

# WIRELESS TRANSMITTERS AND RECEIVERS



## Thermocouple-to-Wireless Connector/Converter The Smart Connector™

Four receivers  
available,  
see pages  
7 and 8

Plug your probe into a  
smart connector to make  
a smart sensor!



UWTC Series  
Starts at

**\$125**



Engineers'  
Choice Award  
Winner!

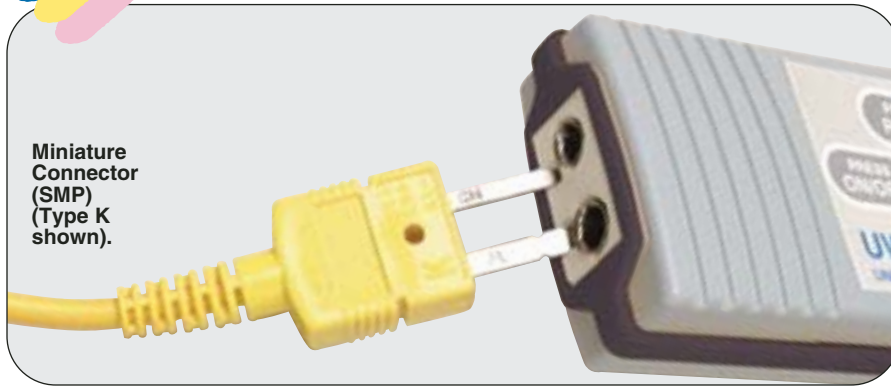
Models, replacement  
batteries and accessories  
listed on page 9

- ✓ User Configurable For Type J, K, T, E, R, S, B, C, and N Thermocouple Input
- ✓ Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger
- ✓ Built-In Cold Junction Compensation and Linearization
- ✓ Patented Design Accepts Both Miniature and Standard Size Probes and Connectors
- ✓ One Receiver Works with Multiple Wireless Remote Connectors
- ✓ Low Power Operation and Sleep Mode For Long Battery Life
- ✓ Each Wireless Connector Transmits Thermocouple Temperature, Ambient Temperature, Signal Strength and Battery Status in Real Time
- ✓ Interfaces with Model UWTC-REC1 For Multi-Channel PC Chart Recording and Data Logging or Model UWTC-REC2 (Single Channel Industrial Transceiver with Analog Output and Alarm)
- ✓ Works with Every Omega UWTC Series Receiver, WiSeries Meter/Controller/Scanner and DIN Rail Receiver

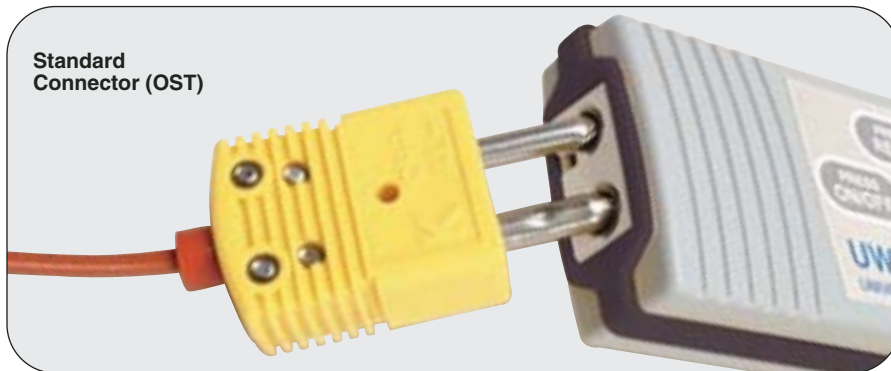
Omega's new Wireless Smart Thermocouple Connector Series features stand-alone, compact, battery powered thermocouple connectors that transmit their readings back to a host receiver up to 90 m (300') away. Each unit can be programmed in the field to work as a Type J, K, T, E, R, S, B, C or N calibration connector. When activated the connector will transmit readings continuously at pre set time interval that was programmed by the user during the initial setup. Each unit measures and transmits: Thermocouple Input Reading, Connector Ambient Temperature, RF Signal Strength and Battery Condition to the host and is displayed on the PC screen in real time using the provided software. When used with host receiver model UWTC-REC1 data from up to 12 wireless thermocouple connectors can be received and displayed. Each unit 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 model UWTC-REC2 wireless data from one connector can be re-transmitted out of the receiver by a wired connection as a analog voltage, current or thermocouple signal to interface with a controller, PLC or data acquisition board.



