NEW

WIRELESS TEMPERATURE TRANSMITTER
For Use with Sanitary RTD Sensors and Probes

Model UWRTD-S-2

- Industry Standard M12 Connection with Water Tight White Polypropylene Housing
- Interfaces Directly with Any 3-Wire, Pt100 Ω, 0.00385 or 0.00392 Curve RTD Probe or Sensor (4-Wire Compatible)
- Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger
- Interface Up to 48 Different Wireless Transmitters with One Receiver
- Low Power Operation and Sleep Mode Allows for Long Battery Life
- Each Wireless Unit Transmits Process Temperature, Ambient Temperature, Signal Strength and Battery Status in Real Time
- Works with Every OMEGA® UWTC Series USB or Web Enabled Ethernet Receivers and WI Series Meter/Controller/Scanner and DIN Rail Receivers

SPECIFICATIONS
Available Types: 100 Ω (standard), 500 Ω, 1000 Ω (special order)
RTD Measurement Range:
0.00385: -200 to 850°C (-328 to 1562°F)
0.00392: -100 to 457°C (-148 to 854°F)
RTD Measurement Accuracy: ±0.5°C (1°F) of reading
RTD Measurement Resolution: 1°C/1°F
Operating Environment: -10 to 70°C (14 to 158°F)
RTD Connection: Standard M12 sensor connection cable (included)
Computer Interface: USB (one interface cable included with receiver)
Transmit Sample Rate: Programmable from 1 sample/minute to 1 sample/every 5 seconds
Radio Frequency (RF) Transceiver Carrier: ISM 2.4 GHz, direct sequence spread spectrum, license free worldwide
RF Output Power: 10 dBm (10 mW)
Range of RF Link: Up to 120 m (400') outdoor line of sight; up to 40 m (130') indoor/urban
Software (Included Free): Requires Windows® 98, ME, 2000, XP or Vista (32 bit)
Internal Battery: Two “AA”, field replaceable, 1.5V lithium, (included)
Battery Life (Typical): (1.5 years) 1 sample/minute reading rate @ 25°C (77°F)

Dimensions: 51 D x 147 mm L (2" x 5.78")
Housing Material: White polypropylene
Mounting: Direct connection to probe or sensor (optional mounting bracket kit available)

Note: Because of transmission frequency regulations, these products may only be used in the United States, Canada and Europe.

OMEGAs new wireless temperature transmitter features a standalone, compact, battery powered wireless RTD transmitter that sends readings back to a host receiver up to 120 m (400') away. Each unit can be programmed in the field to interface directly with any 3-wire Pt100 Ω, 0.00385 or 0.00392 style RTD probe or sensor. When activated the unit will transmit readings continuously at pre-set time intervals that were programmed by the user during the initial setup. Each unit measures and transmits: RTD input reading, ambient temperature, RF signal strength and battery condition back to the host and is displayed on the PC screen in real time using the free provided software.
**WIRELESS RECEIVERS**

With USB Connection and Analog Output

**Data Logging and Recording Software Included**

**Monitor Up to 48 Different Wireless RTD Transmitters with One Receiver!**

USB connection (cable included)

Available with 4 to 20 mA, 0 to 5 Vdc, and 0 to 10 Vdc. Mating connector and cable included.

**48-Channel USB Receiver**

**UWTC-REC1**

With the UWTC-REC1 data from up to 48 wireless connectors or probe assemblies can be received and displayed on your PC simultaneously. This receiver connects to an unused USB port on your computer and must stay connected to operate and receive data.

**SPECIFICATIONS**

**Power:** USB bus 5V powered, 300 mA consumption max

**USB Compatibility:** USB 1.1, USB 2.0

**LED Indicators:** TX (transmit), RX (receive), SB (standby), PWR (USB power)

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

**Protocol:** IEEE 802.15.4

**Cable Type:** USB 4P(A) male to USB Mini 5P(B) male

**Ambient Operating Conditions:** -10 to 70°C, 0 to 95% RH (non-condensing)

**Dimensions:** 91 L x 62 W x 22 mm H (3.6 x 2.4 x 0.9") (without antenna)

**Weight:** 168 g (0.45 lb) with antenna

**Enclosure/Housing:** Painted steel

**48-Channel USB Receiver with Analog Output and Display Option**

When USB powered data from up to 48 wireless connectors or probe assemblies can be received and displayed on your computer simultaneously. When DC adaptor powered, data from one channel can also be re-transmitted as a hard wired analog current, voltage or thermocouple signal output.

