



WIRELESS TEMPERATURE TRANSMITTER

For Use with Sanitary RTD Sensors and Probes

Model UWRTD-S-2

For Ordering Information, See Page S-11



- ✓ 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

OMEGA's 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.

UWRTD-S-2, shown smaller than actual size.

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)

Data Transmitted to Host:

Process reading, ambient reading, transmit strength and battery condition

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.



Includes mounting bracket and sensor cable shown.



Works with all OMEGA UWTC Series wireless receivers, see pages S-9 and S-10



WIRELESS RECEIVERS

With USB Connection and Analog Output

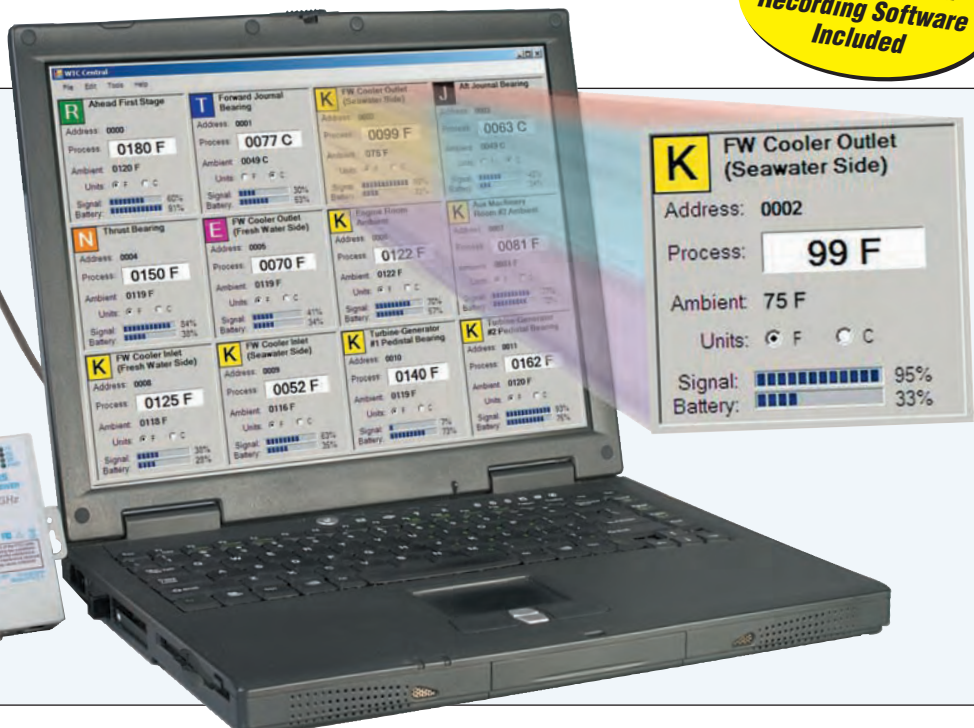
Data Logging and Recording Software Included

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

Shown smaller than actual size.



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

USB Powered!

48-Channel USB Receiver with Analog Output and Display Option



UWTC-REC2-D

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.



Shown smaller than actual size.