# WIRELESS TRANSMITTERS AND RECEIVERS

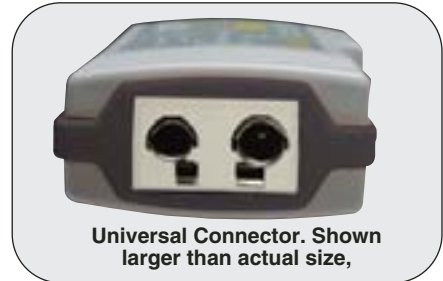


Miniature Connector (SMP) (Type K shown).



Standard Connector (OST)

*The UWTC's patented design accepts both miniature and standard connectors or probes.*



Universal Connector. Shown larger than actual size,

## Specifications Thermocouple (TC) Input

**Software Selectable:** J, K, T, E, R, S, B, C or N

### Thermocouple Measurement Range:

- J: -100 to 760°C (-148 to 1400°F)
- K: -100 to 1260°C (-148 to 2300°F)
- T: -200 to 400°C (-328 to 752°F)
- E: -200 to 1000°C (-328 to 1832°F)
- R: 260 to 1760°C (500 to 3200°F)
- S: 260 to 1760°C (500 to 3200°F)
- B: 870 to 1820°C (1598 to 3308°F)
- C: 0 to 2315°C (32 to 4200°F)
- N: -100 to 1260°C (-148 to 2300°F)

### TC Measurement Accuracy:

- J, K:  $\pm 0.5\%$  of reading or  $\pm 1.0^\circ\text{C}$  ( $1.8^\circ\text{F}$ ), whichever greater
- T, E, N:  $\pm 0.5\%$  of reading or  $\pm 2.0^\circ\text{C}$  ( $3.6^\circ\text{F}$ ), whichever is greater
- R, S, B, C:  $\pm 0.5\%$  of full scale

### TC Measurement Resolution:

- Type J, K, T, E, N:  $1^\circ\text{C}/1^\circ\text{F}$
- Type R, S, B, C:  $1^\circ\text{C}/1^\circ\text{F}$

### Cold Junction Compensation

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

**Thermocouple Connection:** Patented universal female accepts both standard male (OSTW Series) or miniature male (SMPW Series) mating connector

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

**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 (2.450 to 2.490 GHz -12 channels)

### RF Output Power:

- UWTC-1: 0dBm (1 mW)
- UWTC-2: 10dBm (10 mW)

### Range of RF Link:

- UWTC-1: Up to 60 m (200') outdoor line of sight. Up to 20 m (65') indoor/urban.
- UWTC-2: Up to 120 m (400') outdoor line of sight. Up to 45 m (130') indoor/urban.

### Each Connector Includes

- ✓ One 3.6 V Lithium Battery
- ✓ Programming Software
- ✓ Measurement and Logging Software
- ✓ Mounting Bracket
- ✓ User Manual
- ✓ Type K Thermocouple

## Free Thermocouple Included!

Each connector includes a free 1 m (40") Type K insulated beaded wire thermocouple with subminiature connector and wire spool caddy.

### Order a Spare!

- Model No. SC-GG-K-30-36, \$15. (subminiature connector).
- Model No. LSC-GG-K-24-36, \$15. (standard connector).