**SPECIFICATIONS**

**Power:** USB bus +5V powered, 300 mA consumption max, plus 12 to 16 Vdc, 300 mA, AC wall adaptor (supplied with unit)

**USB Compatibility:** USB 1.1, USB 2.0

**LED Indicators:** TX (transmit), RX (receive), SB (standby) PWR (USB power)

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

**Protocol:** IEEE 802.15.4

**Cable Type:** USB 4P(A) male to USB mini 5P(B) male

**Ambient Operating Conditions:** -10 to 70°C, 0 to 95% RH (non-condensing)

**Analog Output:** -V1: 0 to 5 Vdc; -V2: 0-10 Vdc; -TC: Type-K; Thermocouple -MA: 4 to 20 mA

**Analog Output Accuracy:** ±2.0°C (3.6°F) @ 23°C (all models)

**Local Display:** Backlit LCD (UWTC-REC2-D only)

**Dimensions:** 91 L x 62 W x 22 mm H (3.6 x 2.4 x 0.9") (without antenna)

**Weight:** 168 g (0.45 lb) with antenna

**Enclosure/Housing:** Painted steel
WIRELESS RECEIVER
for Web-Based Monitoring of Temperature

The OMEGA® UWTC-REC3 receiver lets you monitor and record temperature over an Ethernet network or the Internet without any special software—just your web browser. The receiver is an independent node on the network sending and receiving data in standard TCP/IP packets. It is easily configured from a web browser and can be password protected. The UWTC-REC3 can trigger an alarm if variables go above or below a set-point that you can determine. Your alarm can be sent by e-mail to a single user or to a group distribution list, including text messages to Internet enabled cell phones and PDAs.

OMEGA offers an OPC Server software ($295) that makes it easy to integrate the UWTC-REC3 wireless receiver with many popular data acquisition and Automation programs.

SPECIFICATIONS

Ethernet: 10Base-T (RJ 45)
Supported Protocols: TCP/IP, ARP, ICMP, DHCP, DNS, HTTP, and Telnet
LED Indicators: Network Activity, Network Link, Diagnostics, Receive and Power
Management: Device configuration and monitoring through embedded WEB server
Embedded WEB Server: Serves WEB pages (JAVA™ Applets) containing real-time data and live updated charts within definable time intervals

Power
Power Input: 9 to 12 Vdc
Consumption: 2.5 W max
Safety Qualified ac Power Adapter (Included) Nominal Output: 9 Vdc @ 0.5 A
Input: 100 to 240 Vac, 50/60 Hz

CE Compliant Models:
UWTC-1, UWTC-2,
UWTC-REC1,
UWTC-REC2-V1,
UWTC-REC2-V2,
UWTC-REC2-MA,
UWTC-REC2-D-V1,
UWTC-REC2-D-V2,
UWTC-REC2-D-MA

Note: Because of transmission frequency regulations, these products may only be used in the United States, Canada and Europe (please note CE compliance of the specific model for use in Europe).

Wireless Communication Protocol: IEEE 802.15.4
Frequency: 2.4 GHz, channel #12
Network Topology: Star topology
Range: Up to 120 m (400') without obstructions or interference environment
Operating Temperature: 0 to 70°C (32 to 158°F), 90% R.H non-condensing
Storage Temperature: -40 to 125°C (-40 to 257°F)

General
Agency Approval: FCC, EN300328
Software: Field firmware upgradeable; including an excel program for automatic data logging within definable time intervals, compatible with all Windows® operating systems

Model UWTC-REC3

- Receiver connects directly to an Ethernet or the Internet
- Does not require a host computer
- Serves active web pages to display real-time temperature readings and charts
- Works with any UWTC or UWRTD series wireless connectors or probe assemblies
- Alarm notification can be sent to e-mail, including text messages to Internet enabled cell phones and PDAs

Visit omega.com/wireless for the latest features and specifications!

