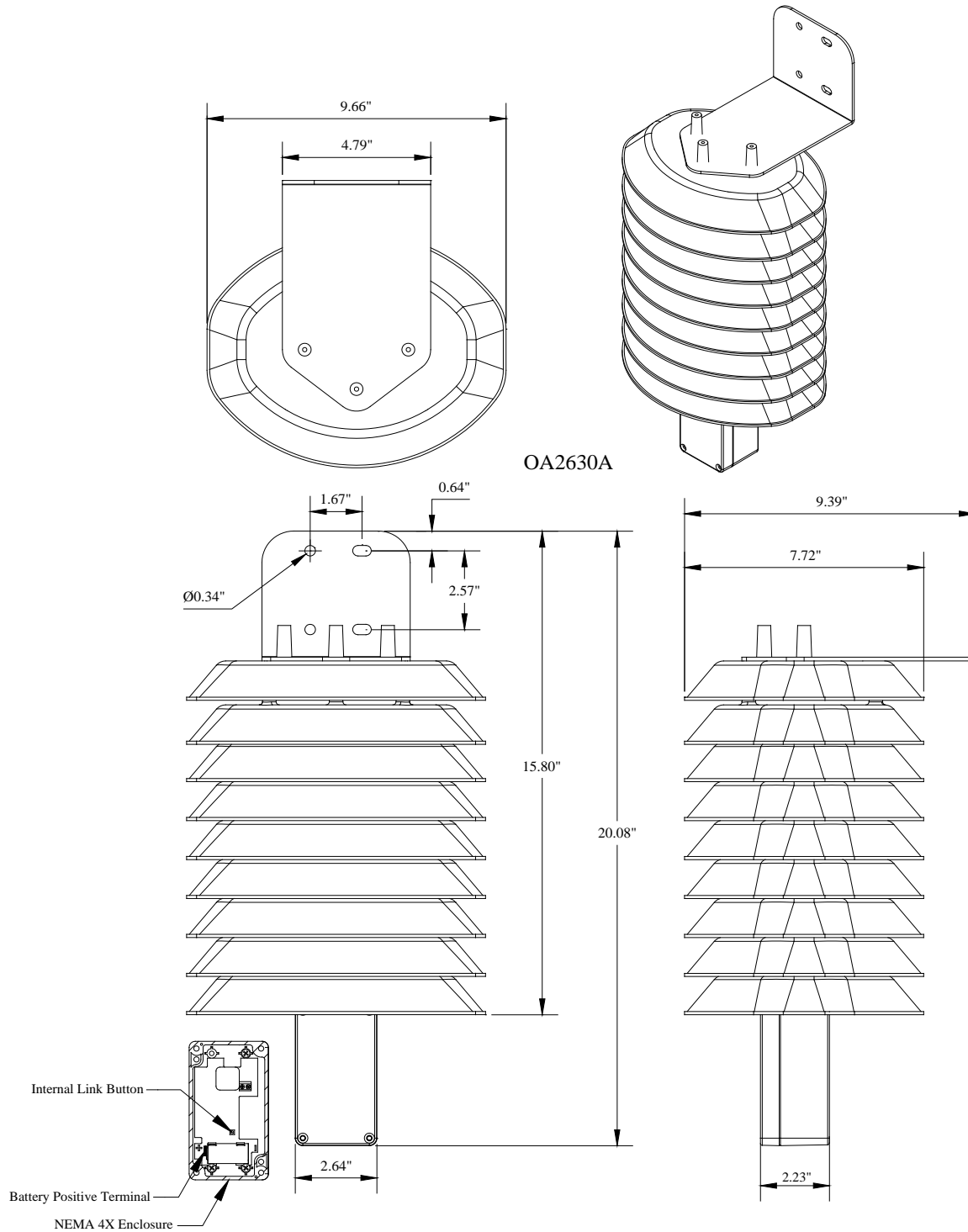




Installation and Operation Instructions OA2630A Wireless Outside Air Temperature & Humidity Sensor



General Description

The mesh network OA2630 is a battery operated spread spectrum wireless outdoor air temperature and humidity sensor with a naturally ventilated 8-plate Solar Radiation Shield to protect the sensor from precipitation and solar radiation.

If needed the distance from the sensor to the receivers can be extended using the ACI RR2552 repeater.

