

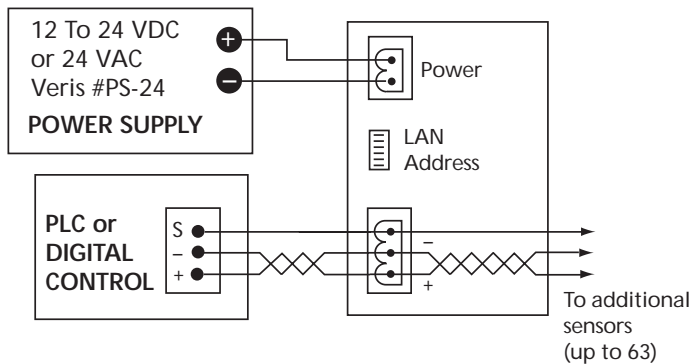
## INSTALLATION INSTRUCTIONS

- Read instructions thoroughly prior to install
- This product is not intended for life or safety applications

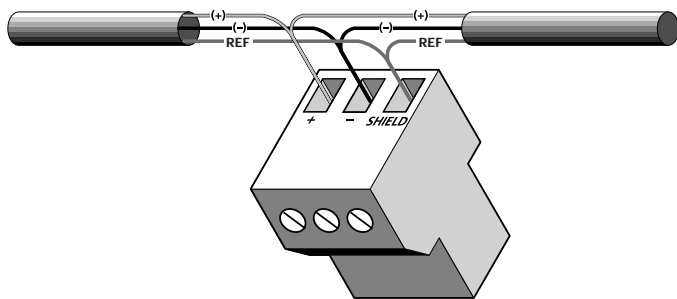
Applications shown are suggested means of installing sensors, but it is the responsibility of the installer to ensure that the installation is in compliance with all national and local codes. Installation should be attempted only by individuals familiar with codes, standards, and proper safety procedures for control installations.

Locate outside air sensor in a sheltered area, out of direct sunlight (e.g. under eaves, north side of building). Sensor may be suspended by conduit. Do not obstruct vent openings.

## WIRING DIAGRAM



Data cable connector wiring detail:



**CAUTION: DO NOT GROUND THE DATA CABLE SHIELD TO THE SENSOR HOUSING OR CONDUIT!** All Modbus wires, including the shield should be insulated to prevent accidental contact to high voltage conductors.

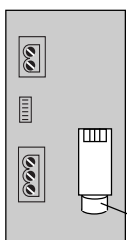
All Modbus devices should be connected together in a daisy-chain fashion.

## CALIBRATION-FREE SENSOR

The microprocessor-profiled capacitive **H<sup>2</sup> Sensor** can be replaced in the field without calibration.

