



# wireless METER SCANNER AND CONTROLLER

## wi8 Series

Starts at  
**\$395**



wi833-U, \$395, shown smaller than actual size.



Works with zED-T, \$95, shown smaller than actual size. See pages W-37 to W-40.

## 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

### 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.

**UWRD "Universal Wireless RTD"**

**zSeries Wireless End Devices** with sensors for temperature.



Works with UWTC-NB9-CASS-18-U-12 wireless thermocouple/transmitter assembly, \$195, shown smaller than actual size. See page W-19.

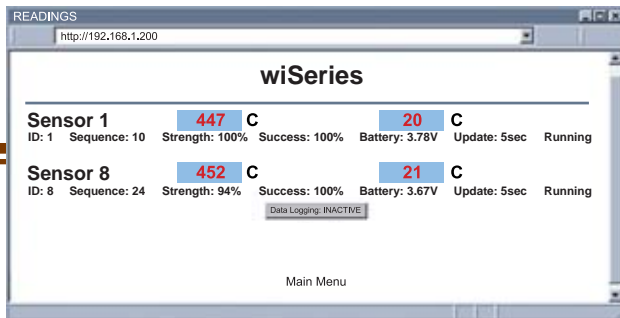


Works with UWTC wireless thermocouple connector, \$125, shown smaller than actual size. See page W-5.

**PATENTED**

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

**The Smart Connector™**



Temperature Readings of up to 8 Sensors



Rear View of wi8

The wiSeries 1/8 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 wi-8 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 wi-8 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.

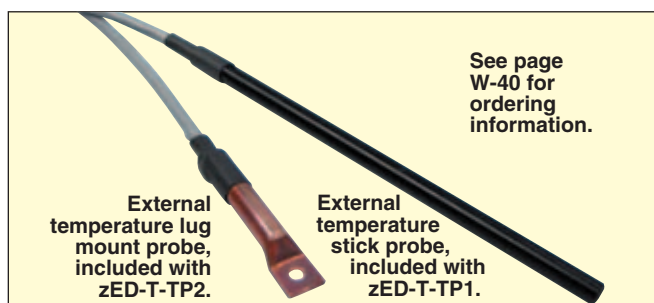
The wireless sensors transmit up to 1000 m (3280') (without obstructions or interference) to a wiSeries monitor-controller connected directly to an Ethernet network and the Internet. The wireless system complies with IEEE 802.15.4 operating at 2.4 GHz.

**Note:** Distances for UWTC-1, UWRD-1: up to 60 m (200'), UWTC-2, UWRD-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).



# WIRELESS METER SCANNER AND CONTROLLER

**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 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"), ½ 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.

wi833-ZT-DC, for low power option (20 to 36 Vdc, 24 Vac) add "-DC" to model number and add \$25 to price, ex: \$395 + 25 = \$420.

Ordering Example: wi833-U, wireless meter/controller for UWTC units with 2 relays, \$395.

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