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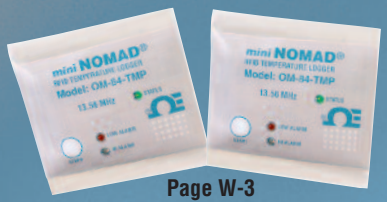
New Horizons® in Wireless Communications



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OMEGA®

Exceeding Your Expectations

Founded in 1962 to manufacture a single thermocouple line, OMEGA Engineering has grown into a global technology leader, with more than 100,000 innovative products for measuring and controlling temperature, humidity, pressure, strain, force, flow, level, pH, and conductivity. We also have a complete line of wireless, data acquisition, electric heating, and custom-engineered products.

For decades, process measurement and control professionals have turned to OMEGA's famous FREE handbooks for product information and reference material. Of course, our people, services, facilities, and commitment to customer satisfaction go well beyond the handbooks.

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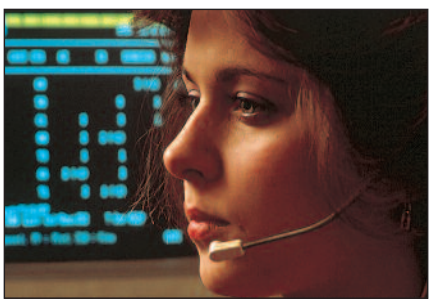
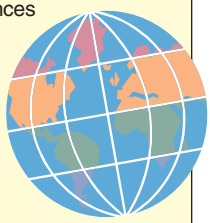


OMEGA's manufacturing know-how and worldwide warehousing let us bring you the best products and fastest delivery times in the industry. Any product can be purchased through omega.com, our easy-to-use, secure Web site, where you'll find live customer support. OMEGA also takes thousands of telephone orders each day from around the world. No order is too big or small. Using a sophisticated inventory control system, we dispatch your order swiftly. Our reps give you up-to-the-minute order status and answer all your billing questions. OMEGA has the products you need, and we deliver them when and where you need them.

International Sales and Service

OMEGA offers international sales and distribution headquarters in the United States and Canada, and we service the expanding European marketplace from our UK office in the English countryside. All locations have multilingual sales staff well-versed in worldwide trade. International payment conveniences such as credit cards, wire transfers, and acceptance of local currencies make it easy for customers around the globe to work with OMEGA.



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"Measure and Control Any of Omega's Wireless Connectors & Transmitters From Anywhere in the World Over the Internet"

The Mini NOMAD® Series
Miniature RFID Data Loggers and Readers: Economical, Fast, Accurate Wireless Data Retrieval and Storage

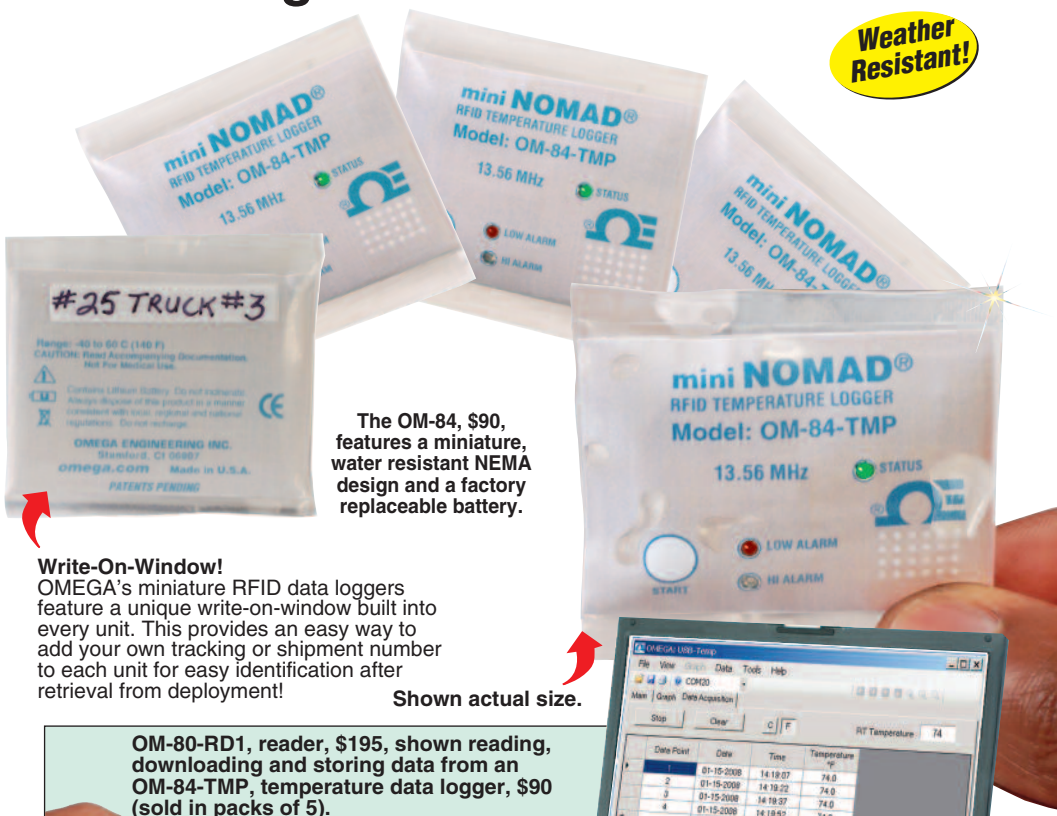
OM-84 Matchbook™ Series Starts at

$90

5-Pack

MADE IN USA | 1 YEAR WARRANTY | NIST | CE

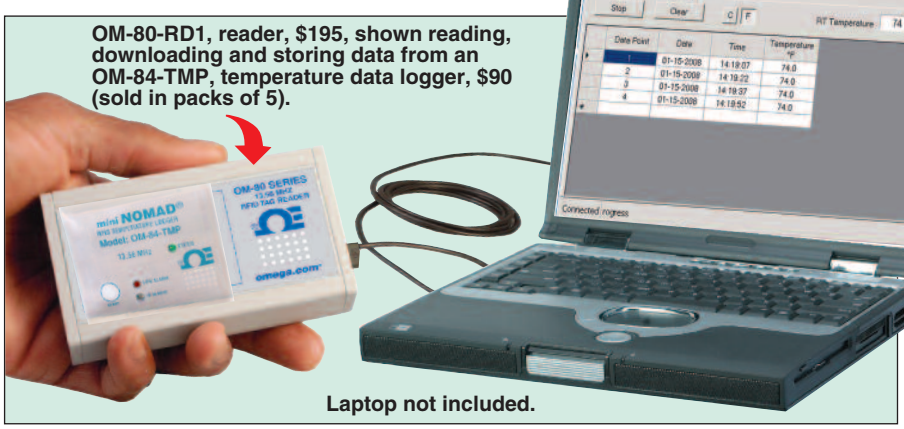
Standard
No Points



The OM-84, $90, features a miniature, water resistant NEMA design and a factory replaceable battery.

Write-On-Window!
OMEGA's miniature RFID data loggers feature a unique write-on-window built into every unit. This provides an easy way to add your own tracking or shipment number to each unit for easy identification after retrieval from deployment!

Shown actual size.



OM-80-RD1, reader, $195, shown reading, downloading and storing data from an OM-84-TMP, temperature data logger, $90 (sold in packs of 5).

Laptop not included.

- **Each Package of Tags Comes with a Certificate Stating NIST-Traceability (No Points)**
- **Ideal Solution for Cold Chain Monitoring**
- **Factory Replaceable Batteries**
- **Accurate Up to ±0.5°C (1°F)**
- **Wireless RFID Technology**
- **Store Up to 10,000 Individual Readings**
- **Save Stored Data From Each Logger Into Your Computer with Included Software**
- **Low Power Operation and Sleep Mode**
- **Pre-Packaged for Moderate High Volume Discounts**

PATENTS PENDING

OMEGA's OM-80 Series of data loggers have been engineered to provide an economical and reliable solution for cold chain environmental monitoring. The lower cost OM-84 features a miniature weather-resistant design with a factory replaceable battery. Operates over a wide range of temperatures from -40 to 60°C (-40 to 140°F) making them ideal for most remote data logging applications inside shipping containers. Built-in LEDs display high and low alarm verification indicating that measured temperatures have remained within the user programmable alarm window throughout deployment. An internal solid-state precision temperature sensor provides accurate readings up to ±0.5°C.

Save Money!

Factory Battery Replacement Service *Did you know that you can recycle your OM-84 data loggers that have dead batteries? Send them back to OMEGA and we will install a fresh battery, reseal the package, check operation and send the unit back to you, all for a small fee. It's cheaper than buying a new one! This option is only available for Model OM-84 units and requires that you send back a minimum of 25 units. Please contact our Customer Service Department to request an RMA number. Visit* ***omega.com/rfid*** *for more information.*

Miniature RFID Data Loggers

*"Deploy multiple units for better zone profiling…
All for less than the cost of one standard data logger"*

Record the temperature during transport! The OM-84 is perfect, with its compact size. Just turn it on, drop it in place and go.

Simply place the data logger on the OM-80-RD1 reader, and download the data to your PC.

Laptop not included.

Specifications

PRELIMINARY SPECIFICATIONS

(Please visit **omega.com/rfid** for the latest features and specifications)
Temperature Measurement Range: -40 to 60°C (-40 to 140°F)
Accuracy: ±0.5°C from 0 to 50°C (±1°C below 0°C or above 50°C)
Resolution: 0.1°C or °F
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Pressure Range 8 to 20 psi; exceeding these limits may damage the unit

Wireless Operation

Read/Write Wireless Range: Up to 50 mm
Power
OM-84-TMP: Lithium/manganese dioxide 3 volt coin cell (factory replaceable only)
Shelf Life: Up to 3 years (non-activated) with proper storage
Usage Life: Up to 2 years (after activation)
Memory: Up to 10,000 rdgs (eg: 208 days at 1 rdg/30 min)
Recording Programmable Interval: From 1 sec to 9 hrs, 6 min, 7 sec
Data Logging Start Time: Alarm clock or delayed start, selectable by user

Operation Status Indicator: LED blinks green when the unit is activated
Alarm Status Indicator: LED blinks red when the unit exceeds high or low alarm set point
Activation: Push-button on surface of device
Temperature Alarm: Programmable temperature alarm with high and low limits, selectable in software
Dimensions:
OM-84: 61 L x 43 W x 6.4 mm H (2.4 x 1.7 x 0.25")

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	Price	Description
OM-84-TMP-5	**$90**	Water resistant temperature logger, package of 5
OM-84-TMP-20	**342**	Water resistant temperature logger, package of 20
OM-84-TMP-50	**810**	Water resistant temperature logger, package of 50
OM-84-TMP-100	**1530**	Water resistant temperature logger, package of 100
OM-84-TMP-KIT*	**297**	Water resistant temperature logging kit: 5 loggers, benchtop reader, software, cable, case, marker
OM-80-RD1	**195**	Benchtop reader with software and USB cable
SC-HH500	**12**	Reader carrying case

***** *Comes complete with data loggers, benchtop reader unit, USB cable, software program on CD-ROM, permanent marker, easy operating instructions and batteries.*

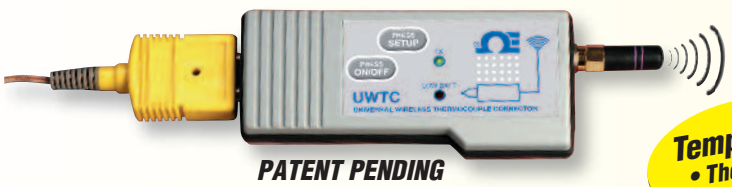
Ordering Examples: OM-84-TMP-5, *temperature data logger (5-pack),* ***OM-80-RD1,*** *benchtop USB reader with cable and software, and* ***SC-HH500*** *reader carrying case, $90 + 195 + 12 =* ***$297.***

OM-84-TMP-KIT, *temperature logging kit,* ***$297.***

Wireless is as easy as 1-2-3!

Step 1 ***Select the transmitter(s) for your application.***

UWRTD-1/UWRTD-2,
UWTC-1/UWTC-2,
see page W-7.



PATENT PENDING

OR

Temperature
- Thermocouple
- RTD

UWTC-2-NEMA
UWRTD-2-NEMA,
see page W-10.

Compact Indoor Models

UWRH-2, $165, see page W-9.

OR

Relative Humidity/ Temperature

Weather Resistant NEMA Enclosures

UWRH-2-NEMA,
see page W-9.

All models shown smaller than actual size.

See Pages for Detailed Specs

UWIR-2-NEMA,
see page W-13.

Non-Contact Infrared Temperature

UWPC-2-NEMA,
see page W-12.

Process
- Voltage
- Current

PSU-93, $40.

UWPH-2-NEMA,
see page W-15.

pH/ Temperature

PRTF-10-2-1000-1/8-6-E-TA3F,
RTD probe $58.

PHE-1311,
gel-filled pH
electrode, $57.

PX209-015GI, pressure
transducer $215.

Build A Complete Wireless Measurement System!

Step 2

Select the receiver based on the output(s) you need

UWTC-REC1, see page W-25.

USB

Ethernet

UWTC-REC3, see page W-24.

Ethernet — Display Your Data from a Web Browser, or Over the Internet.

USB Connection— Display/Log Your Data, and Export it to a Spreadsheet.

USB

Up to 48 Channels!

Laptop not included.

TC Central Software Included. See Page W-26

USB

UWTC-REC2-D receiver, see page W-25.

All models shown smaller than actual size.

4 Analog outputs

UWTC-REC4 receiver, see page W-21.

Analog Ouput(s)— for Process Instruments (Meter, Controllers, Recorders, Data Loggers and PLCs.

1 Analog output

HE-XE102, programmable logic controller, $445. Visit omega.com/ocsxl_series

1 Analog output

Up to 5 miles!

For longer wireless distances, add a repeater! Use a UWTC-RPT1 repeater with matching UWTC-REC1 receiver, and transmit up to 5 miles. See page W-19 for details.

UWTC-RPT1-915, $325, wireless long range receiver/ repeater

Step 3

Install, Configure and Go!

Temperature-to-Wireless Connector/Converter system

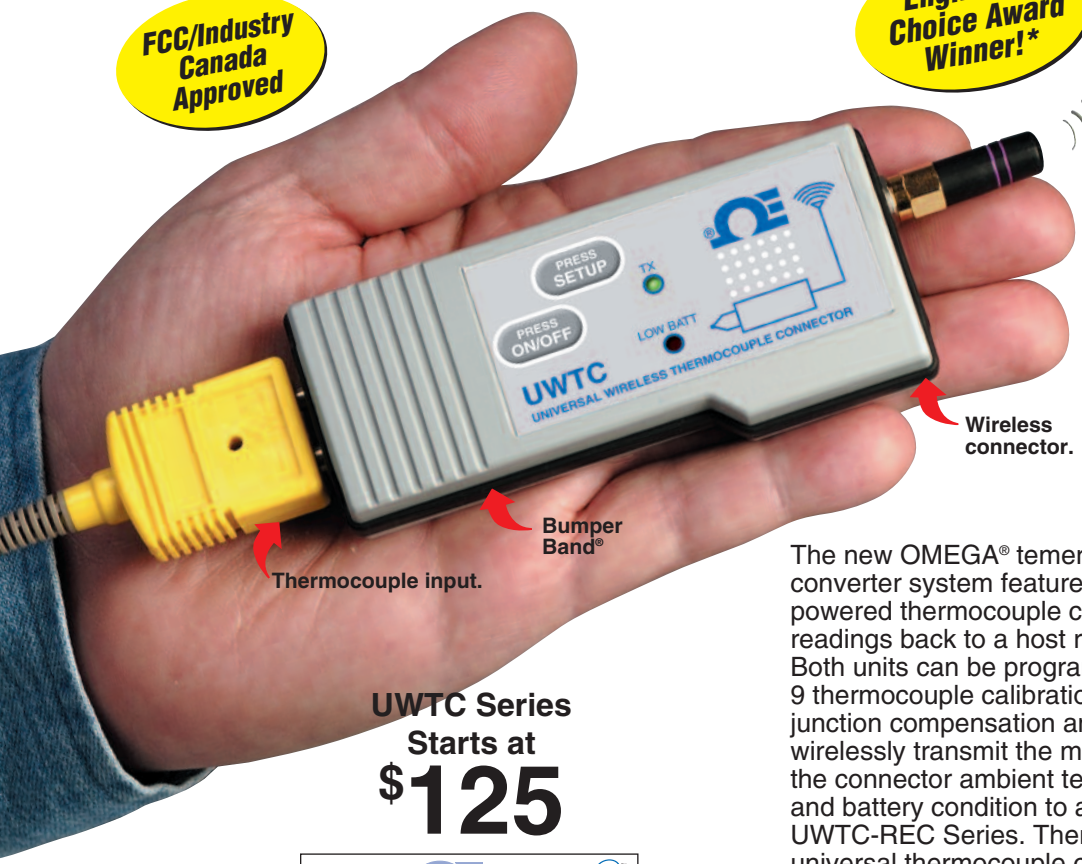
The Smart Connector™

FCC/Industry Canada Approved

Engineers' Choice Award Winner!*

For Available Receivers, See Pages W-19 to W-26

Plug Your Probe Into a Smart Connector to Make a Smart Sensor!



PATENT PENDING

UWTC Series Starts at

$125

MADE IN USA | 1 YEAR WARRANTY | CE | & EMC SERVICES

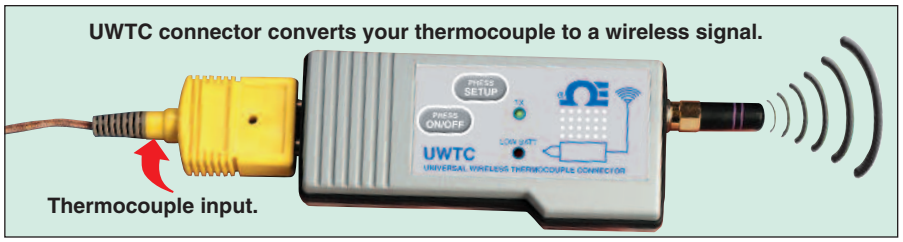
- **Transmit Temperature Data Wirelessly to Your Computer or the Internet**
- **Transmit up to 60 m (200') Standard Distance (UWTC-1) or up to 120 m (400') Extended Distance (UWTC-2)**
- **Thermocouple Models Have Built-In CJC and Linearzation, User Configurable for 9 Calibrations, Accept Both Standard and Miniature Connectors**
- **RTD Models are Configurable for 0.00385 and 0.00392 Curve Pt100 Sensors, Accepts TA4F Connector**
- **Each Wireless Connector Transmits Data in Real Time**
- **Low Power Operation, Sleep Mode for Long Battery Life**
- **Compatible with UWTC-REC Wireless Receivers-Create 32- or 48-Channel Wireless Systems**
- **Included Software Converts a PC into a Multi-Channel Chart Recorder or Data Logger**

The new OMEGA® temerature-to-wireless connector/converter system features stand-alone, compact, battery-powered thermocouple connectors that transmit their readings back to a host receiver up to 120 m (400') away. Both units can be programmed in the field to accept one of 9 thermocouple calibrations, automatically providing cold junction compensation and linearization, so they can wirelessly transmit the measured temperature, along with the connector ambient temperature, RF signal strength and battery condition to a remote host, such as the UWTC-REC Series. Thermocouple models feature the universal thermocouple connector, which is compatible with both standard and miniature thermocouple connectors and probes. You can program the transmitter to transmit your data at rates from once every two seconds to every two minutes.

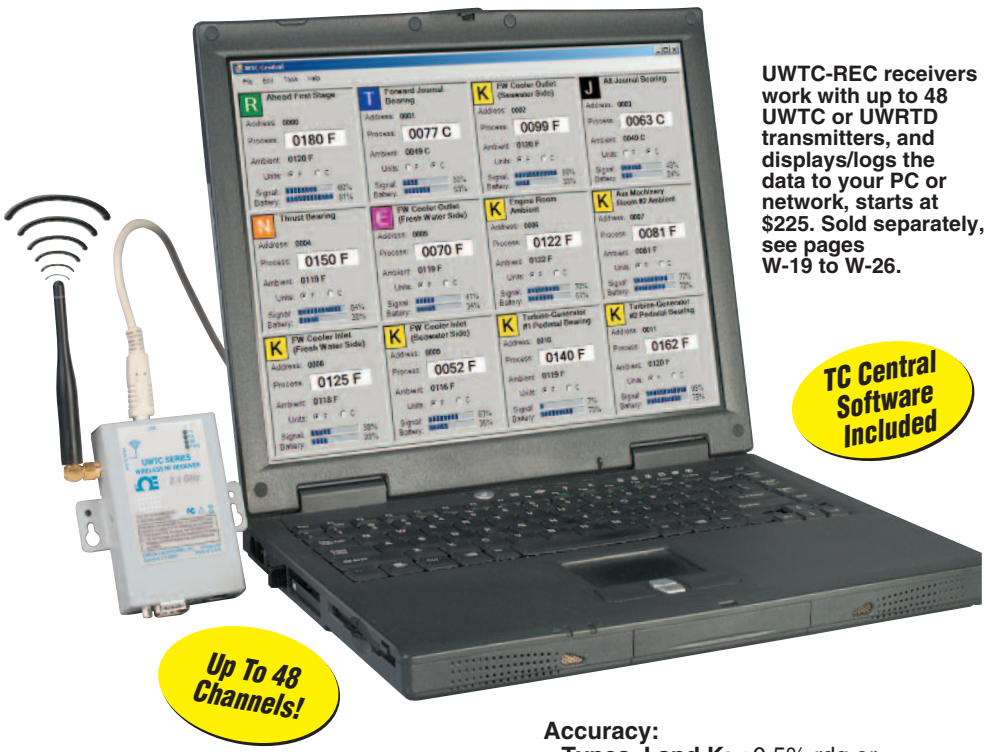
Data received by the UWTC-REC can be received and displayed on your computer, using the TC Central software included with each unit. TC Central software can turn your PC into a strip chart recorder or data logger so readings can be saved and later printed or exported to a spreadsheet file.

* *Control Engineering 2007*

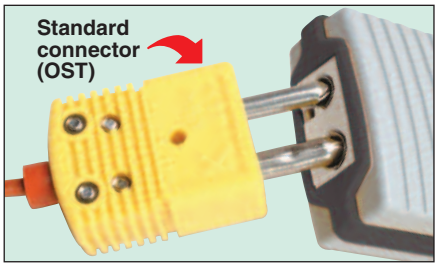
The wireless connector simplifies setup, and allows you to log data to a remote PC, up to 400' away.

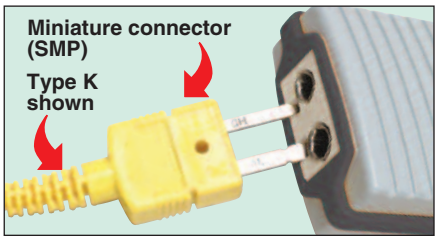


NEW



UWTC-REC receivers work with up to 48 UWTC or UWRTD transmitters, and displays/logs the data to your PC or network, starts at $225. Sold separately, see pages W-19 to W-26.





Universal connector, shown actual size. Universal connector design accepts both standard and miniature thermocouple connectors.

Standard UWRTD receptacle includes mating connector model TA4F. Order a spare, $10 ea.

Specifications
(See page W-27 for complete specifications)

UWTC Models Input: J, K, T, E, R, S, B, C or N; software selectable
UWRTD Models Input: 100 Ω Pt RTD; 0.00385 or 0.00392 curve; software selectable
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)
- **Pt100, 0.00385:** -200 to 850°C (-328 to 1562°F)
- **Pt100, 0.00392:** -100 to 457°C (-148 to 854°F)

Accuracy:
- **Types J and K:** ±0.5% rdg or ±1.0°C (1.8°F), whichever is greater
- **Types T, E, and N:** ±0.5% rdg or ±2.0°C (3.6°F), whichever is greater
- **Types R, S, B and C:** ±0.5% FS
- **Pt100:** ±0.5°C (1.0°F)

Resolution: 1°C/1°F
Operating Environment: -10 to 70°C (14 to 158°F); automatic thermocouple cold junction compensation
Sensor Connection:
- **Thermocouple:** Universal female accepts both standard male (type OST) or miniature male (type SMP) connector
- **RTD:** Series "T" receptacle, type TA4M; TA4F mating connector included

***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).*

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWTC-1	**$125**	Thermocouple-to-wireless connector/converter, standard distance 60 m (200')
UWTC-2	**135**	Thermocouple-to-wireless connector/converter, extended distance 120 m (400')
UWRTD-1	**135**	RTD-to-wireless connector/converter, standard distance 60 m (200')
UWRTD-2	**145**	RTD-to-wireless connector/converter, extended distance 120 m (400')

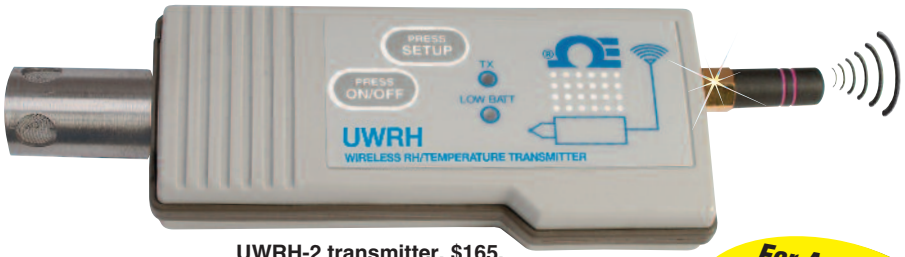
Comes complete with a 3.6V "AA" battery, programming software, measurement/data logging software, mounting bracket, Type K beaded wire thermocouple and operator's manual.

Ordering Example: UWTC-1,** thermocouple-to-wireless connector/converter with 60 m (200') range, **$125.

Wireless Relative Humidity/ Temperature Transmitters

UWRH-2 Starts at $165

MADE IN USA | 1 YEAR WARRANTY | CE | EMC SERVICES



UWRH-2 transmitter, $165, shown smaller than actual size.

For Available Receivers, See Pages W-19 to W-26

- **Measure Both Relative Humidity and Temperature**
- **Transmit up to 120 m (400')**
- **Available with NEMA 4X (IP65) Weather Resistant Enclosure**
- **Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger**
- **Transmits Relative Humidity, Ambient Temperature, Signal Strength and Battery Status**
- **Works with All UWTC Series Wireless Receivers and Transceivers**

OMEGA's new 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.

UWRH-2-NEMA, $235, shown smaller than actual size.

Specifications (See page W-27 for complete specifications)

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

Accuracy: ±1°C (±1.8°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)

Battery Life (typical):
UWRH-2: 1 year
UWRH-2-NEMA: 3 years at 1 sample/minute reading rate @ 25°C (77°F)

FCC/Industry Canada Approved

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWRH-2	**$165**	RH/temperature transmitter, compact enclosure
UWRH-2-NEMA	**235**	RH/temperature transmitter, NEMA enclosure
UWTC-ANT-LR	**10**	Optional directional antenna for UWRH-2
UWTC-BATT	**15**	Replacement battery for UWRH-2, 3.6V, "AA" lithium
UWTC-BATT-C	**25**	Replacement 3.6V battery assembly for UWRH-2-NEMA
UWTC-CABLE	**5**	Spare programming cable

Comes complete with battery, programming software, measurement and data logging software, mounting bracket and operator's manual.

***Ordering Examples: UWRH-2-NEMA,** wireless relative humidity/temperature transmitter, **UWTC-REC1,** 48-channel receiver and **UWTC-BATT-C**, spare battery, $235 + 225 + 25 = **$485**.*

UWRH-2,** wireless RH/temperature transmitter, **UWTC-REC1,** 48-channel receiver and **UWTC-BATT**, spare battery, $165 + 225 + 15 = **$405.

Temperature-to-Wireless Transmitters
For Thermocouples/RTDs

NEW

FCC/Industry Canada Approved

UWTC-2-NEMA Starts at
$165

MADE IN USA 1 YEAR WARRANTY CE

- Transmit Temperature Data Wirelessly to Your Computer or the Internet
- Transmit up to 120 m (400')
- Weather Resistant NEMA 4X (IP65) Enclosure
- Software Selectable for 9 Thermocouple Calibrations or 385/392 Curve Pt100 RTDs
- Transmit Data in Real Time
- Compatible with UWTC-REC Wireless Receivers
- Included Software Converts a PC into a Multi-Channel Chart Recorder or Data Logger

The new OMEGA® weather resistant temperature-to-wireless transmitters are weather-resistant, battery-powered transmitters that transmit their readings back to a host receiver up to 120 m (400') away. UWTC units can be programmed for any of 9 thermocouple calibrations, while UWRTD models are compatible with 0.00385 and 0.00392 curve Pt100 RTDs. The UWTC/UWRTD will transmit the measured and ambient temperatures, along with RF signal strength and battery condition to a remote host, such as the UWTC-REC Series. You can program the UWTC to transmit your data at rates from 2 sec to 2 min.

Data received by the UWTC-REC can be received and displayed on your computer, using the TC Central software included with each unit. TC Central software can turn your PC into a strip chart recorder or data logger so readings can be saved and later printed or exported to a spreadsheet file.

See page W-27 for complete specifications.

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWTC-2-NEMA	$165	Weather resistant thermocouple-to-wireless transmitter
UWRTD-2-NEMA	175	Weather resistant RTD to wireless transmitter
UWTC-BATT-C	25	Replacement 3.6V battery assembly

Comes complete with antenna, 3.6V "C" battery, programming software, measurement/data logging software, and operator's manual.
Ordering Example: UWTC-2-NEMA, *thermocouple-to-wireless transmitter,* ***$165.***

Wireless RTD Transmitter

UWRTD-S-2
Starts at
$275

MADE IN USA · 1 YEAR WARRANTY · CE

For Sanitary, Washdown, Marine Applications

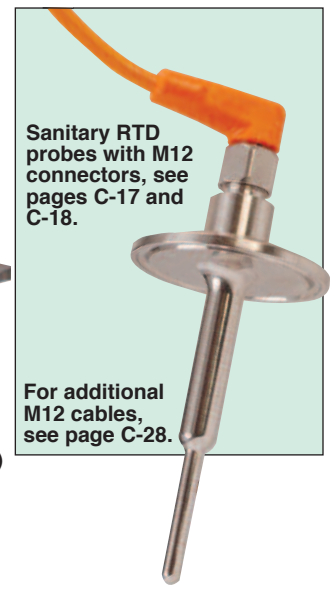
- Transmit Temperature Data Wirelessly to Your Computer or the Internet
- Water Tight White Polypropylene Housing with Industry Standard M12 Connector
- Compatible with 3 and 4-Wire Pt100 RTD Probes
- Transmit Up to 120 m (400')
- Includes Software to Convert a PC into a Multichannel Chart Recorder or Data Logger
- Each Unit Transmits Sensor and Ambient Temperatures, Signal Strength and Battery Status in Real Time
- Low Power Operation, Sleep Mode for Long Battery Life
- Compatible with UWTC-REC Wireless Receivers

Works with all OMEGA UWTC Series wireless receivers, see pages W-19 to W-26.

UWRTD-S-2, $275, shown smaller than actual size.

FCC/Industry Canada Approved

Includes mounting bracket and 2 m (6.5') sensor cable shown.



Sanitary RTD probes with M12 connectors, see pages C-17 and C-18.

For additional M12 cables, see page C-28.

The new OMEGA® UWRTD-S-2 wireless temperature transmitter features a standalone, compact, battery powered wireless RTD transmitter that can communicate with a remote host receiver up to 120 m (400') away. Each unit can be programmed in the field for either Pt100 (0.00385) or 0.00392 curve operation; the UWRTD-S-2 is compatible with both 3 and 4-wire 100 Ω Pt RTDs. You can also program the transmission rate, from 2 sec to 2 min. The UWRTD-S-2 transmits the probe reading, along with ambient temperature, RF signal strength and battery condition. This data can be displayed on a PC in real time, using the TC Central software included with each unit.

Specifications

(See page W-27 for complete specifications)

RTD Connection: Standard 4-wire M12 connection cable included; 2 m (6.5')

Battery: Two 1.5V lithium (AA) field replaceable (included) 1.5 yrs life at 1 sample/minute reading rate @ 25°C (77°F)

Housing Material: White polypropylene

Dimensions: 51 D x 147 mm L (2 x 5.78")

Mounting: Direct connection to probe or sensor (mounting bracket included)

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWRTD-S-2	**$275.00**	Wireless RTD transmitter, polypropylene housing, M12 connection and sensor cable
MN1500-L	**6.90**	Two “AA” 1.5V lithium replacement batteries for UWRTD-S-2
UWTC-CABLE	**5.00**	Programming cable (included with UWTC-REC units)

Comes complete with two 1.5V lithium batteries, software, mounting bracket and 2 m (6.5') M12 sensor cable.

Ordering Example: UWRTD-S-2,** wireless RTD transmitter, with **UWTC-REC1,** 48 channel wireless receiver (page W-25), $275 + 225 = **$500.

Wireless Process Transmitter

For Sensors with Voltage or Current Output

NEW

For Available Receivers, See Pages W-19 to W-26

UWPC-2-NEMA

$265

MADE IN USA · 1 YEAR WARRANTY · CE

- Convert Process Signal to Wireless—Up to 120 m (400')
- Accepts 0 to 1V, 0 to 5V, 0 to 10V and 4 to 20 mA Signals
- Industrial NEMA 4X (IP65) Enclosure
- Free Software for Monitoring, Recording, and Data Logging Included
- Low Power Operation/Sleep Mode for Long Battery Life
- UWTC Receivers Work with Up to 48 Wireless Transmitters

The new UWPC wireless process transmitter converts standard process signals (0 to 1V, 0 to 5V, 0 to 10V and 4 to 20 mA) into a wireless signal that can be transmitted up to 120 m (400'), eliminating the need for wiring runs in a variety of environments. The UWPC transmits data at preset intervals, selectable from 2 to 120 seconds. Transmitted data includes the sensor reading, along with RF signal strength and battery status.

The UWPC is compatible with the UWTC-REC family of wireless receivers, which can accept signals from up to 48 wireless transmitters, and display them on a PC.

Each unit includes free software that converts your PC into a monitor, chart recorder or data logger. Readings can be saved and later printed or exported to a spreadsheet file.

Specifications

(See page W-27 for complete specifications)

Input Range: 0 to 1 Vdc, 0 to 5 Vdc, 0 to 10 Vdc or 4 to 20 mA

Resolution: 14-bit; user selectable to 4 decimals

Accuracy: ±0.04% of range at 25°C (77°F)

Input Connection: Panel connector (mating connector supplied)

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

Convert Your Pressure Transducer to a Wireless Pressure Sensor!

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWPC-2-NEMA	$265	Wireless process input transmitter
UWTC-BATT-C	25	Replacement 3.6V battery assembly

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).*

Comes complete with measurement/data logging software, 3.6V lithium "C" cell battery, USB cable, and operator's manual.

Ordering Example: UWPC-2-NEMA, *wireless process input transmitter and* ***UWTC-REC1,*** *USB powered 48-channel transmitter receiver, $265 + 225 =* ***$490.***

Non-Contact Infrared Temperature Sensor
With Wireless Transmitter

For Available Receivers, See Pages W-19 to W-26

UWIR-2-NEMA

$285

MADE IN USA — 1 YEAR WARRANTY — CE

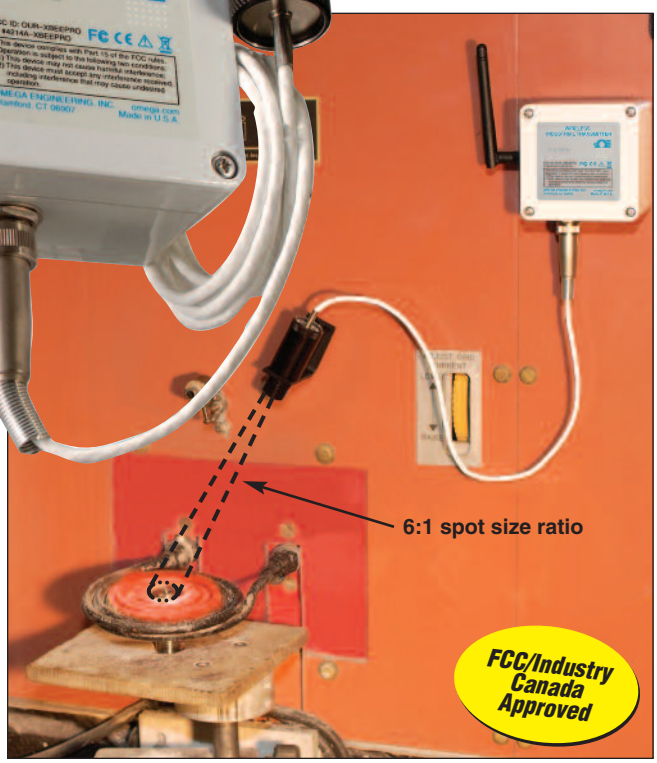
Weather Proof/Wall Mounted

UWIR-2-NEMA, $285, shown smaller than actual size.