## RF Data Packet Standard:

IEEE 802.15.4, open communication architecture

### Software (Included Free):

Windows 98, ME, 2000, XP or Vista

**Connector Internal Battery:** One 3.6 V lithium, 2.4 Ah capacity (AA) (included)

### Battery Life (Typical):

UWTC-1 and UWTC-2: 1.5 years at 1 sample/minute reading rate @ 25°C (77°F)

UWTC-NB9 and UWTC-2-NEMA 1: 3 years at 1 sample/minute reading rate @ 25°C (77°F)

### Data Transmitted to Host:

Thermocouple Reading, Connector Ambient Reading, RF Transmit Strength and Battery Condition

**Dimensions:** 100 L x 50 W x 25 mm H (without antenna) (4 x 2 x 1")

### Weight:

- UWTC-1, UWTC-2: 70 grams
- UWTC-REC1, UWTC-REC2, UWTC-REC2-D: 206 grams

### Case:

- UWTC-1, UWTC-2: ABS plastic
- UWTC-REC1, UWTC-REC2, UWTC-REC2-D: Painted steel

### 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 TRANSMITTERS AND RECEIVERS



## For PT100 Sensors RTD-to-Wireless Connector/Converter The Smart Connector™



TA4F mating connector, \$10, shown actual size.

UWRTD Series  
Starts at  
**\$135**



**PATENTED**  
Covered by U.S. and  
International patents and  
pending applications

UWRTD-2, \$145,  
shown actual size.

Four Receivers  
available! Details on  
pages 7 and 8.

Plug your probe into a  
Smart Connector™ to  
make a smart sensor!

- ✓ Interfaces Directly with Any 3-Wire, 100  $\Omega$ , 0.00385 or 0.00392 Curve RTD Sensor
- ✓ Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger
- ✓ Interface up to 12 Different Wireless Connectors With One Receiver
- ✓ Low Power Operation and Sleep Mode Allows for Long Battery Life
- ✓ Each Wireless Connector Transmits Process Temperature, Ambient Temperature, Signal Strength and Battery Status in Real Time
- ✓ Works with Every Omega UWTC Series Receiver, WiSeries Meter/Controller/Scanner and DIN Rail Receiver

Omega's new wireless RTD connector Series features stand-alone, compact, battery powered RTD connectors that transmit their readings back to a host receiver up to 120 m (400') away. Each unit can be programmed in the field to interface directly with and 3-wire 100  $\Omega$ , 0.00385 or 0.00392 style sensor. When activated the connector will transmit readings continuously at pre set time interval that was programmed by the user during the initial setup. Each unit measures and transmits: RTD input reading, connector ambient temperature, RF signal strength and battery condition to the host and is displayed on the PC screen in real time using the provided software.

### Specifications

**Available Types:** 100  $\Omega$  (standard), 500  $\Omega$ , 1000  $\Omega$  (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:**  $\pm 0.5^\circ\text{C}$  ( $1^\circ\text{F}$ ) of reading

**RTD Measurement Resolution:**  $1^\circ\text{C}/1^\circ\text{F}$

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

**RTD Connection:** Series "T" receptacle. Use Model TA3F mating connector (one 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 (2.450 to 2.490 GHz -12 channels)

**RF Output Power:**

**UWRTD-1:** 0dBm (1 mW)

**UWRTD-2:** 10dBm (10 mW)

**Range of RF Link:**

**UWRTD-1:** Up to 60 m (200') outdoorline of sight. (Up to 20 m (65') indoor/urban.)

**UWRTD-2:** Up to 120 m (400') outdoorline of sight. Up to 40 m (130') indoor/urban. RF Data Packet Standard: IEEE 802.15.4, open communication architecture

**Software (Included Free):** Requires Windows 98, ME, 2000, XP or Vista

**Connector Internal Battery:** One 3.6V lithium, 2.4 Ah capacity (AA) (included)



Standard TB4M receptacle includes matting connector.

Order a spare mating connector, TA4F, \$10.

