## Weather Resistant Wireless Relative Humidity/Temperature Transmitter



UWRH-2A-NEMA-M12, wireless relative humidity temperature transmitter includes zTHP2 probe, shown smaller than actual size.

- Transmits Data Wirelessly in Real-Time up to 120 m (400')
- Weather Resistant NEMA 4X (IP65) Enclosure
- Measures Both Relative Humidity and Temperature in One Unit
- Low Power Operation and Sleep Mode For Long Battery Life
- Transmits Relative Humidity, Ambient Temperature, Signal Strength and Battery Status in Real Time
- ✓ Works with Any UWTC Series Wireless Receivers and Transceivers

OMEGA's wireless relative humidity transmitter features a stand-alone, compact, battery powered NEMA design that transmits measurements back to a host receiver up to 120 m (400') away. When activated the wireless transmitter will transmit readings continuously at pre-set time interval that was programmed by the user during the initial setup. Each unit measures and transmits relative humidity reading, ambient temperature, RF signal strength and battery condition to the receiver and is displayed on your PC screen in real time using the provided software. When used with host receiver UWTC-REC1, data from up to 48 wireless transmitters can be received and displayed. Each compatible receiver includes free software that converts your PC into a strip chart recorder or data logger so readings can be saved and later printed or exported to a spread sheet file. When used with host transceiver UWTC-REC2, wireless data from one unit can be re-transmitted out of the receiver by a wired connection as a analog voltage or current signal to interface with a controller, PLC or data acquisition board.

## **Specifications**

Temperature Range: -17 to 49°C (2 to 120°F)

Input Connection: M12 connector **Resolution:** 1% RH, 0.1°C (0.1°F)

Relative Humidity Range: 2 to 98% RH

Accuracy: ±2.5% RH from 20 to 80% RH; ±3.5% RH below 20 and above 80% RH@ 25°C (76°F)

Operating Environment: -10 to 70°C (14 to 158°F)

Transmit Sample Rate: Programmable from 2 sec to 2 min

**Radio Frequency (RF) Transceiver** Carrier: ISM 2.4 GHz, direct sequence spread spectrum

RF Output Power: 10 dBm (10 mW)

Range of RF Link: **Outdoor Line of Sight:** Up to 120 m (400') Indoor/Urban: Up to 40 m (130')

**RF Data Packet Standard:** IEEE 802.15.4, open communication architecture

Battery: One 3.6V lithium, "C" cell battery (included)

Battery Life (Typical): 3 year at 1 sample/minute reading rate @ 25°C (77°F)

Data Transmitted to Host: Relative humidity, ambient temperature, RF transmit strength and battery condition

Enclosure: NEMA 4X (IP65) polycarbonate

**Dimensions:** 

145.8 L x 94.7 W x 50.8 mm H (5.74 x 3.73 x 2")

| To Order               |  |
|------------------------|--|
| Model No.              | Description  |
| UWRH-2A-NEMA-M12       | Wireless RH/temperature transmitter with NEMA enclosure              |
| UWRH-2A-NEMA-M12-CABLE | Wireless RH/temperature transmitter with NEMA enclosure, cable probe |

## **Receivers/Accessories**

| Model No.       | Description   |
|-----------------|---|
| UWTC-REC1       | USB powered 48-channel transmitter receiver                   |
| UWTC-REC2-(*)   | 48-channel receiver with analog output                        |
| UWTC-REC2-D-(*) | 48-channel receiver with analog output and display            |
| UWTC-REC3       | 32-channel wireless receiver with ethernet                    |
| UWTC-REC4-(*)   | 48-channel DIN rail receiver with 4 analog outputs and alarms |
| UWTC-REC6-(*)   | 1-channel transceiver with analog output                      |
| UWTC-CABLE      | Spare USB programming/communication cable                     |
| UWM-DINRAIL     | DIN rail mounting bracket assembly                            |
| BATT-C-3.6V     | Replacement 3V C cell Li battery                              |

Comes complete with operator's manual, probe, antenna, and one 3.6V lithium "C" cell battery.

\* Specify analog output signal: "V1" for 0 to 5 Vdc; "V2" for 0 to 10 Vdc, or "MA" for 4 to 20 mA.

Ordering Examples: UWRH-2A-NEMA-M12, wireless RH/temperature transmitter and UWTC-REC1, 48-channel receiver. UWRH-2A-NEMA-M12-CABLE, wireless RH/temperature transmitter and UWTC-REC2-D-MA, 48-channel receiver with analog output and display. Hu-X



UWTC-REC2 models are available with 4 to 20 mA, 0 to 5 Vdc, 0 to 10 Vdc or Type K thermocouple output. Mating connector and cable included. Data logging and recording software included with compatible receiver.



China, Singapore, Brazil and Mexico.