- -18 to 538°C (0 to 1000°F) Measurement Range
- Adjustable Emissivity from 0.10 to 1.0
- Free Software Converts Your PC Into a Multi- Channel Chart Recorder or Data Logger
- Low Power Operation and Sleep Mode For Long Battery Life
- Weather Resistant NEMA 4X (IP65) Enclosure

OMEGA's new infrared sensor with wireless transmitter features a remote IR sensor and radio wireless transmitter in a NEMA enclosure. The miniature sensor head is ideal for measuring temperatures from -18 to 538°C (0 to 1000°F) in confined, hard-to-reach places and harsh environments. The wireless transmitter is mounted in a NEMA-4 (IP65) plastic enclosure. When 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: IR sensor reading, 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. 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.

Each Unit Transmits:
- **Process and Ambient Temperatures**
- **Signal Strength**
- **Battery Status**



Monitoring temperature of heating coil on an induction welder.

Specifications

(See page W-27 for complete specifications)

Temperature Range: -18 to 538°C (0 to 1000°F)

Accuracy @ 22°C (72°F) Ambient Temperature and Emissivity of 0.95 or Greater: ±2% rdg or 2.2°C (4°F), whichever is greater

Optical Field of View: 6:1 (distance/spot size)

Sensor Head Cable: 1.8 m (6') standard; up to 15 m (50') total length capable

Repeatability: ±1% rdg

Spectral Response: 5 to 14 microns

Response Time: 100 ms (0 to 63% of final value)

Emissivity Range: 0.1 to 1.00, adjustable

Operating Temperature

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

Sensor Head: 0 to 70°C (32 to 158°F)

Sensor Head with OS100-WC (Water Cooling Jacket): 0 to 200°C (32 to 392°F)

Operating Relative Humidity: Less than 95% RH, non-condensing

Water Flow Rate (OS100-WC): 0.25 GPM, room temperature

Thermal Shock: About 30 minutes for 25°C (77°F) abrupt ambient temperature change

Warm-Up Period: 3 minutes

Air Flow Rate (OS100-AP): 1 CFM (0.5 L/s)

Battery Life (Typ): 1.5 @ 1 sample/minute reading rate @ 25°C (77°F)

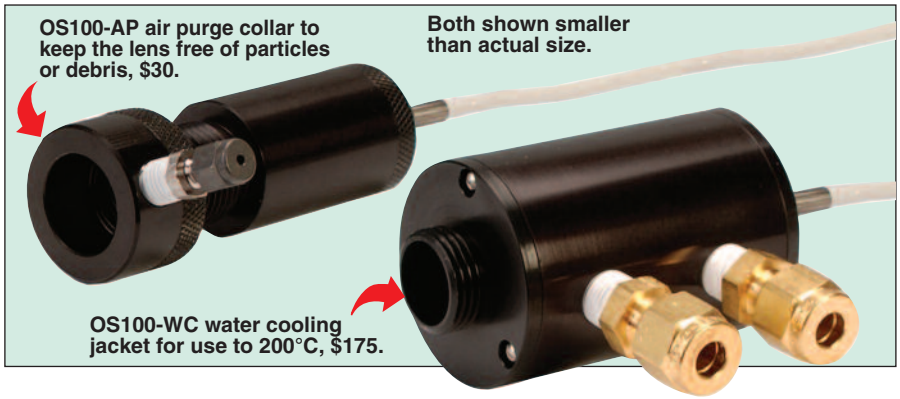
Laser Sight Accessory (OS100-LS)

Wavelength (Color): 630 to 670 nm (red)

Operating Distance (Laser Dot): Up to 9.1 m (30')

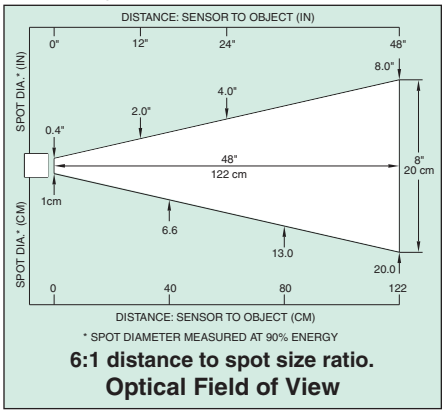
Max Output Optical Power: Less than 1 mW @ -6°C (22°F) ambient temperature

European Classification: Class 2, EN60825-1/11.2001



NEW

Max Operating Current: 45 mA @ 3 Vdc
FDA Classification: Complies with 21 CFR 1040.10, Class II laser product
Beam Diameter: 5 mm (0.20")
Beam Divergence: <2 mrad
Operating Temperature: 0 to 50°C (32 to 122°F)
Operating Relative Humidity: Less than 95% RH, non-condensing
Power Switch: On/off slide switch on the battery pack
Power Indicator: Red LED
Power: Battery pack, 3 Vdc (consists of two 1.5 Vdc "AA" lithium batteries)
Dimensions: 38 Dia. x 50.8 mm L (1.5 x 2")



6:1 distance to spot size ratio.
Optical Field of View

OMEGACARE℠ Extended Warranty Program

OMEGACARE℠ extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE℠ covers parts, labor and equivalent loaners.

Laser Sight Option

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWIR-2-NEMA	**$285**	Non-contact wireless infrared transmitter with remote sensor, 1.8 m (6') cable
UWTC-BATT-C	**25**	Replacement 3.6V lithium "C" battery assembly
UWTC-CABLE	**5**	Spare programing cable (one included with receivers)

Accessories

Model No.	Price	Description
OS100-MB	**$20**	Mounting bracket
OS100-DR	**25**	DIN rail mounting adaptor
OS100-AP	**30**	Air purge collar
OS100-WC	**175**	Water cool jacket, up to 200°C (392°F)
OS100-LS	**175**	Laser sighting accessory
OS100-CA15FT	**35**	Sensor head extension cable, 4.6 m (15')
OS100-CA25FT	**45**	Sensor head extension cable, 7.6 m (25')

Comes complete with operator's manual, software, mounting nut, and 3.6V lithium "C" battery assembly.

Ordering Examples: UWIR-2-NEMA,** wireless infrared transmitter, **UWTC-REC1,** 48-channel USB receiver, **UWTC-BATT-C,** spare battery, and **OS100-MB,** sensor head bracket, $285 + 225 + 25 + 20 = **$555.

UWIR-2-NEMA,** wireless infrared transmitter, **UWTC-REC2-D-MA,** 48-channel transceiver/host with 1-channel 4 to 20 mA analog output, alarm and local display, **UWTC-BATT-C,** spare battery, and **OS100-MB,** sensor head bracket, $285 + 265 + 25 + 20 = **$595.

OCW-3,** OMEGACARE℠ extends standard 1-year warranty to a total of 4 years **($71),** $285 + 71 = **$356.

Non-Contact Infrared Temperature Sensor
With Wireless Transmitter

For Available Receivers, See Pages W-19 to W-26

UWIR-2-NEMA

$285

MADE IN USA — 1 YEAR WARRANTY — CE

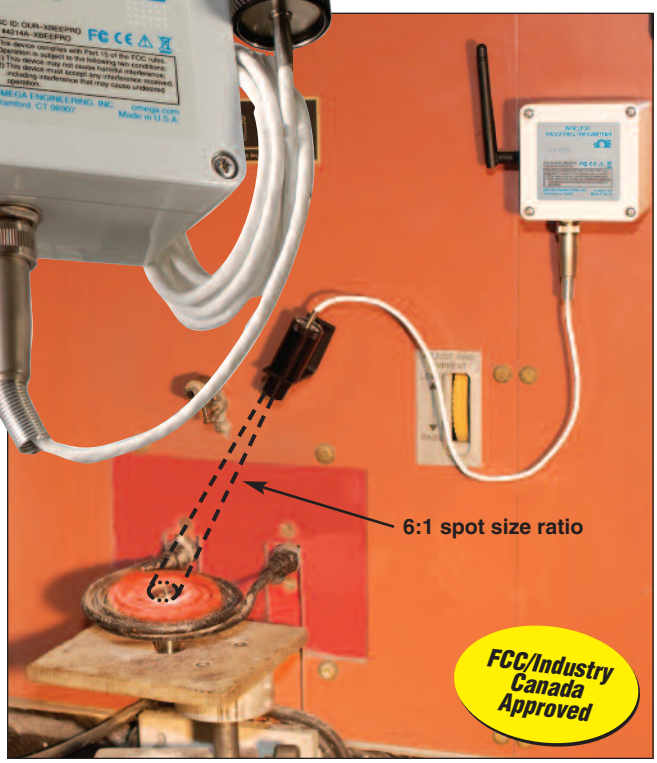
Weather Proof/Wall Mounted

UWIR-2-NEMA, $285, shown smaller than actual size.

- -18 to 538°C (0 to 1000°F) Measurement Range
- Adjustable Emissivity from 0.10 to 1.0
- Free Software Converts Your PC Into a Multi- Channel Chart Recorder or Data Logger
- Low Power Operation and Sleep Mode For Long Battery Life
- Weather Resistant NEMA 4X (IP65) Enclosure

OMEGA's new infrared sensor with wireless transmitter features a remote IR sensor and radio wireless transmitter in a NEMA enclosure. The miniature sensor head is ideal for measuring temperatures from -18 to 538°C (0 to 1000°F) in confined, hard-to-reach places and harsh environments. The wireless transmitter is mounted in a NEMA-4 (IP65) plastic enclosure. When 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: IR sensor reading, 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. 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.

Each Unit Transmits:
- **Process and Ambient Temperatures**
- **Signal Strength**
- **Battery Status**



Monitoring temperature of heating coil on an induction welder.

Specifications

(See page W-27 for complete specifications)

Temperature Range: -18 to 538°C (0 to 1000°F)

Accuracy @ 22°C (72°F) Ambient Temperature and Emissivity of 0.95 or Greater: ±2% rdg or 2.2°C (4°F), whichever is greater

Optical Field of View: 6:1 (distance/spot size)

Sensor Head Cable: 1.8 m (6') standard; up to 15 m (50') total length capable

Repeatability: ±1% rdg

Spectral Response: 5 to 14 microns

Response Time: 100 ms (0 to 63% of final value)

Emissivity Range: 0.1 to 1.00, adjustable

Operating Temperature

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

Sensor Head: 0 to 70°C (32 to 158°F)

Sensor Head with OS100-WC (Water Cooling Jacket): 0 to 200°C (32 to 392°F)

Operating Relative Humidity: Less than 95% RH, non-condensing

Water Flow Rate (OS100-WC): 0.25 GPM, room temperature

Thermal Shock: About 30 minutes for 25°C (77°F) abrupt ambient temperature change

Warm-Up Period: 3 minutes

Air Flow Rate (OS100-AP): 1 CFM (0.5 L/s)

Battery Life (Typ): 1.5 @ 1 sample/minute reading rate @ 25°C (77°F)

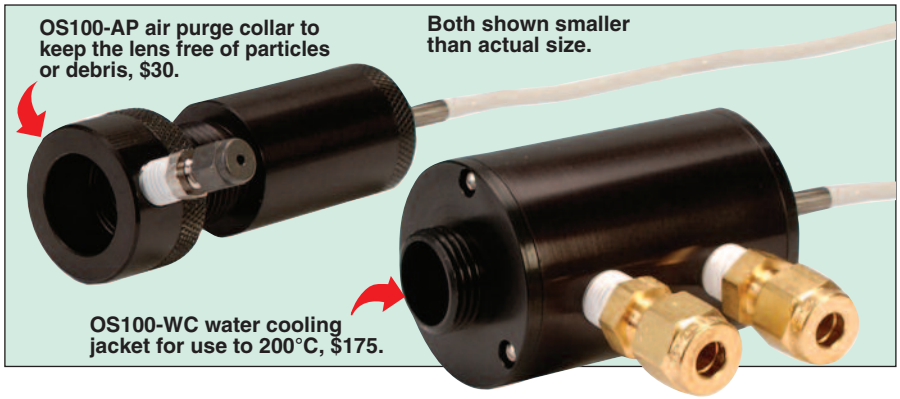
Laser Sight Accessory (OS100-LS)

Wavelength (Color): 630 to 670 nm (red)

Operating Distance (Laser Dot): Up to 9.1 m (30')

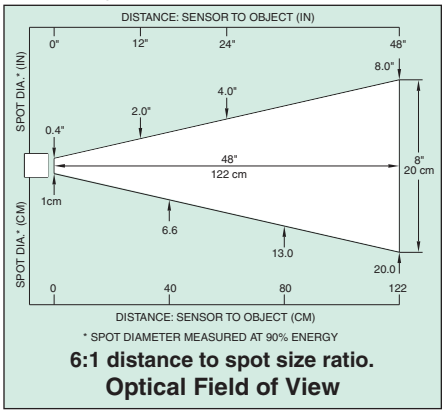
Max Output Optical Power: Less than 1 mW @ -6°C (22°F) ambient temperature

European Classification: Class 2, EN60825-1/11.2001



NEW

Max Operating Current: 45 mA @ 3 Vdc
FDA Classification: Complies with 21 CFR 1040.10, Class II laser product
Beam Diameter: 5 mm (0.20")
Beam Divergence: <2 mrad
Operating Temperature: 0 to 50°C (32 to 122°F)
Operating Relative Humidity: Less than 95% RH, non-condensing
Power Switch: On/off slide switch on the battery pack
Power Indicator: Red LED
Power: Battery pack, 3 Vdc (consists of two 1.5 Vdc "AA" lithium batteries)
Dimensions: 38 Dia. x 50.8 mm L (1.5 x 2")



6:1 distance to spot size ratio.
Optical Field of View

OMEGACARE℠ Extended Warranty Program

OMEGACARE℠ extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE℠ covers parts, labor and equivalent loaners.

Laser Sight Option

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWIR-2-NEMA	**$285**	Non-contact wireless infrared transmitter with remote sensor, 1.8 m (6') cable
UWTC-BATT-C	**25**	Replacement 3.6V lithium "C" battery assembly
UWTC-CABLE	**5**	Spare programing cable (one included with receivers)

Accessories

Model No.	Price	Description
OS100-MB	**$20**	Mounting bracket
OS100-DR	**25**	DIN rail mounting adaptor
OS100-AP	**30**	Air purge collar
OS100-WC	**175**	Water cool jacket, up to 200°C (392°F)
OS100-LS	**175**	Laser sighting accessory
OS100-CA15FT	**35**	Sensor head extension cable, 4.6 m (15')
OS100-CA25FT	**45**	Sensor head extension cable, 7.6 m (25')

Comes complete with operator's manual, software, mounting nut, and 3.6V lithium "C" battery assembly.

Ordering Examples: UWIR-2-NEMA,** wireless infrared transmitter, **UWTC-REC1,** 48-channel USB receiver, **UWTC-BATT-C,** spare battery, and **OS100-MB,** sensor head bracket, $285 + 225 + 25 + 20 = **$555.

UWIR-2-NEMA,** wireless infrared transmitter, **UWTC-REC2-D-MA,** 48-channel transceiver/host with 1-channel 4 to 20 mA analog output, alarm and local display, **UWTC-BATT-C,** spare battery, and **OS100-MB,** sensor head bracket, $285 + 265 + 25 + 20 = **$595.

OCW-3,** OMEGACARE℠ extends standard 1-year warranty to a total of 4 years **($71),** $285 + 71 = **$356.

Wireless pH/Temperature Transmitter

With Automatic Temperature Compensation

UWPH-2-NEMA

$265

MADE IN USA | 1 YEAR WARRANTY | CE

- 0 to 14 pH and 0 to 100°C (32 to 212°F) Ranges
- Transmit Data in Real-Time, up to 120 m (400')
- Free Software Converts Your PC into a Multi-Channel Chart Recorder or Data Logger
- Low Power Operation and Sleep Mode
- Works with UWTC-REC Receivers for a Complete Wireless System

UWPH-2-NEMA, wireless pH/ temperature transmitter, $265.

OMEGA's new wireless pH/ temperature transmitter features a high performance microprocessor based wireless radio transmitter built into a NEMA enclosure. Compatible with most pH probes with a BNC connector, the UWPH provides fast, accurate readings. For automatic temperature compensation, the UWPH accepts a Pt1000 RTD probe through a standard (series T) connector. Configured through a standard USB port, the UWPH can transmit data at rates from 2 sec to 2 min. Each transmitted reading includes the pH and temperature data, along with RF signal strength and battery condition. Using TC central software (included), this data can be displayed on screen in real time.

Input Connection: BNC
Temperature Compensation: Automatic, 0 to 100°C (32 to 212°F)
RTD Temperature Input:
Input Type: Pt1000 Ω, 0.00385 curve
Range: 0 to 100°C (32 to 212°F)
Accuracy: ±1°C (1.8°F)
Resolution: 0.1°
Input Connection: TA3M; TA3F mating connector included
Battery Life (Typical): 3 years; 1 sample/minute reading rate @ 25°C (77°F)

Specifications

(See page W-27 for complete specifications)

Input Range: 0 to 14 pH
Accuracy: ±0.1 pH
Resolution: 0.01 pH
Response Time: 2 sec max

For Available Receivers, See Pages W-19 to W-26

All models shown smaller than actual size.

PRTF-10-2-1000-1/8-6-E-TA3F, RTD probe $58.

PHE-1311, gel-filled pH electrode, $57.

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWPH-2-NEMA	**$265**	Wireless pH/temperature transmitter
UWTC-BATT-C	**25**	Replacement 3.6V battery assembly
PHE-1311	**57**	Gel-filled pH electrode
PRTF-10-2-1000-1/8-6-E-TA3F	**58**	Pt1000 RTD probe, ⅛" dia, 6" length, 40" cable, TA3F connector

Comes complete with measurement/data logging software, one 3.6V lithium "C" cell assembly, USB cable, TA3F RTD mating connector, and operator's manual.

Ordering Example: UWPH-2-NEMA,** wireless pH/temperature transmitter, **UWTC-REC1,** USB powered 48-channel transmitter receiver, **PHE-1311,** gel-filled pH electrode and **PRTF-10-2-1000-1/8-6-E-TA3F,** Pt1000 RTD probe, $265 + 225 + 57 + 58 = **$605.

Wireless Thermocouple Probe/Transmitter Assemblies

UWTC-NB9 Series Starts at

$195

MADE IN USA | 1 YEAR WARRANTY | CE | EMC SERVICES

- **Transmit Temperature Data Wirelessly to Your Computer or the Internet**
- **Complete Industrial Assembly**
- **Transmit up to 120 m (400')**
- **Included Software Converts a PC into a Multi-Channel Chart Recorder or Data Logger**
- **Each Wireless Connector Transmits Sensor Temperature, Ambient Temperature, Signal Strength and Battery Status in Real Time**
- **Low Power Operation, Sleep Mode for Long Battery Life**
- **Compatible with UWTC-REC Wireless Receivers**

For Available Receivers, See Pages W-19 to W-26

NEW

FCC/Industry Canada Approved

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

The OMEGA® wireless thermocouple and RTD industrial probe assemblies feature a complete, ready to install, pre-wired sensor and wireless transmitter package. Built into the NB9 glass reinforced Nylon head is a wireless transmitter that can transmit temperature readings back to a host receiver up to 120 m (400') away. The probes transmit the measured temperature, along with the head ambient temperature, RF signal strength and battery condition to a remote host, such as the UWTC-REC Series. You can program the UWTC-NB9 to transmit your data at rates from every two seconds (30/min) to every 2 minutes.

See page W-27 for complete specifications.

AVAILABLE FOR FAST DELIVERY!

INPUT AND SHEATH OPTIONS

ORDER CODE	INPUT TYPE	SHEATH
ICIN	J Iron Constantan	Inconel®
ICSS		304 SS
CAIN	K CHROMEGA® ALOMEGA®	Inconel
CASS		304 SS
CXIN	E CHROMEGA® Constantan	Inconel
CXSS		304 SS
CPIN	T Copper Constantan	Inconel
CPSS		304 SS
NNIN	N	Inconel
1PT304	RTD, Pt100 Ω 0.00385	304 SS
1PT316		316 SS
2PT304	RTD, Pt100 Ω 0.00392	304 SS
2PT316		316 SS

To Order *(Specify Model Number)*

Model No.	Price	Description
UWTC-NB9-(*)-(**)U-6	$195	Wireless thermocouple-probe assembly, 152 mm (6") ungrounded probe
UWTC-NB9-(*)-(**)U-12	195	Wireless thermocouple-probe assembly, 304 mm (12") ungrounded probe
UWTC-NB9-(*)-(**)U-18	205	Wireless thermocouple-probe assembly, 457 mm (18") ungrounded probe
UWTC-NB9-(*)-(**)U-24	205	Wireless thermocouple-probe assembly, 610 mm (24") ungrounded probe
UWRTD-NB9-(*)-(**)-12	195	Wireless RTD-probe assembly, 304 mm (12") probe
UWRTD-NB9-(*)-(**)-24	205	Wireless RTD-probe assembly, 610 mm (24") probe

** Specify input type and sheath material, see Input and Sheath Options chart at left.*

*** Specify probe OD: **116** (1/16"), **18** (1/8"), **316** (3/16"), or **14** (1/4").*

Comes complete with 3.6V "C" battery assembly, programming software, measurement/data logging software, and operator's manual.

Ordering Examples:

UWTC-NB9-CAIN-316U-12,** wireless thermocouple probe assembly, Type K, inconel sheath, 4.76 mm (3/16") OD, ungrounded junction, 304 mm (12") length, **$195,** and **UWTC-REC1,** USB powered wireless receiver, $195 + 225 = **$420.

UWRTD-NB9-1PT304-14-24,** wireless RTD probe assembly, 100 Ω, 0.00385 RTD, 6.35 mm (1/4") OD 304 SS sheath, 610 mm (24") length, and **UWTC-REC1,** USB powered wireless receiver, $205 + 225 = **$430.

Please contact OMEGA for Type K probes with OMEGACLAD® XL sheath, or for ordering information for types R, S, B and C thermocouples.

Wireless RTD Probe/Transmitter Assembly

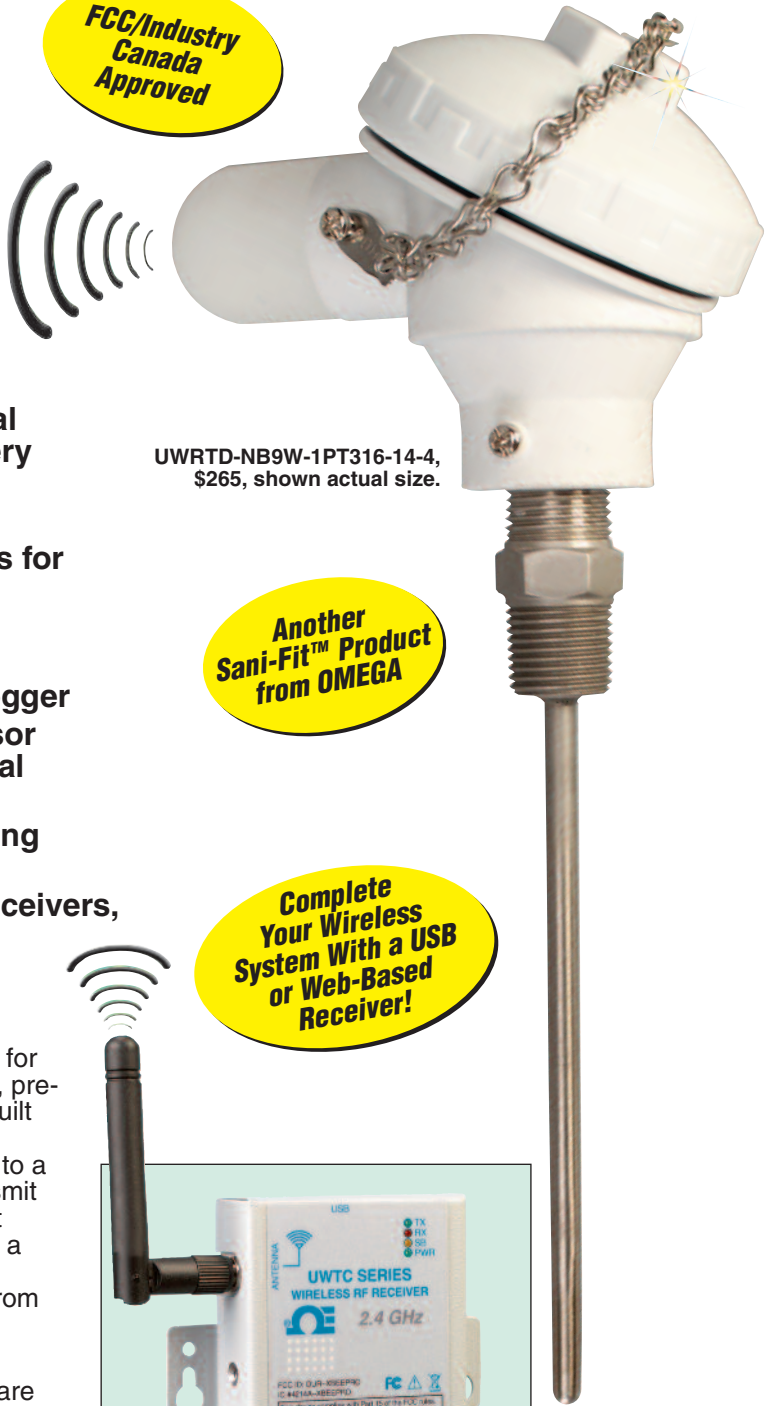
For Use in Sanitary Applications

UWRTD-NB9W Series
Starts at
$265

MADE IN USA · 1 YEAR WARRANTY · CE

- **Transmit Temperature Data Wirelessly to Your Computer or the Internet**
- **Complete Industrial Assembly—Includes Probe, Transmitter Housing/Head, Integral Wireless Transmitter and Long Life Battery**
- **Stainless Steel Construction with White Polypropylene Transmitter Housing**
- **Available with 3-A Approved Thermowells for Clean-in-Place (CIP) Applications**
- **Transmit up to 120 m (400')**
- **Included Software Converts a PC into a Multi-Channel Chart Recorder or Data Logger**
- **Each Wireless Connector Transmits Sensor Temperature, Ambient Temperature, Signal Strength and Battery Status in Real Time**
- **Low Power Operation, Sleep Mode for Long Battery Life**
- **Compatible with UWTC-REC Wireless Receivers, Wi Series Meter/Controller/Scanner and DIN Rail Receivers-Create 32- or 48-Channel Wireless Systems**

FCC/Industry Canada Approved



UWRTD-NB9W-1PT316-14-4, $265, shown actual size.

Another Sani-Fit™ Product from OMEGA

Complete Your Wireless System With a USB or Web-Based Receiver!

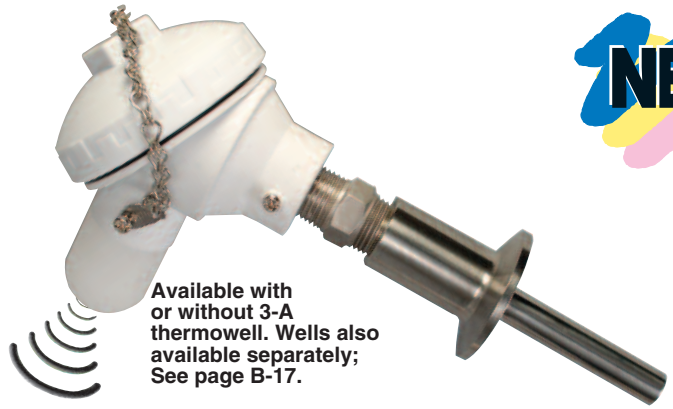
UWTC-REC2 wireless receiver with analog output, $235. See receivers on pages W-25 and W-26.

The OMEGA® wireless RTD industrial probe assemblies for sanitary applications feature a complete, ready to install, pre-wired Pt100 sensor and wireless transmitter package. Built into the NB9W white polypropylene head is a wireless transmitter that can transmit temperature readings back to a host receiver up to 120 m (400') away. The probes transmit the measured temperature, along with the head ambient temperature, RF signal strength and battery condition to a remote host, such as the UWTC-REC Series. You can program the UWTC-NB9 to transmit your data at rates from once every 2 seconds to every 2 minutes.

Data received by the UWTC-REC can be received and displayed on your computer, using the TC Central software included with each unit. The UWTC-REC1 is a 48-channel receiver with USB connection; the UWTC-REC-2 adds an analog output that can be used to retransmit a 0 to 5 Vdc, 0 to 10 Vdc, Type K thermocouple or 4 to 20 mA signal to a remote meter, controller, PLC or data acquisition instrument. Both are available with an optional NEMA-rated enclosure. The TC Central software (included) can turn your PC into a strip chart recorder or data logger so readings can be saved and later printed or exported to a spreadsheet file.

Typical Wireless System

With OMEGA's wireless probes and receivers you can connect directly to a process recorder, as well as to your computer, to print and save your data!



Available with or without 3-A thermowell. Wells also available separately; See page B-17.

TC Central Software Included. See Page W-26 for Details.

USB

Analog output

Up To 48 Channels!

UWTC-REC2 wireless receiver with analog output, $235, see receivers on page W-25.

CTXL-DPR chart recorder, $795, see pages S-37 thru S-44.

Specifications

(See page W-27 for complete specifications)

Input Type: 100 Ω Pt RTD; 0.00385 (Class A) or 0.00392 curve; 500 Ω, 1000 Ω elements also available by special order

Measurement Range:

0.00385: -200 to 850°C (-328 to 1562°F)

0.00392: -100 to 457°C (-148 to 854°F)

Accuracy: ±0.5°C (1°F)

Resolution: 1°C/1°F

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

Transmit Sample Rate: Programmable from 2 sec to 2 min

Battery Lite: 3 yr at 1 sample/min rate @ 25°C (77°F)

Probe Assembly Material: 304 SS or 316 SS

Transmitter Housing Material: White polypropylene head

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

MOST POPULAR MODEL HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWRTD-NB9W-(†)-(††)-4	**$265**	Wireless RTD probe/transmitter/head assembly (4" probe)
UWRTD-NB9W-(†)-(††)-6	**275**	Wireless RTD probe/transmitter/head assembly (6" probe)
UWRTD-NB9W-(†)-(††)-4-B	**390**	Wireless RTD probe/transmitter/head assembly with **11/2-S-260-U21/2-316SS** thermowell
UWRTD-NB9W-(†)-(††)-6-C	**420**	Wireless RTD probe/transmitter/head assembly with **11/2-S-260-U41/2-316SS** thermowell

UWRTD-NB9 comes complete with probe, head/transmitter/antenna assembly and battery.

*† Specify sensor type and probe sheath: **"1PT304"** for 100 Ω, 0.00385 curve with 304 SS sheath, **"1PT316"** for 100 Ω, 0.00385 curve with 316 SS sheath, **"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-1PT316-14-4-B,** wireless RTD probe assembly, 100 Ω, 0.00385 curve, 316 SS sheath, 6.35 mm (1/4") sheath diameter, 102 mm (4") long, with 1 1/2-S-260-U2 1/2-316SS sanitary thermowell with 2 1/2" insertion length, **$390.

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, **$275.

Long Range Wireless Repeater/Receiver System

For UW Series Transmitters

UWTC-1 wireless thermocouple connector, $125. See page W-7

PATENT PENDING

Standard Range Wireless up to 120 m (400')

UWTC-RPT1 Starts at $325

MADE IN USA · 1 YEAR WARRANTY · CE

UWTC-REC1-915, $245, wireless USB based receiver

Long Range Wireless up to 8 km (5 mi)

UWTC-RPT1-915, $325, wireless long range receiver/repeater

- **Receive Data from Up to 48 Wireless Sensors and Re-transmits the Data to a USB Based Receiver Up to 5 Miles (8 km) Away**
- **Compatible with All OMEGA UW Series Wireless Connectors, Transmitters and Probe Assemblies**
- **Available in 915 MHz for USA Canada or 868 MHz for Europe**
- **Field Programmable via USB Connection and Included Software Utility**
- **Available in Rugged, Splashproof, NEMA (IP65) Housing**

The OMEGA's long range wireless repeater system extends the transmitting range of OMEGA's wireless connectors, probes and industrial transmitters up to 5 miles. The UWTC-RPT1 collects transmitted data from OMEGA UW series transmitters and instantaneously re-transmits the data to your USB base receiver. Distances of up to 5 miles line-of-site are possible with proper installation. This system provides a low cost, ideal solution for when data from many process sensors need to be recorded far from the actual sensing location.

Specifications

Power: 5 to 12 Vdc @ 500 mA (AC wall adaptor included)
Ambient Operating Conditions: 0 to 55°C (32 to 131°F), 90% RH non-condensing

Wireless Communication

Receiving Frequency: 2.4 GHz
Transmitting Frequency: 915 MHz (USA/Canada) 868 MHz (Europe)
RF Transmit Power: 100 mW (+20 dBm)
Indoor/Urban Range: Up to 305 m (1000')
Outdoor/RF Line-of-Sight Range: Up to 1.8 miles (3 km), up to 5 miles (8 km) with optional high gain antenna
Setup and Configuration: USB (cable included) for Windows®

Enclosure

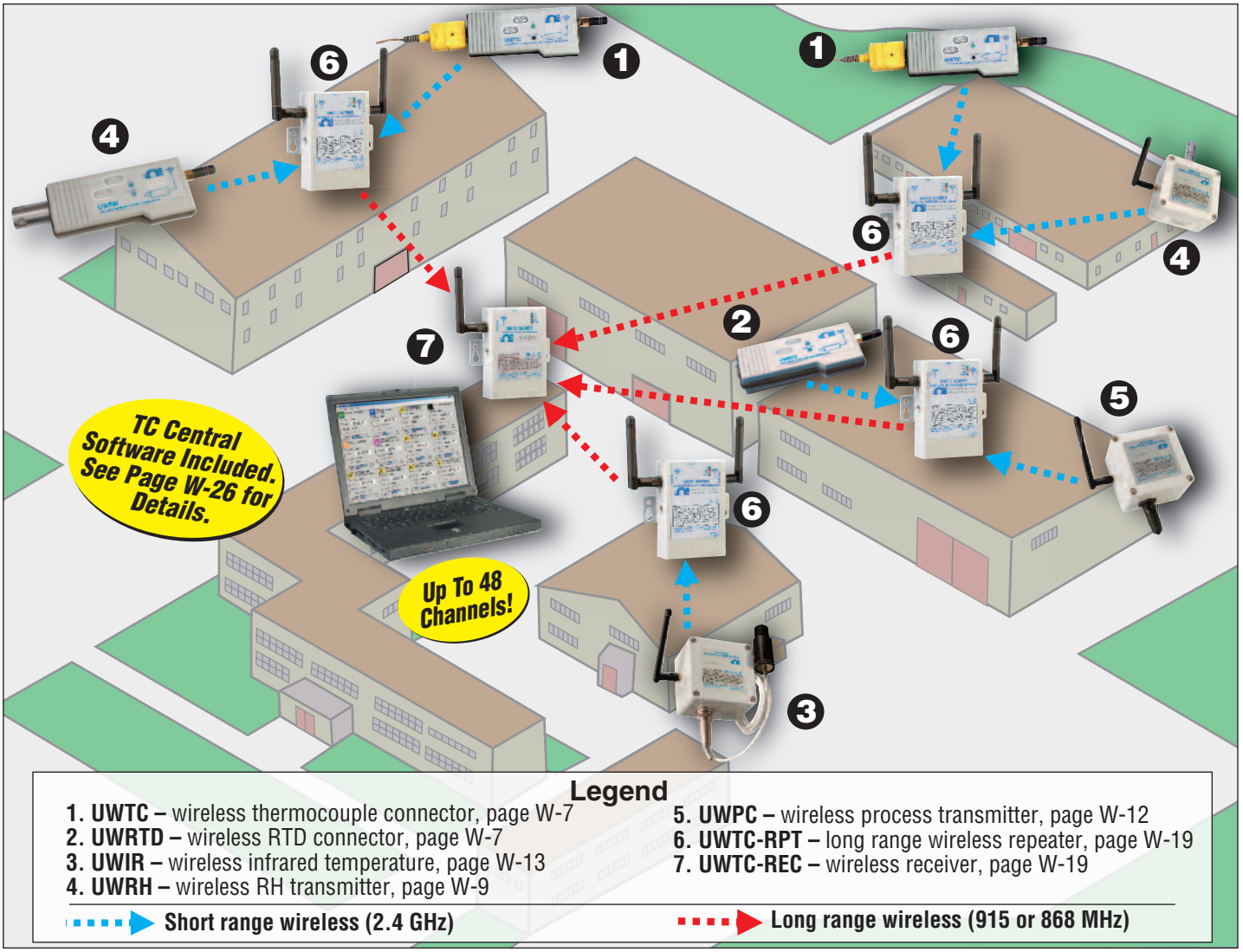
Standard Model: Painted steel
NEMA Model: ABS base, polycarbonate lid

Dimensions

Standard Model:
92 H x 62 W x 22 mm D
(3.6 x 2.43 x 0.85")
NEMA Model:
160 H x 90 W x 60 mm D
(6.3 x 3.54 x 2.36")

Approvals: FCC, IC, CE

Consolidate All Your Wireless Signals Into a Single Convenient Location, Up to 5 Miles Away with the UWTC-RPT1 Wireless Repeater System



MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
UWTC-RPT1-(*)	**$325**	48-device wireless receiver/repeater†
UWTC-RPT1-(*)-NEMA	**425**	48-device wireless receiver/repeater, NEMA enclosure†
UWTC-REC1-(*)	**245**	48-device wireless USB receiver
UWTC-REC1-(*)-NEMA	**345**	48-device wireless USB receiver, NEMA enclosure

****** Specify RF **"915"** for 915 MHz (USA/Canada) or **"868"** for 868 MHz (Europe) **†** add **$70** for **"868"** models*
Each receiver comes complete with a USB cable, PC based software and operator's manual. Each repeater comes complete with a USB programming cable, AC wall adaptor and operator's manual.

