

UWTC and UWRTD Series

Complete Wireless Thermocouple or RTD Connector System The Smart Connector™

- User Configurable for Type J, K, T, E, R, S, B, N, C Thermocouple Input
- Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger
- FCC Compliant (All Models), Industry Canada, SRRRC Approved
- Built-In Cold Junction Compensation and Linearization
- Unique Design Accepts Both Miniature and Standard Size Probes and Connectors
- One Receiver Works with Multiple Wireless Remote Connectors
- Low Power Operation and Sleep Mode for Long Battery Life
- Wireless Connector Transmits Thermocouple Temperature, Ambient Temperature, Signal Strength and Battery Status in Real-Time
- Interfaces with Model UWTC-REC1 for Multi-Channel PC Chart Recording and Data Logging or Model UWTC-REC2 (Single Channel Industrial Transceiver with Analog Output and Alarm)
- Additional Receivers Available
- Plug Your Probe Into a Smart Connector to Make a Smart Sensor

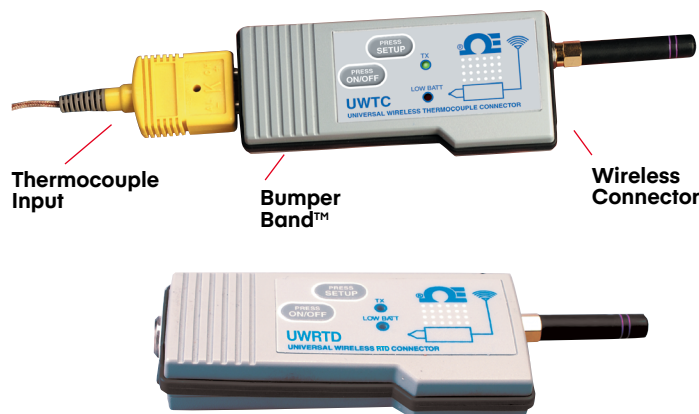
Description

Omega's wireless thermocouple connector features stand-alone, compact, battery powered thermocouple connectors that transmit their readings back to a host receiver up to 120 m (400 ft) away.

Each unit can be programmed in the field to work as a Type J, K, T, E, R, S, B, N or C calibration connector. When activated the connector will transmit readings continuously at pre-set time interval that was programmed by the user during the initial setup. Each unit measures and transmits: Thermocouple Input Reading, Connector Ambient Temperature, RF Signal Strength and Battery Condition to the host and is displayed on the PC screen in real time using the provided software. When used with host receiver UWTC-REC1 data from up to 48 wireless thermocouple connectors can be received and displayed.

Each unit includes free software that converts your PC into a strip chart recorder or data logger so readings can be saved and later printed or exported to a spread sheet file.

When used with host transceiver UWTC-REC2 wireless data from one connector can be re-transmitted out of the receiver by a wired connection as an analog voltage, current or thermocouple signal to interface with a controller, PLC or data acquisition board.



Specifications

(Complete specifications available online)

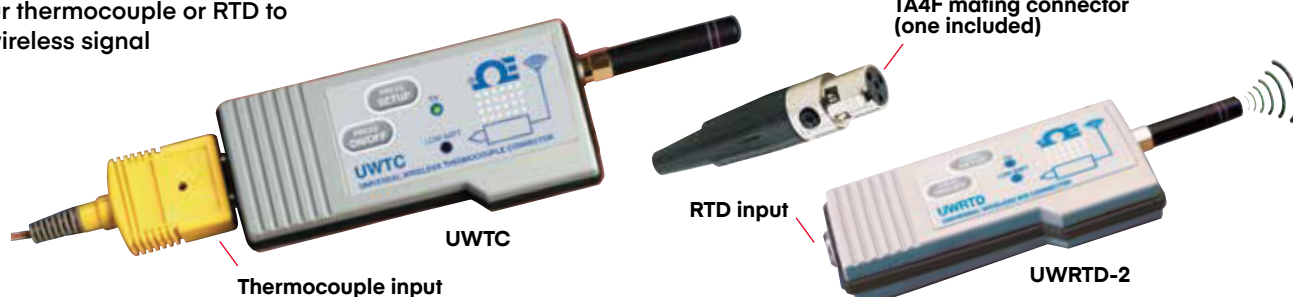
UWTC Input	J, K, T, E, R, S, B, C or N; software selectable
UWRTD Input	100 Ω Pt RTD; 0.00385 or 0.00392 curve; software selectable
Measurement Range	J: -100 °C to 760 °C (-148 °F to 1400 °F) K: -100 °C to 1260 °C (-148 °F to 2300 °F) T: -200 °C to 400 °C (-328 °F to 752 °F) E: -200 °C to 1000 °C (-328 °F to 1832 °F) R: 260 °C to 1760 °C (500 °F to 3200 °F) S: 260 °C to 1760 °C (500 °F to 3200 °F) B: 870 °C to 1820 °C (1598 °F to 3308 °F) C: 0 °C to 2315 °C (32 °F to 4200 °F) N: -100 °C to 1260 °C (-148 °F to 2300 °F) Pt100, 0.00385: -200 °C to 850 °C (-328 °F to 1562 °F) Pt100, 0.00392: -100 °C to 457 °C (-148 °F 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
Cold Junction Compensation (Automatic)	-10 °C to 70 °C (14 °F to 158 °F)
Thermocouple Connection	Universal female accepts both standard male (OSTW Series) or miniature male (SMPW Series) mating connector
RTD	Series "T" receptacle, type TA4M; TA4F mating connector included