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

**Data Transmitted to Host:** RTD reading, connector ambient reading, RF transmit strength and battery condition

**Dimensions:** 100 L x 50 W x 25 mm H (without antenna) (4 x 2 x 1")

**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 TRANSMITTERS AND RECEIVERS

## Wireless Thermocouple and RTD Industrial Probe Assemblies

UWTC-NB9 Series  
Starts at

**\$195**



- ✓ Available as Thermocouple or RTD Models
- ✓ Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger
- ✓ Complete Industrial Assembly Includes: Probe, NB9 Head with Built-In Wireless Transmitter Board and Long Life Battery
- ✓ Works with Every Omega UWTC Series Receiver, WiSeries Meter/Controller/Scanner and DIN Rail Receiver

Omega's new Wireless Industrial Thermocouple and RTD Probe Assemblies feature complete, ready to install, pre-wired sensor and wireless transmitter package. Each battery powered wireless unit will transmit measurement back to a host receiver up to 120 m (400') away. Each unit comes pre-programmed to operate as a Type J, K, T, E, R\*, S\*, B\*, C\* or N thermocouple or RTD. When activated the unit will transmit readings continuously at pre-set time intervals that has been programmed by the user during the initial setup and installation. Each unit measures and transmits: process temperature, ambient temperature, wireless link signal strength and battery condition to the host and is displayed on the PC screen in real time using the provided free software.

### Specifications Thermocouple (TC) Models

**Available Types:** J, K, T, E, \*R, \*S, \*B, \*C or N

#### Thermocouple Measurement Range:

**J:** -100 to 760°C (-148 to 1400°F)  
**K:** -100 to 1260°C (-148 to 2300°F)  
**T:** -200 to 400°C (-328 to 752°F)  
**E:** -200 to 1000°C (-328 to 1832°F)  
**R:** 260 to 1760°C (500 to 3200°F)  
**S:** 260 to 1760°C (500 to 3200°F)  
**B:** 870 to 1820°C (1598 to 3308°F)  
**C:** 0 to 2315°C (32 to 4200°F)  
**N:** -100 to 1260°C (-148 to 2300°F)

#### TC Measurement Accuracy:

**J, K:**  $\pm 0.5\%$  of reading or  $\pm 1.0^\circ\text{C}$  ( $1.8^\circ\text{F}$ ), whichever greater  
**T, E, N:**  $\pm 0.5\%$  of reading or  $\pm 2.0^\circ\text{C}$  ( $3.6^\circ\text{F}$ ), whichever is greater  
**R, S, B, C:**  $\pm 0.5\%$  of full scale

#### TC Measurement Resolution:

**$1^\circ\text{C}/1^\circ\text{F}$ :** Type J, K, T, E, N,  
 **$1^\circ\text{C}/1^\circ\text{F}$ :** Type R, S, B, C

#### Cold Junction Compensation

**(Automatic):** -10 to 70°C (14 to 158°F)  
resistive temperature device (RTD) models

**Available Types:** 100  $\Omega$  (standard),  
500  $\Omega$ , 1000  $\Omega$  (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:

$\pm 0.5^\circ\text{C}$  ( $1^\circ\text{F}$ ) of reading

#### RTD Measurement Resolution:

**$1^\circ\text{C}/1^\circ\text{F}$**

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

**Computer Interface:** USB

#### Transmit Sample Rate:

Programmable from 1 sample/minute to  
1 sample/second radio frequency (RF)  
transceiver