USA/Canada Ordering Example: UWTC-RPT1-915,** 48-device wireless repeater (USA/Canada) **$325,** and **UWTC-REC1-915,** 48-device wireless receiver (USA/Canada) **$245,** $325 + 245 = **$570

Europe Ordering Example: UWTC-RPT1-868,** 48-device wireless repeater (Europe) **$395,** and **UWTC-REC7-868,** 48-device wireless receiver (Europe) **$245,** $395 + 245 = **$640

Wireless DIN Rail Receiver

With 4 Analog Outputs and Alarms

UWTC-REC4

$275

MADE IN USA | 1 YEAR WARRANTY | CE | EMC SERVICES

- **Works with Up to 48 Wireless Transmitters**
- **Four 0 to 5 Vdc, 0 to 10 Vdc or 4 to 20 mA Analog Outputs**
- **Interface Directly to PLCs, Chart Recorders and Data Loggers**
- **Standard DIN Rail Enclosure**
- **Built-in Programmable Alarms for Each Channel**
- **Field Programmable via USB**
- **Included Software Turns a PC Into a Multi-Channel Meter, Chart Recorder or Data Logger**

Works with:

- **UWTC–Thermocouple**
- **UWRTD–RTD**
- **UWRH–Humidity**
- **UWIR–Infrared Temperature**
- **UWPH–pH**
- **UWPC–Process Voltage/Current Wireless Transmitters**

UWTC-REC4, $275, shown actual size.

The UWTC-REC4 wireless DIN rail receiver can work with up to 48 wireless transmitters, displaying their data in real time on your PC. The UWTC-REC4 also has four independent analog outputs, which can be user-programmed as a retransmission signal from any input channel, driving a PLC or data logger. The UWTC-REC4 is compatible with the full line of UW wireless transmitters from OMEGA; choose from thermocouple, RTD, %RH, infrared (non-contact) temperature, pH, as well as process voltage/current models.

The standard DIN rail mount design provides for easy mounting, and fast connections to other DIN rail equipment, including PLCs. The optional iDRN-PS-1000 power supply can power up to three UWTC-REC4 units, which can give you up to 12 analog outputs.

Convenient DIN rail mount design simplifies installation and operation with PLCs and other instrumentation.

Specifications

Power: 12 to 24 Vdc @ 250 mA
Analog Output: 4 independent, non-isolated, retransmission 0 to 5 Vdc, 0 to 10 Vdc or 4 to 20 mA
Alarms (Programmable): One per channel, rising/falling activation
Alarm Type: Open drain, 100 mA max
Power, Output, Alarm Connection: Screw terminals
Operating Ambient: 0 to 55°C (32 to 131°F), 90% RH non-condensing
Radio Frequency (RF) Transceiver Carrier: ISM 2.4 GHz, direct sequence spread spectrum
RF Data Packet Standard: IEEE 802.15.4, open communication architecture
Enclosure: DIN rail (plastic)
Dimensions: 93 H x 39 W x 125 mm D (3.64 x 1.55 x 4.93")

Note: *The UWTC-REC4 can be powered directly by the PLC or data logger you are connecting to and will not require an additional power source if the instrument has 12 to 24 Vdc @ 250 mA available for external devices. If your instrument does not have a power source available for external devices you will need to add an additional power supply (iDRN-PS-1000) to power the wireless receiver. This power supply can power up to 3 UWTC-REC4 receivers. Visit* ***omega.com/wireless*** *for more information.*

Interfaces Directly with PLCs and Multi-Channel Data Loggers to Form a Complete Wireless Measurement and Control System!

*Typical system shown above includes any 4 wireless transmitters with one **UWTC-REC4-MA** wireless receiver with analog outputs, **$275** and **HE-XE102** PLC, **$445,** $275 + 445 = **$720.** (Receiver and PC only)*

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
UWTC-REC4-(*)	**$275**	DIN rail wireless receiver with 4 analog outputs and alarms
iDRN-PS-1000	**150**	Power supply (switching) 95 to 240 Vac input, 24 Vdc output @ 850 mA (power 3 units)
RAIL-35-1	**10**	35 mm (1.4") DIN rail, 1 m (3.3') length
RAIL-35-2	**15**	35 mm (1.4") DIN rail, 2 m (6.6') length

Comes complete with measurement/data logging software, USB programming cable, and operator's manual.
***** Specify analog output signal: **"V1"** for 0 to 5 Vdc; **"V2"** for 0 to 10 Vdc, **"TC"** for Type K thermocouple, or **"MA"** for 4 to 20 mA signal.*
Ordering Example: UWTC-REC4-MA,** 48-channel DIN rail receiver with four 4 to 20 mA outputs and alarms, **$275.

Universal Wireless Transceiver Module

MADE IN USA · 1 YEAR WARRANTY · CE

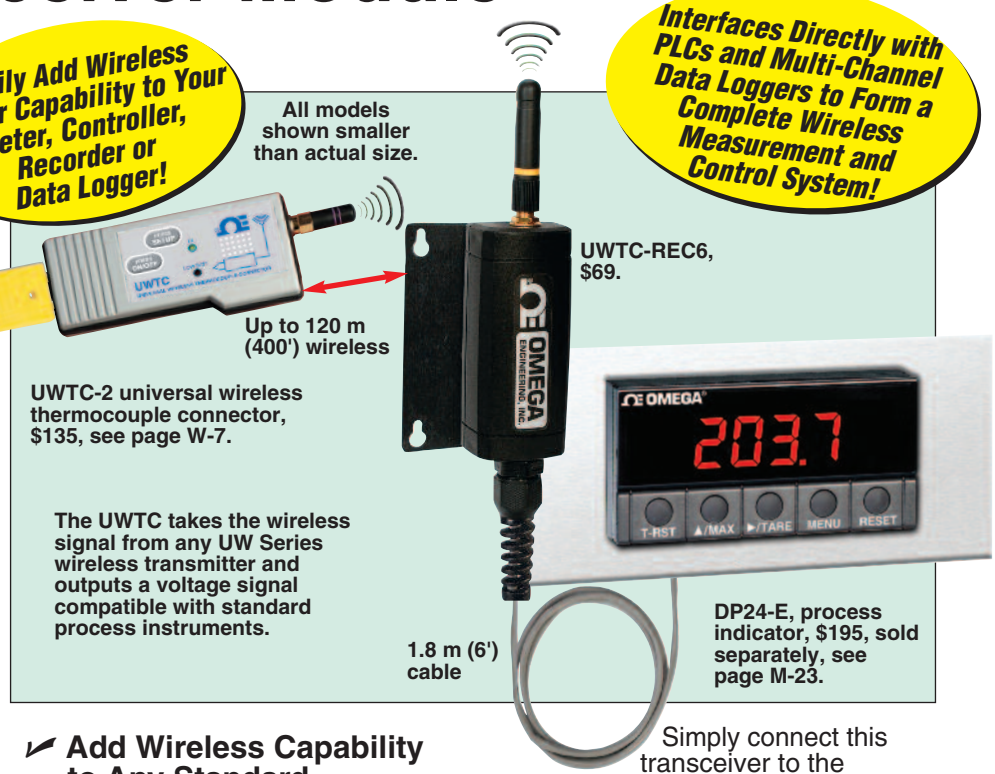
Model UWTC-REC6
$69

UWTC-REC6, $69, shown actual size.

PATENT PENDING

Easily Add Wireless Sensor Capability to Your Meter, Controller, Recorder or Data Logger!

Interfaces Directly with PLCs and Multi-Channel Data Loggers to Form a Complete Wireless Measurement and Control System!



- **Add Wireless Capability to Any Standard Process Input Instrument**
- **Analog Output Signal**
- **Easily Connect to Panel Meters, Controllers, PLCs, Chart Recorders and Data Loggers**
- **Simple, Single Channel Operation**
- **Includes Mounting Bracket and 1.8 m (6') Integral Cable**
- **Powered From Host Instrument or External Power Supply**
- **Compatible with All OMEGA UW Series Wireless Transmitters**

With OMEGA's new universal wireless transceiver modules you can eliminate the wire connection between your sensor and instrument.

Simply connect this transceiver to the analog input on your instrument and you'll be able to receive wireless measurements from many different wireless sensors including OMEGA's wireless thermocouple and RTD connectors, pH, infrared temperature, relative humidity, process input transmitters and our NB9 Series of industrial wireless probe/transmitters assemblies.

Specifications

Power: 12 to 24 Vdc @ 50 mA
Analog Output: 1, non-isolated, retransmission 0 to 5 Vdc, 0 to 10 Vdc
Connection: 1.8 m (6') integral analog output cable (included) with stripped wire termination, for both power and output
Ambient Operating Range: -10 to 70°C (14 to 158°F), 0 to 95% RH (non-condensing)
Radio Receiver Frequency (RF): 2.4 GHz
Enclosure: ABS (plastic)
Dimensions: 76 L x 32 W x 26 mm H (3 x 1.25 x 1")

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWTC-REC6-(*)	**$69**	Wireless transceiver for UW series wireless connectors and transmitters
REC6-PC	**15**	Programming cable and Windows® setup software (one required)
PSU-93	**40**	24 Vdc, 200 mA power supply (optional)

Comes complete with 1.8 m (6') integral cable, mounting bracket, and operator's manual.

* *Specify analog output signal: **"V1"** for 0 to 5 Vdc or **"V2"** for 0 to 10 Vdc.*

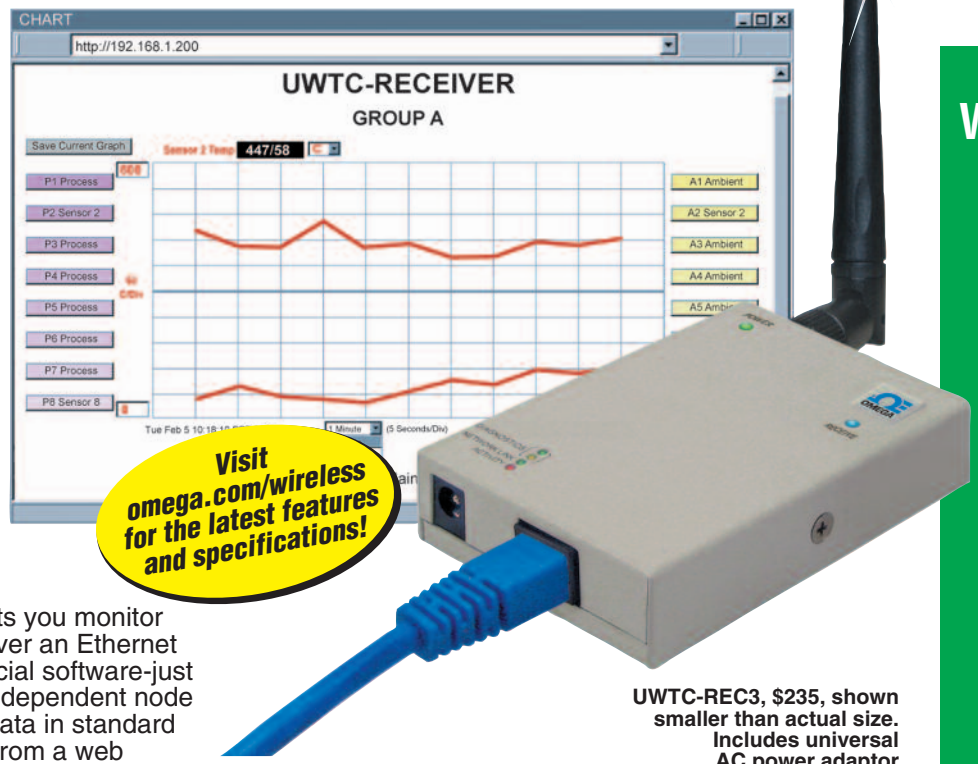
Ordering Example: UWTC-REC6-V1,** wireless transceiver/converter with 0 to 5 Vdc analog output, **$69.

Wireless Receiver
For Web-Based Monitoring

UWTC-REC3
$235

MADE IN USA | 1 YEAR WARRANTY | CE | EMC SERVICES

- **Connects Directly to Ethernet and Internet**
- **Web Server**
- **Works with UWTC, UWRTD, UWRH, UWIR, and UWXL Series Wireless Connectors or Probe Assemblies**
- **Alarms by E-mail or Text Message**
- **No Special Software Required**



UWTC-REC3, $235, shown smaller than actual size. Includes universal AC power adaptor

The OMEGA® UWTC-REC3 receiver lets you monitor and record temperature and humidity 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 your set-point. Your alarm can be sent by e-mail to a single user or to a group distribution list, including text messages to 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 and humidity 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 Qualifed AC Power Adaptor (Included)
Nominal Output: 9 Vdc @ 0.5 A
Input: 100 to 240 Vac, 50/60 Hz

Wireless Communication

Protocol: IEEE 802.15.4, DSSS
Frequency: 2.4 GHz, channel #12
Network Topology: Star topology
Range: Up to 450 m (1500') without obstructions or interference environment (dependant on specific transmitter)
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, CE
Software: configuration software for the Ethernet interface; an Excel based software for automatic data logging; email alarm notification software
Works with Models:
UWTC-1, UWTC-2, UWTC-NB9, UWTC-2-NEMA, UWRTD-1, UWRTD-2, UWRTD-NB9, UWRTD-NB9W, UWRTD-2-NEMA, UWRTD-S-2, UWIR-2-NEMA, UWRH-2, UWRH-2-NEMA, UWXL-24-TC, UWXL-24-RTD, UWXL-24-IR, UWXL-24-RH

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).*

AVAILABLE FOR FAST DELIVERY!

To Order ***(Specify Model Number)***

Model No.	Price	Description
UWTC-REC3	**$235**	32-channel receiver with ethernet
OPC-SERVER-SOFTWARE	**295**	License for OPC server software

Comes complete with AC adaptor, USB programming cable for transmitter, measurement/data logging software, and operator's manual.

Ordering Example: UWTC-REC3, *32-channel receiver, with* ***UWTC-1,*** *thermocouple to wireless transmitter visit* ***omega.com/uwtc,*** *$235 + 125 =* ***$360.***

Wireless Connector/ Transmitter Receivers

Monitor up to 48 Temperature, pH, Process or Humidity Signals

UWTC-REC Series Starts at

$225

MADE IN USA · 1 YEAR WARRANTY · CE

- **Receive Signals from UWTC, UWRTD, UWRH, UWPH and UWPC Transmitters**
- **Analog Output Available**
- **USB Interface for Fast Installation—Cable Included!**
- **Digital Display Available**
- **Weather Resistant NEMA Enclosure Available**
- **TC Central Software Included—Converts Your PC into a Chart Recorder or Data Logger**
- **Display and Log Data, Ambient, Signal Strength and Battery Status in Real Time**

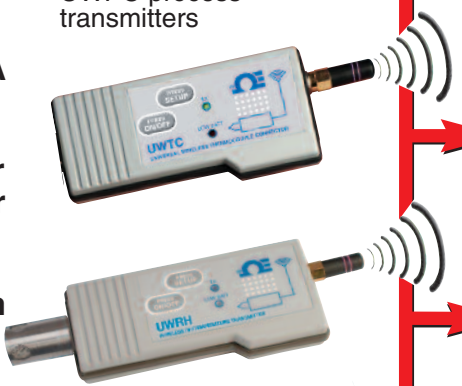
Both are available with an optional NEMA rated enclosure; UWTC-REC2 units are also available with an optional digital display.

UWTC-REC1 transmitter/receivers are compatible with all connector/transmitters, including:

- UWTC thermocouple connectors/transmitters
- UWRTD RTD connectors/transmitters
- UWRH relative humidity transmitter
- UWPH pH transmitters
- UWPC process transmitters

UWTC-REC1, $225.

All models shown smaller than actual size.



UWTC-1 thermocouple transmitter, $125. See pages W-5 to W-18 for the complete selection of compatible wireless transmitters.

UWTC-REC2-D with analog output and display, $265.

UWTC-REC3 32-channel receiver with ethernet, $275. See page W-24 for details.

UWTC-REC3 receiver/host with ethernet is compatible with UWTC, UWRTD, UWRH and UWIR series transmitters, and connects directly to your network or the Internet—no PC required!

UWTC-REC1-NEMA with NEMA-rated enclosure, $325.

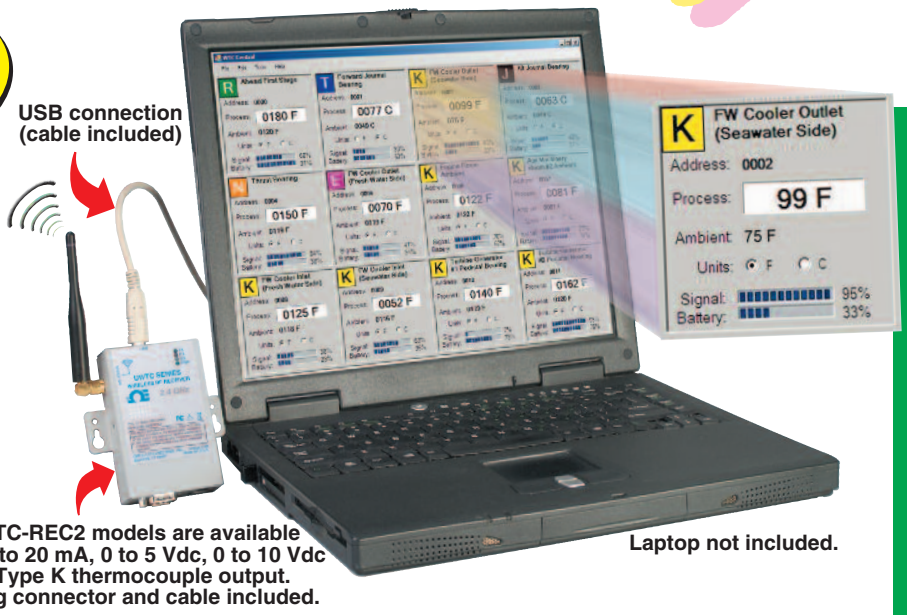
The new OMEGA® wireless connector/transmitter receivers are compact devices that receive the transmitted signals from UWTC Series transmitters, and display/log/graph the data on your PC. TC Central software, included with each unit, displays the measured and ambient temperatures, along with RF signal strength and battery condition. The TC central software can turn your PC into a recorder or data logger so readings can be saved and later printed or exported to a spreadsheet file.

The UWTC-REC1 is a 48-channel receiver with USB connection; the UWTC-REC-2 adds an analog output that can be used to retransmit a 0 to 5 Vdc, 0 to 10 Vdc, type K thermocouple or 4 to 20 mA signal to a remote meter, controller, PLC or data acquisition instrument.

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

NEW®

Data Logging and Recording Software Included



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.

Laptop not included.

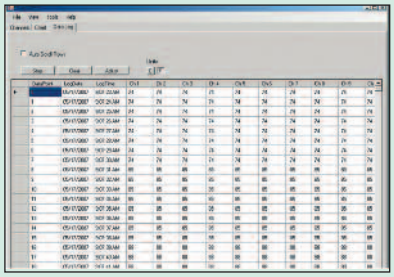
TC Central Software

- Display, Log and Chart Data from up to 48 Wireless Instruments
- Easy Setup and Operation
- High/Low Alarms
- Programmable Engineering Units
- Transmission, Signal Strength and Battery Power Indicators
- Data Export to CSV File, Chart Export to Clipboard
- Included with UW and MWTC Wireless Instruments

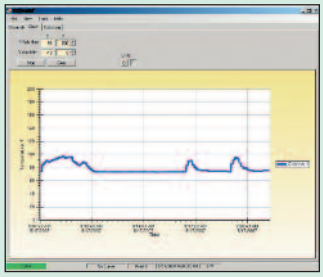
Compatible with 32-bit Windows (2000, XP, Vista or 7) OS

Latest software version available for free download at **ftp.omega.com**

Data Logging



Charting



Specifications

Power: USB-powered device; receives power from host; UWTC-REC2 units also require dc power supply for analog output (AC adaptor included)

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

Radio Frequency (RF) Transceiver

Carrier: ISM 2.4 GHz, direct sequence spread spectrum

RF Data Packet Standard: IEEE 802.15.4, open communication architecture

Software (Included): Requires Windows® OS

CE Compliance: Standard

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)*

MOST POPULAR MODEL HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWTC-REC1	**$225**	USB powered 48-channel transmitter receiver
UWTC-REC1-NEMA	**325**	USB powered 48-channel transmitter receiver with NEMA enclosure
UWTC-REC2-(*)	**235**	48-channel transmitter receiver with analog output
UWTC-REC2-D-(*)	**265**	48-channel transmitter receiver with analog output and digital display
UWTC-REC2-(*)-NEMA	**335**	48-channel transmitter receiver with analog output, NEMA enclosure
UWTC-REC2-D-(*)-NEMA	**365**	48-channel transmitter receiver with analog output and digital display, NEMA enclosure
UWTC-CABLE	**5**	Additional USB programming/communication cable

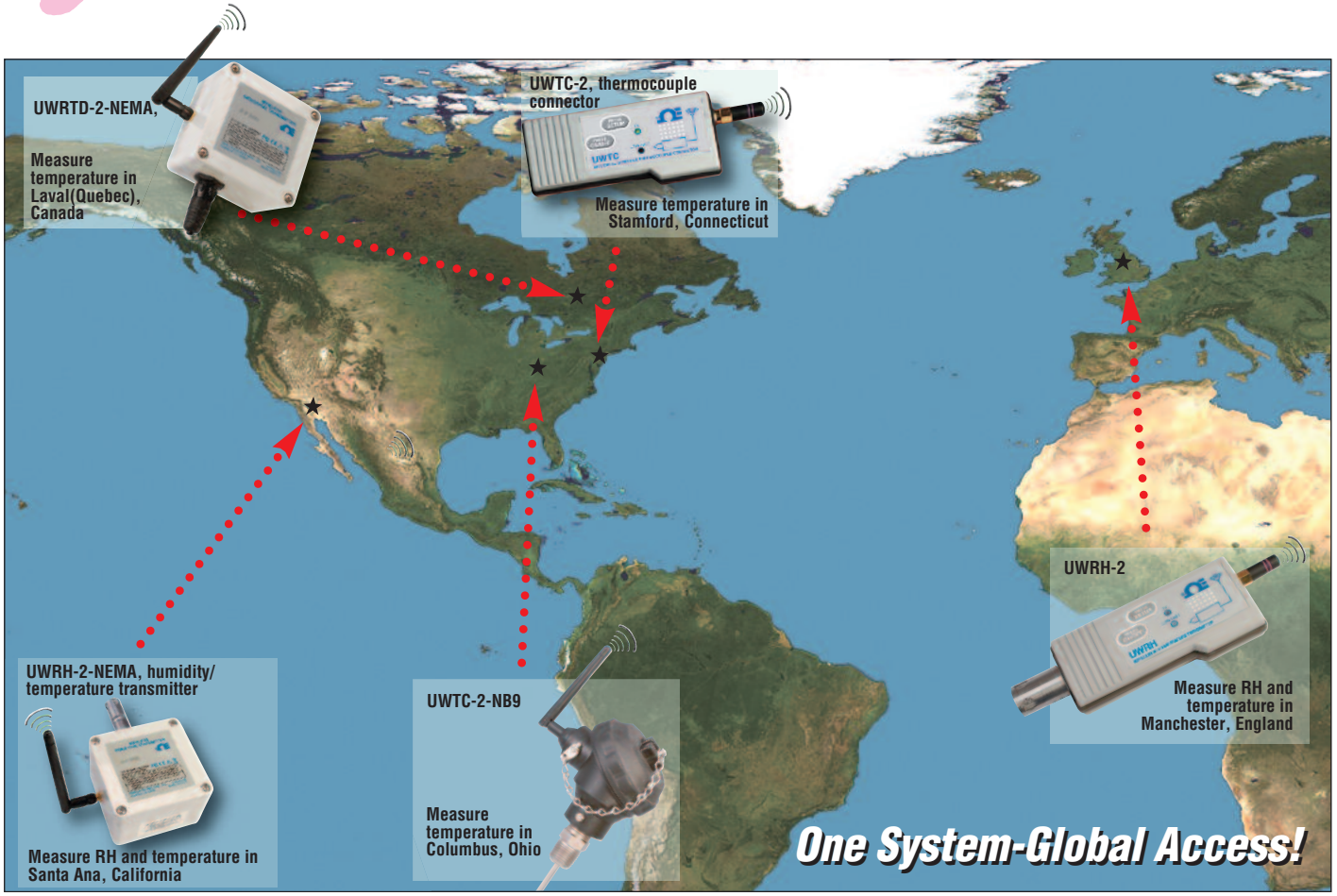
Comes complete with measurement/data logging software, USB cable, and operator's manual. UWTC-REC2 units also include AC power adaptor.

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

Ordering Examples: UWTC-REC1,** USB powered 48-channel transmitter receiver, **$225.

UWTC-REC2-D-V1-NEMA,** 48-channel transmitter receiver with analog output and digital display, NEMA enclosure, **$365.

Monitor and Control Wireless Sensors Over the Internet



Visit omega.com/wireless to See this Wireless System in Operation

UW Series Transmitters

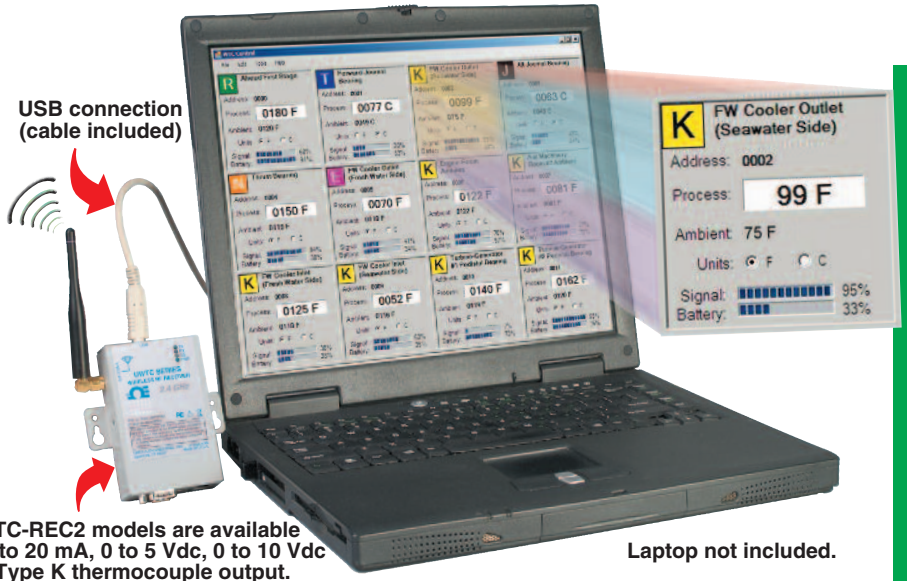
Model No.	UWTC-1/UWRTD-1	UWTC-2/UWRTD-2	UWRH-2	UWTC-2-NEMA/UWRTD-2-NEMA
Input	J,K,T,E,R,S,B,C,N t/c or 385/392 Pt100 RTDs	J,K,T,E,R,S,B,C,N t/c or 385/392 Pt100 RTDs	Ambient %RH, Temperature	J,K,T,E,R,S,B,C,N t/c or 385/392 Pt100 RTDs
Resolution	1°C (1°F)	1°C (1°F)	1 %RH, 0.1°C (0.1°F)	1°C (1°F)
Input Connection	Universal t/c connector, TA4 (RTD)	Universal t/c connector, TA4 (RTD)	Integral sensor	Internal connection block
Enclosure Type	Indoor	Indoor	Indoor	NEMA 4X (IP65)
Range, Outdoor Line of Site	60 m (200')	120 m (400')	120 m (400')	120 m (400')
Range, Indoor/ Urban	20 m (65')	40 m (130')	40 m (130')	40 m (130')
RF Output Power	0 dBm (1 mW)	10 dBm (10 mW)	10 dBm (10 mW)	10 dBm (10 mW)
Sample Rate	2 sec to 2 min	2 sec to 2 min	2 sec to 2 min	2 sec to 2 min
Power	UWTC-BATT 3.6V AA lithium	UWTC-BATT 3.6V AA lithium	UWTC-BATT 3.6V AA lithium	UWTC-BATT-C 3.6V C lithium
Battery Life (Approx, 1 sample/min @ 25°C)	1.5 yr	1.5 yr	1 yr	3 yr
Dimensions (Without Antenna)	100 x 50 x 25 mm (4 x 2 x 1")	100 x 50 x 25 mm (4 x 2 x 1")	100 x 50 x 25 mm (4 x 2 x 1")	80 x 82 x 50 mm (3.15 x 3.22 x 1.97")
Weight	70 g (2.5 oz)	70 g (2.5 oz)	70 g (2.5 oz)	272 g (9.6 oz)
Case	ABS plastic	ABS plastic	ABS plastic	polycarbonate

NEW

Data Logging and Recording Software Included!

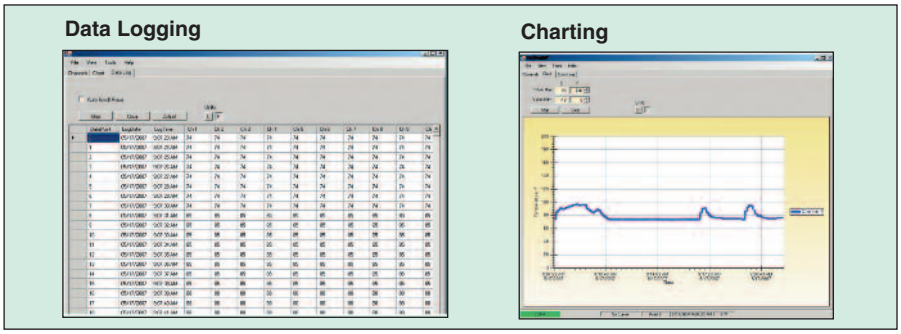
TC Central Software

- Display, Log and Chart Data from up to 48 Wireless Instruments
- Easy Setup and Operation
- High/Low Alarms
- Programmable Engineering Units
- Transmission, Signal Strength and Battery Power Indicators
- Data Export to CSV File, Chart Export to Clipboard
- Included with UW and MWTC Wireless Instruments



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.

Laptop not included.



Compatible with 32-bit Windows (2000, XP, Vista or 7) OS

Latest software version available for free download at **ftp.omega.com**

UW Series Transmitters

Model No.	UWPC-2-NEMA	UWRH-2-NEMA	UWIR-2-NEMA	UWPH-2-NEMA
Input	0 to 1 Vdc, 0 to 5 Vdc, 0 to 10 Vdc, 4 to 20 mA	Ambient %RH, Temperature	Infrared Temperature	pH Temperature
Resolution	14-bit; up to 4 decimals	1 %RH, 0.1°C (0.1°F)	1°C (1°F)	0.01 pH, 0.1°C (0.1°F)
Input Connection	Internal connector block	Integral sensor	Remote sensor head with 1.8 m (6') cable	pH: BNC RTD:TA3M
Enclosure Type	NEMA 4X (IP65)	NEMA 4X (IP65)	NEMA 4X (IP65)	NEMA 4X (IP65)
Range, Outdoor Line of Site	120 m (400')	120 m (400')	120 m (400')	120 m (400')
Range, Indoor/Urban	40 m (130')	40 m (130')	40 m (130')	40 m (130')
RF Output Power	10 dBm (10 mW)	10 dBm (10 mW)	10 dBm (10 mW)	10 dBm (10 mW)
Sample Rate	2 sec to 2 min	2 sec to 2 min	2 sec to 2 min	2 sec to 2 min
Power	UWTC-BATT-C 3.6V C lithium	UWTC-BATT-C 3.6V C lithium	UWTC-BATT-C 3.6V C lithium	UWTC-BATT-C 3.6V C lithium
Battery Life (Approx, 1 sample/min @ 25°C)	3 yr	3 yr	1.5 yr	3 yr
Dimensions (Without Antenna)	80 x 82 x 50 mm (3.15 x 3.22 x 1.97")	80 x 82 x 50 mm (3.15 x 3.22 x 1.97")	80 x 82 x 50 mm (3.15 x 3.22 x 1.97")	80 x 82 x 50 mm (3.15 x 3.22 x 1.97")
Weight	272 g (9.6 oz)	272 g (9.6 oz)	272 g (9.6 oz)	272 g (9.6 oz)
Case	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate

UW Series Receivers

Model No.	Works with	Enclosure	Channels	Output(s)	Power	Other Features
UWTC-REC1	All UW models	Wall mount, NEMA optional	48	USB	USB	1.8 m (6') cable
UWTC-REC2	All UW models	Wall mount, NEMA optional	48	USB and single 5V, 10V, K t/c or 4 to 20 mA	USB, ac for analog output	–
UWTC-REC2-D	All UW models	Wall mount, NEMA optional	48	USB and single 5V, 10V, K t/c or 4 to 20 mA	USB, ac for analog output	Integral Display
UWTC-REC3	UWTC, UWRTD UWRH, UWIR	Wall mount	32	Ethernet	9 to 12 Vdc or 115 Vac	Internet web-enabled
UWTC-REC4	All UW models	DIN rail	48	USB and four 5V, 10V, K t/c or 4 to 20 mA	12 to 24 Vdc	–
UWTC-REC6	All UW models	Compact Wall mount	1	Single, 5V or 10V	12 to 24 Vdc	1.8 m (6') cable

Common Specifications

Operating Ambient: -10 to 70°C (14 to 158°F); automatic cold junction compensation for models UWTC

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

RF Data Packet Standard: IEEE 802.15.4, open communication architecture

Computer Interface: USB, for initial transmitter/sensor setup and configuration

Software (Included): Requires Windows OS based computer

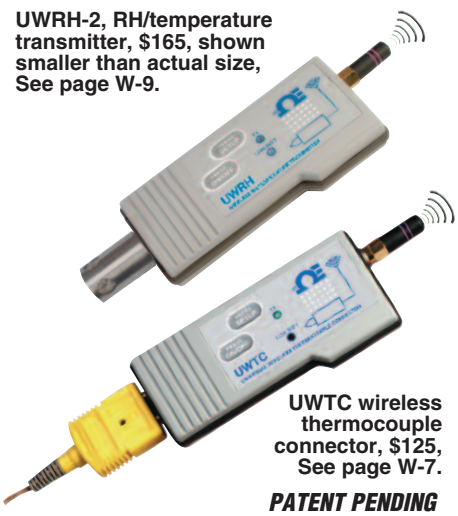
Data Transmitted to Host: Measured process value, connector ambient temperature, RF signal strength and battery condition

CE Compliance: Standard

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

UWRH-2, RH/temperature transmitter, $165, shown smaller than actual size, See page W-9.



UWTC wireless thermocouple connector, $125, See page W-7.

PATENT PENDING

UWTC-2-NEMA, thermocouple transmitter, $165, shown smaller than, actual size, See page W-10.

