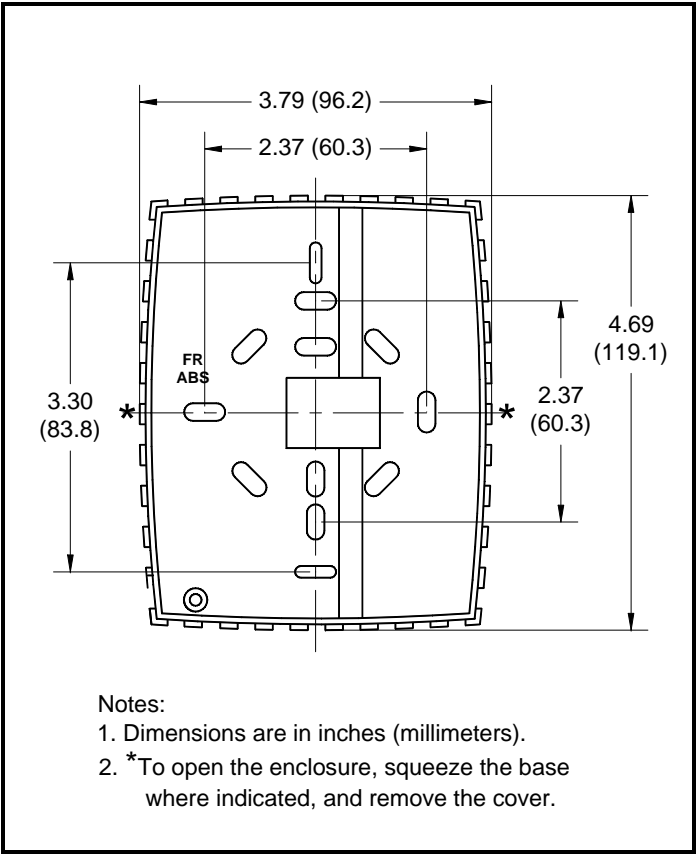


Figure 1: Wall Mount - Mounting Dimensions

Duct Mount

The transmitter should be mounted away from fans, corners, heating and cooling coils, and other equipment that will affect the measurement of relative humidity. It should be mounted in a location that receives adequate air flow for proper operation.

The duct mount transmitter should be mounted so that the sensor probe is in the center of the duct.

Outside Air Mount

The transmitter should be mounted in a sheltered area that is protected from rain. Ideally, the transmitter should be located on the north side of the building (under an eave) to prevent sun-heated air from rising up the building's wall and affecting the relative humidity of the sensor.

The outside air mount transmitter should be mounted with the sensor pointing down to prevent water collection in the sensor cavity.

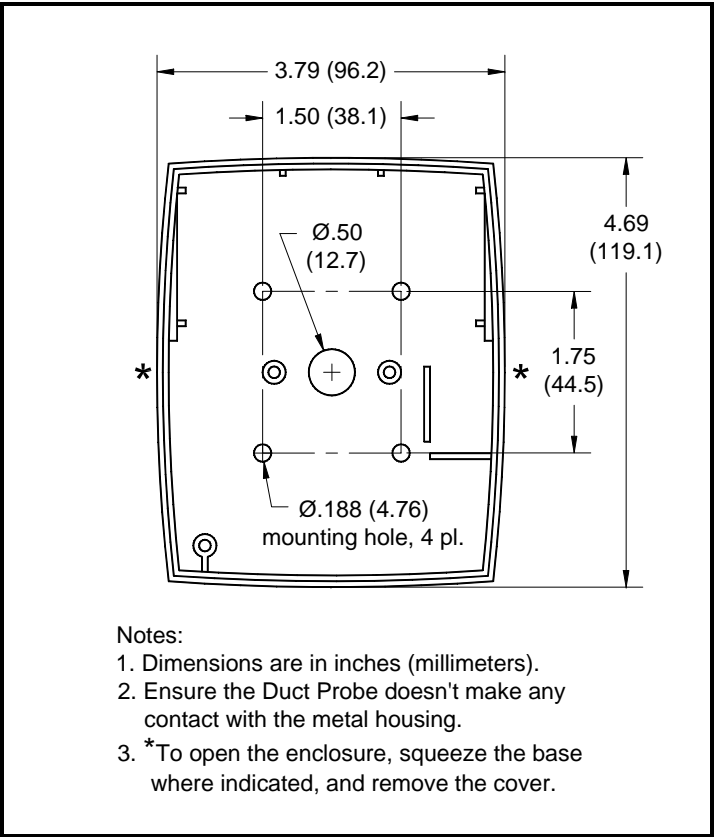


Figure 2: Duct / Outside Air - Mounting Dimensions



Wiring

Match your transmitter with the corresponding diagrams (Figure 4 through Figure 9), set the switches and wire accordingly. (See Figure 3 below for switch and terminal block locations.) Ensure that all the installation and wiring is in compliance with all national and local codes.

Note: All Voltage Outputs are measured with respect to the POWER SUPPLY / CONTROLLER GROUND.