**Carrier:** ISM 2.4 GHz, direct sequence  
spread spectrum, license free worldwide  
(2.450 to 2.490 GHz - 12 channels)

**RF Output Power:** 10Bm (10 mW)

**Range of RF Link:** Up to 120 m (400')  
outdoor line of sight [up to 40 m (130')  
indoor/urban]

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

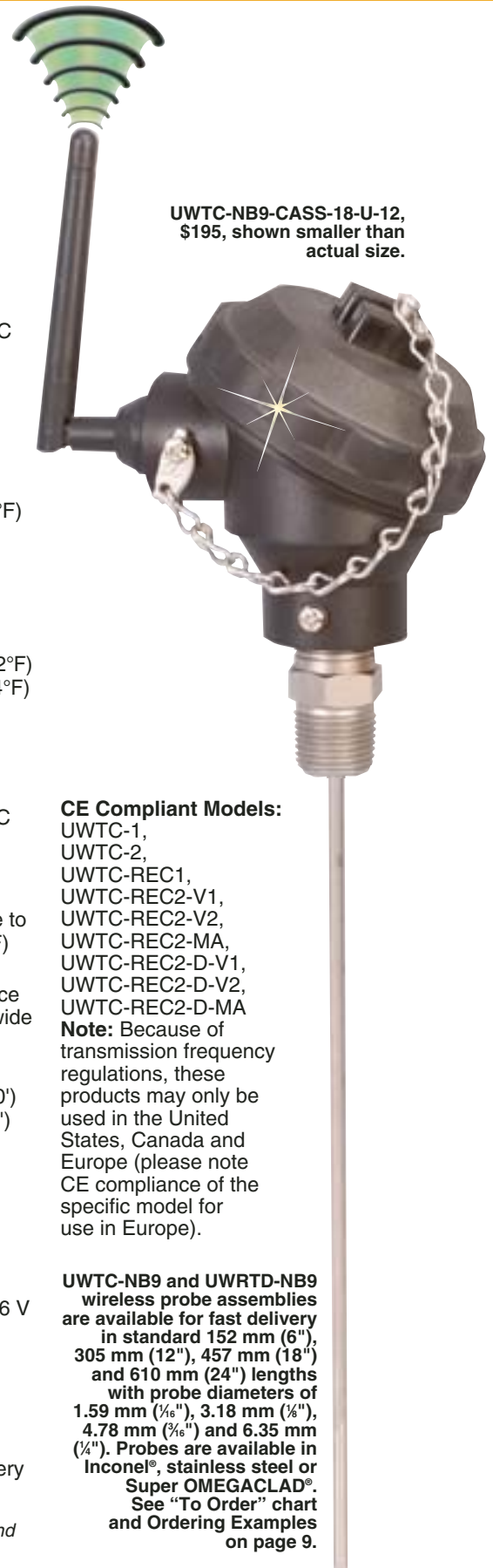
**Software (Included Free):** Requires  
Windows 98, ME, 2000, XP or Vista  
operating system

**Connector Internal Battery:** One 3.6 V  
lithium, 8.5 Ah capacity (C) one  
included

**Battery Life (Typical):** 3 years/  
1 minute reading rate @ 25°C (77°F)

**Data Transmitted to Host:** Process  
temperature, ambient temperature,  
wireless link signal strength and battery  
condition

*\*Please consult engineering for R, S, B and  
C thermocouples.*



UWTC-NB9-CASS-18-U-12,  
\$195, shown smaller than  
actual size.

#### 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).

UWTC-NB9 and UWRTD-NB9  
wireless probe assemblies  
are available for fast delivery  
in standard 152 mm (6"),  
305 mm (12"), 457 mm (18")  
and 610 mm (24") lengths  
with probe diameters of  
1.59 mm ( $\frac{1}{16}$ "), 3.18 mm ( $\frac{1}{8}$ "),  
4.78 mm ( $\frac{3}{16}$ "), and 6.35 mm  
( $\frac{1}{4}$ "). Probes are available in  
Inconel®, stainless steel or  
Super OMEGA CLAD®.  
See "To Order" chart  
and Ordering Examples  
on page 9.

## Weather Resistant Wireless Thermocouple and RTD Transmitters

UWTC-2-NEMA  
Starts at  
**\$165**



- ✓ Available in Thermocouple or RTD Models
- ✓ NEMA-4X (IP65) Weather Resistant Enclosure
- ✓ Up to 3 Years Battery Life
- ✓ Works with Every OMEGA® UWTC Series Receivers
- ✓ Works with Every Omega UWTC Series Receiver, WiSeries Meter/Controller/Scanner and DIN Rail Receiver

Each NEMA rated unit can be programmed in the field to work as a type J, K, T, E, R, S, B, C or N wireless thermocouple transmitter or a wireless RTD transmitter. When connected to a sensor and activated the unit will transmit readings continuously at pre-set time interval that was programmed by the user during the initial setup. Each unit measures and transmits: process temperature, ambient temperature, RF signal strength and battery condition to the host and is displayed on a PC screen in real time using the provided software. Both models will interface and operate with any Omega UWTC Series receiver.