Compact Wireless Transmitters

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
UWTC-1	**$125**	Wireless thermocouple connector, up to 60 m (200') range
UWTC-2	**135**	Wireless thermocouple connector, up to 120 m (400') range
UWRTD-1	**135**	Wireless RTD connector, up to 60 m (200') range
UWRTD-2	**145**	Wireless RTD connector, up to 120 m (400') range
UWRH-2	**165**	Wireless relative humidity/temperature transmitter, up to 120 m (400') range

Wireless Transmitters with NEMA Enclosures

Model No.	Price	Description
UWTC-2-NEMA	**$165**	Wireless thermocouple transmitter, up to 120 m (400') range
UWRTD-2-NEMA	**175**	Wireless RTD transmitter, up to 120 m (400') range
UWIR-2-NEMA	**285**	Wireless infrared temperature transmitter, up to 120 m (400') range
UWPH-2-NEMA	**265**	Wireless pH/temperature transmitter, up to 120 m (400') range
UWPC-2-NEMA	**265**	Wireless process voltage/current transmitter, up to 120 m (400') range
UWRH-2-NEMA	**235**	Wireless relative humidity/temperature transmitter, up to 120 m (400') range

Ordering Example: UWTC-2 *wireless thermocouple connector with 120 m (400') range,* ***$135.***

Wireless Receivers

Model No.	Price	Description
UWTC-REC1	**$225**	48-channel wireless receiver, USB output†
UWTC-REC2-(*)	**235**	48-channel wireless receiver, analog and USB outputs†
UWTC-REC2-D-(*)	**265**	48-channel wireless receiver with display, analog and USB outputs†
UWTC-REC3	**235**	32-channel wireless receiver/host with internet (for use with UWTC/UWRTD/UWRH/UWIR only)
UWTC-REC4-(*)	**275**	48-channel DIN rail mount wireless receiver, with 4 analog and USB outputs, and alarms
UWTC-REC6-(*)	**69**	1-channel wireless receiver, with analog voltage output (V1 or V2 only)

***** *Specify analog output signal:* ***V1*** *for 0-5 Vdc,* ***V2*** *for 0 to 10 Vdc,* ***TC*** *for type K thermocouple or* ***MA*** *for 4 to 20 mA.*
Note: UWTC-REC6 *models only available with V1 or V2 output types.*

† ***UWTC-REC1*** *and* ***UWTC-REC2*** *models are also available with a NEMA enclosure. To order, add suffix "****-NEMA****" to model number, and add* ***$100*** *to price.* ***Example: UWTC-REC1-NEMA****, $225 + 100 =* ***$325****.*

UWPH-2-NEMA, wireless pH/temperature transmitter, $265.

PHE-1311, gel-filled pH electrode, $57.

See Page W-15 for Details

Shown smaller than actual size.

PRTF-10-2-1000-1/8-6-E-TA3F, RTD probe $58.

Common Accessories

Model No.	Price	Description
UWTC-BATT	**$15**	Replacement 3.6V lithium AA battery for transmitters (non NEMA/NB9 models)
UWTC-BATT-C	**25**	Replacement 3.6V lithium C battery for NB9, NEMA and UWXL models
UWTC-ANT-LR	**10**	Optional high performance antenna for handheld transmitters (standard with NB9, NEMA models)
UWTC-CABLE	**5**	Spare programming cable (included with UWTC-REC1, REC2, REC3 and REC4 receivers)

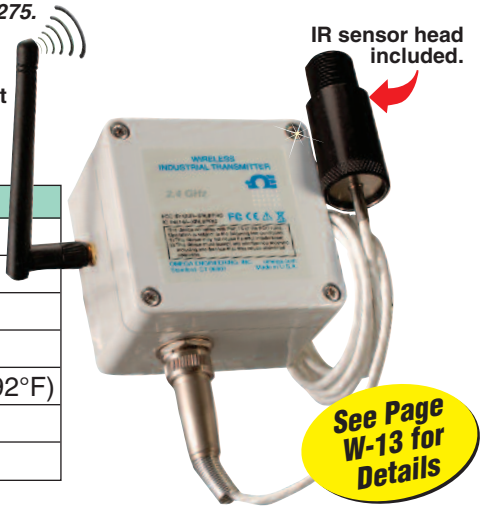
UWPH Accessories

Model No.	Price	Description
PHE-1311	**$57**	Gel-filled pH electrode, general purpose
PRTF-10-2-1000-1/8-6-E-TA3F	**58**	Pt1000 RTD probe, ⅛" dia, 6" length, 40" pfa insulated cable, TA3F connector
PHA-4	**8**	4.00 pH buffer solution, 500 ml (1 pint) bottle
PHA-7	**8**	7.00 pH buffer solution, 500 ml (1 pint) bottle
PHA-10	**8**	10.00 pH buffer solution, 500 ml (1 pint) bottle

A complete wireless system includes at least one transmitter and one receiver (up to 48 transmitters per receiver possible). System Example: ***UWTC-2-NEMA*** *thermocouple transmitters,* ***$165*** *each, with* ***UWTC-REC4-V1*** *DIN rail mount receiver with four 0 to 5 Vdc analog outputs and USB communications,* ***$275.***

IR sensor head included.

UWIR-2-NEMA, non-contact temperature, $285, shown smaller than actual size.



See Page W-13 for Details

UWIR Accessories

Model No.	Price	Description
OS100-MB	**$20**	Mounting bracket
OS100-AP	**30**	Air purge collar
OS100-DR	**25**	DIN rail mounting adaptor
OS100-LS	**175**	Laser sighting accessory
OS100-WC	**175**	Water cool jacket for temperatures to 200°C (392°F)
OS100-CA15FT	**35**	Sensor head extension cable, 4.6 m (15')
OS100-CA25FT	**45**	Sensor head extension cable, 7.6 m (25')

Long Distance Industrial Wireless Transmitters and Receivers

UWXL Series Starts at $395

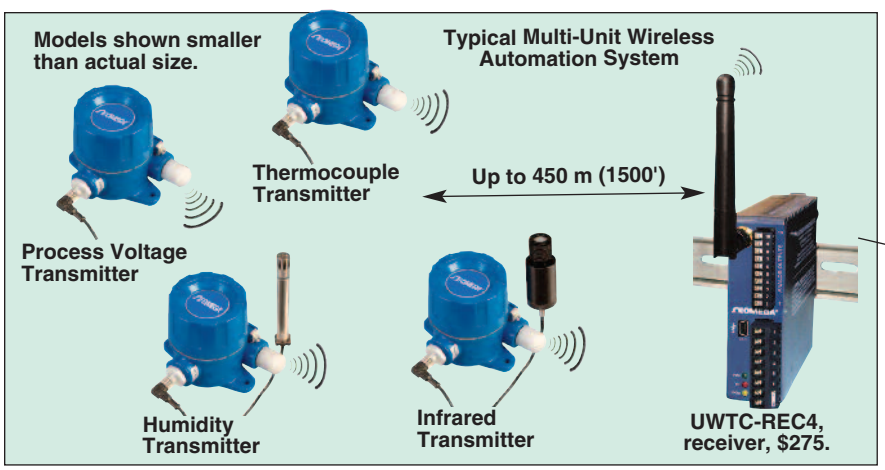
MADE IN USA | 1 YEAR WARRANTY | CE

- **Thermocouple, RTD, Infrared Temperature, RH, pH, Process Voltage/ Current and Flow/Pulsed Frequency Input Models**
- **J, K, T, E, R, S, B, and N Thermocouples**
- **385 and 392 Pt100 RTD Probes**
- **IP68 Rated Enclosure– Dust- and Water-Tight**
- **Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger**
- **Compatible with Both UWTC-REC and UWXL-REC Wireless Receivers**
- **Long Battery Life**

The UWXL Series industrial wireless transmitters from OMEGA offer unparalleled flexibility for process measurement applications. Capable of ranges to 450 m (1500') line of sight (LOS), the UWXL transmitters are designed for a variety of applications, including temperature, infrared temperature, relative humidity, process transducers with standard voltage or current outputs, flow (pulsed frequency) as well as pH. Thermocouple models are user-configurable for any of 9 calibrations, while RTD units are compatible with both 0.00385 and 0.00392 curve Pt100 sensors.

UWXL transmitters are programmable to transmit data at intervals configurable from once every 2 seconds to every 2 minutes. Transmitted data includes the process measurement along with the ambient temperature, RF signal strength and battery condition. Software provided with each model can display this information in real time. This free software allows you to use your PC as a multi-channel meter, recorder or data logger; data can also be exported to a standard spreadsheet file.

UWXL transmitters are compatible with a wide variety of OMEGA wireless receivers. UWTC-REC receivers are available with optional analog output, alarms and display, while the UWXL-REC receivers add an IP68 rated enclosure. Receivers can accept up to 48 transmitters. Receivers with analog outputs can also retransmit data through a wired connection, as an analog voltage, current or thermocouple signal, to interface with a controller, PLC or data acquisition interface.



Transmitter model
UWXL-24-RH-RPI, $495.

Humidity/temperature
sensor included.

See Page W-35 to Order

Transmitter model
UWXL-IR-1, $495.

Infrared sensor
head included.

UWXL-RH features a detachable combination humidity/temperature sensor that can be remotely mounted.

Temperature transmitter models
UWXL-TC-24, UWXL-RTD, $395.

Thermocouple and RTD models feature screw terminal connections that allow you to connect a wide range of sensors and probes. Models with intergral probes are available contact factory.

UWXL-IR-1 features a remotely mounted sensor head to measure non-contact infrared temperature.

Common Specifications

Computer Interface: USB

Transmit Sample Rate: Programmable from 2 sec to 120 sec

Radio Frequency (RF) Transceiver Carrier: ISM 2.4 GHz, direct sequence spread spectrum, (2.450 to 2.490 GHz–12 RF channels)

RF Output Power: 18 dBm (63 mW)

Range of RF Link: Up to 450 m (1500') outdoor line of sight; up to 90 m (300') indoor/urban

RF Data Packet Standard: IEEE 802.15.4, open communication architecture

Software (Included Free): Requires Windows® 2000, XP or Vista (32 bit) operating system

Power: One 3.6V, Lithium C Cell (included) or 3.3 Vdc power adaptor (accessory model UWTC-33-PS)

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

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

Storage Temperature: -40 to 80°C (-40 to 176°F)

Model UWXL-24-TC

Input: J, K, T, E, R, S, B, C or N thermocouple, software selectable

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)

Accuracy @ 25°C:

Types J and K: ±0.5% rdg or ±1.0°C (1.8°F), whichever is greater
Types T, E, and N: ±0.5% rdg or ±2.0°C (3.6°F), whichever is greater
Types R, S, B and C: ±0.5% FS

Resolution: 1°C/1°F

Sensor Connection: Screw terminals

Model UWXL-24-RTD

Input: Pt100 RTD; 0.00385 or 0.00392 curve, software selectable

Measurement Range:

Pt100, 0.00385: -200 to 850°C (-328 to 1562°F)
Pt100, 0.00392: -100 to 457°C (-148 to 854°F)

Accuracy: ±0.5°C (1.0°F)

Resolution: 1°C/1°F

Sensor Connection: Screw terminals

Model UWXL-24-IR-1

Temperature Range: -18 to 538°C (0 to 1000°F)

Accuracy: ±2% rdg or 2.2°C (4°F), whichever is greater; @ 22°C (72°F) ambient temperature and emissivity ≥0.95

Optical Field of View: 6:1 (distance/spot size)

Sensor Head Cable Extension: Up to 15 m (50') total

Repeatability: ±1% rdg

Spectral Response: 5 to 14 microns

Response Time: 100 ms (0 to 63% of final value)

Emissivity: 0.1 to 1.00, adjustable

Operating Ambient:

Sensor Head: 0 to 70°C (32 to158°F)
Sensor Head (-HT Model): 0 to 85°C (32 to 185°F)
Sensor head with OS100-WC (Water Cooling Jacket): 0 to 200°C (32 to 392°F)
Relative Humidity: Less than 95% RH, non-condensing

OS100-WC Water Flow Rate: 0.25 GPM, room temperature

Thermal Shock: About 30 min for 25°C (77°F) abrupt ambient temperature change

Warm-Up Period: 3 minutes

OS100-AP Air Flow Rate: 1 CFM (0.5 L/s) (1 x 2.5")

OS100-LA Laser Sight Accessory

Wavelength (Color): 630 to 670 nm (red)
Operating Distance (Laser Dot): Up to 9.1 m (30')
Max Output Optical Power: Less than 1 mW @ -6°C (22°F) ambient temperature
European Classification: Class 2, EN60825-1/11.2001
Max Operating Current: 45 mA @ 3 Vdc
FDA Classification: Complies with 21 CFR 1040.10, Class II laser product
Beam Diameter: 5 mm (0.20")
Beam Divergence: <2 mrad
Operating Ambient: 0 to 50°C (32 to 122°F); <95% RH, non-condensing
Power Switch: On/off slide switch on the battery pack
Power Indicator: Red LED
Power: Battery pack, 3 Vdc (consists of two 1.5 Vdc “AA” lithium batteries, included)

All models shown smaller than actual size.

Model UWXL-24-PC

Input: 0 to 1 Vdc, 0 to 5 Vdc, 0 to 10 Vdc, 0 to 20 A, 4 to 20 mA
Accuracy: ±0.1% FS @ 25°C
Resolution: 12 to 15 bit
Connection: M12
Excitation: 5 Vdc @ 100 mA

Model UWXL-24-RH

Temperature
Range: -17 to 49°C (2 to 120°F)
Accuracy: ±1°C (±1.8°F) @ 25°C
Resolution: 1°C/1°F

Relative Humidity
Range: 2 to 98% RH
Accuracy: ±2.5% RH from 20 to 80% RH; ±3.5% RH <20 and >80% RH @ 25°C (76°F)
Resolution: 1% RH

Model UWXL-24-PH

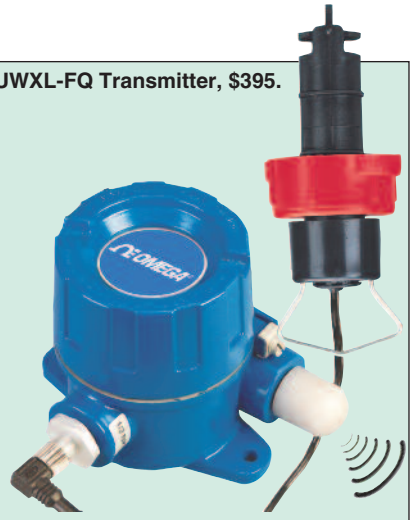
pH Input:
Range: 0 to 14 pH
Accuracy: ±0.1 pH @ 25°C
Resolution: 0.01 pH
Response Time: 2 s
Input Connection: BNC
Temperature Compensation: Automatic, 0 to 100°C (32 to 212°F)

RTD Temperature Input:
Type: Pt100 Ω RTD, 0.00385 curve
Range: 0 to 100°C (32 to 212°F)
Accuracy: ±1°C (1.8°F)
Resolution: 0.1°
Input Connection: Screw terminals

UWXL-PC Transmitter, $395.

Process Input model UWXL-24-PC features M12 connection that allows you to connect a wide range sensors or transducers that have voltage or current output. This model can also be configured in the field to monitor contact closure.

UWXL-FQ Transmitter, $395.



Frequency Input model UWXL-24-FQ features M12 connection that allows you to connect a wide range flow sensors that have pulse voltage output. Paddlewheel flow sensors can be directly mounted and scaled in the field.

See Page W-35 to Order

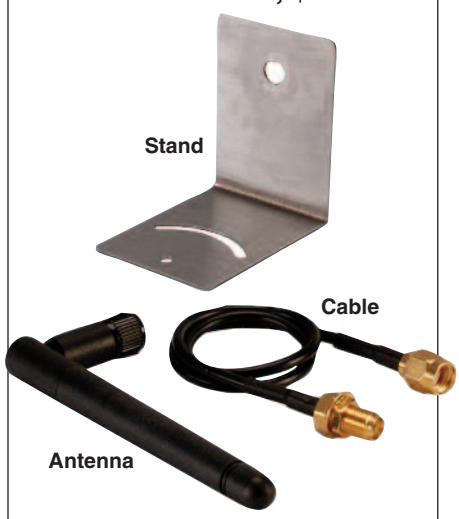
UWXL-REC1 Receiver, $455.

UWXL-REC1 is mounted in a rugged, cast aluminum IP68 rated housing. This unit will receive data from up to 48 transmitters and is powered directly by the USB connection on your computer. (no analog output provided).

UWXL-REC2-D Transceiver, $495.

UWXL-REC2-D is mounted in a rugged, cast aluminum IP68 rated housing. This unit will receive data from up to 48 transmitters. This model provides a displayed reading and a wired retransmission analog output for one user selected transmitter in your system.

Remote Antenna Kit UWXL-RAK, $35



UWXL-RAK allows you to use a directional antenna to maximize transmission range to your base receiver. Includes directional antenna, 200 mm (8") antenna extension cable and mounting bracket.

UWTC-REC1-NEMA Receiver, $325.

UWTC-REC1-NEMA is mounted in a water tight, Polycarbonate/ABS IP68 rated enclosure. This unit will receive data from up to 48 transmitters and is powered directly by the USB connection on your computer (no analog output provided).

UWTC-REC2-D-NEMA Transceiver, $365.

UWTC-REC2-D-NEMA is mounted in a water tight, Polycarbonate/ABS IP68 rated enclosure. This unit will receive data from up to 48 transmitters and provides a local displayed reading and a wired retransmission analog output.

Connect a Wireless Receiver to Your Computer, PLC or Data Logger to Form a Complete Wireless System!

UWTC-REC1, $225.

UWTC-REC1 will receive data from up to 48 transmitters and is powered directly by the USB connection on your computer (no analog output provided).

See page W-25.

All models shown smaller than actual size.

UWTC-REC2-D receiver, $265.

UWTC-REC2-D will receive data from up to 48 transmitters. This model provides a displayed reading and a retransmitted, hard wired analog output for 1 user selected transmitter in your system. Requires DC power adaptor (included).

See page W-25.

UWTC-REC3 32-channel receiver with ethernet, $275.

UWTC-REC3 receiver/host with ethernet is compatible with UWTC, UWRTD, UWRH and UWIR transmitters and connects directly to your network or the Internet—no PC.

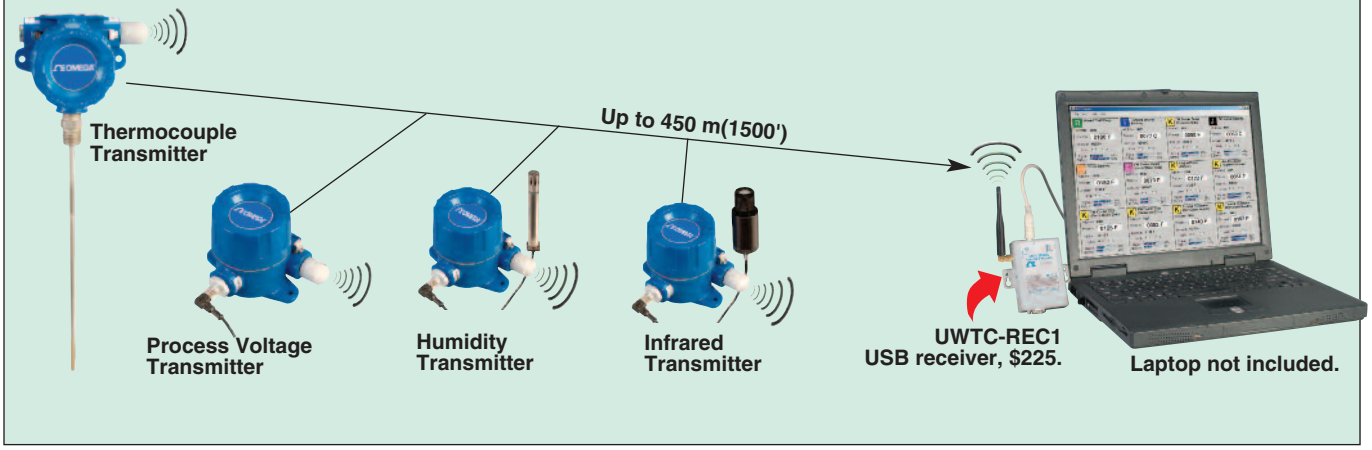
See page W-24.

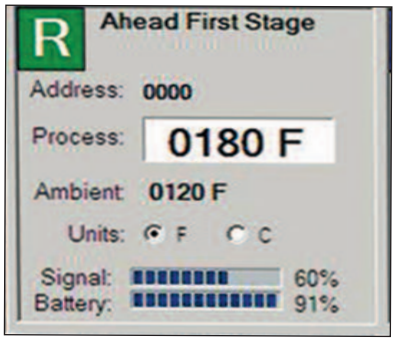
UWTC-REC4 receiver, $275.

UWTC-REC4 will receive data from up to 48 transmitters. This model provides a scalable retransmitted, hard wired analog output for 4 user selected transmitters in your system. Requires 12 to 24 Vdc power supply.

See page W-21.

Typical Multi-Unit Wireless Data Logging System





Monitor up to 48 different wireless transmitters, simultaneously on your PC. Display shows process reading, signal strength and batter level in real-time.

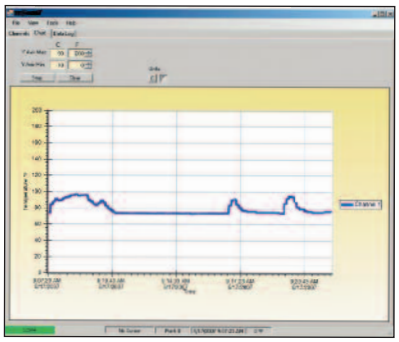
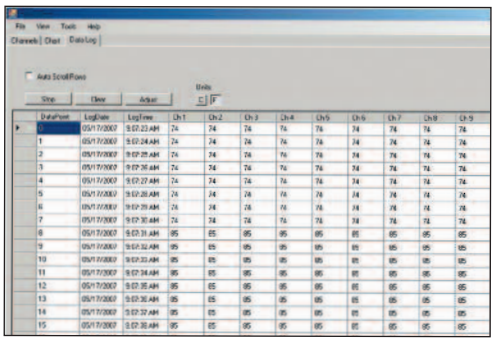
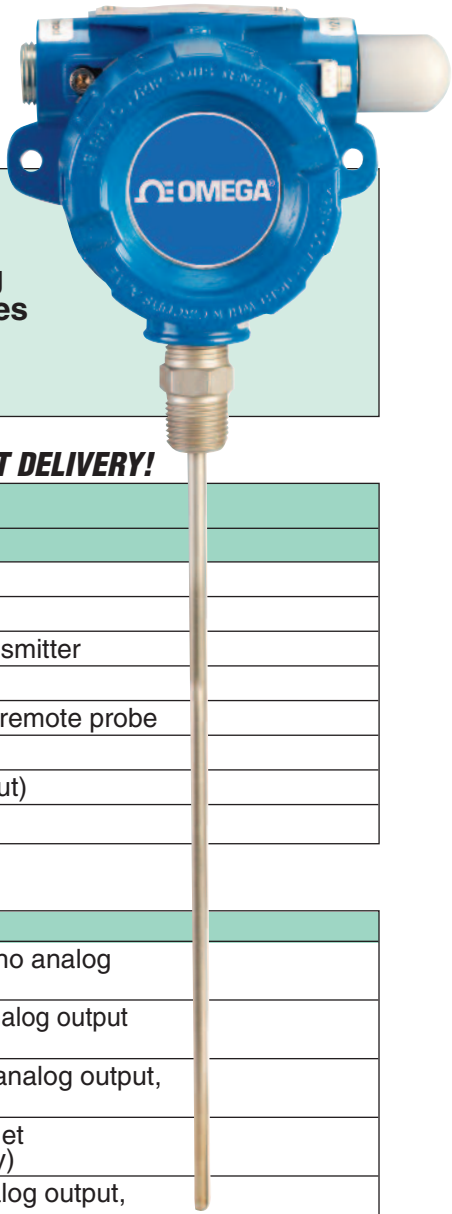


Chart up to 48 different wireless transmitters, simultaneously on your PC.



Collect and log data for up to 48 different wireless transmitters at the same time. Record, save or download to a spread sheet up to 32 thousand individual readings.



UWXL temperature models with integral thermocouple or RTD probes are also available. Contact OMEGA for pricing and availability. Visit omega.com/uwxl for the latest features and specifications.

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
UWXL-24-TC	**$395**	Wireless thermocouple transmitter
UWXL-24-RTD	**395**	Wireless RTD (Pt100) transmitter
UWXL-24-PC	**395**	Wireless process voltage and current input transmitter
UWXL-24-IR-1	**495**	Wireless infrared temperature transmitter
UWXL-24-RH-RPI	**495**	Wireless humidity/temperature transmitter with remote probe
UWXL-24-PH	**395**	Wireless pH/temperature transmitter
UWXL-24-FQ	**395**	Wireless flow transmitter (pulsed frequency input)
UWXL-RAK	**35**	Remote antenna kit (See page W-33)

Receivers/Accessories

Model No.	Price	Description
UWTC-REC1	**$225**	48-channel wireless USB powered receiver (no analog output or alarms)
UWTC-REC2-(*)	**235**	48-channel wireless receiver with 1-channel analog output and alarms
UWTC-REC2-D-(*)	**265**	48-channel wireless receiver with 1-channel analog output, alarms and display
UWTC-REC3	**235**	32-channel wireless receiver/host with ethernet (Thermocouple, RTD, RH and IR models only)
UWTC-REC4-(*)	**275**	Wireless DIN-rail receiver with 4-channel analog output, and alarms
UWTC-33-PS	**30**	3.3 Vdc power supply
UWXL-REC1	**455**	Wireless USB receiver, IP68 case (no analog output or alarms)
UWXL-REC2-D-(*)	**495**	Wireless receiver, IP68 case, with 1-channel analog output, alarms and display
UWTC-CB12	**295**	12-channel USB control box with 12 form “C” relays
UWTC-BATT-C	**25**	Replacement battery, 3.6V, lithium “C” cell assembly
PHE-1311	**57**	Gel-filled pH electrode, general purpose
PRTF-10-2-1000-1/8-6-E-TA3F	**58**	Pt1000 RTD probe, ⅛" dia, 6" L, w. wire, 12 m (40') PFA insulated cable with connector
OS100-MB	**20**	Sensor head mounting bracket for UWXL-24-IR-1
OS100-AP	**30**	Sensor head air purge collar for UWXL-24-IR-1
OS100-WC	**175**	Sensor head water cool jacket, up to 200°C (392°F) for UWXL-24-IR-1
OS100-LS	**175**	Laser sighting accessory for UWXL-24-IR-1
OS100-CA15FT	**35**	Sensor head extension cable, 4.6 m (15') for UWXL-24-IR-1
OS100-CA25FT	**45**	Sensor head extension cable, 7.6 m (25') for UWXL-24-IR-1

***** *Specify analog output **“V1”** for 0 to 5 Vdc; **“V2”** for 0 to 10 Vdc, **“MA”** for 4 to 20 mA or **“TC”** for type K thermocouple signal.*

Comes complete with measurement/charting/data logging software, 3.6V lithium battery and operator’s manual. UWTC-REC2 units also include DC power adaptor.

Ordering Examples: UWXL-24-TC,** wireless thermocouple transmitter, **UWXL-REC1,** 48-channel USB receiver, and **UWTC-BATT-C,** spare battery, $395 + 455 + 25 = **$875.

UWXL-24-IR-1,** wireless infrared temperature transmitter, **OS100-MB,** sensor head mounting bracket, **UWTC-REC4-MA,** 48-channel receiver with 4 to 20 mA analog output, and **UWTC-BATT-C,** spare battery, $495 + 20 + 275 + 25 = **$815.

UWXL-24-RH-RPI,** wireless humidity/temperature transmitter, **UWXL-24-PC,** wireless process input transmitter, **UWXL-REC2-D-MA** 48-channel receiver with 4 to 20 mA analog output, and **UWTC-33-PS** transmitter power supply, $495 + 395 + 495 + 30 = **$1415.

Digital RTD Thermometer

316 SS Enclosure for Sanitary, Wash-Down, and Marine Applications

NEW

DTG-RTD100 Series Starts at

$395

MADE IN USA

Mating connector included.

- Large Multicolor Backlit Display with 25 mm (1") Digits
- Up to ±0.2°C (±0.3°F) or ±0.1% Rdg Accuracy
- Connects Directly to 3-Wire Pt100 RTD Sensors
- User Scaleable Analog Output
- Optional Built-In Wireless Transmitter

DTG-RTD100-M12-M, $425, shown smaller than actual size.

See pages N-5 thru N-9 for details

⅛ DIN Graphic Display Meter

For Process and Temperature Measurement

Coming Soon

PATENT PENDING

Easily Change Display Presentation with the Push of a Button

Model XY1701

$255

MADE IN USA

XY1701, graphic panel meter shown in charting mode, $255.

- Universal Model for Thermocouples, RTD and Process (Vdc and Current)
- Monochrome, High Resolution Graphic Display with High-Intensity Backlighting
- Display Can Be Configured for Bar Graph, Chart or Standard Digital Format
- Optional Built-In Wireless Receiver

See page M-106 for details

General Purpose Industrial Air Velocity/Temperature Transmitter/Indicator

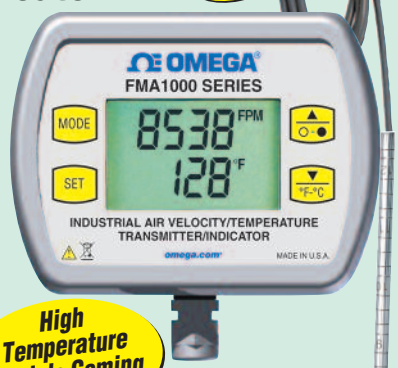
NEW

HHF1000 Handheld Model with Wireless Probe Coming Soon

FMA1000 Series Starts at

$665

MADE IN USA



High Temperature Models Coming Soon!

- Air Velocities up to 50.8 m/sec (10,000 FPM)
- Air Temperatures up to 121°C (250°F)
- Accuracy: 1.5% FS-Velocity, 0.5% FS-Temperature
- 3 Different Air Velocity Sensor Probe Configurations
- Response Time from 2 msec to 2 sec
- Large, Easy to Read Backlit LCD
- Dual Analog Outputs
- USB Interface with Windows® Based Software
- NEMA 4 (IP65) Industrial Enclosure

6 OD x 305 mm L (¼ x 12") sensor probe included with 4.5 m (15') cable

Visit omega.com/fma1000 for details

Temperature/RH/Infrared/Thermocouple Bench Top Handheld Meter

RH511 Series Starts at

$355

PATENTED

Coming Soon

MADE IN USA

- Measures Temperature and Relative Humidity
- Measures Non-Contact Surface Temperature
- Two K Type Thermocouple Inputs
- Triple Backlit LCD Display
- Min/Max/Hold Functions
- Data Logging up to 32,000 Points
- Optional Wireless Remote RH/ Temperature Probe
- Patented Built-In Laser Dot-Circle Sighting

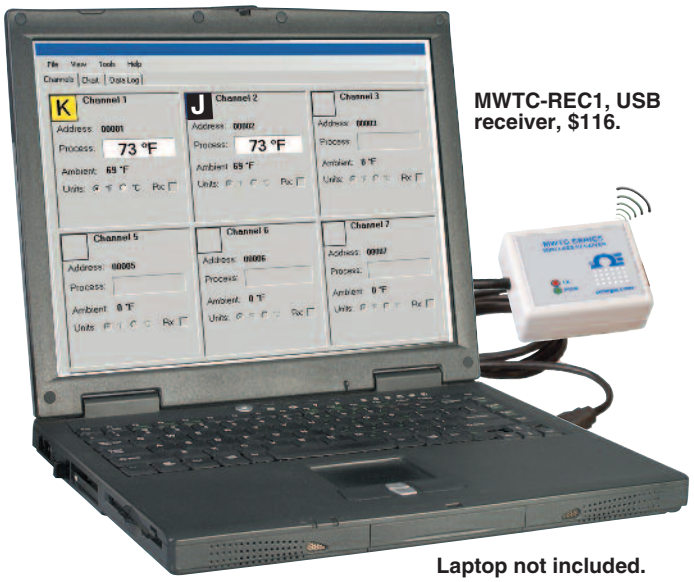
RH511, $355.

See pages Hu-7 and Hu-8 for details

Miniature Wireless Thermocouple Connectors

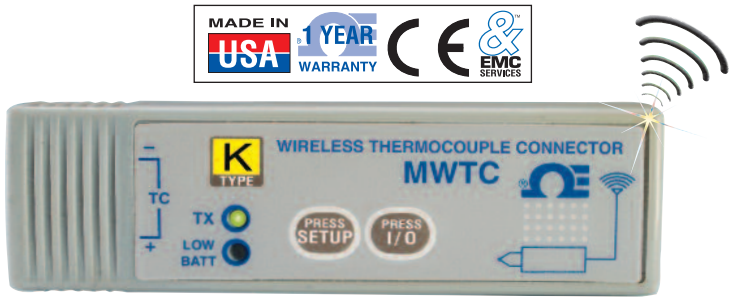
For Short Range Laboratory and Light Industrial Uses

MADE IN USA | 1 YEAR WARRANTY | CE | EMC SERVICES



MWTC-REC1, USB receiver, $116.

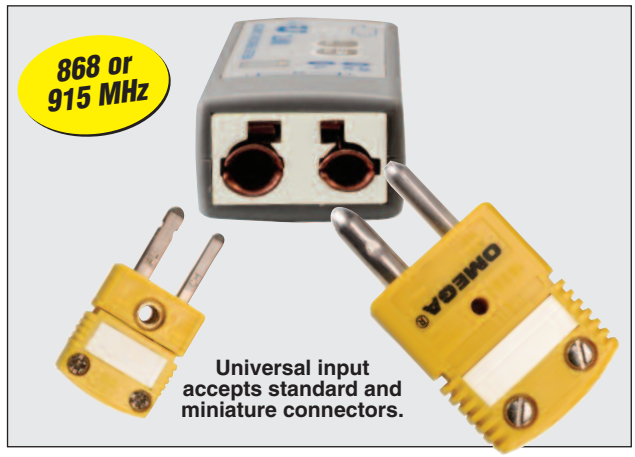
Laptop not included.



MWTC-A-K, $79, shown actual size.

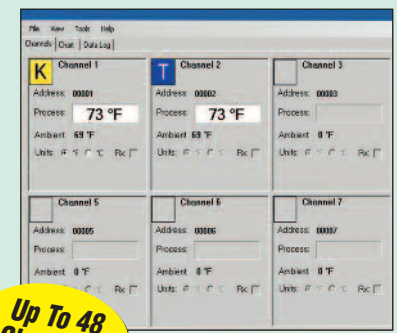
MWTC Series Starts at $79

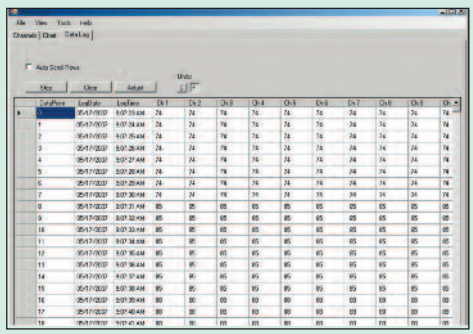
PATENT PENDING

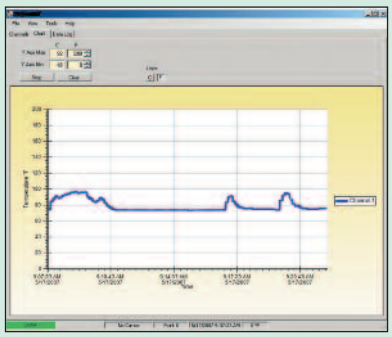


Universal input accepts standard and miniature connectors.

Included software turns your PC into a meter, data logger and chart recorder.







Up To 48 Channels!

- **Available in 9 Thermocouple Calibrations**
- **Built-In Cold Junction Compensation and Linearization**
- **MWTC-REC Receivers Work with Multiple Wireless Remote Connectors**
- **Low Power Operation and Sleep Mode for Extended Battery Life**
- **Each Wireless Connector Transmits Measured and Ambient Temperatures in Real Time**
- **Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger**

The OMEGA® MWTC Wireless Smart Thermocouple Connector Series features stand-alone, compact, battery powered thermocouple connectors that transmit measurement data back to a mating receiver up to 90 m (300') away. 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 and connector ambient temperature to a receiver and is displayed on the PC screen in real time using the free provided software. When used with an MWTC-REC receiver, data from multiple 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 spreadsheet file.