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### To Order (Specify Model Number)

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
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<td>UWRTD-S-2</td>
<td>Wireless RTD transmitter, polypropylene housing, M12 connection</td>
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<tr>
<td>UWRTD-2-NEMA</td>
<td>Wireless RTD transmitter NEMA enclosure</td>
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<tr>
<td>UWRTD-NB9W-(†)-(††)-4</td>
<td>Wireless RTD probe/transmitter/head assembly (4&quot; probe)</td>
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<tr>
<td>UWRTD-NB9W-(†)-(††)-6</td>
<td>Wireless RTD probe/transmitter/head assembly (6&quot; probe)</td>
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<tr>
<td>UWRTD-NB9W-(†)-(††)-4-B</td>
<td>Wireless RTD probe/transmitter/head assembly (4&quot; probe) with 316 SS thermowell</td>
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<tr>
<td>UWRTD-NB9W-(†)-(†)-6-C</td>
<td>Wireless RTD probe/transmitter/head assembly (6&quot; probe) with 316 SS thermowell</td>
</tr>
<tr>
<td>UWTC-REC1</td>
<td>48-channel receiver (USB powered)</td>
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<tr>
<td>UWTC-REC1-NEMA</td>
<td>48-channel wireless receiver (USB powered) NEMA enclosure</td>
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<tr>
<td>UWTC-REC2-(*)</td>
<td>48-channel wireless receiver with 1-channel analog output</td>
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<tr>
<td>UWTC-REC2-D-(*)</td>
<td>48-channel wireless receiver with 1-channel analog output and LCD display</td>
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<tr>
<td>UWTC-REC2-(*)-NEMA</td>
<td>48-channel wireless receiver with 1-channel analog output, NEMA enclosure</td>
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<tr>
<td>UWTC-REC3</td>
<td>32-channel receiver/host with Ethernet</td>
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<tr>
<td>wiDR33-U</td>
<td>8-channel wireless DIN rail receiver</td>
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<td>wi833-U</td>
<td>8-channel wireless meter, scanner, controller</td>
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<td>UWTC-BATT</td>
<td>Replacement battery for UWRTD-S-2</td>
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<tr>
<td>UWTC-BATT-C</td>
<td>Replacement battery for UWRTD-NB9W, UWRTD-2-NEMA</td>
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<tr>
<td>UWTC-CABLE</td>
<td>Spare programming cable (one included with receivers)</td>
</tr>
</tbody>
</table>

**UWRTD-S-2** comes complete with transmitter/antenna assembly, battery, mounting bracket and M12 sensor cable.  
**UWRTD-NB9** comes complete with probe, head/transmitter/antenna assembly and battery.  
**UWRTD-2-NEMA** comes complete with antenna, NEMA case/transmitter and battery.  
**UWTC-REC1** comes complete with antenna, operator’s manual, software, USB programming cable.  
**UWTC-REC2** comes complete with antenna, operator’s manual, software, USB programming cable, output cable and DC power supply.  
**UWTC-REC3** comes complete with antenna, operator’s manual, USB programming cable, Ethernet cable and DC power supply.  
* For UWTC-REC2 models, specify analog output: “V1” for 0 to 5 Vdc, “V2” for 0 to 10 Vdc, “TC” for Type K thermocouple, or “MA” for 4 to 20 mA, no additional charge.  
† For UWRTD-NB9 models, specify sensor type and probe sheath: “1PT304” for 100 Ω, 0.00385 curve with 304 SS sheath, or “1PT316” for 100 Ω, 0.00392 curve with 316 SS sheath, insert “2PT304” for 100 Ω, 0.00392 curve with 304 SS sheath, or “2PT316” for 100 Ω, 0.00385 curve with 316 SS sheath, no additional charge.  
†† Specify sheath diameter: “116” for 1.59 mm (¹⁄₁₆”), “18” for 3.18 mm (¹⁄₈”), “316” for 4.78 mm (¹⁄₄”), or “14” for 6.35 mm (¹⁄₂”).  
**Ordering Examples:** **UWRTD-NB9W-1PT304-18-6**, wireless RTD probe assembly, 100 Ω, 0.00385 curve, 316 SS sheath, 3.18 mm (¹⁄₄”) sheath diameter, 152 mm (6”) long.  
**UWRTD-S-2**, polypropylene wireless RTD/transmitter, **UWTC-REC2-MA**, 48-channel transceiver with 1-channel, 4 to 20 mA analog output and alarm, and **UWTC-BATT**, spare battery.  
**UWRTD-2-NEMA**, wireless NEMA RTD/transmitter, **UWTC-REC1**, 48-channel USB receiver, and **UWTC-BATT-C**, spare battery.
More than 100,000 Products Available!

- **Temperature**

- **Flow and Level**
  Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

- **pH and Conductivity**
  Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

- **Data Acquisition**
  Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ethernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

- **Pressure, Strain and Force**
  Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

- **Heaters**