### Specifications

#### Thermocouple (TC) Input

**Available Types:** J, K, T, E, R, S, B, C or N

#### Thermocouple Measurement Range:

**J:** -100 to 760°C (-148 to 1400°F)  
**K:** -100 to 1260°C (-148 to 2300°F)  
**T:** -200 to 400°C (-328 to 752°F)  
**E:** -200 to 1000°C (-328 to 1832°F)  
**R:** 260 to 1760°C (500 to 3200°F)  
**S:** 260 to 1760°C (500 to 3200°F)  
**B:** 870 to 1820°C (1598 to 3308°F)  
**C:** 0 to 2315°C (32 to 4200°F)  
**N:** -100 to 1260°C (-148 to 2300°F)

UWTC-2-NEMA, \$165,  
shown smaller than,  
actual size.

#### TC Measurement Accuracy:

**J, K:**  $\pm 0.5\%$  of reading or  $\pm 1.0^\circ\text{C}$  ( $1.8^\circ\text{F}$ ), whichever greater  
**T, E, N:**  $\pm 0.5\%$  of reading or  $\pm 2.0^\circ\text{C}$  ( $3.6^\circ\text{F}$ ), whichever is greater  
**R, S, B, C:**  $\pm 0.5\%$  of full scale

#### TC Measurement Resolution:

**Type J, K, T, E, N:**  $-1^\circ\text{C}/1^\circ\text{F}$   
**Type R, S, B, C:**  $-1^\circ\text{C}/1^\circ\text{F}$

#### Cold Junction Compensation

**(Automatic):** -10 to 70°C (14 to 158°F)

#### Thermocouple Connection:

Internal terminal block

#### RTD Input

**Available Types:** 100  $\Omega$  (standard)  
 500  $\Omega$ , 1000  $\Omega$  (special order)

#### RTD Measurement Range:

**0.00385:** -200 to 850°C  
 (-328 to 01562°F)  
**0.00392:** -100 to 457°C (-148 to 854°F)

#### RTD Measurement Accuracy:

$\pm 0.5^\circ\text{C}$  of reading (33°F)

#### RTD Measurement Resolution:

$1^\circ\text{C}/1^\circ\text{F}$

#### RTD Connection:

Internal terminal block

#### 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).

### Common Specifications

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

**Computer Interface:** USB

**Transmit Sample Rate:** Programmable from 1 sample/minute to 1 sample/every 2 seconds radio frequency (RF) transceiver

**Carrier:** ISM 2.4 GHz, direct sequence spread spectrum, license free worldwide (2.450 to 2.490 GHz -12 channels)

**RF Output Power:** 10Bm (10 mW)

**Range of RF Link:** Up to 120 m (400') outdoor line of sight. Up to 40 m (130') indoor/urban.

#### RF Data Packet Standard:

IEEE 802.15.4, open communication architecture

**Software (Included Free):** Requires Windows® 2000, XP or Vista operating system

**Power:** One 3.6 V, Lithium C Cell (included)

**Battery Life (Typical):** (3 years)  
 1 sample/minute reading rate @ 25°C

**Enclosure:** NEMA-4X Polycarbonate

**Dimensions:** 80 L x 82 W x 50 mm H (3.15 x 3.22 x 1.97")





## WIRELESS TRANSMITTERS AND RECEIVERS

**Combine One of these Wireless Receivers with Multiple Wireless Connectors or Wireless Probe Assemblies to Form a Complete Wireless Measurement System!**

### Wireless USB Receivers

**Monitor Up to 12 Different Wireless Thermocouple Connectors with One Receiver!**



USB connection  
(cable included)

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

**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).



**Free Strip Chart  
and Data Logging  
PC Software!**

Shown  
smaller  
than  
actual  
size.

