

Warranty

Amphenol Advanced Sensors 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 Amphenol Advanced Sensors RH/Dew point 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)

Temperature

Sensing Element: Band-gap sensor

Signal Outputs: 4-20mA, 0-5V or 0-10V (User selectable)

Psychrometrics - Dew Point / Enthalpy / Wet Bulb

Signal Outputs: 4-20mA, 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 @ 77°F (25°C) at 40-90%

Dew Point ±1.8°F (±1°C)

Enthalpy ±2 BTU/lb (±4.7 kJ/kg)

Wet Bulb ±3.24°F (±1.8°C)

Dry Bulb ±0.5°C (±0.9°F)

HumiTrac products are designed to be used with power from building HVAC control systems.

Certification

CE Marked

Complies with EMC Directive 2004/108/EC and 2006/95/EC.

IP 42 rating for Duct Mount and Outside Air Transmitters.

Contact Information

To contact the factory, use the following information:

Amphenol Thermometrics, Inc.
967 Windfall Road
St. Marys, PA 15857
Web: www.amphenol-sensors.com
Telephone: +1 814-834-9140
Fax: +1 814-781-7969

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.

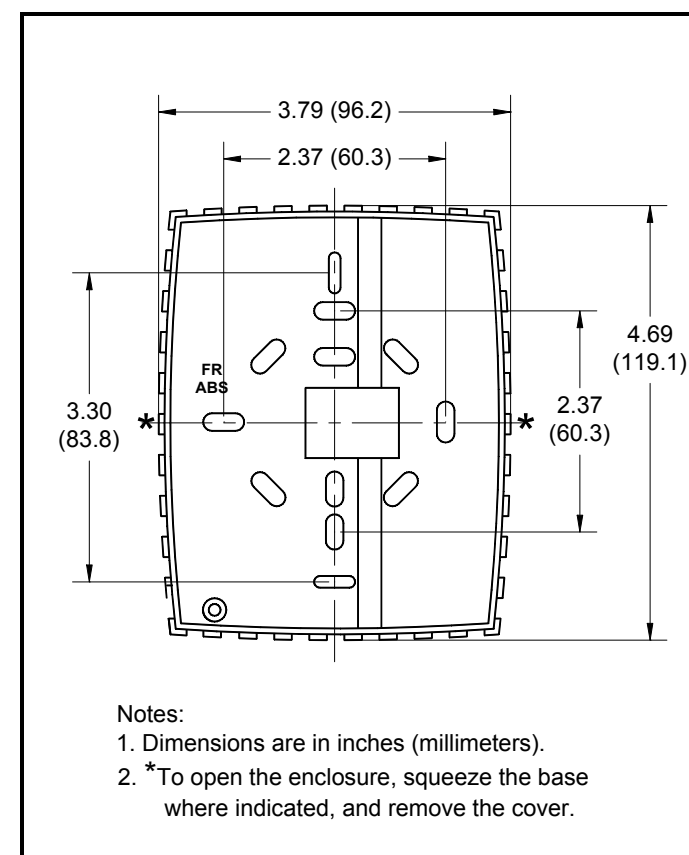


Figure 1: Wall Mount - Mounting Dimensions

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.