Wiring for the transmitter should be a shielded, twisted pair, 16-22 AWG. Use only copper conductors. Do not run transmitter wires and AC power wires together in the same conduit or wire bundle.

Caution!

Running transmitter wires and AC power wires, including earth ground, in the same conduit or wire bundle may cause malfunction due to electrical noise.

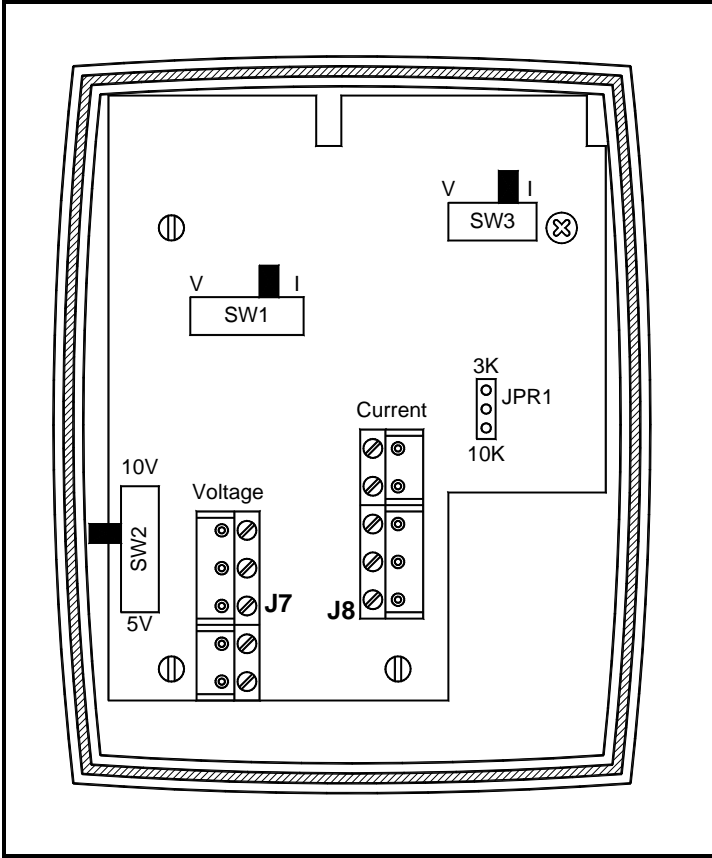


Figure 3: Connector/Switch Locations - Inside Cover

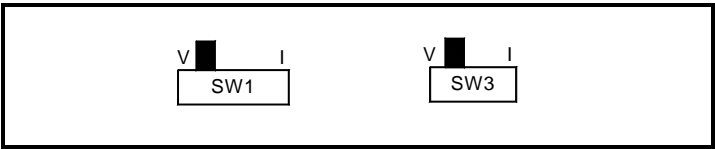


Figure 4: Switch Positions for Voltage Mode

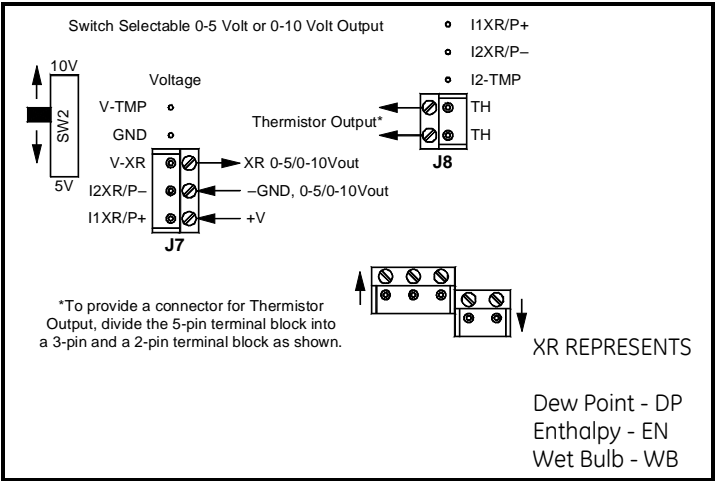


Figure 5: DP/EN/WB and Temp. (Direct Connection) - Voltage

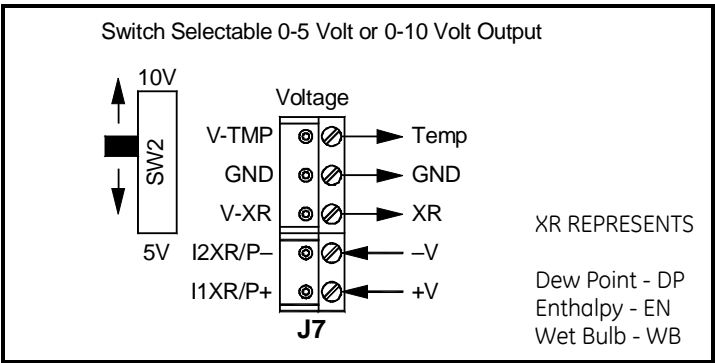


Figure 6: DP/EN/WB and Temp. (Signal Condition) - Voltage

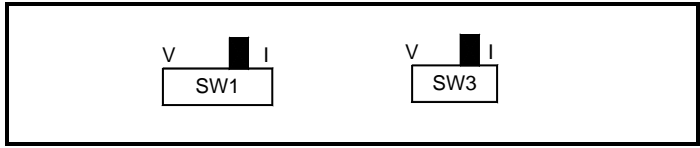


Figure 7: Switch Positions for Current Mode

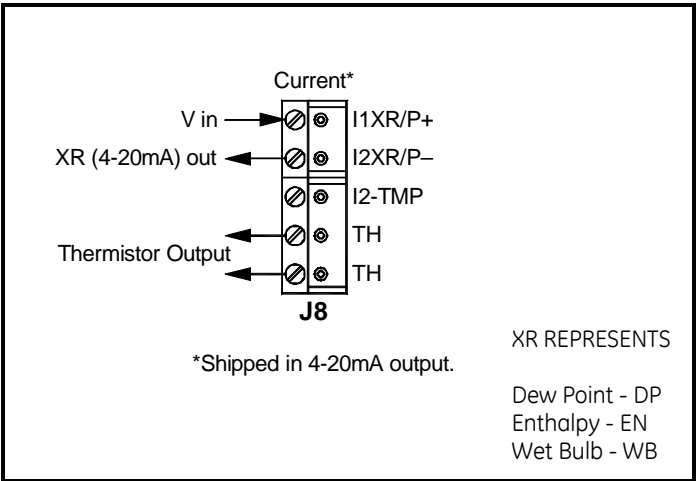


Figure 8: DP/EN/WB and Temp. (Direct Connection) - Current

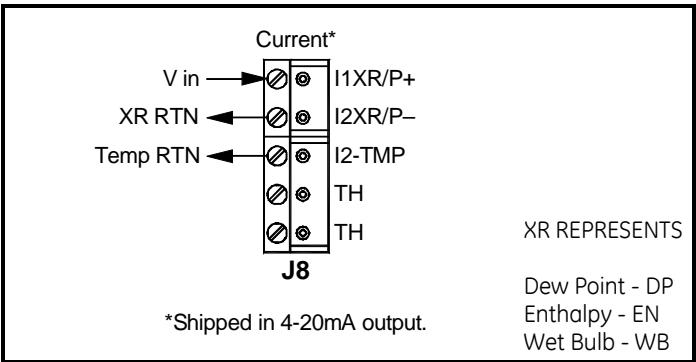


Figure 9: DP/EN/WB and Temp. (Signal Condition) - Current

Wiring (cont.)

CE COMPLIANCE