**UWTC-REC2 Standard  
12-Channel Receiver with  
1-Channel Analog Output and  
Optional Local Display, \$265**  
(USB or External DC  
Adaptor Powered)

When powered by a USB port on your computer model UWTC-REC2 data from up to 12 wireless connectors or wireless probe assemblies can be received and displayed on your computer simultaneously. Data from one channel can also be re-transmitted as a hard wired analog current, voltage or thermocouple signal output. When powered by the DC power adaptor the unit functions as a one channel transmitter only and provides a hard wired signal output.

Shown  
smaller  
than  
actual  
size.

**UWTC-REC1  
\$225**

**UWTC-REC1 Standard  
12-Channel Receiver, \$225**  
(USB Powered Only)

With the model UWTC-REC1 data from up to 12 wireless connectors or wireless 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.

**UWTC-REC2-D  
\$265**

Shown  
smaller  
than  
actual  
size.

**Starts at  
\$325**

**Wireless Receivers with  
NEMA Rated Enclosures**

**UWTC-REC1-NEMA, \$325,**  
basic 12-channel receiver, shown.

**UWTC-REC2-NEMA, \$335,**  
12-channel receiver with 1-channel  
analog output.

**UWTC-REC2-D-NEMA, \$365,**  
12-channel receiver with 1-channel  
analog output and LCD display.





# WIRELESS TRANSMITTERS AND RECEIVERS

## Wireless Receiver for Web-Based Monitoring of Temperature

UWTC-REC3  
Starts at  
**\$235**



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

- ✓ 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

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 PDA's. 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.



UWTC-REC3 \$235, shown smaller than actual size. Includes DC power adaptor, ethernet cable and operator's manual.

### 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 maxc

**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 91 m (300') without obstructions or interference environment

**Operating Temperature:** -18 to 55°C (-0.4 to 131°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



# WIRELESS TRANSMITTERS AND RECEIVERS



Wireless DIN rail receiver, wiDR33-U, \$395, shown smaller than actual size. See page 19.

## wi Series AVAILABLE NOW

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A wireless panel meter/controller/scanner, wi833-U, \$395, shown smaller than actual size. See page 16.

### MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)		
Model No.	Price	Description
UWTC-1	\$125	Wireless thermocouple connector (standard distance)*
UWTC-2	135	Wireless thermocouple connector (extended distance)*
UWTC-2-NEMA	165	Wireless thermocouple connector (extended distance, NEMA enclosure)
UWRTD-1	135	Wireless RTD connector (standard distance)
UWRTD-2	145	Wireless RTD connector (extended distance)
UWRTD-2-NEMA	175	Wireless RTD connector (extended distance, NEMA enclosure)
UWTC-NB9-(*)-(**)U-6	195	Wireless thermocouple probe assembly (6" ungrounded probe)
UWTC-NB9-(*)-(**)U-12	195	Wireless thermocouple probe assembly (12" ungrounded probe)
UWTC-NB9-(*)-(**)U-18	205	Wireless thermocouple probe assembly (18" ungrounded probe)
UWTC-NB9-(*)-(**)U-24	205	Wireless thermocouple probe assembly (24" ungrounded probe)
UWRTD-NB9-(†)-(†)-12	195	Wireless RTD probe assembly (12" probe)
UWRTD-NB9-(†)-(†)-24	205	Wireless RTD probe assembly (24" probe)
UWTC-REC1	225	12-channel receiver (USB powered)
UWRH-2	165	Wireless RH/temperature transmitter
UWTC-REC1-NEMA	325	12-channel wireless receiver (USB powered) NEMA enclosure
UWTC-REC2-(‡)	235	12-channel wireless receiver with 1 channel analog output
UWTC-REC2-D-(‡)	265	12-channel wireless receiver with 1 channel analog output and LCD display
UWTC-REC2-(‡)-NEMA	335	12-channel wireless receiver with 1 channel analog output, NEMA enclosure
UWTC-REC2-D-(‡)-NEMA	365	12-channel wireless receiver with 1 channel analog output and LCD display, NEMA enclosure
UWTC-REC3	235	36-channel receiver/host with ethernet
UWTC-ANT-LR	10	Optional high performance antenna
UWTC-BATT	12	Replacement battery for UWTC-1, UWRTD-1
UWTC-BATT-HP	20	Replacement battery for UWTC-2, UWRTD-2, UWRH-2
UWTC-BATT-C	20	Replacement battery for UWTC-NB9, UWRTD-NB9, UWTC-2-NEMA, UWRTD-2-NEMA
UWTC-CABLE	5	Spare programming cable (one included with receivers)