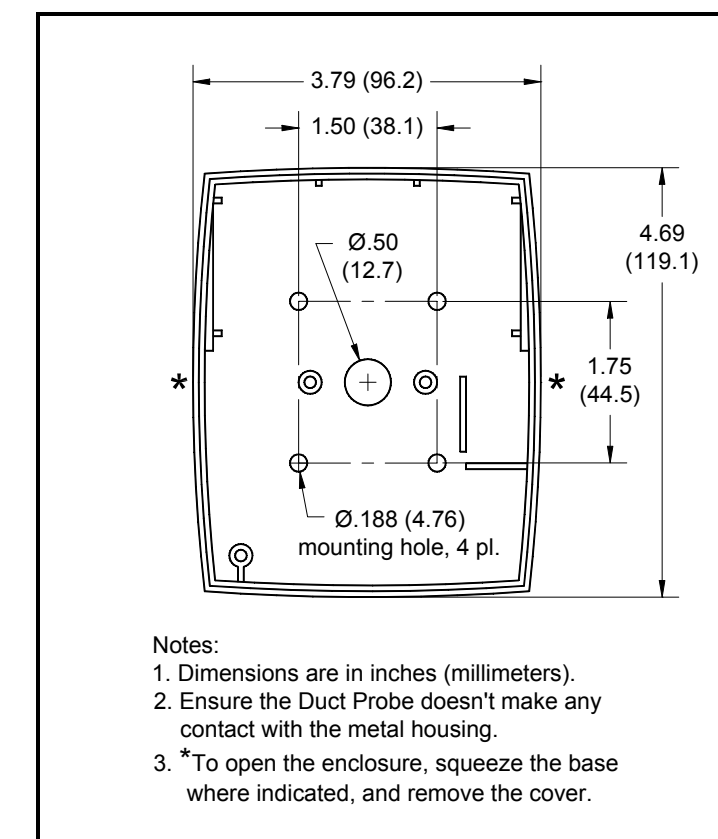


Figure 2: Duct / Outside Air - Mounting Dimensions

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 in a single shielded twisted pair cable or multiple pairs if needed. 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.