The MWTC can transmit thermocouple readings wirelessly to your PC, up to 300' away.

- **Choose From USB or Analog Output Models**
- **USB Models Accept 48 Wireless Inputs**
- **Economical Single Channel Model with Analog Output**
- **Wirelessly Transmit up to 90 m (300')**

The MWTC-REC series is a family of wireless receivers designed to work with the MWTC transmitters. Three models are available to meet your application needs, with either USB communication to a PC, or analog output(s) to drive a remote display, recorder, data logger or PLC. Transmissions of up to 90 m (300') are possible with the MWTC.

The MWTC-REC1 is a compact multi-channel receiver that connects to your PC through a 1.8 m (6') cable (included). It is capable of working with up to 48 individual MWTC wireless connectors. The miniature MWTC-REC5 is designed for shorter distances, such as testing and laboratory applications. The size of a flash drive, the MWTC-REC5 plugs right into USB port. The MWTC-REC6 is a compact, single channel receiver that provides an analog output that corresponds to the input range of the MWTC wireless connector it is paired to.

Transmitter Specifications

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)

Measurement Accuracy (Greater of):
J, K: ±0.5% of rdg or ±1.0°C (1.8°F)
T, E, N: ±0.5% of rdg or ±2.0°C (3.6°F)
R, S, B, C: ±0.5% of full scale

Measurement Resolution: 1°C/1°F
Cold Junction Compensation: -10 to 70°C (14 to 158°F)
Thermocouple Connection: 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 MWTC-REC1 receiver)
Transmit Sample Rate: Programmable from 2 seconds to 2 min
Radio Frequency: ISM 915 MHz or ISM 868 MHz
RF Output Power: 10 dBm (10 mW)
Approvals:
Model MWTC-(*)-915: FCC, Class B
Model MWTC-(*)-868: CE
Range of RF Link:
Up to 90 m (300'): Outdoor line of sight
Up to 39 m (130'): Indoor/urban
Software: Requires Windows® OS
Battery: AAA size; 1.5V lithium included; also compatible with 1.5V alkaline or 3.6V lithium
Battery Life (Typical): 330 days at 1 sample/minute reading rate @25°C (77°F)
Data Transmitted to Receiver: Thermocouple reading and connector ambient reading
Dimensions: 76 L x 25.4 W x 13 mm H (3 x 1 x 0.5")
Enclosure: Plastic (Nylon)

Note: *Because of transmission frequency regulations, these products may only be used in the United States and Canada (915 MHz models) or Europe (868 MHz models).*

Receiver Specifications

Power

MWTC-REC1: USB bus +5V powered, 300 mA consumption
MWTC-REC5: USB bus +5V powered, 300 mA consumption
MWTC-REC6: 12 to 24 Vdc at 50 mA

USB Compatibility: USB 1.1, USB 2.0
LED Indicators: TX transmit/receive (red); USB power (green, MWTC-REC1 only)
Radio Frequency (RF): 915/868 MHz
USB Cable Type: USB 4P(A) male
Analog Output (MWTC-REC6): One, non-isolated 0 to 5 Vdc or 0 to 10 Vdc
Ambient Operating: -10 to 70°C (14 to 158°F), 0 to 95% RH (non-condensing)

Dimensions

MWTC-REC1: 70 L x 51 W x 20.5 mm H (2.75 x 2 x 0.8")
MWTC-REC6: 76 x 32 x 26 mm H (3 x 1.25 x 1")

Weight:
MWTC-REC1: 89 g (0.2 lb) with cable
MWTC-REC6: 102 g (3.6 oz)
Enclosure/Housing: Plastic

NEW

Wireless Receiver

MWTC-REC1, $116, shown smaller than actual size.

48 Channels USB Connection

868 or 915 MHz

MWTC-REC5-915, $35, shown smaller than actual size.

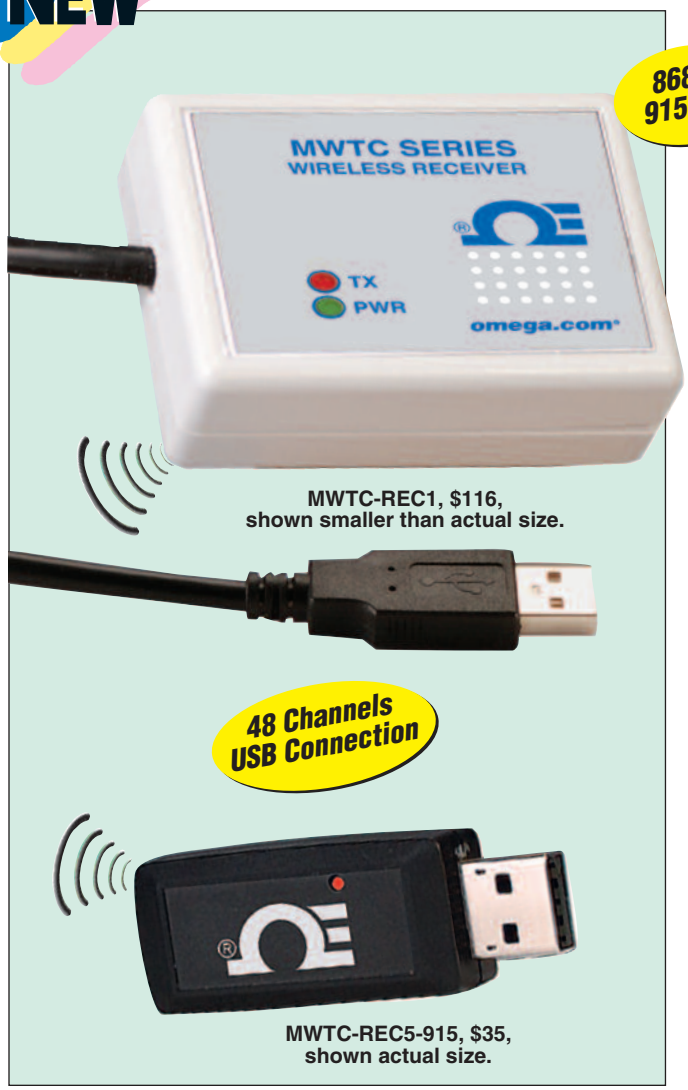
Wall Mount

PATENT PENDING

MWTC-REC6, $49, shown smaller than actual size.

Wireless connectors sold separately, see page W-39.

Wireless Receivers



MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
MWTC-A-(*)-(**)	**$79**	Miniature wireless thermocouple connector
MWTC-REC1-(**)	**116**	48-channel MWTC receiver, with 1.8 m (6') USB cable
MWTC-REC5-(**)	**35**	Miniature 48-channel MWTC receiver, direct USB attach
MWTC-REC6-(**)-(†)	**49**	1-channel MWTC receiver, with analog output, 1.8 m (6') cable
MWTC-PC	**20**	Spare MWTC programming cable (one included with MWTC-REC1 receiver)
REC-PC	**15**	MWTC-REC6 programming cable, 1.8 m (6')
MWTC-A-BATT	**7**	MWTC battery, 1.5V, "AAA" lithium
SC-GG-(‡)-30-36	**15**	Beaded wire thermocouple with subminiature connector

All units come complete with 1.5V lithium battery and operator's manual. ***J, K, T,*** *and* ***E*** *input models also include one 1 m (40") thermocouple sensor. Units for other calibrations supplied with subminiature mating connector.* ***MWTC-REC*** *receivers include software.* ***MWTC-PC*** *programming cable is included with the* ***MWTC-REC1*** *(not included with* ***MWTC-REC5*** *or* ***MWTC-REC6****).*

*** *Specify calibration:* ***J, K, T, E, R, S, B, C*** *or* ***N***

**** *Specify ISM frequency:* ***"915"*** *for USA/Canada or* ***"868"*** *for Europe*

† *Specify analog output type:* ***"V1"*** *for 0 to 5 Vdc, or* ***"V2"*** *for 0 to 10 Vdc*

‡ *Specify calibration:* ***J, K, T*** *or* ***E***

USA, Canada Ordering Example: *Two* ***MWTC-A-K-915,*** *915 MHz wireless Type-K thermocouple connector/transmitters,* ***MWTC-REC1-915*** *multi-channel 915 MHz receiver, $79 + 79 + 116 =* ***$274.***

Europe Ordering Example: *Two* ***MWTC-A-K-868,*** *868 MHz wireless Type-K thermocouple connector/transmitters,* ***MWTC-REC1-868,*** *multi-channel 868 MHz receiver, $79 + 79 + 116 =* ***$274.***

Miniature Data Logging Connectors

Record and Store Over 65,000 Data Readings

The Smart Connector™

868 or 915 MHz

Download Stored Data via USB Connection or Optional Wireless Receiver

PATENT PENDING

MWTC-D-K, $89, shown actual size.

MWTC-D Series Starts at $89

MADE IN USA · 1 YEAR WARRANTY · CE

- **For J, K, T or E Thermocouples**
- **Built-In Cold Junction Compensation and Linearization**
- **Low Power Operation and Sleep Mode for Extended Battery Life**
- **Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger**
- **Software Meets FDA CFR21 Part 11 Requirements**

The new MWTC Smart Data Logging Thermocouple Connector Series features stand-alone, compact, battery powered thermocouple connectors that measure, record and store readings. When activated the connector will record temperature readings continuously at a pre-set time interval that was programmed by the user during the initial setup.

Stored data can be easily downloaded, charted and printed by connecting the included USB cable to your PC or wirelessly, and running the free user software.

Specifications

(See MWTC Series on Page W-39 for Common Specifications)

Thermocouple Types: (Factory Set) J, K, T, E

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)

Computer Interface: USB (one interface cable included)

Start Date/Time: Selectable in software

Memory: 65,000 readings

Logging/Transmit Sample Rate: Programmable from 2 sec to 2 min

Radio Frequency: ISM 915 MHz or ISM 868 MHz

RF Output Power: 10 dBm (10 mW)

Range of RF Link:

Outdoor Line of Sight: Up to 90 m (300')

Indoor/Urban: Up to 39 m (130')

Software: Included (requires Windows® operating system)

Battery: AAA size; 1.5V lithium included; also compatible with 1.5V alkaline or 3.6V lithium

Battery Life (Typical): 330 days at 1 sample/minute reading rate @25°C (77°F)

Laptop not included.

Up To 48 Channels!

MWTC-REC5-915, $35, shown actual size.

The MWTC-REC5 wireless USB receiver has all the features of the MWTC-REC1 in a miniature package the size of a flash drive. Comes complete with FREE user software to record and log data from multiple MWTC thermocouple connectors.

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
MWTC-D-(*)-(**)	**$89**	Wireless data logging thermocouple connector
MWTC-REC5-(**)	**35**	Wireless receiver†

** Specify calibration: **J, K, T** or **E***

*** Specify ISM frequency: "**915**" for USA/Canada or "**868**" for Europe*

† Optional wireless receiver is not required to operate the data logging connectors. Stored readings can be downloaded via the USB connection. One USB cable is included.

Comes complete with operator's manual, software, 1 m (40") thermocouple sensor, USB cable and a "AAA" 3.6V lithium battery.

***Ordering Examples: USA/Canada: MWTC-D-K-915**, 915 MHz wireless Type K data logging thermocouple connector, and **MWTC-REC5-915**, 915 MHz receiver, $89 + 35 = **$124**.*

***Europe: MWTC-D-K-868**, 868 MHz wireless Type K data logging thermocouple connector, and **MWTC-REC5-868**, 868 MHz receiver, $89 + 35 = **$124**.*

Wireless Transmitter Enclosure

Wash-Down, Sanitary and Marine Applications For MWTC Miniature Wireless Thermocouple Connectors

MWTC-NEMA Series

$39

All Models

MADE IN USA — 1 YEAR WARRANTY

MWTC-NEMA, empty casing, shown smaller than actual size.

- **Compact Polypropylene Enclosure**
- **NEMA 4X (IP65) Protection**
- **Rugged, Splash-Proof Design**
- **Available for ⅛ to ¼" or 3 to 6 mm OD Thermocouple Probes**

With the MWTC-NEMA enclosure, you can now measure temperature wirelessly, in almost any environment! Simply insert your thermocouple probe through the compression fitting, attach your MWTC miniature wireless thermocouple connector, tighten, and you're ready. The MWTC-NEMA can be used with metal-sheathed quick disconnect thermocouples from ⅛ to ¼" (3 to 6 mm) OD probes. OMEGA offers thermocouples with a variety of sheath materials, including 304 SS, 316 SS, Inconel® and OMEGACLAD® XL; see section A for details.

The MWTC wireless thermocouple connector transmits the probe temperature up to 90 m (300') away, at user-programmed intervals from 2 sec to 2 min. Available for 9 thermocouple calibrations, the MWTC is accurate to ±0.5% (depending on the calibration), and the easy to use software turns your PC into a multi-channel chart recorder or data logger. Your data can even be exported to a spreadsheet, for later analysis.

Specifications

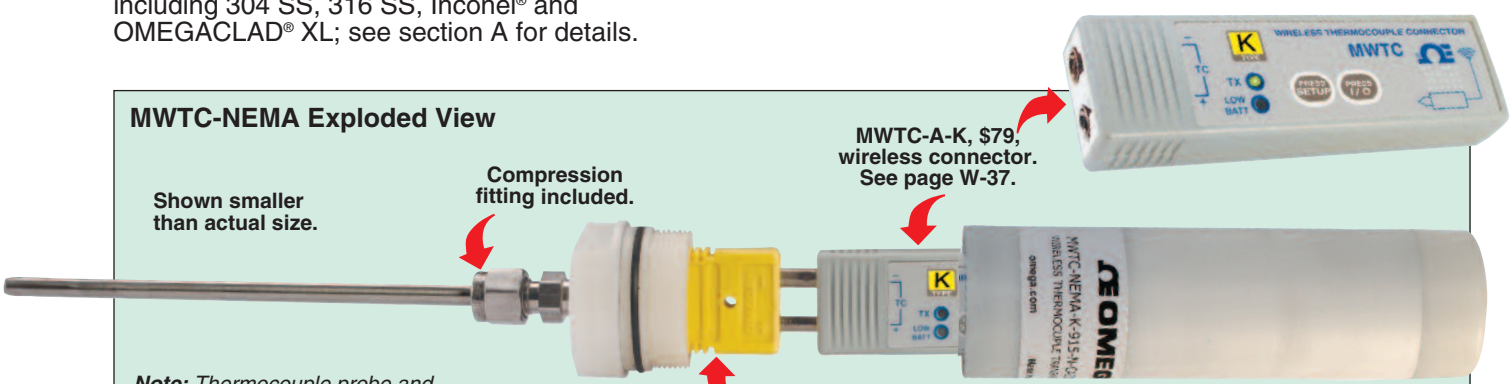
Environmental Rating: NEMA 4X (IP65), protection from dust and splashing water

Housing Material: Polypropylene plastic

Dimensions: 140 L x 38 mm dia (5.5 x 1.5"); housing/compression fitting requires 1.25" of probe length

Temperature Rating: -10 to 70°C (14 to 158°F), limited by MWTC wireless connector

MWTC-NEMA Exploded View



MWTC-A-K, $79, wireless connector. See page W-37.

Compression fitting included.

Shown smaller than actual size.

Note: *Thermocouple probe and MWTC wireless thermocouple connector/transmitter sold separately.*

KQSS-18G-18, standard quick disconnect probe, $23.90. See pages A-43 thru A-59 for details.

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
MWTC-NEMA-18	**$39**	NEMA 4X (IP65) enclosure for MWTC wireless connector, for ⅛" dia. probes
MWTC-NEMA-316	**39**	NEMA 4X (IP65) enclosure for MWTC wireless connector, for 3⁄16" dia. probes
MWTC-NEMA-14	**39**	NEMA 4X (IP65) enclosure for MWTC wireless connector, for ¼" dia. probes
MWTC-NEMA-M30	**39**	NEMA 4X (IP65) enclosure for MWTC wireless connector, for 3.0 mm dia. probes
MWTC-NEMA-M45	**39**	NEMA 4X (IP65) enclosure for MWTC wireless connector, for 4.5 mm dia. probes
MWTC-NEMA-M60	**39**	NEMA 4X (IP65) enclosure for MWTC wireless connector, for 6.0 mm dia. probes

Ordering Example: ***MWTC-NEMA-18*** *enclosure, with* ***MWTC-A-K-915*** *miniature wireless connector for Type K thermocouples (915 MHz RF frequency), with* ***KQSS-18G-18,*** *see pages A-43 thru A-59. Type K thermocouple, ⅛" OD 304 SS sheath, grounded junction, 18" length (16.75" usable length), $39 + 79 + 23.90 =* ***$141.90.***

Universal Wireless RS232 to USB Transceiver

WRS232-USB
$159
For Both RS232 and USB Modules

MADE IN USA · 1 YEAR WARRANTY · CE

Both models shown smaller than actual size.

WUSB wireless receiver, $100.

WRS232 wireless transmitter, $69. Optional UNIV-AC-100/240 AC adaptor, $25, sold separately.

Convert RS232 to USB Wirelessly

- **Converts Any RS232 Device For Wireless Communication**
- **Wireless USB Interface Directly to PC**
- **One Wireless Receiver Module Operates Multiple Wireless Transmitter Modules**
- **RF Transceiver Carrier (ISM 2.4 GHz)**
- **RF Range: Up to 40 m (130') Indoor/Urban [Up to 120 m (400') Outdoor/Line of Sight]**

The WRS232 Series wireless transmitters allow you to convert a standard RS232 connection for wireless operation. A two-part system, the WRS232 converts a standard RS232 signal into a wireless one, while the WUSB receiver converts the wireless signal to a standard USB connection.

Specifications

Wireless Transmitter

Device Interface: RS232, RJ12 to DB9 connector included
RS232 Communication: 9600 BPS
RF Transmitter Carrier: ISM 2.4 GHz, direct sequence spread spectrum
RF Data Packet Standard: IEEE 802.15.4 open communication architecture
RF Power Output: 10 dBm (10 mW)
Supply Voltage: Direct from host instrument, through RJ12 connection or optional AC adaptor
Supply Current: 60 mA
AC Adaptor: 100 to 240 Vac, 50 to 60 Hz
Output Voltage: 9 Vdc @ 1.7 A
Output Plug (Female): Center positive, coax 2.0/5.5/10 mm

Wireless Receiver

PC Interface: USB 1.1, USB 2.0 compatible
Cable Type: USB 4P(A) male to mini 5P(B) male 1.8 m (6') long included
RF Range:
Up to 40 m (130'): Indoor/urban
Up to 120 m (400'): Outdoor/line of sight
Operating Ambient Conditions: 0 to 50°C, 0 to 90% RH (non-condensing)
Dimensions: 70 L x 51 W x 20 mm H (2.75 x 2 x 0.80")

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
WRS232-USB	**$159**	Wireless transmitter and receiver modules, with USB cable and connectors/adaptors
WRS232	**69**	Wireless RS232 transceiver module, with connectors/adaptors
WUSB	**100**	Wireless USB transceiver module, with USB cable

Accessories

Model No.	Price	Description
UNIV-AC-100/240	**$25**	9 Vdc @ 1.7 A adaptor, recommended to power wireless transmitter
WRS232-MB	**25**	Mounting bracket, DIN rail

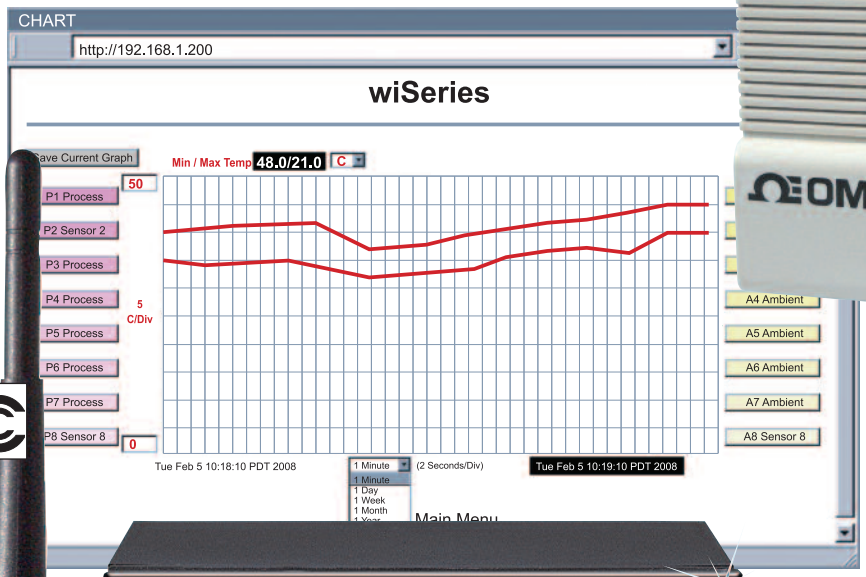
Comes complete with software and operator's manual.

Ordering Examples: WRS232-USB**, wireless transmitter and receiver modules, RS232 cable with RJ12 to DB9 connector, DB9 male/male connector, and USB cable, **$159.

wireless Meter/Scanner and Controller

wi8 Series
$395
All Models

MADE IN USA | 1 YEAR WARRANTY | CE | FC



Works with zED-T, $95, see pages W-55 to W-58.

Wireless antenna with 0.3 m (1') cable included.

wi833-U, $395.

Works with UWTC-NB9-CASS-18-U-12 wireless thermocouple/ transmitter assembly, $195, See page W-16.

wiSeries

- User-Friendly, Simple to Configure
- Wireless Inputs: Thermocouple, RTD, Temperature
- Embedded Ethernet (Standard)
- 2 Alarm Outputs: Solid State Relays (SSRs), DC Pulse, Mechanical Relays, Analog Voltage and Current
- Free Software

All models shown smaller than actual size.

The Smart Connector™

Works with UWTC wireless thermocouple connector, $125, See page W-7.

wiSeries Wireless Monitoring and Control System

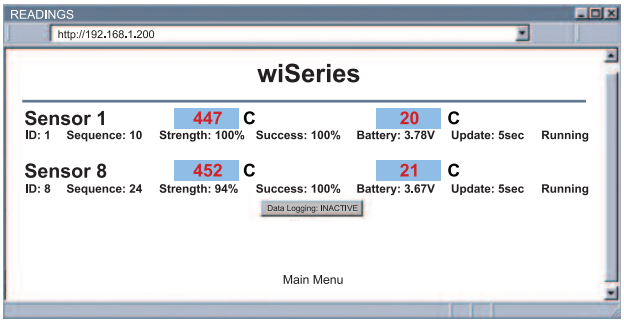
The new OMEGA® wiSeries wireless monitoring and control system features meters and scanners compatible with a large and growing number of OMEGA® wireless sensors:

UWTC "Universal Wireless Thermocouple" Type J, K, T, E, R, S, B, N, and C.

UWRTD "Universal Wireless RTD"

zSeries Wireless End Devices with sensors for temperature.

Rear View of wi8



Temperature Readings of up to 8 Sensors

The wiSeries ⅛ DIN panel meter and controller can monitor up to 8 wireless sensors.

The compact instrument connects directly to an Ethernet network and the Internet and features OMEGA's award-winning embedded Web Server. It is easily configured and monitored with a Web browser over the Ethernet network or the Internet.

Alternatively, the wi8 meter-controller can instead be connected to the USB port of a single computer with a "USB Ethernet Adaptor" that are inexpensive and widely available.

Monitor and Alarm

The wi8 meter-controller comes standard with a choice of either two Form C relays, or two SSRs (solid state relays) that can be used for control functions or alarms. The wi8 meter can monitor alarm conditions for any or all of the wireless sensors. For example, the wi8 meter can be set up to trip an alarm if any one of the sensors indicated it was above or below a pre-set alarm point.

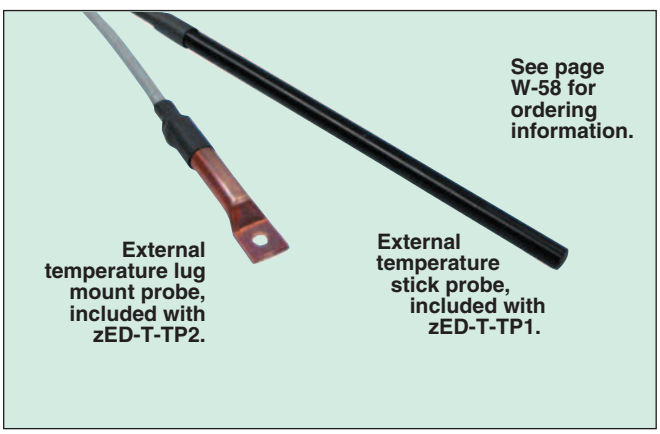
Monitor and Control Locally and Over the Internet

The new OMEGA® wiSeries wireless monitoring and control system provides local monitoring and control, along with remote Web-based monitoring of temperature from thermocouples, RTDs, and semiconductor sensors.

The wireless sensors transmit up to 1000 m (3280') (without obstructions or interference) to a wiSeries monitor-controller connected directly to an Ethernet network and the Internet. The wireless system complies with IEEE 802.15.4 operating at 2.4 GHz.

Note: *Distances for UWTC-1, UWRTD-1: up to 60 m (200'), UWTC-2, UWRTD-2: up to 120 m (400'), zED-x-P: up to 1000 m (3280'), zED-x: up to 90 m (300') all distances without obstructions or interference.*

The OMEGA wiSeries system let's you monitor and record temperature over an Ethernet network or the Internet without any special software—just your Web Browser.



Wireless Sensors

OMEGA offers a wide and growing selection of wireless sensors for a variety of applications. Depending on application, the wireless sensors are powered by 2 "AA" batteries, a single lithium battery (approx "AA" size), 2 "D" cell batteries, or an external AC adaptor that operates on any voltage worldwide from 100 to 240 Vac.

Wireless sensors are available with external probes appropriate for an almost unlimited variety of industrial and commercial applications.

Ethernet

The wiSeries meter-controller-scanner 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. From within an Ethernet LAN or over the Internet, the user simply types the IP address (such as 192.168.1.200) or an easy to remember name (such as "Oven 5" or "Chicago Test Fixture") and the wiSeries meter serves a Web Page with the current readings.

Alarm and Email

The wiSeries meter can trigger an alarm if variables go above or below a set point that you determine. Your alarm can be sent by email to a single user or to a group distribution list, including text messages to cell phones and PDAs. The OMEGA "Mail Notifier" software is a free and easy program for this application.

The wiSeries meter-controllers operate on any AC voltage worldwide from 90 to 240 Vac and 50 to 60 Hz. The meter-controller connects directly to an Ethernet Network or the Internet. Unlike an RS232 or USB device, it does not require a host computer.

Embedded Webserver

The OMEGA wiSeries wireless sensor system is easy to install, simple to operate, and features OMEGA's award-winning iServer technology with an Embedded Web Server that requires no special software.

Charts and Graphs

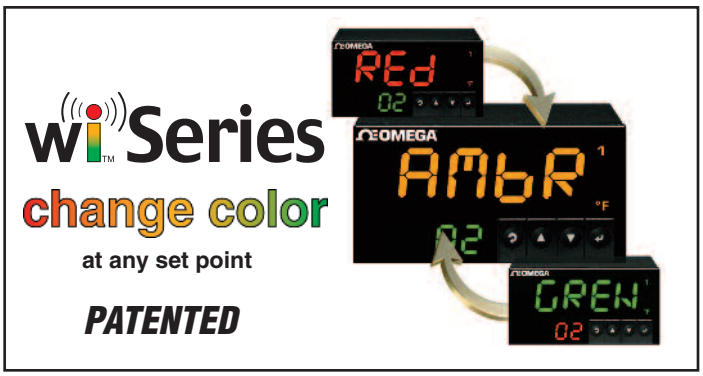
The OMEGA wiSeries system serves Active Web Pages to display real time readings and charts of temperature. You can also log data in standard data formats for use in a spreadsheet or data acquisition program such as Excel or Visual Basic. OMEGA offers a free and easy to use program for logging data to Excel.

The virtual chart viewed on the web page is a JAVA™ Applet that records a chart over the LAN or Internet in real time. With the OMEGA wiSeries system there is no need to invest time and money learning a proprietary software program to log or chart the data.

Chart scales are fully adjustable on the fly. For example, the chart can display one minute, one hour, one day, one week, one month or one year. Temperature can be charted across the full span (-40 to 125°C), or within any narrow range such as (20 to 30°C).

A complete wireless system requires at least 1 receiver (wi8XX) and 1 end device (UWTC or zED).

OMEGA offers an OPC Server software ($295) that makes it easy to integrate the wiSeries wireless sensor system with many popular Data Acquisition and Automation programs offered by OMEGA, Wonderware, iConics, Intellution, Rockwell Automation, and National Instruments, among others.



Programmable Color Display

The OMEGA wiSeries feature OMEGA's patented programmable color displays. The display can be programmed to change color at any set point or alarm point

For example, the wiSeries can be programmed to display the process value in **GREEN** during warm-up, switching to **AMBER** to signal the normal operating range, and in **RED** to signal an alarm condition. The changes in color are quickly seen from a distance, and machine operators can intuitively react to changing conditions. The colors can be programmed to change back when the value drops back below the alarm point or to "latch" on until being reset by the operator.

The wiSeries can also be programmed to display only one unchanging color: **GREEN**, **AMBER**, or **RED**. This is a useful way to let an operator identify, at a glance, process values in three separate locations, or to display three different measurements such as Temperature, Pressure, and Flow.

Quality And Technology

Designed and manufactured in the USA, the innovative OMEGA wiSeries of meters and controllers features an extended 1 year warranty at no extra charge.

Specifications

ON/OFF Control Output 1 and 2

Relay: 250 Vac or 30 Vdc @ 3 A (resistive load); SPDT

SSR: 20 to 265 Vac @ 0.05 to 0.5 A (resistive load); continuous

DC Pulse: Non-Isolated; 10 Vdc @ 20 mA

Analog Output (Output 1 only): Non-Isolated, 0 to 10 Vdc or 0 to 20 mA; 500Ω max

Operation: Direct (cool), reverse (heat); deadband; single sensing input

Configuration: Output 1 and 2 can be configured as Alarm 1 and 2, respectively; analog output for Output 1 can be configured as retransmission

Alarm 1 and 2 (Programmable)

Type: SPDT relay, SSR, and DC pulse

Operation: High/low, above/below, latch/unlatch, normally open/normally closed and process/deviation; front panel configurations; single/multiple sensing input(s)

Analog Retransmission Output (Programmable)

Type: Non-isolated, retransmission 0 to 10 Vdc or 0 to 20 mA, 500Ω max (Output 1 only)

Operation: Single sensing input; accuracy is ±1% of FS when following conditions are satisfied; 1) input is not scaled below 1% of input FS; 2) analog out is not scaled below 3% of output FS

Network and Communications

Ethernet: Standards Compliance IEEE 802.3 10 Base-T

Supported Protocols: TCP/IP, ARP, HTTPGET

Connection: Screw terminals

General

Display: 4-digit, 9-segment LED, 10.2 mm (0.40") and 21 mm (0.83"), red, green and amber programmable colors

Dimensions: 48 H x 96 W x 127 mm D (1.89 x 3.78 x 5")

Panel Cutout: 45 H x 92 mm W (1.772 x 3.622"), ⅛ DIN

Operating Temp: 0 to 55°C (32 to 131°F), 90% RH non-condensing

Line Voltage/Power: 90 to 240 Vac ±10%, 50 to 400 Hz*, 110 to 375 Vdc, equivalent voltage

** No CE compliance above 60 Hz*

Low Voltage/Power Option: 24 Vac**, 20 to 36 Vdc; external power source must meet Safety Agency Approvals

*** Units can be powered safely with 24Vac power, but no certification for CE are claimed*

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	Price	Description
wi833-U	**$395**	Wireless meter/controller for UWTC units with 2 relays: form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac, embedded ethernet, 90 to 240 Vac/dc, 50 to 400 Hz
wi844-U	**395**	For UWTC units with two pulsed 10 Vdc @ 20 mA (for use with external SSR)
wi852-U	**395**	For UWTC units with analog output selectable as either control or retransmission of process value; 0 to 10 Vdc or 0 to 20 mA @ 500 Ω max and SSR
wi853-U	**395**	For UWTC units with analog output 0 to 10 Vdc or 0 to 20 mA @ 500 Ω max and form "C" relay
wi822-ZT	**395**	For zSeries units with two solid state relays (SSRs): 0.5 A @ 120/240 Vac continuous
wi823-ZT	**395**	For zSeries units with SSR and form "C" relay
wi824-ZT	**395**	For zSeries units with SSR and pulse 10 Vdc @ 20 mA (for use with external SSR)
wi854-ZT	**395**	For zSeries units with analog output 0 to 10 Vdc or 0 to 20 mA @ 500 Ω max and pulsed 10 Vdc @20 mA (for use with external SSR) and SSR

Other outputs options are available, please contact our Engineering Department.
*For low power option (20 to 36 Vdc, 24 Vac) add **"-DC"** to model number and add **$25** to price, ex: **wi833-ZT-DC,** $395 + 25 = **$420.***
Ordering Example: wi833-U,** wireless meter/controller for UWTC units with 2 relays, **$395.

Wireless Benchtop Meter, Scanner and Controller

With Embedded Ethernet Connectivity

MDSwi8, $545.

All models shown smaller than actual size.

Works with UWTC-NB9-CASS-18-U-12 wireless thermocouple/ transmitter assembly, $195, see page W-16.

MDSwi8 Series

$545

All Models

MADE IN USA | 1 YEAR WARRANTY | CE

- Read 8 Wireless Sensors Simultaneously
- Portable, Rugged Metal Benchtop Enclosure with Tilt Handle
- Built Around OMEGA's New iSeries Meters
- User-Friendly, Simple to Configure
- Wireless Inputs: Thermocouple RTD Temperature
- Embedded Ethernet Standard

wiSeries

wiSeries Wireless Monitoring and Control System

The new OMEGA® wiSeries wireless monitoring and control system features meters and scanners compatible with a large and growing number of OMEGA® wireless sensors:

UWTC "Universal Wireless Thermocouple" Type J, K, T, E, R, S, B, N, and C.

UWRTD "Universal Wireless RTD"

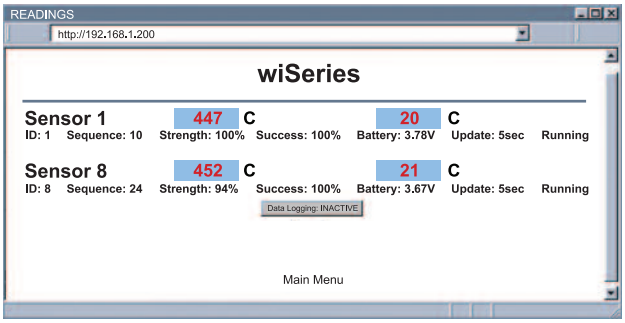
zSeries Wireless End Devices with sensors for temperature.

The Smart Connector™

PATENT PENDING

Works with UWTC wireless thermocouple connector, $125, see page W-7.

Works with zED-T, $95, see pages W-55 to W-58.



Temperature Readings of up to 8 Sensors

The wiSeries ⅛ DIN panel meter and controller can monitor up to 8 wireless sensors.

The compact instrument connects directly to an Ethernet network and the Internet and features OMEGA's award-winning embedded Web Server. It is easily configured and monitored with a Web browser over the Ethernet network or the Internet.

Alternatively, the wi8 meter-controller can instead be connected to the USB port of a single computer with a "USB Ethernet Adaptor" that are inexpensive and widely available.

Monitor and Alarm

The wi-8 meter-controller comes standard with a choice of either two Form C relays, or two SSRs (solid state relays) that can be used for control functions or alarms. The wi8 meter can monitor alarm conditions for any or all of the wireless sensors. For example, the wi-8 meter can be set up to trip an alarm if any one of the sensors indicated it was above or below a pre-set alarm point.

Monitor and Control Locally and Over the Internet

The new OMEGA® wiSeries wireless monitoring and control system provides local monitoring and control, along with remote Web-based monitoring of temperature from thermocouples, RTDs, and semiconductor sensors.

The wireless sensors transmit up to 1000 m (3280') (without obstructions or interference) to a wiSeries monitor-controller connected directly to an Ethernet network and the Internet. The wireless system complies with IEEE 802.15.4 operating at 2.4 GHz.