1. Ensure that the probe earth ground wire (for Duct and Outside Air units only), the shield wire and the PCB earth ground wire are connected to the mounting screw or the NEAREST (<1.5m) earth ground.
2. The other end of the shield wire MUST be connected to the power supply /controller earth ground ONLY.

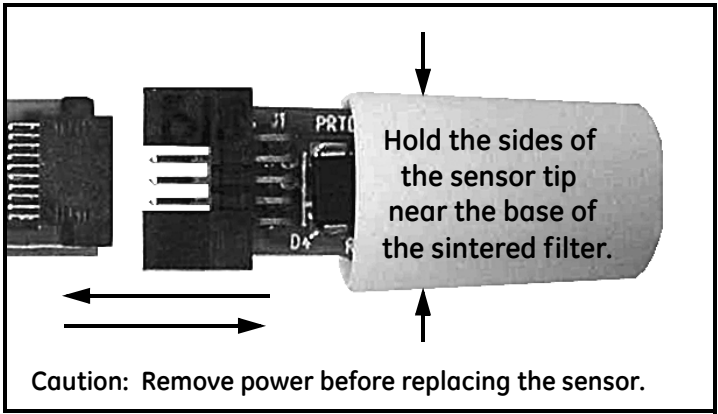


Figure 10: Remove/Install the Sensor Tip

Table 1: HumiTrac XR Ordering Information

| Model | | Product Information |
|--------------------|--------------|-----------------------------------|
| Space (Wall) Mount | HUMI-DP-XR-S | DEW POINT TRANSMITTER-SPACE MOUNT |
| | HUMI-EN-XR-S | ENTHALPY TRANSMITTER-SPACE MOUNT |
| | HUMI-WB-XR-S | WET BULB TRANSMITTER-SPACE MOUNT |
| Duct Mount | HUMI-DP-XR-D | DEW POINT TRANSMITTER-DUCT MOUNT |
| | HUMI-EN-XR-D | ENTHALPY TRANSMITTER-DUCT MOUNT |
| | HUMI-WB-XR-D | WET BULB TRANSMITTER-DUCT MOUNT |
| Air Mount | HUMI-DP-XR-O | DEW POINT TRANSMITTER-OPEN AIR |
| | HUMI-EN-XR-O | ENTHALPY TRANSMITTER-OPEN AIR |
| | HUMI-WB-XR-O | WET BULB TRANSMITTER-OPEN AIR |