Operating Environment	-10 °C to 70 °C (14 °F to 158 °F)
Computer Interface	USB (one interface cable included with receiver)
Transmit Sample Rate	Programmable from 1 sample/minute to 1 sample/every 5 seconds Radio Frequency (RF) Transceiver
Carrier	ISM 2.4 GHz, direct sequence spread spectrum, license free worldwide (2.450 GHz to 2.490 GHz -12 channels)
RF Output Power	UWTC-2, UWRTD-2: 10 dBm (10 mW)
Range of RF Link	UWTC-2, UWRTD-2: Up to 120 m (400 ft) outdoor line of sight; Up to 45 m (130 ft) indoor/urban
RF Data Packet Standard	IEEE 802.15.4, open communication architecture
Software (Included Free)	Compatible with Windows (2000, XP, Vista, 7, 10, and 11) operating system
Connector Internal Battery	One 3.6 V lithium, 2.4 Ah capacity (AA) (included)

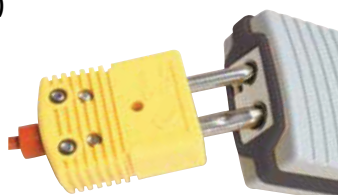
Battery Life (Typical- 1 sample/minute reading rate @ 25 °C (77 °F))	1 year
Data Transmitted to Host	Thermocouple Reading, Connector Ambient Reading, RF Transmit Strength and Battery Condition
Dimensions	100 mm L x 50 mm W x 25 mm H (without antenna) (4 in x 2 in x 1 in)
Weight	70 g
Case	ABS plastic

Note: Because of transmission frequency regulations, the UWTC-2 products are approved for use in the United States, Canada, Europe, Mexico, Brazil, China, Korea, Singapore, and Japan.
 UWRTD-2 products are approved for use in the United States and Canada only.

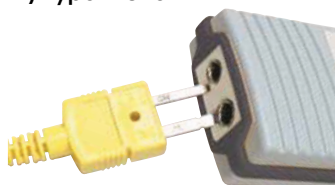
Wireless connectors convert your thermocouple or RTD to a wireless signal



Standard connector (OST)



Miniature connector (SMP) Type K shown



Free Thermocouple Included!

UWTC includes a free 1 m (40 in) Type K insulated beaded wire thermocouple with subminiature connector and wire spool caddy (1 per channel). Order a Spare! Model No. SC-GG-K-30-36.



Ordering Guide

Model No.	Description
UWTC-2	Thermocouple-to-wireless connector/converter, extended distance 120 m (400 ft)
UWRD-2	RTD-to-wireless connector/converter, extended distance 120 m (400 ft)
SC-GG-K-30-36	Spare Type K beaded wire thermocouple sensor for model UWTC
UWTC-REC1	48-channel receiver/host (USB powered)
UWTC-ANT-LR	Optional high-performance antenna (standard antenna included)
UWTC-BATT	Replacement battery, 3.6 V "AA" lithium (one included)
TA4F	Spare RTD mating connector for UWRD (one included)

Note: USB programming cable and FREE measurement and data logging software are both included with compatible UW Series wireless receivers and transceivers.

UWTC comes complete with 3.6 V "AA" lithium battery, mounting bracket, Type K beaded wire thermocouple and operator's manual.

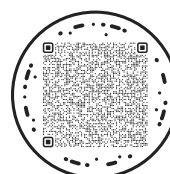
UWRD comes complete with 3.6 V "AA" lithium battery, mounting bracket, TA4F mating connector and operator's manual.

Ordering Example: UWTC-2, wireless thermocouple connector/transmitter with 120 m (400 ft) range, plus UWTC-REC1 48-channel receiver/host.

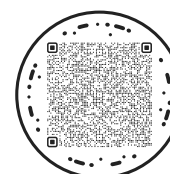


UWTC models are CE compliant
UWRD models are not CE compliant

DS-UWTC-UWRD



UWTC



UWRD