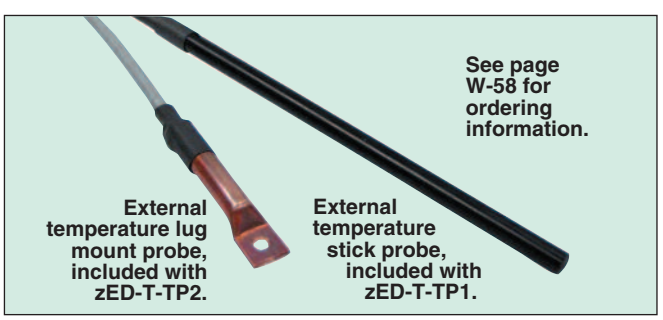
Note: *Distances for UWTC-1, UWRTD-1: up to 60 m (200'), UWTC-2, UWRTD-2: up to 120 m (400'), zED-x-P: up to 1000 m (3280'), zED-x: up to 90 m (300') all distances without obstructions or interference.*

The OMEGA wiSeries system let's you monitor and record temperature over an Ethernet network or the Internet without any special software—just your Web Browser.

Wireless Sensors

OMEGA offers a wide and growing selection of wireless sensors for a variety of applications. Depending on application, the wireless sensors are powered by 2 "AA" batteries, a single lithium battery (approx "AA" size), 2 "D" cell batteries, or an external AC adaptor that operates on any voltage worldwide from 100 to 240 Vac.

Wireless sensors are available with external probes appropriate for an almost unlimited variety of industrial and commercial applications.



Ethernet

The wiSeries meter-controller-scanner 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. From within an Ethernet LAN or over the Internet, the user simply types the IP address (such as 192.168.1.200) or an easy to remember name (such as "Oven 5" or "Chicago Test Fixture") and the wiSeries meter serves a Web Page with the current readings.

Alarm and Email

The wiSeries meter can trigger an alarm if variables go above or below a set point that you determine. Your alarm can be sent by email to a single user or to a group distribution list, including text messages to cell phones and PDAs. The OMEGA "Mail Notifier" software is a free and easy program for this application.

The wiSeries meter-controllers operate on any AC voltage worldwide from 90 to 240 Vac and 50 to 60 Hz. The meter-controller connects directly to an Ethernet Network or the Internet. Unlike an RS232 or USB device, it does not require a host computer.

Embedded Webserver

The OMEGA wiSeries wireless sensor system is easy to install, simple to operate, and features OMEGA's award-winning iServer technology with an Embedded Web Server that requires no special software.

Charts and Graphs

The OMEGA wiSeries system serves Active Web Pages to display real time readings and charts of temperature. 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 and easy to use program for logging data to Excel.

The virtual chart viewed on the web page is a JAVA™ Applet that records a chart over the LAN or Internet in real time. With the OMEGA wiSeries system there is no need to invest time and money learning a proprietary software program to log or chart the data.

Chart scales are fully adjustable on the fly. For example, the chart can display one minute, one hour, one day, one week, one month or one year. Temperature can be charted across the full span (-40 to 125°C), or within any narrow range such as (20 to 30°C).

A complete wireless system requires at least 1 benchtop receiver (wi8XX) and 1 end device (UWTC, UWRTD or zED).

NEW

OMEGA offers an OPC Server software ($295) that makes it easy to integrate the wiSeries wireless sensor system with many popular Data Acquisition and Automation programs offered by OMEGA, Wonderware, iConics, Intellution, Rockwell Automation, and National Instruments, among others.

Programmable Color Display

The OMEGA wiSeries feature OMEGA's patented programmable color displays. The display can be programmed to change color at any set point or alarm point

For example, the wiSeries can be programmed to display the process value in **GREEN** during warm-up, switching to **AMBER** to signal the normal operating range, and in **RED** to signal an alarm condition. The changes in color are quickly seen from a distance, and machine operators can intuitively react to changing conditions. The colors can be programmed to change back when the value drops back below the alarm point or to "latch" on until being reset by the operator.

The wiSeries can also be programmed to display only one unchanging color: **GREEN**, **AMBER**, or **RED**. This is a useful way to let an operator identify, at a glance, process values in three separate locations, or to display three different measurements such as Temperature, Pressure, and Flow.

Quality and Technology

Designed and manufactured in the USA, the innovative OMEGA wiSeries of meters and controllers features an extended 1 year warranty at no extra charge.

Specifications

Network and Communications

Ethernet: Standards Compliance IEEE 802.3 10 Base-T

Supported Protocols: TCP/IP, ARP, HTTPGET

Connection: Screw terminals

General

Display: 4-digit, 9-segment LED, 10.2 mm (0.40") and 21 mm (0.83"), red, green and amber programmable colors

Operating Temp: 0 to 55°C (32 to 131°F), 90% RH non-condensing

Line Voltage/Power: 90 to 240 Vac ±10%, 50 to 400 Hz*, 110 to 375 Vdc, equivalent voltage

** No CE compliance above 60 Hz*

MOST POPULAR MODEL HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	Price	Description
MDSwi833-U	**$545**	Wireless benchtop meter for UWTC/UWRTD models with 2 relays (form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac)
MDSwi853-U	**545**	Wireless benchtop meter for UWTC/UWRTD models with analog output (0 to 10 Vdc or 0 to 20 mA @ 500 Ω max) and form "C" relay
MDSwi822-U	**545**	Wireless benchtop Meter For UWTC/UWRTD models with two solid state relays (SSRs) (0.5 A @ 120/240 Vac continuous)
MDSwi833-ZT	**545**	Wireless benchtop meter for zSeries models with 2 relays: (form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac)
MDSwi853-ZT	**545**	Wireless benchtop meter for zSeries models with analog output (0 to 10 Vdc or 0 to 20 mA @ 500 Ω max) and form "C" relay
MDSwi822-ZT	**545**	Wireless benchtop meter with for zSeries models with two solid state relays (SSRs) (0.5 A @ 120/240 Vac continuous)

Accessories

Model No.	Price	Description
POWER CORD-DM	**$20**	Power cord with connector for Denmark
POWER CORD-E-10A	**20**	Power cord with connector for Continental Europe
POWER CORD-IT	**20**	Power cord with connector for Italy or Ireland
POWER CORD-SE	**7**	Power cord with stripped ends (no connection), all countries 250 Vac max
POWER CORD-UK	**35**	Power cord with connector for United Kingdom
POWER CORD-MOLDED	**7**	Power cord with connector for North America (USA, Mexico, Canada), standard 120 Vac

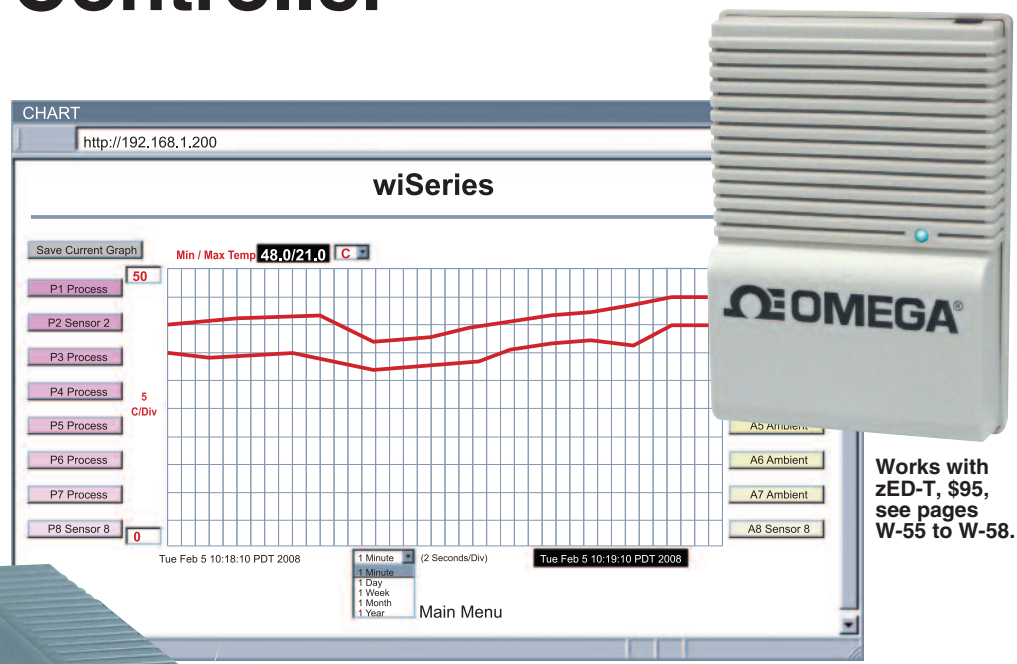
Comes complete with operator's manual.

***Order Example: MDSwi833-U** wireless benchtop meter for UWTC/UWRTD sensors, **$545,** with **POWER CORD-MOLDED**, power cord, **$7**, $545 + 7 = **$552**.*

wireless DIN Rail Monitor and Controller

wiDR
$395
All Models

MADE IN USA 1 YEAR WARRANTY CE FC



Works with zED-T, $95, see pages W-55 to W-58.

Wireless antenna with 0.3 m (1') cable included.

All models shown smaller than actual size.

Works with UWTC wireless thermocouple connector, $125, see page W-7.

wiDR33-U, $395.

wiSeries Wireless DIN Rail Monitoring and Control Device

The new **OMEGA® wiSeries** DIN Rail wireless monitoring and control device is compatible with a large and growing number of OMEGA wireless sensors:

UWTC "Universal Wireless Thermocouple" Type J, K, T, E, R, S, B, N, and C.

UWRTD "Universal Wireless RTD"

zSeries Wireless End Devices with sensors for temperature.

The wiSeries wiDR DIN rail monitor and controller can monitor up to 8 wireless sensors.

The compact instrument connects directly to an Ethernet network and the Internet and features OMEGA's award-winning embedded Web Server. It is easily configured and monitored with a Web browser over the Ethernet network or the Internet.

Alternatively, the wiDR DIN rail monitor and controller can instead be connected to the USB port of a single computer with a "USB Ethernet Adaptor" that are inexpensive and widely available.

Monitor And Alarm

The wiDR meter-controller comes standard with a choice of either 2 Form C relays, or two SSRs (solid state relays) that can be used for control functions or alarms. The wiDR meter can monitor alarm conditions for any or all of the wireless sensors. For example, the wiDR meter can be set up to trip an alarm if any one of the sensors indicated it was above or below a pre-set alarm point.

wiSeries

- **User-Friendly, Simple to Configure**
- **Wireless Inputs: Thermocouple, RTD, Temperature**
- **Embedded Ethernet (Standard)**
- **2 Alarm Outputs: Solid State Relays (SSRs), DC Pulse, Mechanical Relays, Analog Voltage and Current**
- **Free Software**

A complete wireless system requires at least 1 receiver (wiDRXX) and 1 end device (UWTC or zED).

Monitor and Control Locally and Over the Internet

The new OMEGA® wiSeries wireless monitoring and control system provides local monitoring and control, along with remote Web-based monitoring of temperature from thermocouples, RTDs, and semiconductor sensors.

The wireless sensors transmit up to 1000 m (3280') (without obstructions or interference) to a wiSeries monitor-controller connected directly to an Ethernet network and the Internet. The wireless system complies with IEEE 802.15.4 operating at 2.4 GHz.

Note: *Distances for UWTC-1, UWRTD-1: up to 60 m (200'), UWTC-2, UWRTD-2: up to 120 m (400'), zED-x-P: up to 1000 m (3280'), zED-x: up to 90 m (300') all distances without obstructions or interference.*

The OMEGA wiSeries system lets you monitor and record temperature over an Ethernet network or the Internet without any special software—just your Web Browser.

Wireless Sensors

OMEGA offers a wide and growing selection of wireless sensors for a variety of applications. Depending on application, the wireless sensors are powered by 2 "AA" batteries, a single lithium battery (approx "AA" size), 2 D cell batteries or an external AC adaptor that operates on any voltage worldwide from 100 to 240 Vac.

Wireless sensors are available with external probes appropriate for an almost unlimited variety of industrial and commercial applications.

Ethernet

The wiDR monitor-controller 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. From within an Ethernet LAN or over the Internet, the user simply types the IP address (such as 192.168.1.200) or an easy to remember name (such as "Oven 5" or "Chicago Test Fixture") and the wiSeries meter serves a Web Page with the current readings.

Alarm and Email

The wiDR monitor-controller can trigger an alarm if variables go above or below a set point that you determine. Your alarm can be sent by email to a single user or to a group distribution list, including text messages to cell phones and PDA's. The OMEGA "Mail Notifier" software is a free and easy program for this application.

The wiDR monitor-controllers operate on any AC voltage worldwide from 90 to 240 Vac and 50 to 60 Hz. The monitor-controller connects directly to an Ethernet Network or the Internet. Unlike an RS232 or USB device, it does not require a host computer.

Embedded Webserver

The OMEGA wiSeries wireless sensor system is easy to install, simple to operate, and features OMEGA's award-winning iServer technology with an Embedded Web Server that requires no special software.

Charts and Graphs

The OMEGA wiDR monitor serves active web pages to display real time readings and charts of temperature. 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 and easy to use program for logging data to Excel.

The virtual chart viewed on the web page is a JAVA™ Applet that records a chart over the LAN or Internet in real time. With the OMEGA wiSeries system there is no need to invest time and money learning a proprietary software program to log or chart the data.

Chart scales are fully adjustable on the fly. For example, the chart can display one minute, one hour, one day, one week, one month or one year. Temperature can be charted across the full span (-40 to 125°C) or within any narrow range such as (20 to 30°C).

Specifications

Dimensions: 93 H x 39 W x 125 mm D (3.64 x 1.55 x 4.93")
Operating Temp: 0 to 55°C (32 to 131°F), 90% RH non-condensing
Line Voltage/Power: 90 to 240 Vac ±10%, 50 to 400 Hz*, 110 to 375 Vdc, equivalent voltage
***** *No CE compliance above 60 Hz*
Low Voltage/Power Option: 24 Vac**, 12 to 36 Vdc. External power source must meet Safety Agency Approvals

****** *Units can be powered safely with 24 Vac power, but no certification for CE are claimed.*

MOST POPULAR MODELS HIGHLIGHTED!

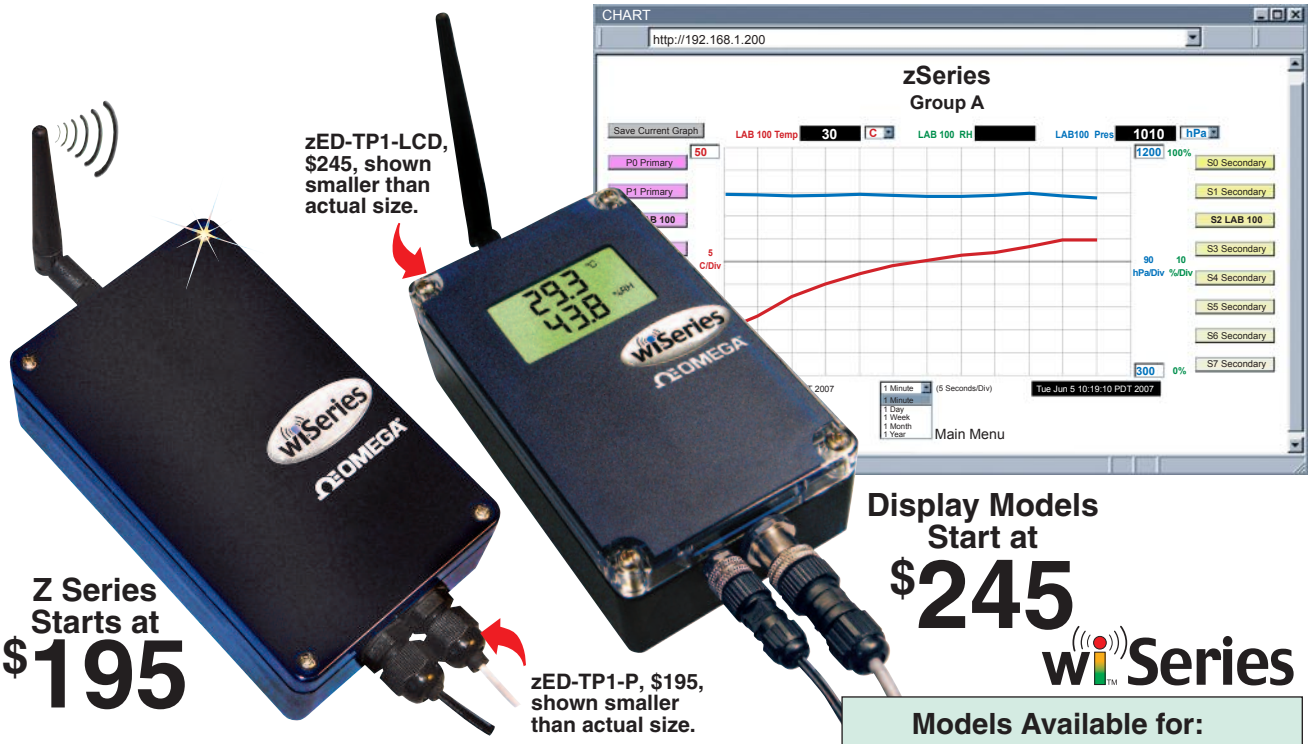
To Order *(Specify Model Number)*

Model No.	Price	Description
wiDR33-U	**$395**	Wireless meter/controller for UWTC units with 2 relays: form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac, embedded ethernet, 90 to 240 Vac/Vdc, 50 to 400 Hz
wiDR44-U	**395**	For UWTC units with two pulsed 10 Vdc @ 20 mA (for use with external SSR)
wiDR52-U	**395**	For UWTC units with analog output selectable as either control or retransmission of process value; 0 to 10 Vdc or 0 to 20 mA @ 500 Ω max and SSR
wiDR53-U	**395**	For UWTC units with analog output 0 to 10 Vdc or 0 to 20 mA @ 500 Ω max and form "C" relay
wiDR22-ZT	**395**	For zSeries units with two solid state relays (SSRs): 0.5 A @ 120/240 Vac continuous
wiDR23-ZT	**395**	For zSeries units with SSR and form "C" relay
wiDR24-ZT	**395**	For zSeries units with SSR and pulsed 10 Vdc @ 20 mA (for use with external SSR)
wiDR54-ZT	**395**	For zSeries units with analog output 0 to 10 Vdc or 0 to 20 mA @ 500 Ω max and pulsed 10 Vdc @ 20 mA (for use with external SSR) and SSR

Other outputs options are available, please contact our Engineering Department.
*For low power option (12 to 36 Vdc, 24 Vac) add "**-DC**" to model number and **$25** to price, ex: **wiDR33-ZT-DC,** $395 + 25 = **$420.***

Ordering Example: wiDR33-U,** wireless meter/controller for UWTC with 2 relays, **$395.

High Power wireless Transmitters
Ethernet or Internet Connection



zED-TP1-LCD, $245, shown smaller than actual size.

Z Series Starts at $195

zED-TP1-P, $195, shown smaller than actual size.

Display Models Start at $245

wiSeries

Models Available for:
- Temperature
- Barometric Pressure
- Humidity
- Thermocouple
- Analog Voltage

MADE IN USA | 1 YEAR WARRANTY | NIST Optional† | CE | FC

- **Web Server**
- **Email Alarms**
- **No Special Software Required**
- **High Power**
- **NEMA 4 (IP65) Enclosure**

The rugged high-performance, high power OMEGA® wiSeries wireless transmitters are compatible with the OMEGA zSeries and wiSeries system for Web-based monitoring of Analog Voltage and Current, Temperature, Humidity, and Barometric Pressure.

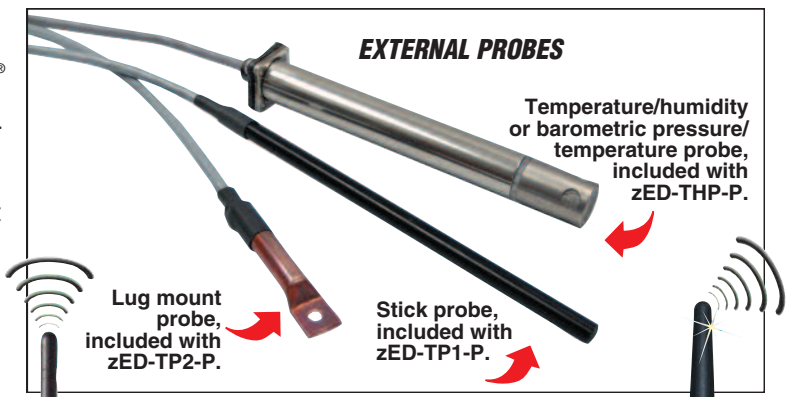
The radio is a high power IEEE 802.15.4 compliant transmitter operating at 2.4 GHz designed to transmit over greater distances and through more obstructions than the standard transmitter.

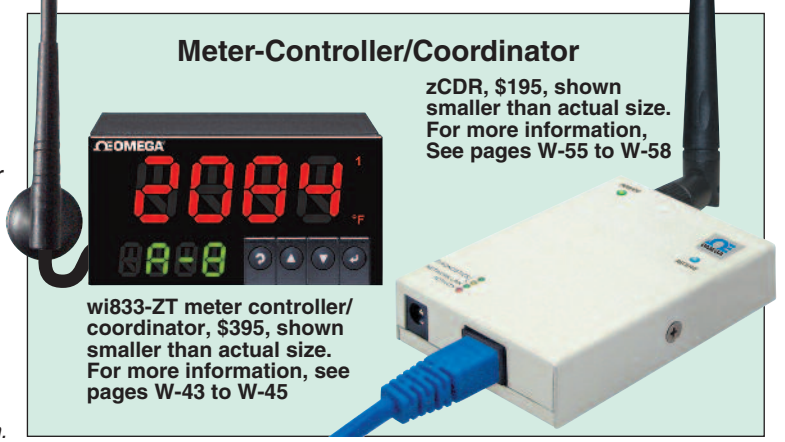
These wireless sensors transmit 1000 m (3280')—without obstructions or interferences—to a zSeries coordinator or wiSeries meter-controller. The coordinators and controllers connect directly to an Ethernet network and the Internet and serve active Web Pages to display and chart the data.

You can monitor and record analog voltage and current, temperature, relative humidity, and barometric pressure over an Ethernet network or the Internet without any special software—just your Web Browser.

These wiSeries wireless sensors are designed for demanding industrial applications indoors and harsh outdoor environments. The electronics are protected in a rugged weatherproof polycarbonate NEMA 4 (IP65) rated housing. The rugged industrial sensors are supplied with 3 m (10') of cable.

† Refer to page W-54 for NIST calibration ordering information.

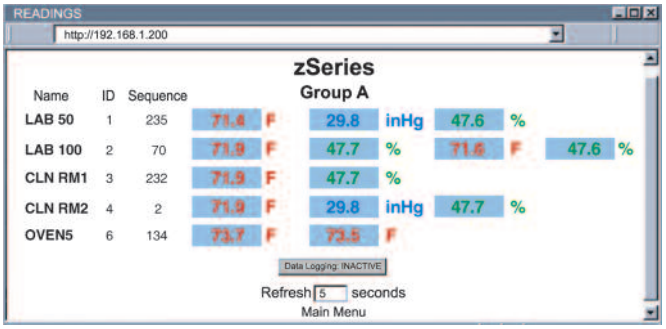




wiSeries

NEW

Internet Enabled!



Wireless Transmitters

Wireless transmitters are available with external probes appropriate for an almost unlimited variety of industrial and commercial applications.

OMEGA offers a selection of end devices for a variety of applications. The high power end device supports one external sensor. The external sensors are designed for harsh environments such as outdoor weather, in HVAC ducts, in freezers and refrigerators.

OMEGA offers wireless sensor/transmitters that run on either batteries or AC power. The battery version (zED-DCELL) comes with two alkaline D-Cell batteries that can last for years. The AC version (zED-P, zED-LCD) comes with a 5 Vdc universal AC adaptor that operates on any voltage worldwide (110 to 240 Vac).

Should AC power fail, the unit can operate on a 3.6V ultra-long-life lithium backup battery (included). It can run on battery power for days, weeks, or months depending on the read rate selected by the user.

Alarm and Email

The wiSeries wireless sensor system can trigger an alarm if variables go above or below a set point that you determine. Your alarm can be sent by email to a single user or to a group distribution list, including text messages to cell phones and PDAs. The OMEGA "MailNotifier" software is a free and easy program for this application.The meter-controller connects directly to an Ethernet Network or the Internet. Unlike an RS232 or USB device, it does not require a host computer.

Embedded Web Server

The wiSeries wireless sensor system is easy to install, simple to operate, and features OMEGA's award-winning iServer technology with an Embedded Web Server that requires no special software.

Charts and Graphs

The wiSeries system serves Active Web Pages to display real time readings and charts of Analog Voltage and Current, Temperature, Humidity, and Barometric Pressure. 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 and easy to use program for logging data to Excel. The virtual chart viewed on the web page is a JAVA™ Applet that records a chart over the LAN or Internet in real time. With the OMEGA wiSeries system there is no need to invest time and money learning a proprietary software program to log or chart the data. Chart scales are fully adjustable on the fly. For example, the chart can display one minute, one hour, one day, one week, one month or one year. Temperature and humidity can be charted across the full span [-40 to 125°C (-40 to 257°F), and 0 to 100% RH] or within any narrow range such as [20 to 30°C (68 to 86°F)]. OMEGA offers an OPC Server software ($295) that makes it easy to integrate the wiSeries wireless sensor system with many popular Data Acquisition and Automation programs offered by OMEGA, Wonderware, iConics, Intellution, Rockwell Automation, and National Instruments, among others.

Specifications

Relative Humidity

Accuracy/Range (zED-THP-x, zED-BTHP-x): ±2% for 10 to 90%; ±3% for 0 to 10% and 90 to 100%

Hysteresis: ±1% RH

Non-Linearity: ±3%

Repeatability: ±0.1%

Resolution: 0.1%

Temperature

Accuracy/Range:

zED-TP1-x, zED-TP2-x: ±0.5°C for 10 to 85°C (±0.9°F for 50 to 185°F); ±1°C for -40 to 10°C and 85 to 125°C (±1.8°F for -40 to 50°F and 185 to 257°F)

zED-THP-x, zED-BTHP-x: ±0.5°C for 0 to 45°C (±0.9°F for 32 to 113°F); ±1°C for -18 to 0°C and 45 to 70°C (±1.8°F for -0.4 to 32°F and 113 to 158°F); ±2°C for -40 to -18°C and 70 to 124°C (±3.6°F for -40 to -0.4°F and 158 to 255°F)

zED-BTP-x: ±0.8°C @ 20°C (±1.5°F @ 68°F); ±2°C for -40 to 85°C (±3.6°F for -40 to 185°F)

Repeatability: ±0.1°C for zED-THP-x, zED-BTHP-x

Resolution: 0.1°C

Barometric Pressure

Accuracy/Range (zED-BTP-x, zED-BTHP-x): ±2 mbar for 10 mbar to 1100 mbar (1 KPa to 110 KPa)

Resolution: 0.1 mbar

Probe Specifications

Industrial Probe (zED-BTP-x, -BTHP-x, zED-THP-x): SS 316 housing, 137 x Ø16 mm (5 x Ø0.63")

Stick Probe (zED-TP1-x): ABS tubing, 152.4 x Ø6.35 mm (6 x Ø0.25")

Lug Mounted Probe (zED-TP2-x): Copper tubing, 53.4 x Ø7.92 mm (2.1 x Ø0.312"); mounting hole Ø4.72 mm (Ø0.186")

Cable:

zED-TP1-x, -TP2-x, zED-THP-x: 3 m (10') L x Ø2.62 mm (0.103"); -80 to 200°C (-112 to 392°F)

zED-BTP-x, -BTHP-x: 3 m (10') L x Ø4.45 mm (0.175"); -55 to 105°C (-67 to 221°F) *ø = diameter*

Thermocouple Input

Temperature Accuracy/Range: Refer to T/C chart, on next page

Temperature Stability: 0.08°C/°C

Temperature Coefficient: ±25 ppm/°C

Thermocouple Cold End Tracking: 0.1°C/°C

Thermocouple Lead Resistance: 100 Ω max

Thermocouple Type (ITS 90): J, K, T, E, R, S, B, C, N, L (DIN J)

Warm-Up to Rated Accuracy: 30 min

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wi Series

Universal AC adaptor is included with all AC powered models.

Analog Input

Voltage Input: Differential; bipolar; ±100 mV, ±1V, ±10V
Input Impedance: 400 kΩ for voltage
Current Input: Differential; bipolar; ±20 mA (5 Ω load)
Accuracy: ±1% full range @ 25°C
Reading Rate: Periodic (1 sample/update) or continuous (20 samples/second)
A/D Conversion: Sigma-Delta
Resolution: 16 bits
Temperature Coefficient: ±50 ppm/°C
Common Mode Rejection: 105 dB
Normal Mode Rejection: 98 dB
Warm-Up to Rated Accuracy: 30 minutes

Wireless Communication

Standard: IEEE 802.15.4, DSSS
Frequency: 2.4 GHz (2400 to 2483.5 MHz), 16 channels
Network Topology: Star topology
Range: Up to 1000 m (3280') without obstructions or interference

Power (zED-x-P, zED-x-LCD)

Power Input: 5 Vdc
Consumption: 0.8 W max
Safety Qualified AC Power
Adaptor (Included):
Nominal Output: 5 Vdc @ 0.6 A
Input: 100 to 240 Vac, 50/60 Hz
Operating Temperature: 0 to 40°C (32 to 104°F)
Lithium Back-up Battery: One 3.6 Vdc (included)
Lifetime: Estimate of 2 years with frequency of 1 reading per 2 minutes (7 months with -TC/-VI option)

Power (zED-x-DCELL)

Alkaline Battery: Two D-cell 1.5 Vdc (included)
Lifetime: Estimate of 5 years with frequency of 1 reading per 2 minutes

Environmental

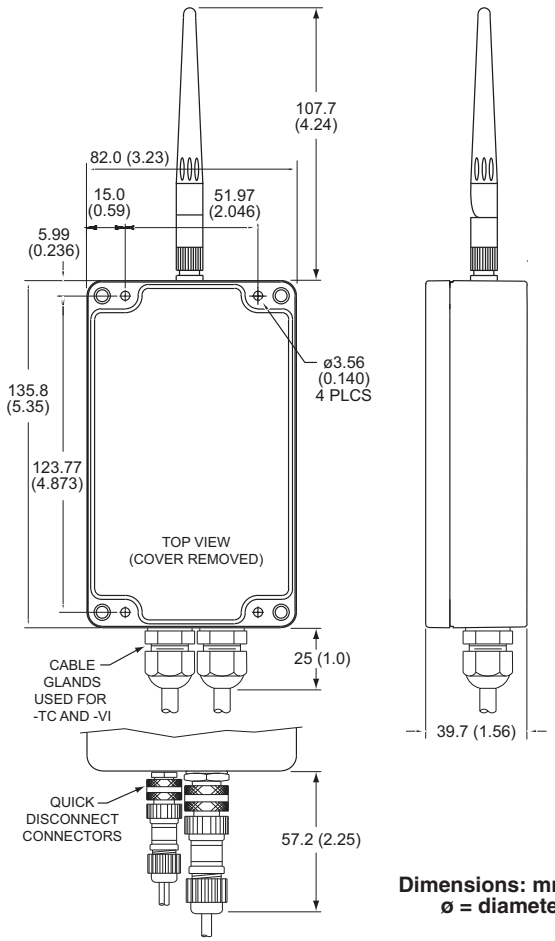
Operating Temperature:
zED-x-P: -20 to 70°C (-4 to 158°F), 90% RH non-condensing
zED-x-DCELL: -18 to 55°C (-0.4 to 131°F), 90% RH non-condensing
zED-x-LCD: -10 to 60°C (14 to 140°F), 90% RH non-condensing

Packaging

Enclosure Material: Polycarbonate
Enclosure Protection: NEMA 4 (IP65)
Enclosure Dimensions: 135.9 L x 82 W x 39 mm D (5.35 x 3.23 x 1.56")

General

Agency Approval: FCC Part 15C; CE EMC; 2004/108/EC, LVD 2006/95/EC, RTT&E 1999/5/EC
Software: iConnect (configuration software for the Ethernet interface), iLog (Excel-based software for automatic data logging), and Mail Notifier (email alarm notification software)



Dimensions: mm (in)
ø = diameter

Thermocouple Chart			
Input Type		Range	Accuracy
J	Iron - Constantan	-210 to 760°C (-346 to 1400°F)	0.4°C (0.7°F)
K	CHROMEGA®- ALOMEGA®	-270 to -160°C/-160 to 1372°C (-454 to -256°F/-256 to 2502°F)	1.0°C/0.4°C (1.8°F/0.7°F)
T	Copper - Constantan	-270 to -190°C/-190 to 400°C (-454 to -310°F/-310 to 752°F)	1.0°C/0.4°C (1.8°F/0.7°F)
E	CHROMEGA®- Constantan	-270 to -220°C/-220 to 1000°C (-454 to -364°F/-364 to 1832°F)	1.0°C/0.4°C (1.8°F/0.7°F)
R	Pt/13%Rh-Pt	-50 to 40°C/40 to 1768°C (-58 to 104°F/104 to 3214°F)	1.0°C/0.5°C (1.8°F/0.9°F)
S	Pt/10%Rh-Pt	-50 to 100°C/100 to 1768°C (-58 to 212°F/212 to 3214°F)	1.0°C/0.5°C (1.8°F/0.9°F)
B	Pt/30%Rh-Pt/6%Rh	100 to 640°C/640 to 1820°C (212 to 1184°F/1184 to 3308°F)	1.0°C/0.5°C (1.8°F/0.9°F)
C	W/5%Re-W/26%Re	0 to 2320°C (32 to 4208°F)	0.4°C (0.7°F)
N	Nicrosil - Nisil	-250 to -100°C/-100 to 1300°C (-418 to -148°F/-148 to 2372°F)	1.0°C/0.4°C (1.8°F/0.7°F)
L	J DIN	-200 to 900°C (-328 to 1652°F)	0.4°C (0.7°F)

High Power wireless Transmitters

Internet Enabled!

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A complete wireless system requires at least: 1 end device zED-x-P, zED-x-LCD, or zED-x-DCELL (up to 8 end devices) and 1 coordinator or meter/controller (receiver) zCDR, wi8xx-ZT, or wiDRxx-ZT.

W

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
Wireless End Device		
zED-TP1-P	**$195**	Temperature sensor with stick probe, AC powered
zED-TP2-P	**195**	Temperature sensor with lug mount probe, AC powered
zED-THP-P	**240**	Temperature and humidity sensor, AC powered
zED-BTP-P	**245**	Barometric pressure and temperature sensor, AC powered
zED-BTHP-P	**295**	Barometric pressure, temperature and humidity sensor, AC powered
zED-TC-P	**240**	Dual thermocouple input, AC powered
zED-VI-P	**240**	Analog input, AC powered
zED-TP1-DCELL	**195**	Temperature sensor with stick probe, battery powered
zED-TP2-DCELL	**195**	Temperature sensor with lug mount probe, battery powered
zED-THP-DCELL	**240**	Temperature and humidity sensor, battery powered
zED-BTP-DCELL	**245**	Barometric pressure and temperature sensor, battery powered
zED-BTHP-DCELL	**295**	Barometric pressure, temperature and humidity sensor, battery powered
zED-TC-DCELL	**240**	Dual thermocouple input, battery powered
zED-VI-DCELL	**240**	Analog input, battery powered
zED-TP1-LCD	**245**	Temperature sensor with stick probe, AC powered, LCD display
zED-TP2-LCD	**245**	Temperature sensor with lug mount probe, AC powered, LCD display
zED-THP-LCD	**290**	Temperature and humidity sensor, AC powered, LCD display
zED-BTP-LCD	**295**	Barometric pressure and temperature sensor, AC powered, LCD display
zED-BTHP-LCD	**345**	Barometric pressure, temperature and humidity sensor, AC power, LCD display
zED-TC-LCD	**290**	Dual thermocouple input, AC powered, LCD display
zED-VI-LCD	**290**	Analog input, AC powered, LCD display
Wireless Coordinator and Meter Controller with Coordinator (Receivers)		
zCDR	**$195**	Coordinator, which can support up to 32 end devices
zCDR-VI	**195**	Coordinator, which can support up to 32 analog input end devices
wi833-ZT	**395**	Meter/controller, which can support up to 8 temperature end devices, with 2 relays: Form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac, embedded Ethernet, 90 to 240 Vac, 50/60 Hz
wi853-ZT	**395**	Meter/controller, supports up to 8 temperature end devices, with analog output 0 to 10 Vdc or 0 to 20 mA @ 500 Ω max and Form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac, embedded Ethernet, 90 to 240 Vac, 50/60 Hz
wiDR22-ZT	**395**	DIN rail monitor/controller, supports up to 8 temperature end devices, with 2 solid state relays (SSRs): 0.5 A @ 120/240 Vac continuous, embedded Ethernet, 90 to 240 Vac, 50/60 Hz
wiDR44-ZT-DC	**420**	DIN rail monitor/controller, supports up to 8 temperature end devices, with 2 pulsed 10 Vdc @ 20 mA (for use with external SSR), embedded Ethernet, low power option 12 to 36 Vdc, 24 Vac

Calibration†	Price	Description
CAL-3-HU	**$125**	NIST traceable calibration certificate; three humidity points: 25%, 50%, 75%, 1 temperature point of 25°C (for new units)
CAL-3-HU-P-T	**250**	NIST traceable calibration certificate; three humidity, barometric pressure, and temperature points (for new units)
CAL-3-P	**125**	NIST traceable calibration certificate; three barometric pressure points, and temperature 25°C (for new units)
CT485B-CAL-KIT	**75**	Calibration kit, 33% and 75% RH standards

For the meter/controllers, other output options are available, please contact our Sales Department.