\* Comes with one 3.6V lithium battery, programming software, measurement and logging software, mounting bracket, Type K beaded wire thermocouple, and user manual.

For UWTC-REC2 Models: ‡ Insert "V1" for 0 to 5 Vdc, "V2" for 0 to 10 Vdc, "TC" for Type K thermocouple, or "MA" for 4 to 20 mA

For UWTC-NB9 Models: \* Insert "ICIN" for Type J with a inconel® sheath, or "ICSS" for Type J with a 304 SS sheath. Insert "CAIN" for Type K with a inconel® sheath, or "CASS" for Type K with a 304 SS sheath. Call for Type K with OmegacladXL® sheath. Insert "CXIN" for Type E with a inconel® sheath, or "CXSS" for Type E with a 304 SS sheath. Insert "CPIN" for Type T with a inconel® sheath, or "CPSS" for type T with a 304 SS sheath. Insert "NNIN" for Type N with a inconel® sheath, (not available in SS). Contact engineering for price, availability and ordering information for R, S, B, and C thermocouples.

\*\* For sheath diameter insert "116" for 1.59 mm ( $\frac{1}{16}$ "), "18" for 3.18 mm ( $\frac{3}{16}$ "), "316" for 4.78 mm ( $\frac{3}{16}$ "), "14" for 6.35 mm ( $\frac{1}{4}$ ")

For UWRTD-NB9 Models: † Insert "1PT304" for 100  $\Omega$ , 0.00385 curve with a 304 SS sheath, or "1PT316" for 100  $\Omega$ , 0.00385 curve with a 316 SS sheath. Insert "2PT304" for 100  $\Omega$ , 0.00392 curve with a 304 SS sheath, or "2PT316" for 100  $\Omega$ , 0.00392 curve with a 316 SS sheath.

†† For sheath diameter insert "116" for 1.59 mm ( $\frac{1}{16}$ "), "18" for 3.18 mm ( $\frac{3}{16}$ "), "316" for 4.78 mm ( $\frac{3}{16}$ "), "14" for 6.35 mm ( $\frac{1}{4}$ ")

Ordering Examples: UWTC-1, wireless thermocouple connector/transmitter, UWTC-REC2-MA, 12-channel transceiver/host with 1-channel 4 to 20 mA analog output and alarm, and UWTC-BATT, spare battery, \$125 + 235 + 12 = \$372. Two UWTC-1, wireless thermocouple connector/transmitters, UWTC-REC1, 12-channel receiver/host, and two UWTC-BATT spare batteries, \$125 + 125 + 225 + 12 + 12 = \$499. UWTC-NB9-CAIN-316U-12, wireless thermocouple probe assembly, Type K, inconel® sheath, 4.78 mm ( $\frac{3}{16}$ ") sheath diameter, ungrounded junction, 300 mm (12") long \$195. UWRTD-NB9-1PT316-18-24, wireless RTD probe assembly, 100  $\Omega$ , 0.00385 curve, 316 SS sheath, 3.18 mm ( $\frac{3}{16}$ ") sheath diameter, 600 mm (24") long \$205.

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