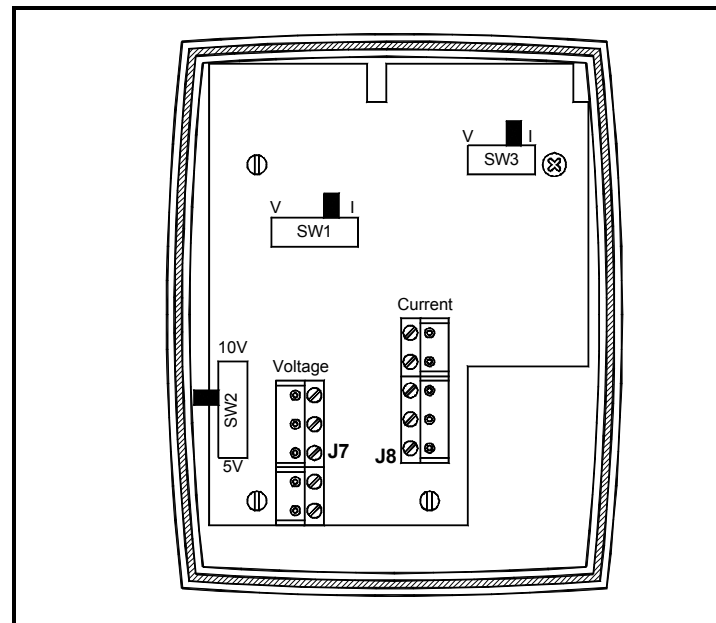


Figure 3: Connector/Switch Locations - Inside Cover

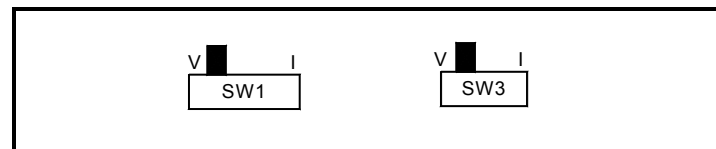


Figure 4: Switch Positions for Voltage Mode

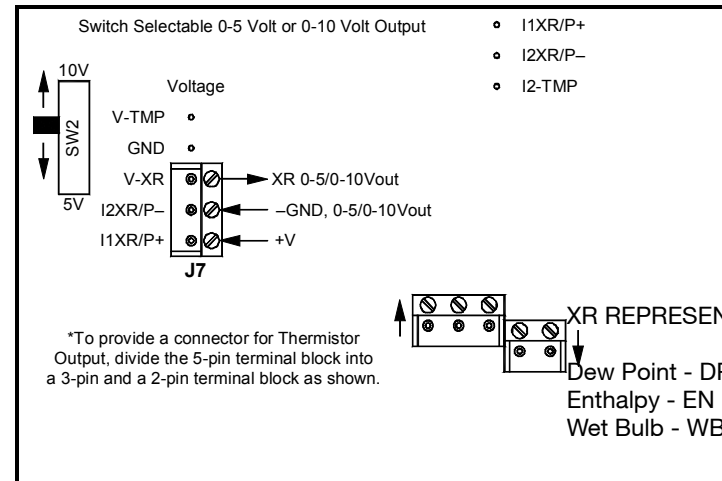


Figure 5: DP/EN/WB and Temp. (Direct Connection) - Voltage

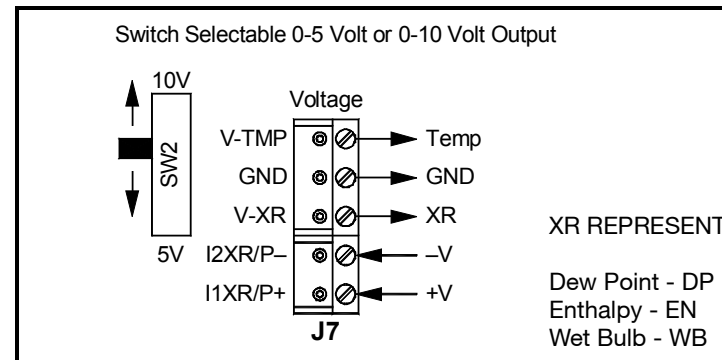


Figure 6: DP/EN/WB and Temp. (Signal Condition) - Voltage

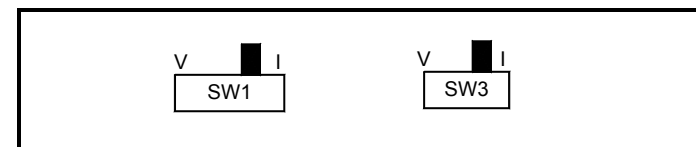


Figure 7: Switch Positions for Current Mode

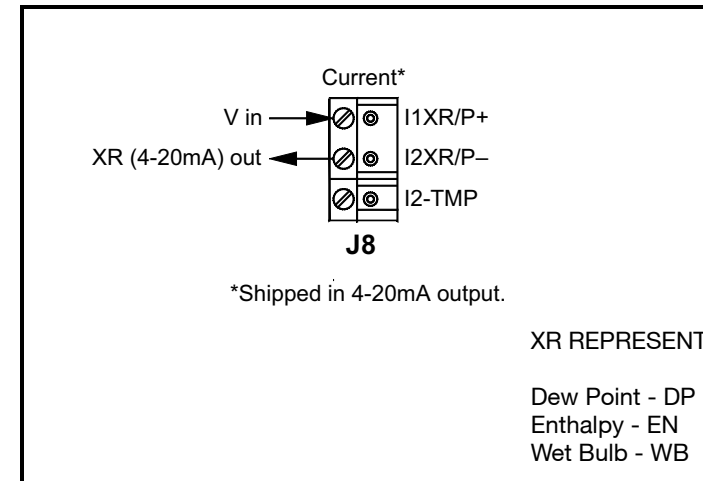


Figure 8: DP/EN/WB and Temp. (Direct Connection) - Current

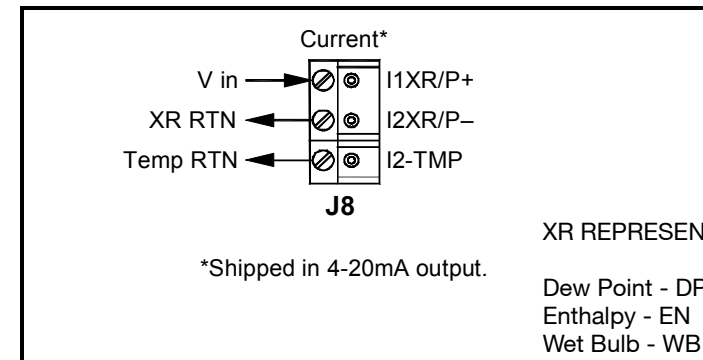


Figure 9: DP/EN/WB and Temp. (Signal Condition) - Current

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.



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