Ordering Examples: *Two* ***zED-TP2-P*** *high power end devices with external temperature sensor in lug mounting probe housing and 3 m (10') cable, and* ***zCDR,*** *coordinator, $195 x 2 + 195 =* ***$585.***

CAL-3-HU, *NIST traceable calibration certificate for new unit,* ***$125.***

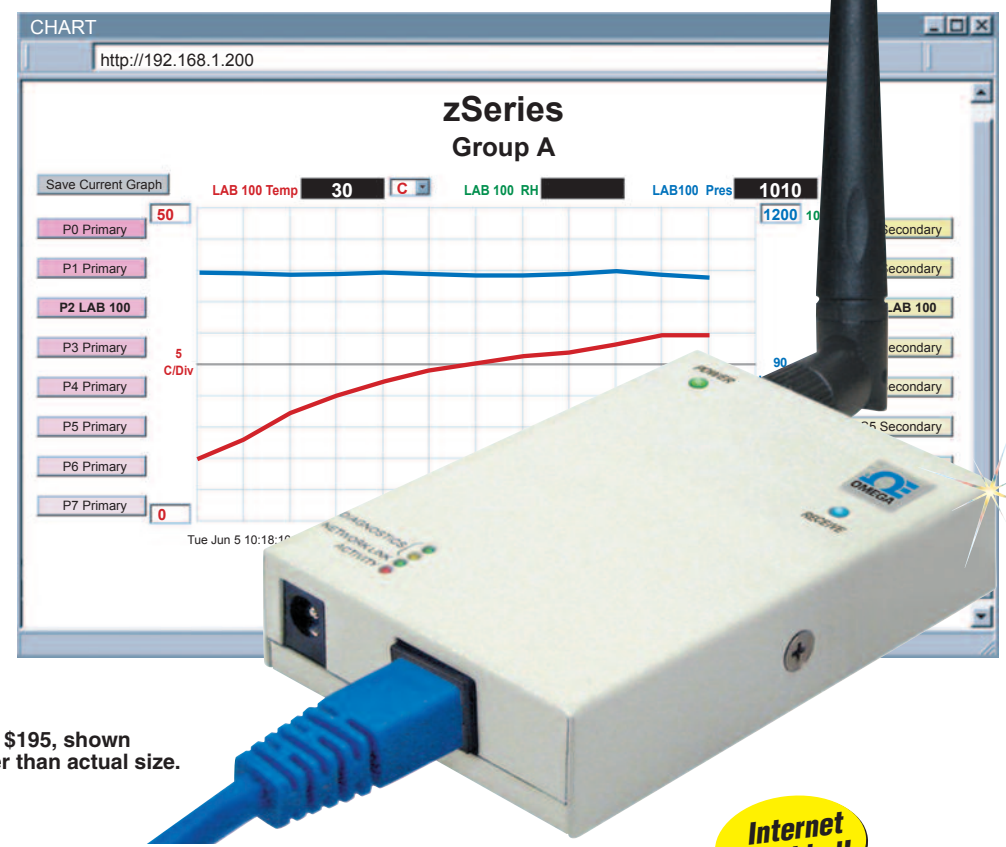
Wireless Sensor System
Ethernet or Internet Connection

Z Series Starts at $95

MADE IN USA

PATENT PENDING

- Temperature
- Humidity
- Barometric Pressure
- Email Alarms
- Web Server
- No Special Software Required



zCDR, $195, shown smaller than actual size.

Internet Enabled!

The new OMEGA® zSeries wireless sensor system provides Web-based monitoring of temperature, humidity, and barometric pressure in critical HVAC and refrigeration applications.

The compact wireless "End Devices" mount discretely on the wall in clean rooms, laboratories, museums, computer server rooms, warehouses, and any remote facility. The wireless End Devices are powered by two "AA" 1.5V alkaline batteries (included).

The End Devices transmit up to 91 m (300') (without obstructions or interference) to a "Coordinator" connected directly to an Ethernet network and the Internet. The wireless system complies with IEEE 802.15.4 operating at 2.4 GHz.

The OMEGA zSeries system let's you monitor and record temperature, relative humidity, and barometric pressure over an Ethernet network or the Internet without any special software-just your Web Browser.

OMEGA offers a selection of End Devices for a variety of applications. Each End Device supports 1 or 2 sensors. End Devices are available with built-in sensors, with external sensor probes, and with both built-in and external sensors. The external sensors are designed for harsh environments such as outdoor weather, in HVAC ducts, in freezers and refrigerators. For example, you can select one End Device that has one internal and one external sensor to monitor temperature and humidity both inside and outside a climate-controlled facility.

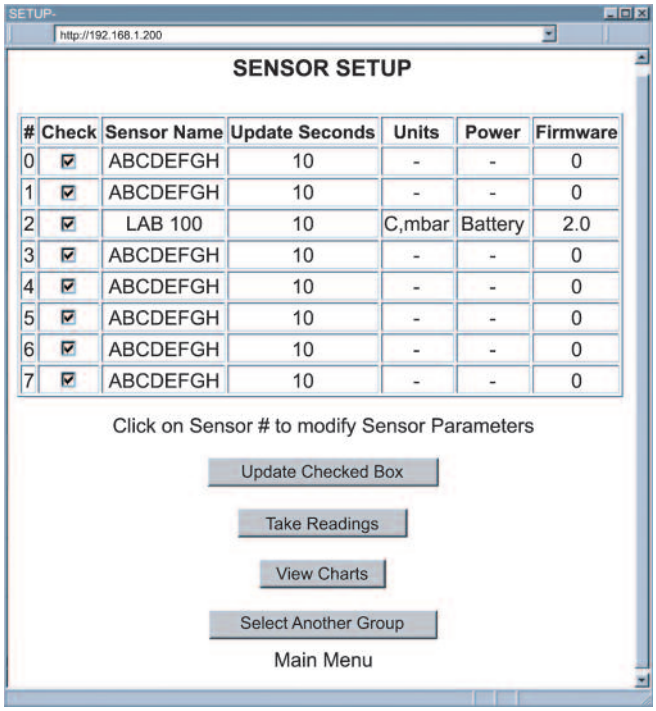
Each zSeries Coordinator can directly support up to 32 end devices. The Coordinators include AC adaptors to operate on any voltage worldwide from 100 to 240 Vac and 50 to 60 Hz. The Coordinator connects directly to an Ethernet Network or the Internet. Unlike an RS232 or USB device, it does not require a host computer.

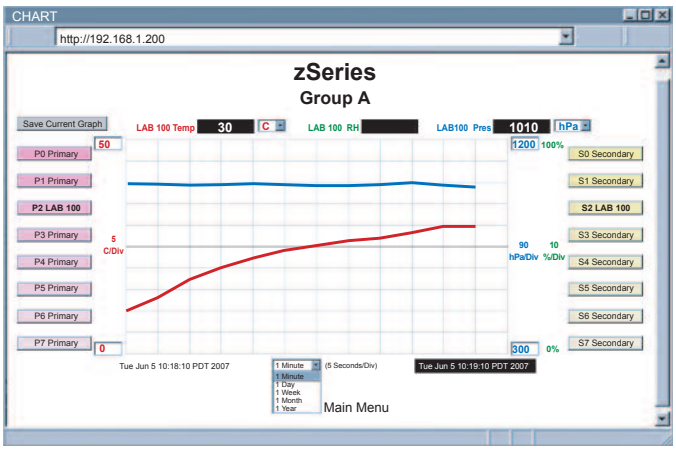
The zSeries Coordinator is an independent node on the

zED-T, $95, includes two "AA" 1.5 V alkaline batteries, shown close to actual size

network sending and receiving data in standard TCP/IP packets. It is easily configured from a Web Browser and can be password protected. From within an Ethernet LAN or over the Internet, the user simply types the IP address (such as 192.168.1.200) or an easy to remember name (such as “Warehouse 5” or “Chicago Lab”) and the Coordinator serves a Web Page with the current readings.

The OMEGA zSeries system serves Active Web Pages to display real time readings and charts of temperature, humidity, and barometric pressure. 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 and easy to use program for logging data to Excel.



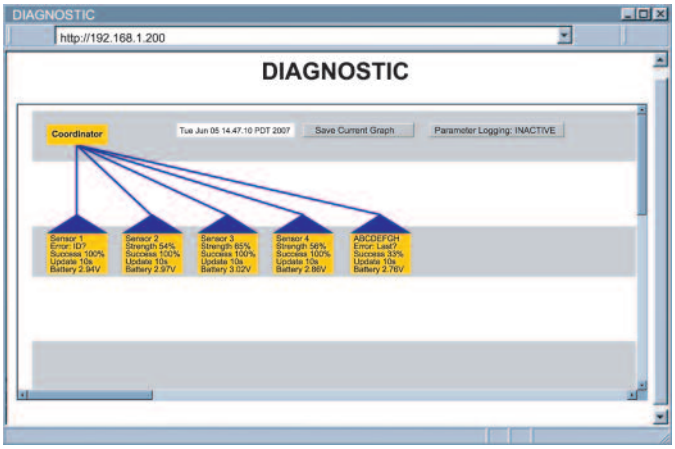


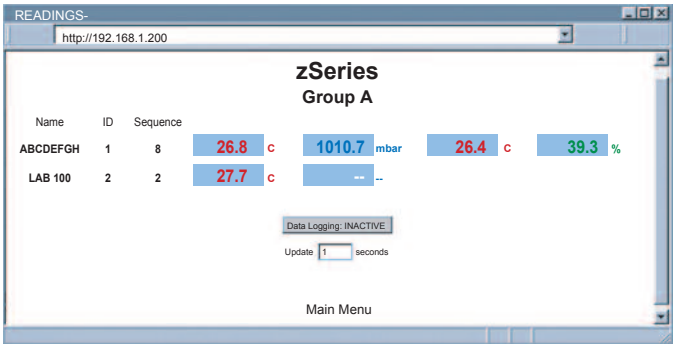
The virtual chart viewed on the web page is a JAVA™ Applet that records a chart over the LAN or Internet in real time. With the OMEGA zSeries system there is no need to invest time and money learning a proprietary software program to log or chart the data.

Chart scales are fully adjustable on the fly. For example, the chart can display one minute, one hour, one day, one week, one month or one year. Temperature and humidity can be charted across the full span (-40 to 125°C, and 0 to 100% RH) or within any narrow range such as (20 to 30°C).

The device can trigger an alarm if variables go above or below a set point that you determine. Your alarm can be sent by email to a single user or to a group distribution list, including text messages to Internet enabled cell phones and PDA’s. The OMEGA “Mail Notifier” software is a free and easy program for this application.

The OMEGA zSeries wireless sensor system is easy to install, simple to operate, and features OMEGA’s award-winning i®Server technology with an Embedded Web Server that requires no special software.





OMEGA offers an OPC Server software (**$295**) that makes it easy to integrate the zSeries wireless sensor system with many popular Data Acquisition and Automation programs offered by Omega, Wonderware, iConics, Intellution, Rockwell Automation, and National Instruments, among others.

Wireless Sensor System with Ethernet/ Internet Connection

Safety qualified universal AC power adaptor, included with zCDR coordinator.

Specifications

Sensor Specifications (zED)

Relative Humidity

Accuracy/Range zED-BTH, zED-TH, -THP:
±2% for 10 to 90%; ±3% for 0 to 10% and 90 to 100%
Hysteresis: ±1% RH
Non-linearity: ±3%
Repeatability: ±0.1%
Resolution: 0.1%

Temperature

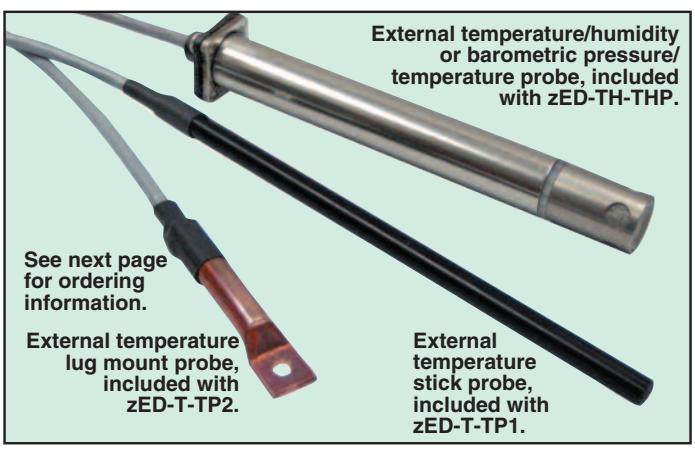
Accuracy/Range*
zED-T (Internal Sensor):
±0.5°C for 10 to 55°C (±0.9°F for 50 to 131°F)
±1°C for -18 to 10°C (±1.8°F for -0.4 to 50°F)
-TP1, -TP2 (External Sensor):
±0.5°C for 10 to 85°C (±0.9°F for 50 to 185°F)
±1°C for -40 to 10°C and 85 to 125°C (±1.8°F for -40 to 50°F and 185 to 257°F)

Accuracy/Range*
zED-BTH, zED-TH (Internal Sensor):
±0.5°C for 0 to 45°C (±0.9°F for 32 to 113°F)
±1°C for -18 to 0°C and 45 to 55°C (±1.8°F for -0.4 to 32°F and 113 to 131°F)
-THP (External Sensor):
±0.5°C for 0 to 45°C (±0.9°F for 32 to 113°F)
±1°C for -18 to 0°C and 45 to 70°C (±1.8°F for -0.4 to 32°F and 113 to 158°F) ±2 for -40 to -18°C and 70 to 124°C (±3.6°F for -40 to -0.4°F and 158 to 255°F)

Accuracy/Range*
zED-BT (Internal Sensor):
±0.8°C @ 20°C (±1.5°F @ 68°F)
±2°C for -18 to 55°C (±3.6°F for -0.4 to 131°F)
-BTP (External Sensor):
±0.8°C @ 20°C (±1.5°F @ 68°F)
±2°C for -40 to 85°C (±3.6°F for -40 to 185°F)

** **Note:** extended temperature ranges are for external probes only, the End Device's operating temperature is -18 to 55°C (-0.4 to 131°F).*

Repeatability: ±0.1°C for zED-BTH, zED-TH, -THP
Resolution: 0.1°C



Barometric Pressure

Accuracy/Range zED-BTH, zED-BT, -BTP:
±2 mbar for 10 mbar to 1100 mbar (1 KPa to 110 KPa)
Resolution: 0.1 mbar

External Probe (zED)

Industrial Probe: 316 SS housing, 137 x Ø 16 mm (5 x Ø 0.63") for zED-xx-BTP, zED-xx-THP
Stick Probe: ABS tubing, 152.4 x Ø 6.35 mm (6 x Ø 0.25") for zED-xx-TP1
Lug Mounted Probe: Copper tubing, 53.4 x Ø 7.92 mm (2.1 x Ø 0.312"); mounting hole Ø 4.72 mm (Ø 0.186") for zED-xx-TP2
Standard Cable: 3 m (10') long x Ø 5.72 mm (0.225"); -40 to 125°C (-40 to 257°F) for -TPI, -TP2, -THP; -55 to 105°C (-67 to 221°F) for -BTP
Optional MIL Spec Cable (-ET): Ø 2.62 mm (0.103"); -80 to 200°C (-112 to 392°F)
***Note:** Ø = diameter*

Interface (zCDR)

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 (zCDR)

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
Power Adaptor Operating Temperature: 0 to 40°C (32 to 104°F)

Power (zED)

Alkaline Battery: Two 1.5 Vdc (included)
Lifetime: Estimate of 2 yrs with frequency of 1 reading per 2 min

Wireless Communication

Protocol: IEEE 802.15.4
Frequency: 2.4 GHz (2400 to 2483.5 MHz), DSSS, 16 channels
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) for zED; 0 to 70°C (32 to 158°F) for zCDR, 90% RH non-condensing
Storage Temperature: -40 to 125°C (-40 to 257°F)

Packaging

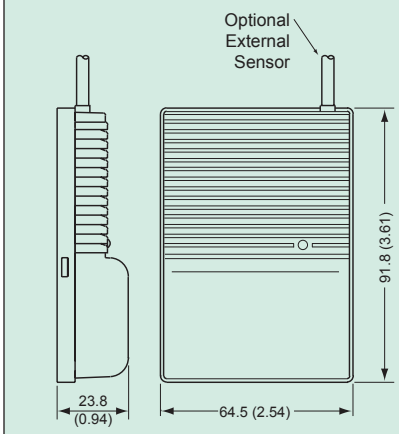
See mechanical section, next page

General

Agency Approval: FCC Part 15C; CE EMC 2004/108/EC, LVD 2006/95/EC, RTT&E 1999/5/EC
Software: iConnect (configuration software for the Ethernet interface), iLog (Excel-based software for automatic data logging), and Mail Notifier (email alarm notification software)

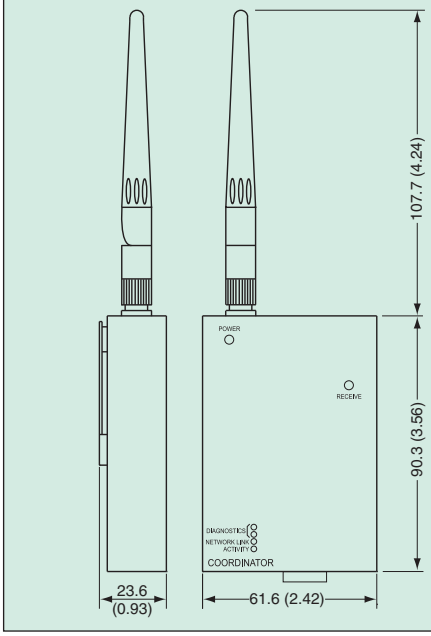
zED - End Device

Material: Valox® Plastic Case with Wall Mount



zCDR - Coordinator

Material: Metal Case with Wall Mount Bracket



Dimensions: mm (in)

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MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*		
Model No.	**Description**	**Price**
zCDR	Coordinator, which can support up to 32 end devices	**$195**
zED-T	End device unit with internal temperature sensor	**95**
zED-T-TP1	End device unit with internal temperature sensor and external temperature sensor with stick probe	**145**
zED-T-TP2	End device unit with internal temperature sensor and external temperature sensor with lug mount probe	**145**
zED-TH	End device unit with internal temperature and humidity sensor	**150**
zED-TH-THP	End device unit with internal and external temperature and humidity sensor	**245**
zED-THP	End device unit with external temperature and humidity sensor	**190**
zED-BT	End device unit with internal barometric pressure and temperature sensor	**150**
zED-BTH	End device unit with internal barometric pressure, temperature and humidity sensor	**195**
zED-B-THP	End device unit with internal barometric pressure sensor, external temperature and humidity sensor	**250**
zED-BT-BTP	End device unit with internal barometric pressure and temperature sensor and external barometric pressure and temperature sensor industrial probe	**250**
Replacement Probes		
zTHP	External industrial probe with temperature and humidity sensor, 3 m (10') cable	**$95**
zTP1	External stick probe with temperature sensor, 3 m (10') cable	**50**
zTP2	External lug mount probe with temperature sensor, 3 m (10') cable	**50**
zBTP	External industrial probe with barometric pressure, temperature sensor, 3 m (10') cable	**100**
Calibration		
CAL-3-HU	NIST-traceable calibration certificate; 3 humidity points: 25%, 50%, 75%, one temperature point: 25°C (for new units)	**$125**
CAL-3-HU-P-T	NIST-traceable calibration certificate; 3 humidity, barometric pressure, and temperature points (for new units)	**250**
CAL-3-P	NIST-traceable calibration certificate; 3 barometric pressure points, temperature 25°C (for new units)	**125**
CT485B-CAL-KIT	Calibration kit, 33% and 75% RH standards	**75**

Other sensor combinations available, contact our Sales Department for more information.

Comes complete with software and operator's manual.

Ordering Examples: *Two* ***zED-T-TP2*** *end units with an internal temperature sensor and an external temperature sensor in a lug mounting probe housing with 6 m (20') cable and* ***zCDR*** *coordinator, $145 x 2 + 195 =* ***$485.***

For MIL Spec cable add suffix ***"-ET",*** *and $2 for each foot of cable,* ***zED-T-TP1-ET,*** *$145 + 20 =* ***$165,*** *or for different lengths, such as 5' cable,* ***zED-T-TP1-ET5,*** *$145 + 10 =* ***$155.***

Not available for "-BTP" probes.

Wireless Infrared Thermometers

Built-In Dot/Circle Switchable Laser Sighting, Thermocouple Input and Close Focus Models

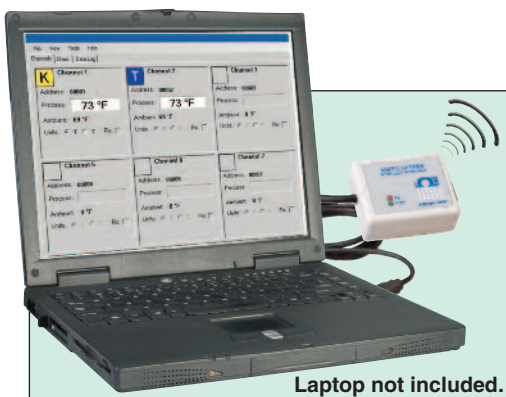
WIRELESS OMEGASCOPE® OS530E Starts at

$295

MADE IN USA | 2 YEAR WARRANTY | CE | & EMC SERVICES

TM

PATENTED



OMEGA's new wireless feature allows you to monitor, record or data log temperature readings directly to your PC!

Laptop not included.

TM

Portable mini-tripod (included), shown smaller than actual size.

SPHT-K-6, Type-K surface probe, included with all thermocouple input models.

OS532E-W9, $450.

The OS530E is a perfect toolbox companion! Check surface temperatures quickly and accurately.

305 mm (1') Retractable Cable Expands to 1.2 m (4')

A $45 value included FREE!

W-59

OMEGASCOPE® Unmatched Performance, Features and Value

MONOGRAM® SERIES

NEW®

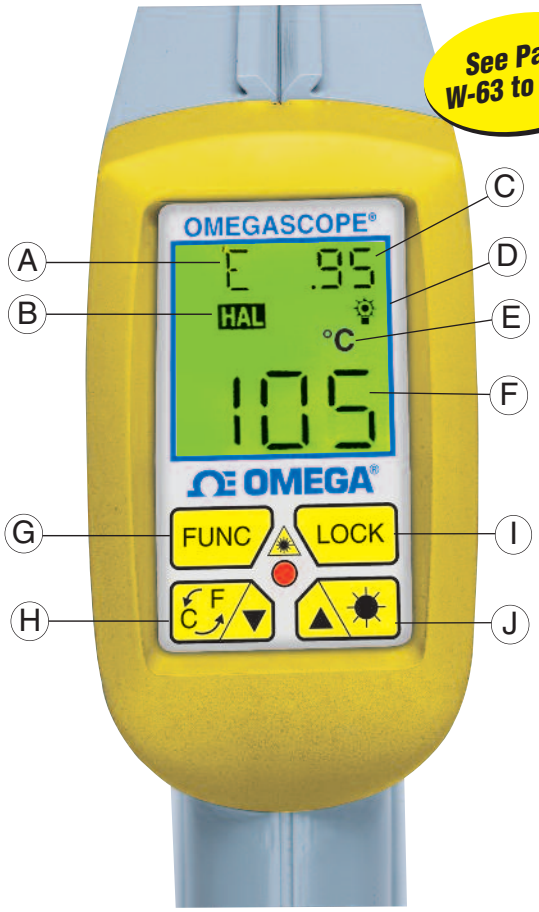
- Built-In **Wireless** Measurement
- Rugged, High-Performance Design
- Built-In Patented Laser Sighting is Switchable Between Laser Dot and Circle Patterns
- The Laser Can be Flashing or Continuous
- New Series Includes High-Performance, General Purpose, Close-Focus, and High-Resolution Models
- Models Available with Temperature Ranges from -23 to 871°C (-10 to 1600°F)
- Emissivity Adjustable from 0.1 to 1.00 in 0.01 Steps
- Models OS532, OS533, OS534 Come with 6" Long Type K Surface Probe
- Distance Measuring Option—Either Field Mountable or Built-In [0.9 and 9 m (3 and 30') Range]
- Backlit LCD
- Dual Digital Display Indicates Current Temperature as well as Min, Max, Average, or Differential Temperatures
- °C/°F Switchable
- 1 mV/Degree Analog Output Standard
- RS232 Output Models Include **FREE** Windows® Based Data Logging Software
- Audible and Visible Alarms
- Integral Tripod Mount
- Type K Thermocouple Input Available
- Temperature Data Storage Available on OS534E (up to 800 Data Points)
- Electronic Trigger Lock
- Last Temperature Recall
- All Models Include Portable Mini-Tripod, Built-In Laser Sighting, Display and Lens Protective Bumpers, Wrist Strap, Soft Carrying Case, 4 "AA" Lithium Batteries, and User's Manual with Emissivity Reference Chart

We make running changes when technical advances allow. Check at time of ordering for additional features.

PATENTED

Patents issued and pending on many aspects of this device, including but not limited to laser circle and distance measurement.

See Page W-63 to Order



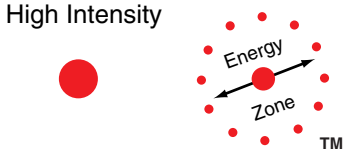
Shown actual size.

A Backlit LCD	G Function Key/Scrolling
B High-Alarm Icon	H For Decrementing Data; For Changing Units of Measure °F/°C or ft/m
C Emissivity Setting	I Locks the Trigger/ Enables/Disables Alarm
D Backlight Icon	J For Incrementing Data; For Turning the Display Backlight On/Off
E °C or °F Units	
F Temperature Reading	

OMEGACARE℠ Extended Warranty Program

OMEGACARE℠ extended warranty program is available for models shown on this page. Ask your sales respresentative for full details when placing an order. OMEGACARE℠ covers parts, labor and equivalent loaners.

PATENTED
Built-In Laser Sighting



Laser Circle to Dot Switchable

OMEGASCOPE® Wireless Handheld Thermometer Series

MADE IN USA

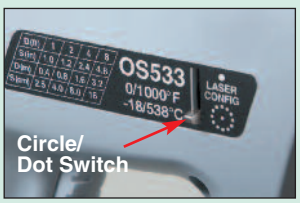
Patented Laser Switchable from Circle to Dot

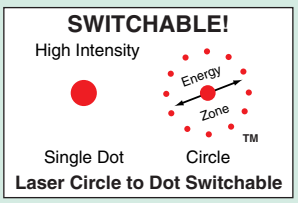
With a combination of powerful features, the portable and rugged OS530E Series infrared thermometers offer solutions for many non-contact temperature measurement applications. Emissivity adjustable in 0.01 increments, the OS530E series provides versatility when measuring a variety of surfaces.

A custom backlit LCD display provides dual digital display of both current and max, min, diff or average temperatures simultaneously. This provides the user with more information at a glance. Built-in laser sighting creates a 12-point circle which clearly indicates the target area being measured.

The OS530E also features a high alarm setpoint, providing both audible and visual indication of the alarm status. The standard 1 mV per degree analog output allows interfacing with data acquisition equipment, including chart recorders, dataloggers and computers.

Standard Features

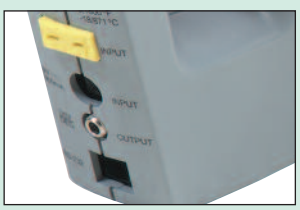




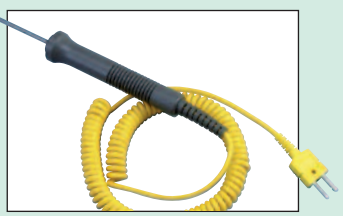
Patented Laser Sighting Switchable Between Dot and Circle Laser Pattern

Tripod Mountable

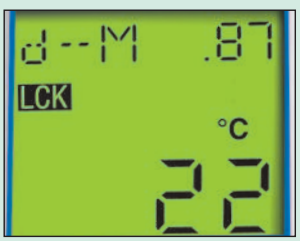
Laser Power Switch



Analog Output Standard on All Models

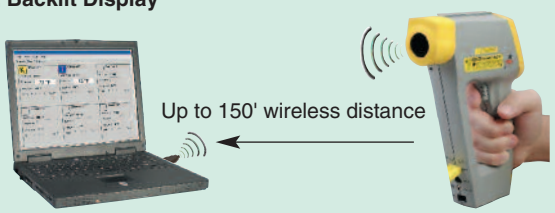


6" Long K Surface Probe Standard on OS532E, OS533E, and OS534E



Large, Backlit Display

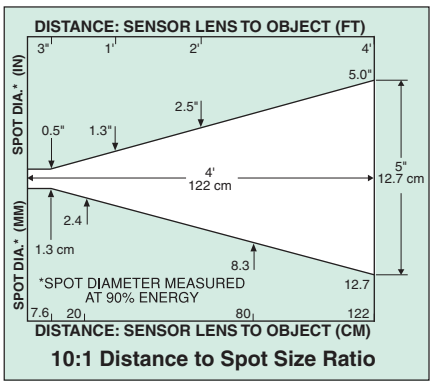
Accessories Included



Built-In Wireless Measurement Standard on All Models*

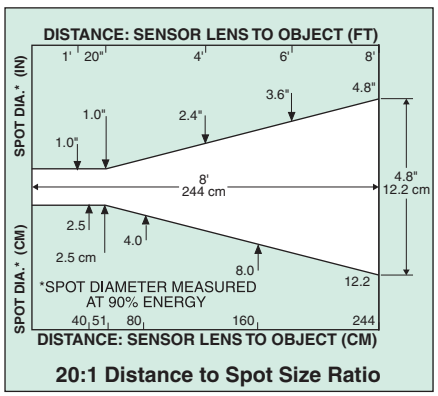
** Requires optional wireless receiver*

Optical Field of View



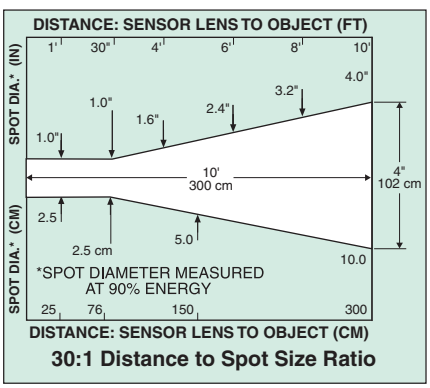
10:1 Distance to Spot Size Ratio

OS530LE, OS532E



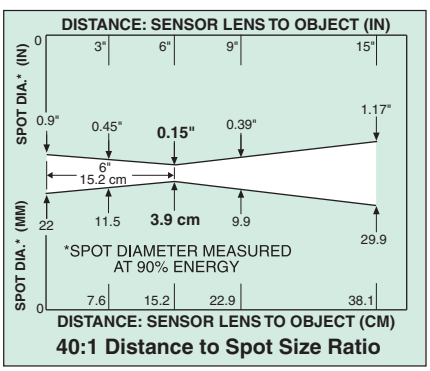
20:1 Distance to Spot Size Ratio

OS530HR, OS533E



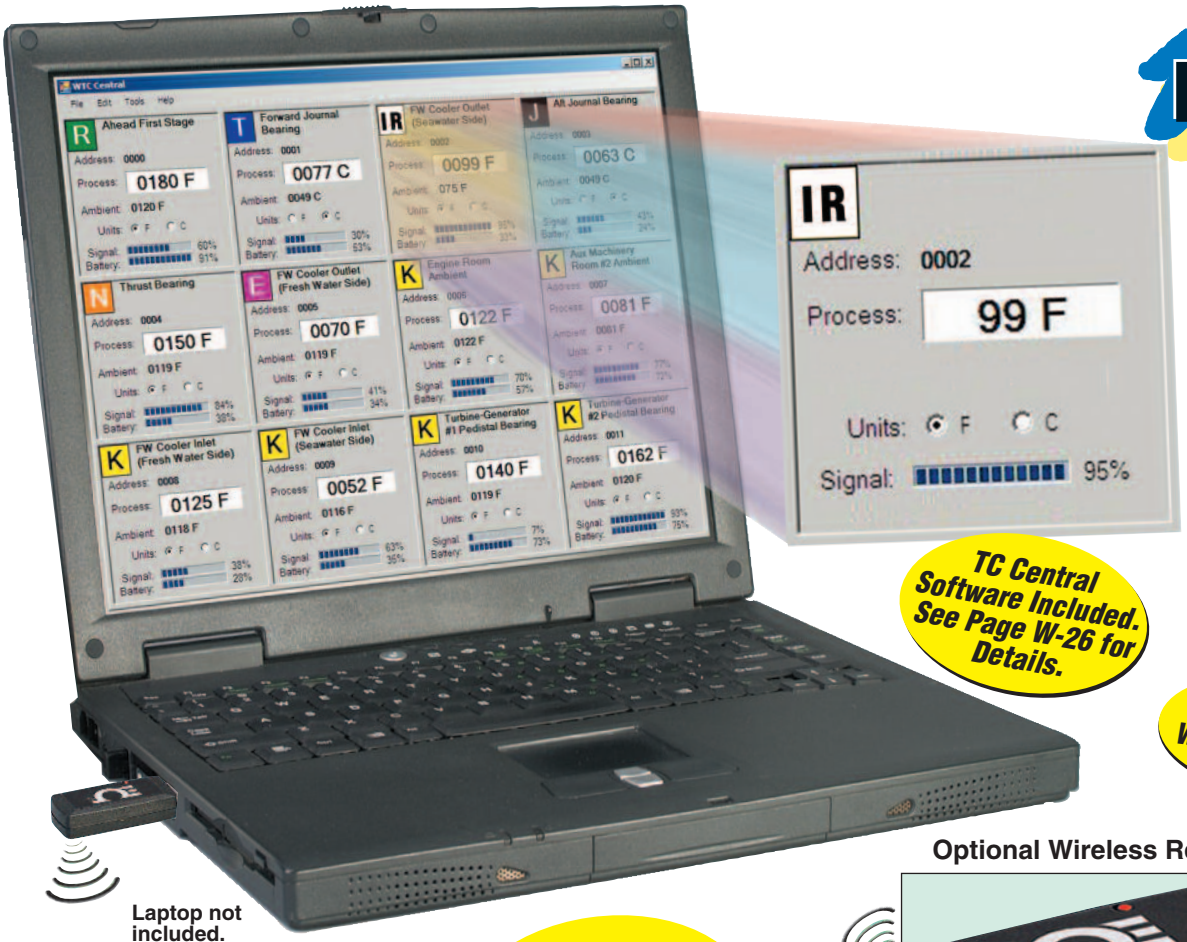
30:1 Distance to Spot Size Ratio

OS534E



40:1 Distance to Spot Size Ratio

OS530LE-CF, OS533E-CF and OS534E-CF



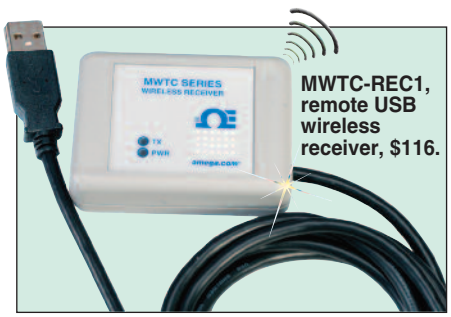
Laptop not included.

TC Central Software Included. See Page W-26 for Details.

See Page W-63 to Order

Optional Wireless Receivers

MWTC-REC5, mini USB wireless receiver, actual size, $35.



MWTC-REC1, remote USB wireless receiver, $116.

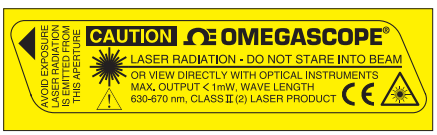
Monitor Up to 48 Different Wireless Instruments with One Receiver!