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

USB or DC Adaptor Powered

WIRELESS RECEIVER

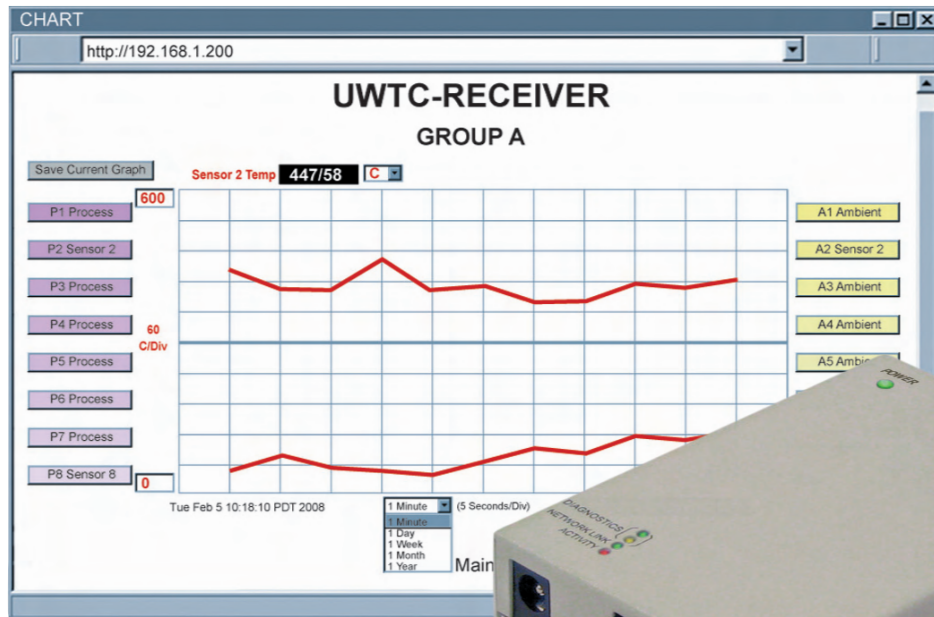
for Web-Based Monitoring of Temperature



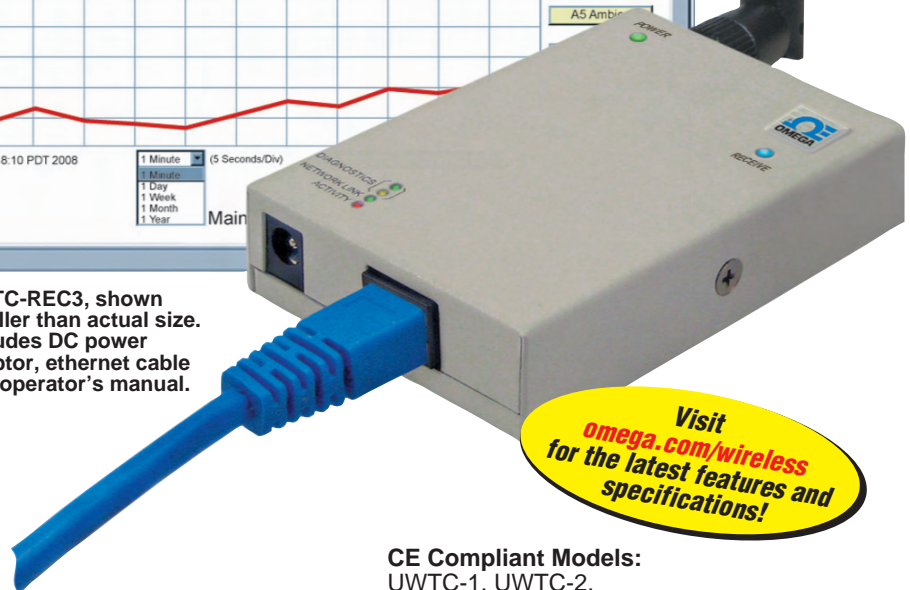
Model UWTC-REC3



- 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



UWTC-REC3, shown smaller than actual size. Includes DC power adaptor, ethernet cable and operator's manual.



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

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 enable cell phones and PDAs. The OMEGA “Mail Notifier” software is a free and easy-to-use program for this application.

The UWTC-REC3 receiver serves active web pages to display real time temperature readings and charts. You can also log data in standard data formats for use in a spreadsheet or data acquisition program such as Excel or Visual Basic. OMEGA offers a free, user-friendly program for logging data to Excel.

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

SPECIFICATIONS

- Ethernet:** 10Base-T (RJ45)
- 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 Adaptor (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% RH 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



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



wiDR33-U wireless DIN rail receiver, shown smaller than actual size. Visit omega.co.uk/widr_series



wi Series

AVAILABLE NOW

A wireless panel meter/controller/scanner and wireless DIN rail receivers that work with all UWTC, UWRTD Series wireless connectors and wireless industrial probes.



wi833-U wireless panel meter/controller/scanner with patented color display, shown smaller than actual size. Visit omega.co.uk/wi8_series

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

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

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, 0.00385 curve with 316 SS sheath, insert "2PT304" for 100 Ω, 0.00392 curve with 304 SS sheath, or "2PT316" for 100 Ω, 0.00392 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 (3/16"), or "14" for 6.35 mm (1/4").

Ordering Examples: UWRTD-NB9W-1PT316-18-6, wireless RTD probe assembly, 100 Ω, 0.00385 curve, 316 SS sheath, 3.18 mm (1/8") 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.

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