ACI Series 2000 wireless sensors utilize reliable Spread Spectrum Mesh Network Radio technology. They can be installed easily in minutes eliminating hundreds of feet of wire and saving installation cost while reducing installation labor risks.

The Series 2000 sensor Data-Link LED confirms the data transmission was received by the receiver for fast and reliable positioning of the sensor during installation. There is no need for special wireless installation equipment or tool.

Together with the ACI Series 2000 receivers and controllers, the ACI wireless sensors can be used with any LON, BacNet, MODbus, or DDC control system or panel.

The maximum radio transmission distance is dependent on the building type. The maximum open air transmission distance is one mile. In a typical commercial building with steel I-Beam construction, concrete floors with reinforcing rod, and metal stud walls, it can be expected that transmissions will penetrate vertically through floors and horizontally through 200 to 500 feet of walls, furniture and air.

Installation

Wireless outside air sensors should be installed within 200 to 500 feet of the receiver. RR2552 signal repeaters can be installed as to increase transmission distance between sensors and receivers.



CAUTION

Observe battery polarity when installing battery.

To select the proper sensor location, first install and power the receiver. **To activate the sensor insert the battery observing the polarity.** The mesh networked Series 2000 system does not require any additional wireless equipment to determine the proper location of the sensors.

While the sensor is attempting to connect to the receiver the Data-Link LED will blink rapidly 8–10 times every 10 seconds. Once a connection has been established the Data-Link LED will blink once to indicate the data transmission has been received successfully. The Data-Link LED will continue to blink once for every data transmission. The data transmission rate is programmed into the sensor (normally 1 minute intervals). To manually initiate a data transmission press the push button switch located by the negative terminal of the battery.

The OA2630 can be mounted on the side of a wall, wooden post, or a metal pipe with an outside diameter between 1" and 1 1/4".

The outdoor sensor works best in a location with a steady breeze. Mount away from fences, trees or other obstructions.

If attaching to a building the preferred location would be the north side of the building.

The sensor has a Low Battery LED that will start to blink continuously when the battery voltage is low. A low battery signal is also sent to the receiver for remote indication that the battery should be replaced. If the battery is not replaced in approximately 2 months, the battery voltage will become so low that the Low Battery and Data-Link LEDs will not blink. Replace the battery and the Data-Link LED will start blinking while the sensor is re-establishing communications with the receiver.

Prior to reattaching the cover – locate and record the sensor TXID numbers located on a label on the inside of the enclosure cover. Reattach the cover securely to prevent rain from entering the case.



PRECAUTIONS

SENSORS, REPEATERS AND RECEIVERS SHOULD NOT BE INSTALLED IN THE FOLLOWING AREAS:

- INSIDE METAL ENCLOSURE / PANEL
- INSIDE OR IMMEDIATELY NEXT TO ELEVATOR SHAFT / ELEVATOR BANKS
- IN FRONT OF OR IMMEDIATELY NEXT TO LARGE TREES OR LARGE BODY OF WATER

TRANSMISSION DISTANCE AND PERFORMANCE WILL BE DRASTICALLY REDUCED.



CAUTION

DO NOT USE THIS PRODUCT IN ANY SAFETY RELATED APPLICATIONS
WHERE HUMAN LIFE MAY BE AFFECTED.

PRODUCT SPECIFICATIONS

Supply	Voltage	(1) Li/MnO ₂ 3.0 VDC Battery, 1400 mAh (e.g. Duracell DL123A)
RF	Data Protocol	IEEE 802.15.4-2003/2006
	Operating Frequency	902-928 MHz
	Output Power	+11 dBm
	Receiver Sensitivity	-110 dBm
	Open Field Range	One mile (line of sight)
	Data Transmission Interval	75 seconds (standard), 300 seconds (option)
Temperature	Accuracy	± 1°F
	Sensor Operating Range	-40 to 200°F
Humidity	Accuracy	± 3% RH (10 to 90%)
Enclosure	Material	Polycarbonate, ABS (solar shield)
	Rating	Nema 4x, UL 94 HB (enclosure)
Environment	Operating Temperature	14 to 140°F (-10 to 60°C)
	Operating Humidity	0 to 95% RH (non-condensing)
Approvals		FCC

WARRANTY SPECIFICATION

The ACI Wireless Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's web site: www.workaci.com.