Specifications

Repeatability: ±(1% rdg + 1 digit)
Resolution: 1°C or 1°F (0.1°C or °F on OS530HR)
Response Time: 250 msec
Spectral Response: 8 to 14 µ
Emissivity: 0.10 to 1.00 in 0.01 increments
Operating Ambient: 0 to 50°C (32 to 122°F)
Power: 4 "AA" alkaline batteries (2 sets included) or optional ac adaptor
Battery Life: 58 hr, alkaline; 9 days, lithium
Analog Output: 1 mV/°C or 1 mV/°F
Tripod Mount: ¼" to 20 UNC
Display: Backlit LCD; displays current and min or max, differential, average temperatures simultaneously
Alarm: High alarm standard, with audible and visual indication
RS232: One way communication

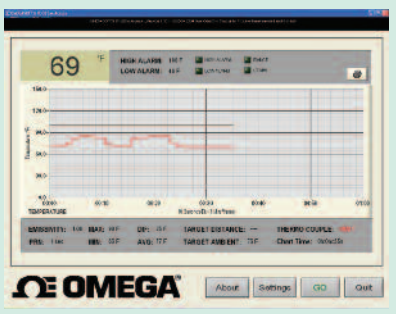
Wireless Specifications

Measurement Accuracy: ±1.0°C (1.8°F)
Measurement Resolution: 1°C/1°F
Transmit Sample Rate: 1 sample/ every 2 seconds (fixed)
Radio Frequency: ISM 915 MHz or ISM 868 MHz
RF Output Power: 10dBm (10 mW)
Range of RF Link:
Up to 90 m (300'): Outdoor line of sight
Up to 39 m (130'): Indoor/urban
Laser Sight Specifications
Wavelength (color): 650 nm (red)
Operating Distance:
Laser Dot: 0.6 to 12 m (2 to 40')
Laser Circle: 0.6 to 4.5 m (2 to 15')
FDA Classification: Class II
European Classification: Class 2
Beam Diameter: 5 mm
Operating Temperature: 0 to 50°C (32 to 122°F)



Free Data Logging Software with RS232 Models. Windows® Software Displays Data in Graphical or Tabular Format.

FREE SOFTWARE



NEW®

PATENTED

TM

Distance Measuring Option

For built-in distance measurement option add suffix "-DM" to model number and $75 to price.
Example: OS530LE-W9-DM, $370

Carrying case, manual, batteries, output cable, mini-tripod and software included with every model.

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	OS530LE-(†)	OS530HRE-(†)	OS530LE-CF-(†)	OS532E-(†)	OS533E-CF-(†)	OS533E-(†)	OS534E-CF-(†)	OS534E-(†)
Price	**$295**	**$345**	**$345**	**$450**	**$550**	**$550**	**$650**	**$650**
Accuracy*	±1% rdg	±1% rdg	±1% rdg	±1% rdg	±1% rdg	±1% rdg	±1% rdg	±1% rdg
Range	-23 to 538°C -10 to 1000°F	-30 to 121°C -22 to 250°F	-23 to 538°C -10 to 1000°F	-23 to 538°C -10 to 1000°F	-23 to 538°C -10 to 1000°F	-23 to 538°C -10 to 1000°F	-23 to 871°C -10 to 1600°F	-23 to 871°C -10 to 1600°F
Emissivity	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable
Display Resolution	1°	0.1°	1°	1°	1°	1°	1°	1°
Distance to Spot Size Ratio	10:1	20:1	0.15"@6"	10:1	0.15"@6"	20:1	0.15"@6"	30:1
Differential Temperature	Std	Std	Std	Std	Std	Std	Std	Std
Min/Max Temperature	Std	Std	Std	Std	Std	Std	Std	Std
Average Temperature	Std	Std	Std	Std	Std	Std	Std	Std
High Alarm	Std	Std	Std	Std	Std	Std	Std	Std
Low Alarm	—	—	—	—	Std	Std	Std	Std
Audible Buzzer and Indicator	Std	Std	Std	Std	Std	Std	Std	Std
Ambient Target Temp Comp.	—	—	—	—	Std	Std	Std	Std
Analog Output	1 mV/deg	1 mV/deg	1 mV/deg	1 mV/deg	1 mV/deg	1 mV/deg	1 mV/deg	1 mV/deg
RS232 Output	—	—	—	—	Std	Std	Std	Std
Thermocouple Input	—	—	—	Std	Std	Std	Std	Std
Data Storage	—	—	—	—	—	—	Std	Std
Laser Sight (Built-In)	Dot/circle	Dot/circle	Dot	Dot/circle	Dot	Dot/circle	Dot	Dot/circle
Trigger Lock	Std	Std	Std	Std	Std	Std	Std	Std
Last Temperature Recall	Std	Std	Std	Std	Std	Std	Std	Std

** Or 1.7°C (3°F), whichever is greater.*
*† Insert "**W9**" for 915 MHz (USA/Canada) or "**W8**" for 868 MHz (CE models).*
All units come complete with mini-tripod, software, carrying case, output cable, 4 "AA" batteries (2 sets included) and operator's manual.

Accessories

Model No.	Price	Description
UNIV-AC-100/240	**$25**	Universal 9V adaptor
OS520-RCC	**30**	Hard carrying case
OM-3000-SC	**15**	Spare soft carrying case
88013K	**110**	Surface probe, up to 815°C (1500°F)
88001K	**110**	Surface probe, up to 482°C (900°F)
CAL-3-IR	**125**	NIST-traceable calibration
CAL-3-IR-X	**175**	NIST calibration for over 1000°F
MINI-TRIPOD	**12**	Replacement portable mini-tripod expands from 142 to 279 mm (5.6 to 11")
HH-DM	**75**	Distance measuring meter w/mounting bracket (3 to 30')
SPHT-K-6	**45**	6" Type K surface probe, rated up to 650°C (1200°F)
OM-CONV-USB	**15**	RS232 to USB cable
WRS232-USB	**159**	Wireless RS232 transceiver kit
MWTC-REC5-(**)	**35**	Mini USB wireless receiver
MWTC-REC1-(**)	**116**	Remote USB wireless receiver

Distance Measuring Meter

HH-DM, $75.

Stand-alone unit, can also be mounted on the OS530 (bracket included).

*** Insert **"915"** for 915 MHz (USA/Canada) or **"868"** for 868 MHz (CE models).*

Ordering Examples: OS530LE-W9,** wireless handheld infrared thermometer (USA/Canada) with built-in Laser Circle to Dot Switchable feature, **$295,** plus **MWTC-REC5-915,** mini USB wireless receiver (USA/Canada), **$35,** $295 + 35 = **$330.

OS532E-W8**, wireless handheld infrared thermometer (USA/Canada) with built-in Laser Circle to Dot Switchable feature and thermocouple input, **$450,** plus **MWTC-REC1-868,** remote USB wireless receiver (Europe), **$116,** $450 + $116 = **$566.

OS534E-CF-W9,** close-focus wireless handheld infrared thermometer (USA/Canada) with built-in Laser Circle to Dot Switchable feature, thermocouple input and RS232 output, **$650,** plus **OCW-3** OMEGACARE℠ 3-year extended warranty, **$65**, and **MWTC-REC5-915,** mini USB wireless receiver (USA/Canada), **$35,** $650 + 65 + 35 = **$750.

High-Temperature High-Performance Wireless Handheld Infrared Thermometer

With Optional Sighting Scope and Distance Measurement

Wireless OMEGASCOPE® OS523E/OS524E Starts at

$1095

NEW FREE Mini-Tripod

MADE IN USA | 2 YEAR WARRANTY | CE & EMC SERVICES

TM

OMEGASCOPE® OS523E-2-SC-W9 unit with sighting scope, precisely aligned with infrared field of view. Has 2:1 magnification, $1195.

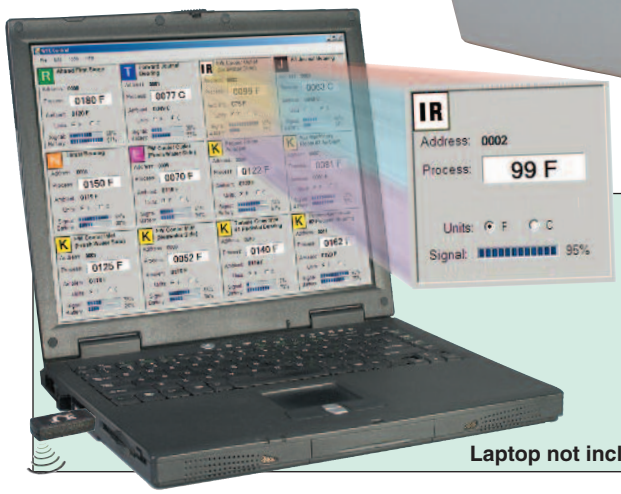
PATENTED

We make running changes when technical advances allow. Check at time of ordering for additional features.

Shown smaller than actual size.

See Page W-66 to Order

- Built-In Wireless Measurement
- Rugged, High-Performance Design
- Models Available with Temperature Ranges to 2482°C (4500°F)
- Built-In Laser Sighting Dot/Circle Switchable
- Emissivity Adjustable from 0.1 to 1.00 in 0.01 Steps
- Distance-Measuring Option, Field-Mountable or Built-In [0.9 to 9 m (3 to 30') Range]
- Custom LCD Indicates Current with Min, Max, Average, or Differential Temperatures
- °C/°F Selectable
- 1 mV/Degree Analog Output Standard (0.5 mV/Degree on OS524E)
- RS232 Output with Free Data Logging Software
- Ambient Target Temperature Compensation
- Audible and Visible Alarms
- Integral Tripod Mount
- Electronic Trigger Lock
- Last Temperature Recall
- Data Storage for Up to 800 Temperature Points

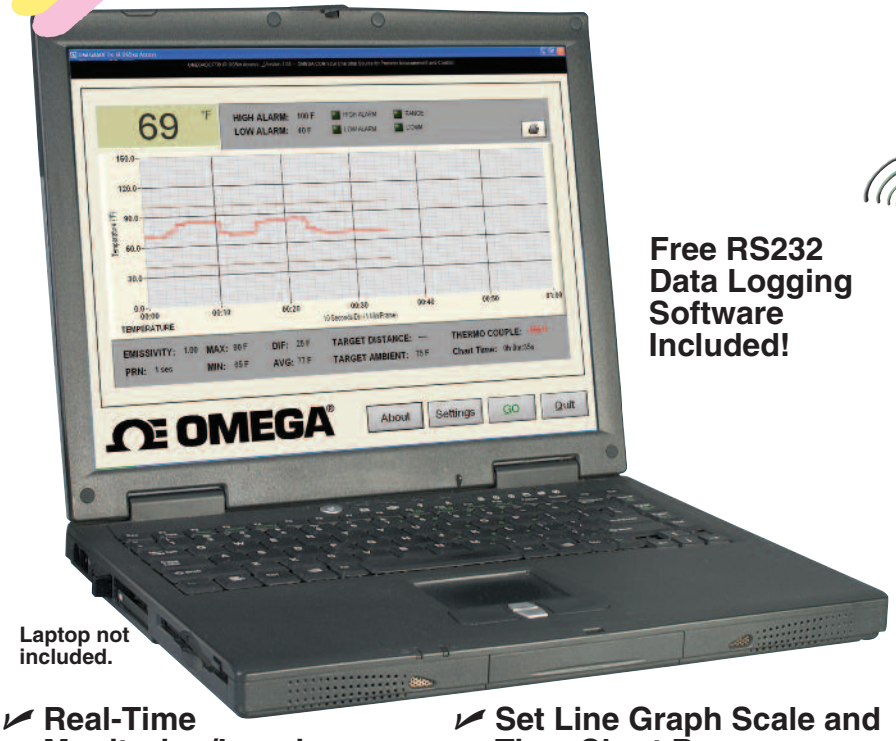


OMEGAs new wireless feature allows you to monitor, record or data log temperature readings directly to your PC! Monitor up to 48 wireless channels with TC Central software, free with a wireless receiver.

Laptop not included.

OMEGASCOPE®

Wireless Handheld Infrared Thermometer



Laptop not included.

Free RS232 Data Logging Software Included!

Optional Wireless Receivers

MWTC-REC5, mini USB wireless receiver, actual size, $35.

MWTC-REC1, remote USB wireless receiver, $116.

MWTC-REC6, $49, shown smaller than actual size.

- **Real-Time Monitoring/Logging**
- **Tabular and Graphical Formats**
- **Remote Alarm Indication**
- **Store and Print Tables and Graphs**
- **Set Line Graph Scale and Time Chart Base**
- **Remote Instrument Configuration**
- **Initiate Communication from Either PC or Thermometer**

With their powerful features, the portable and rugged high-temperature OS523E/524E Series infrared thermometers offer solutions for many non-contact temperature measurement applications. Their emissivity, adjustable in 0.01 increments, allows them to measure a variety of surfaces. A custom backlit LCD features dual digital display of the current and max, min, difference, or average temperatures simultaneously. Standard features include high and low audible and visual alarms, 1 mV/degree analog output, RS232 output, and temperature data storage.

Specifications

Accuracy: ±1% rdg or 2°C (3.6°F), whichever is greater
Repeatability: ±(1% rdg + 1 digit)
Resolution: 1°C or 1°F
Response Time: 100 ms
Spectral Response:
OS523E: 8 to 14 microns
OS524E: 2 to 2.5 microns
Emissivity: 0.10 to 1.00 in 0.01 increments
Operating Temperature: 0 to 50°C (32 to 122°F)
Power: 4 "AA" lithium batteries (2 sets included) or optional AC adaptor
Battery Life: 14 days, lithium; 80 hours, alkaline
Tripod Mount: ¼ to 20 UNC
Display: Backlit LCD; displays current and min or max, differential, average temperatures simultaneously
Alarm: High and low alarm standard, with audible and visual indication
RS232: 2-way communications

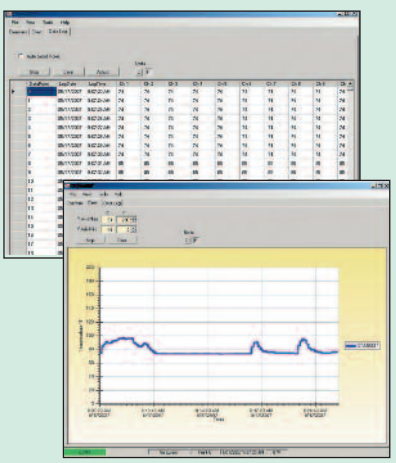
Wireless Specifications

Measurement Accuracy: ±1.0°C (1.8°F)
Measurement Resolution: 1°C/1°F
Transmit Sample Rate: 1 sample/every 2 seconds (fixed)
Radio Frequency: ISM 915 MHz or ISM 868 MHz
RF Output Power: 10dBm (10 mW)
Range of RF Link:
Up to 90 m (300'): Outdoor line of sight
Up to 39 m (130'): Indoor/urban

OMEGACARE℠ extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE℠ covers parts, labor and equivalent loaners.

OMEGACARE℠ Extended Warranty Program

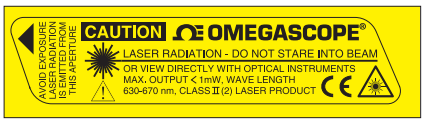
FREE SOFTWARE

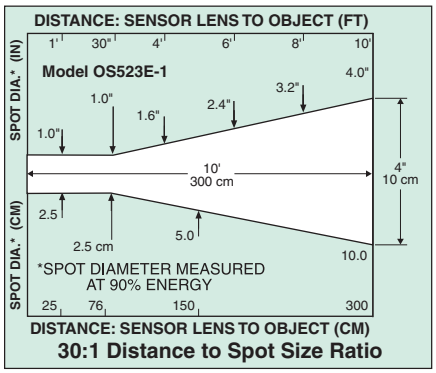


Each MWTC series receiver includes FREE software that turns your PC into a multi-channel temperature monitor, chart recorder and data logger.

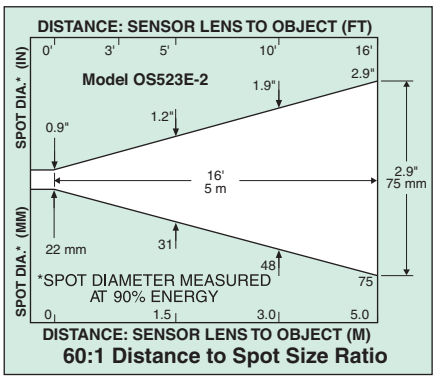
Laser Sight Specifications

Wavelength (Color): 650 nm (red)
Operating Distance:
Laser Circle: 0.6 to 4.5 m (2 to 15')
Laser Dot: 0.6 to 12 m (2 to 40')
FDA Classification: Class II
European Classification: Class 2
Beam Diameter: 5 mm (0.2")
Operating Temperature:
0 to 50°C (32 to 122°F)

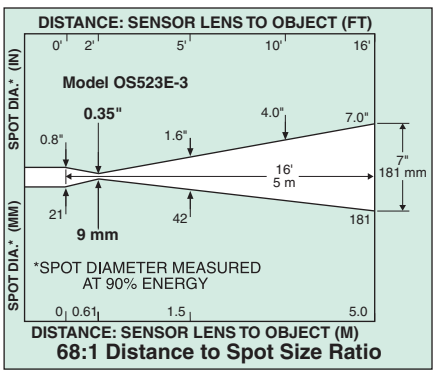




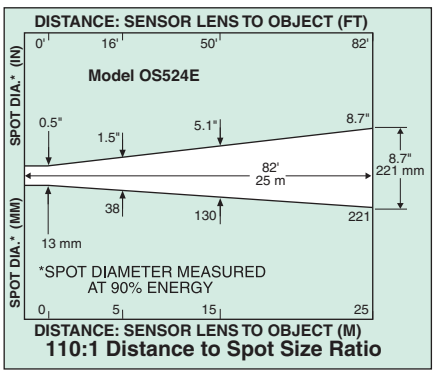
30:1 Distance to Spot Size Ratio



60:1 Distance to Spot Size Ratio

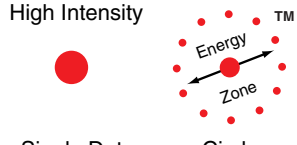


68:1 Distance to Spot Size Ratio



110:1 Distance to Spot Size Ratio

PATENTED
Built-In Laser Sighting



Laser Circle to Dot Switchable

NEW®

CAUTION! – This product is not intended for medical use or use on humans

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	OS523E-1, -2, -3(*) (**)	OS524E(*) (**)
Price	**$1095**	**$1295**
Accuracy (whichever is greater)	±1% rdg or 2°C (3.6°F)	±1% rdgor 2°C (3.6°F)
Range	-18 to 1370°C (0 to 2500°F)	538 to 2482°C (1000 to 4500°F)
Emissivity	Adjustable	Adjustable
Backlit Dual Display	Std	Std
Distance to Spot Size Ratio	See Figure	110:1
Differential Temperature	Std	Std
Min/Max Temperature	Std	Std
Average Temperature	Std	Std
High Alarm	Std	Std
Low Alarm	Std	Std
Audible Buzzer and Indicator	Std	Std
Ambient Target Temp Comp.	Std	Std
Analog Output	1 mV/deg	0.5 mV/deg
RS232 Output	Std	Std
Free Data Logging Software	Std	Std
Distance Measurement	Optional	Optional
Data Logging	Std	Std
Data Storage	Std	Std
Laser Sight (Built-In)	Std dot/circle (-3, dot only)	Std dot/circle
Trigger Lock	Std	Std
Last Temperature Recall	Std	Std

** For thermometer with sighting scope insert "**-SC**" and **$100** to price (large, hard carrying case **OS520-SC-RCC** included). **Sighting scope is factory installed and aligned, not field installable.** For built-in distance measurement insert "**-DM**" and **$75** to price.*

*** For 915 MHz (USA/Canada) insert "**-W9**". For 868 MHz (CE models) insert "**-W8**", no additional cost.*

***Ordering Example: OS523E-2-SC-W9**, OMEGASCOPE® wireless infrared thermometer with batteries, factory-installed sighting scope, and large, hard carrying case, $1095 + 100 = **$1195**.*

***OCW-3**, OMEGACARE℠ extends standard 2-year warranty to a total of 5 years (**$298**), $1195 + 298 = **$1493**.*

Accessories

Model No.	Price	Description
UNIV-AC-100/240	**$25**	Universal 9V adaptor
HH-DM	**75**	Distance meter (3' to 30')
OS520-RCC	**30**	Hard carrying case (standard)
OS520-SC-RCC	**30**	Hard carrying case (large)
OM-3000-SC	**15**	Soft carrying case (spare)
CAL-3-IR-X	**175**	NIST-traceable calibration
SC-520A	**100**	Sighting scope
MINI-TRIPOD	**12**	Replacement mini-tripod expands from 142 to 279 mm (5.6 to 11")
OM-CONV-USB	**15**	RS232 to USB cable
WRS232-USB	**159**	Wireless RS232 transmitter/receiver
MWTC-REC5-(***)	**35**	Mini USB wireless receiver
MWTC-REC1-(***)	**116**	Remote USB wireless receiver

**** "**915**" for 915 MHz (USA/Canada) or "**868**" for 868 MHz (Europe).*

Wireless Portable Temperature/ Humidity Circular Chart
SUPERECORDER™

CTXL-TRH-W
Starts at
$895

MADE IN USA | 2 YEAR WARRANTY | NIST | CE | & EMC SERVICES

Optional†

- Record Temperature/ Humidity with Remote Wireless Probe
- RF Range: 90 m Line of Sight, 33 m Indoors
- Wall or DIN Rail Mount Remote Probe
- 1, 7 or 32 Day Recording
- Easy to Read Dual Channel Backlit LCD Readout
- Convenient Front Panel Programming/Operation
- Monitor Min/Max/Avg
- High/Low A/V Alarms
- Dual High Alarm Relays, Dual Low Alarm Voltage Outputs
- Double Sided Charts with Magnetic Mount Hub
- Benchtop or Wall Mount with Built-In Chart Lights
- Battery or AC Power

The CTXL-TRH recorder is designed for both local and remote monitoring of temperature and relative humidity. The CTXL-TRH-W features a wireless sensor probe that can be placed up to 90 m (300') line of sight or 33 m (110') indoors away from the recorder.

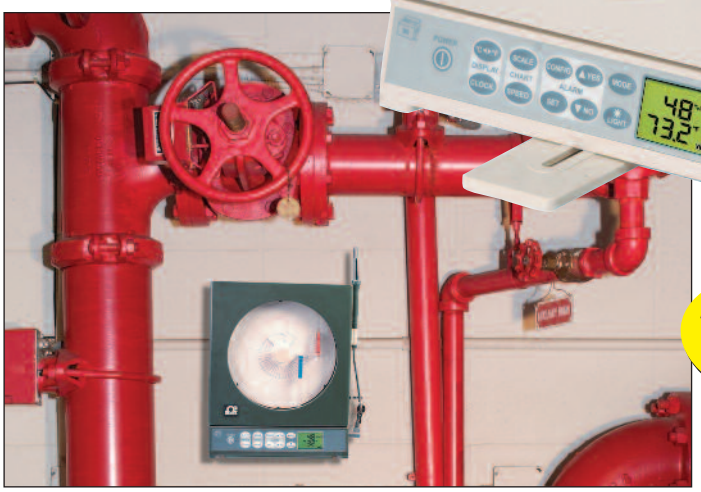
A circular chart recorder with a large, 203 mm (8") diameter chart, the CTXL has a custom LCD that displays the current temperature and humidity, and can indicate the min, max or average input values as well.

CTXL-PT
Remote wireless transmitter, included, shown smaller than actual size.

PATENT PENDING

Wireless Transmitter – Up to 33.5 m (110') Indoors from Recorder

CTXL-TRH-W temperature/ humidity recorder, $895, includes CTXL-PT wireless transmitter and CTXL-PR receiver, shown smaller than actual size.



Large 200 mm (8") Chart 2-Sided

The CTXL-TRH comes with a Windows-based application program that allows the user to monitor the temperature and relative humidity using their PC. You can log the data to a file, as well as display the information on a custom on-screen chart; set the alarms on the recorder, and display their status on-screen.

Windows Software Included!
- Monitor Temperature and Humidity
- Line Graph and Store Readings in Real Time and Download Recorded Data
- Set the Line Graph Scales to Auto, Logarithmic, or Manual
- Re-Scale the Recorder Chart Paper
- Print Line Graphs to a Printer

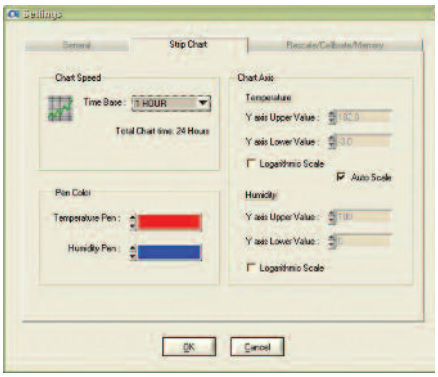
You can also re-scale the recorder chart paper, setting temperature and %RH limits anywhere within the range of the unit. This allows you to use the 8" chart to display narrow temperature and humidity bands, for greater resolution.

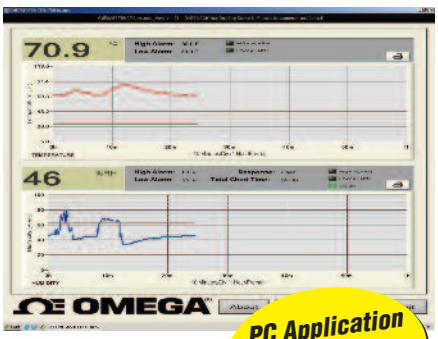
Specifications

Temperature:
- **Range:** -17.7 to 49°C (0 to 120°F)
- **Display Accuracy:** ±1°C (2°F)
- **Chart Accuracy:** ±1.5°C (3°F)
- **Display Resolution:** 0.1°

Relative Humidity:
- **Range:** 0 to 98% RH
- **Display Accuracy:** ±3% RH, 15 to 90% RH @ room temperature; ±5% RH, <15 or > 90% RH @ room temperature
- **Chart Accuracy:** ±4% RH, 15 to 90% RH, ±6% RH, <15 or >90% RH
- **Display Resolution:** 1% RH

† Refer to accessories chart on pages S-37 thru S-44 for NIST calibration ordering information.





PC Application Software Included

See Pages S-37 to S-44 for the Complete Product Line

Temperature/Humidity Sensor: Digital sensor

Probe Disconnect: Pens will go to the Home position; Display will show "Prb Err". Chart motor will continue to run

Alarm Set Point Resolution:

Temperature: 0.5 °C or °F

Humidity: 1% RH

Alarm Deadband:

Temperature: 0.5°

Humidity: 3% RH

Display: Custom, 4-digit, dual LCD with backlight

Display Sampling Rate: 2 sec

Display Modes: Max, min, avg, T1 – T2

Chart Response Time: 0.5, 3.5, 16 min for 1, 7, and 32 days, respectively

Keypad Response: 350 ms

Chart Paper: 203 mm (8") circular, linear radial divisions, double sided

Chart Drive:

Type: Stepper motor
Accuracy: 1% rotation
Chart Hold-Down: Magnetic hub

Pen Drive:

Type: Stepper motor, linear screw drive
Deadband: 0.5°C or °F and 3% RH
Pen Lift: Automatic on door opening—pens are door mounted and swing clear of the chart when door opens

Clock: Time (24 hr clock) and date

Clock Battery Backup: Holds clock information for 14 days when main power is removed

Audible Alarm: Piezoelectric beeper

Alarm Outputs:

Relay Contacts: Two, rated 2 A @ 30 Vdc (high alarm)

Voltage Output: Two, rated 100 mA to drive an external relay (low alarm)

Operating Ambient: 0 to 49°C (32 to 120°F); 2 to 98% RH

Power: 4 "D" alkaline batteries and ac adaptor (included)

Battery Life: 3 months under normal conditions

AC Adaptor: 100 to 240 Vac input, 9 Vdc @ 1.7 A output

Battery Status: Icon indicator on LCD; shows 100, 75, 50, 25% and low battery

Serial PC Communications: RS232, 2-way, 9600 baud

Memory: 256K EEPROM (2.8 chart revolutions worth of data)

Lock/Unlock (White Box)
Key: Press and hold for 3 seconds to enable/
disable. When in lock mode, all keys are inactive except for the power, light, mode, clock and lock/unlock keys.

Mounting: Keyhole slots for wall mounting; foot cover for bench top use

Case: ABS plastic

Dimensions: 33.5 H x 27.1 W x 6.7 cm D (13$\frac{3}{16}$ x 10$\frac{11}{16}$ x 2$\frac{5}{8}$")

Weight: Approx. 3.2 kg (7 lb) with batteries

Wireless Specifications

Transmitter

Transmit Sample Rate: 2 sec up to 2 min

Radio Frequency: ISM 915 MHz or ISM 868 MHz

Approvals:

Model CTXL-TRH-(*)-W-9: FCC, Class B
Model CTXL-TRH-(*)-W-8: CE

RF Link Range:

Outdoor Line of Sight: Up to 90 m (300')
Indoor/Urban: Up to 33.5 m (110')

Computer Interface: USB, to change transmit interval, frequency and channel ID

Operating Ambient: -18 to 49°C (0 to 120°F), 2 to 98% RH

LED Indicators: Red LED for low battery and other communication error indications; green LED for transmit indication

Power: One 3.6 Vdc "AA" lithium battery, 2400 mAH capacity, or optional ac adaptor, UNI-AC-100/240-5V

Battery Life: 1 year typical, at 1 minute transmission rate

Receiver

Computer Interface: USB, to change receive interval, frequency and channel ID

Operating Ambient: -18 to 49°C (0 to 120°F), 2 to 98% RH

LED Indicators: Red LED for comm. error indications, green LED for receive indication

Power: From the CTXL recorder through the round DIN connector

AVAILABLE FOR FAST DELIVERY!

To Order ***(Specify Model Number)***

Model No.	Price	Description	Color
CTXL-TRH-W-(*)	$895	Wireless temperature/RH recorder	White
CTXL-TRH-G-(*)	895	Wireless temperature/RH recorder	Gray

Double-Sided Charts

Model No.	Price	Description
CT485-CD(**)	$19	100 charts, 1 day (am/pm)
CT485-C24(**)	19	100 charts, 1 day (24 hr)
CT485-CW(**)	19	100 charts, 7 day
CT485-CM(**)	19	100 charts, 32 day
CT485-CSP	19	120 charts, 20 each, 1 day (am/pm), 7 day, 32 day, °F and °C (one package included with unit)

Replacement Accessories

Model No.	Price	Description
CTXL-PT-(*)	$125	Wireless temperature/humidity probe transmitter
CTXL-PR-(*)	75	Wireless temperature /humidity receiver
WRS232-MB	25	Wall/DIN rail mounting bracket

***** *Specify wireless type:* ***"W9"*** *for USA/Canada (915 MHz) or* ***"W8"*** *for Europe (868 MHz)*

****** *Specify temperature units,* ***"C"*** *for °C or* ***"F"*** *for °F.*

Each unit comes complete with wireless sensor probe, probe mounting bracket, 120 assorted double-sided charts, 2 pen sets, wall mount kit, 4 "D" cell batteries, RS232 cable and adaptor, windows software, universal ac adaptor, and operator's manual.

Ordering Example: CTXL-TRH-W-W9, *white temperature/relative humidity recorder with wireless sensor for use in the USA/Canada,* ***$895,*** *and* ***CT485-CWF*** *chart paper (100 double sided sheets, 7 day, °F),* ***$19****, $895 + 19 =* ***$914.***

Add wireless probe capability to existing CTXL-TRH recorders! One transmitter (CTXL-PT) and one receiver (CTXL-PR) are required.

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Our qualified sales personnel are trained to offer technical assistance as well as aid you in placing an order.

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When placing an order by telephone, please inform the salesperson that confirming paperwork will follow. To avoid duplication, mark your confirming paperwork **"Confirmation Only, Do Not Duplicate"** and include the salesperson's name.
Send order confirmations to:

OMEGA ENGINEERING, INC.
P.O. BOX 4047
STAMFORD, CT 06907-0047 USA

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Written orders are welcomed. If you are familiar with our products and do not need to consult with a salesperson, send or FAX your written orders to:

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P.O. Box 4047
Stamford, CT 06907-0047 USA
FAX: (203) 359-7700
or e-mail your order to:
sales@omega.com (domestic orders)
intlsales@omega.com (international orders)

For fast, efficient processing of your order, please include:

Purchase Order Number
Billing and Shipping Addresses
Part No. and Description of Items Ordered
Telephone Number of Requisitioner

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Many items have quantity discount schedules. For large quantities and for products which do not have discount schedules listed, please consult the Sales Department.

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Atlanta, GA 30384-5369 USA

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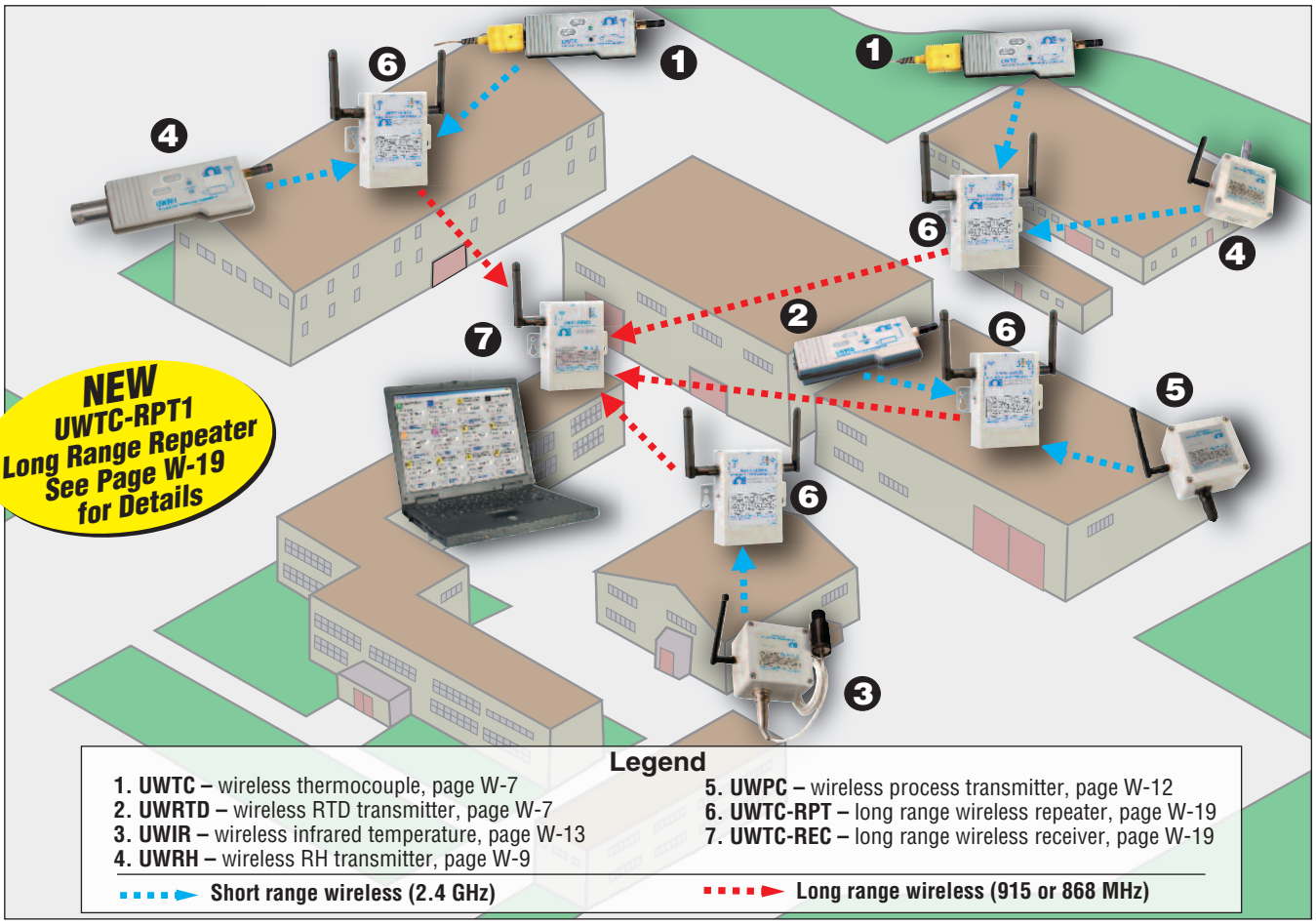

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