To replace **H<sup>2</sup> Sensor**

1. Gently remove **H<sup>2</sup> Sensor** from pin connector.
2. Install new **H<sup>2</sup> Sensor**. Observe polarity.



Replaceable **H<sup>2</sup> Digital Sensor**

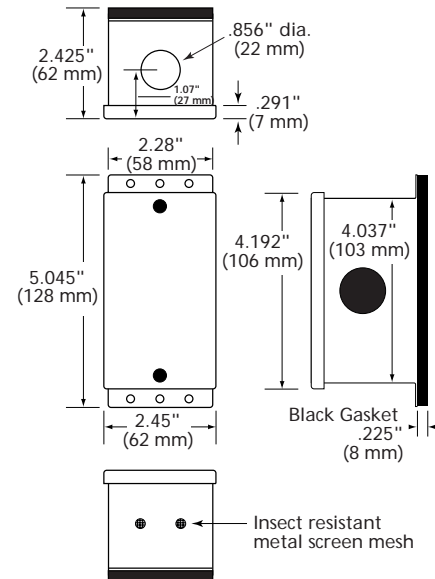
P/N Z101800-0A

## Outside Air HXO-485-M (RH Only) TXO-485-M (Temp Only) HXO/T-485-M (RH/T Combo) Modbus RH/T Sensors



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## HXO DIMENSIONS



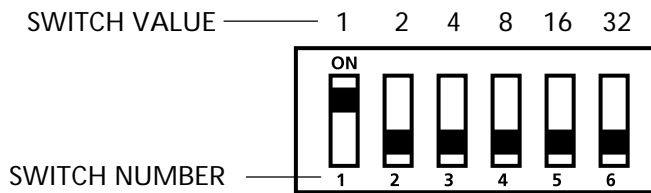
## TROUBLESHOOTING

- Q. Unit is not functional
- A. Power supply input is polarity sensitive for DC operation
- A. Verify DIP switch address selection
- A. Verify polarity of serial data connection
- A. Sensor is installed backward

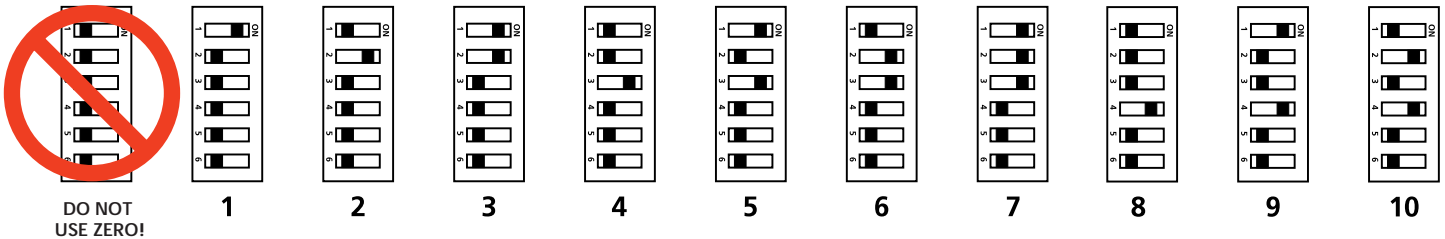
## ADDRESS SELECTION SWITCHES

Each Modbus device must have a unique address. These switches must be set to assign a unique address before the device is connected to the Modbus RS-485. *If an address is selected which conflicts with another device, both devices will not be able to communicate.*

Use DIP switches to select address. Add values of switches in ON position to determine address.



### EXAMPLES:



## POINT MAP

POINT ADDRESS	POINT OFFSET	MEASUREMENT	NUMERIC FORMAT	MULTIPLIER
40001	0	Temperature, °F	Integer, 16 bits (signed)	1/64
40002	1	Temperature, °C	Integer, 16 bits (signed)	1/256
40003	2	Relative Humidity, %RH	Integer, 16 bits	100/32768
40257	256	Temperature, °F	Float, upper 16 bits	N/A
40258	257	Temperature, °F	Float, Lower 16 bits	N/A
40259	258	Temperature, °C	Float, upper 16 bits	N/A
40260	259	Temperature, °C	Float, Lower 16 bits	N/A
40261	260	Relative Humidity, %RH	Float, upper 16 bits	N/A
40262	261	Relative Humidity, %RH	Float, Lower 16 bits	N/A

DEVICE #100

DEVICE NAME: HXO/T-485-M, Outdoor Humidity/Temperature

## SPECIFICATIONS

**H<sup>2</sup> Sensor** ..... Digitally profiled thin-film capacitive

**Input Power** ..... 12-24 VDC or 24 VAC, 15mA max.

**Operating Range:**

**Humidity** ..... 0-100% RH

**Temperature** ..... -58° to 140°F (-50° to 60°C)

**Accuracy:**

**Humidity** ..... ±2% over 10-90%RH; Four-point calibration, NIST standard

**Temperature** ..... ±0.25°C (±0.45°F)

**Temperature Coefficient** ..... ±0.03% RH/°C over 0 to 60°C

**Stability** ..... ±1% @ 20°C annually, for two years