

Handheld OMEGA® Bluetooth® Wireless Temperature, Humidity and pH Transmitters Turn Your Smart Phone or Tablet into a Data Logging and Monitoring Device Backup Data Logging in Transmitter Assures Data Integrity

UWBT Series

- ✓ Free App Available for Android™ and iOS Devices, Configurable in 9 Different Languages
- ✓ UWBT Transmitter is Available in Four Models; Thermocouple, RTD, Relative Humidity and Temperature, and pH and Temperature
- ✓ Pair with Multiple Transmitters from the Same App
- ✓ Log up to 10 Samples per Second
- ✓ Powers from 2 “AA” Size Rechargeable Batteries
- ✓ Download Logged Data to Your Smart Phone or Tablet, and Email the Data or Send to the Cloud
- ✓ Logs Data to the Handheld Transmitter with Date/Time Stamping or Directly to Your Smart Phone or Tablet
- ✓ Works with Mobile Devices and Computers with USB Communications
- ✓ RoHS 2 Compliant

The UWBT Series of OMEGA Bluetooth wireless transmitters turn your smart phone or tablet into a data logging and monitoring device. These transmitters measure different sensor inputs such as thermocouple, RTD, relative humidity and pH, and transmit the data via Bluetooth wireless technology to your smart phone or tablet. A free app is available for Android and iOS devices that is configurable in 9 different languages.

The OMEGA UWBT app allows you to pair with and set-up multiple transmitters and view their data in

as of April 1, 2018

All models shown smaller than actual size (probes sold separately except on RH model).



UWBT-RTD-TB
Product Discontinued

UWBT-RH
Product Discontinued
(includes probe).

UWBT-TC-M12
Product Discontinued

UWBT-PH
Product Discontinued

UWBT-TC-UST
Thermocouple with universal TC connector.

Data from the transmitter is displayed and logged on your mobile device!

either digital, gauge or graph format. Real-time data can be logged on your smart phone or tablet from 1 sample per second to 1 sample per minute. To assure data integrity, data can also be logged locally on the UWBT transmitter itself from 10 samples per second to 1 sample per minute, and then downloaded to your smart device. Data files can be sent from your smart device to an e-mail address or to the Cloud.

From the UWBT App, You Can:

- ✓ Pair with Multiple Transmitters Simultaneously
- ✓ Monitor and Log Sensor Data on Your Smart Phone or Tablet
- ✓ View Sensor Data in Digital, Graph, or Gauge Format
- ✓ View Logged Data File in Graph Format and Scroll Through the Data Back and Forth in Time
- ✓ Send Logged Data File to an E-Mail Address or Directly to the Cloud
- ✓ Set High and Low Alarm Set Points (and Sounds) and Deadband
- ✓ Set Engineering Units, Sensor Type, Sensor Name, Sampling Rate, and Offset Correction
- ✓ Configure the App to 9 Different Languages
- ✓ View Transmitter's Battery Charge Level and Bluetooth Signal Strength



As an additional feature, UWBT Series transmitters can also be used with computers with USB communications using the free software application that is available online. This allows you to configure, download logged data, read live sensor data from the transmitter and upgrade the UWBT firmware.

UWBT Series transmitters are powered by internal rechargeable batteries. The transmitter's batteries can be recharged with the supplied power adapter by plugging into the USB port of your computer or by replacing the 2 "AA" size rechargeable batteries.

Specifications

General

Power: 2 "AA" 1.2 V NiMH rechargeable batteries (included) or USB power adapter (included)

Battery Life Logging on Transmitter (Internal Logging)

Without Pairing @ 1s/min: 150 hours

Without Pairing @ 10s/sec: 95 hours

With Pairing @ 1s/min: 50 hours

With Pairing @ 10s/sec: 30 hours

Battery Recharge Time: 12 hours (from 5 to 100% charge)

Real-Time Clock Battery Life: 2 months

PC Interface: USB 2.0 for configuration, firmware upgrade, data download, and charging batteries

Soft Key: Momentary switch for *Bluetooth* wireless pairing or factory reset of parameters

Pairing: iOS app requires pairing within smart phone or tablet *Bluetooth* wireless settings, as well as within the iOS app. There is a 2 minute timeout when operating on battery with no *Bluetooth* wireless communication or going out of RF range.

Status LEDs: Green LED for data transmission/logging, bi-color LED for power/alarm status

Internal Memory: 128K bytes of non-volatile memory for data logging, maximum file size (see table below)

Internal Memory		
Model No.	Maximum Data Storage	Measurement
UWBT-TC	Product Discontinued nts	Temperature
UWBT-RTD	Product Discontinued nts	Temperature
UWBT-pH	Product Discontinued nts per measurement	pH
		Temperature
UWBT-RH	Product Discontinued nts per measurement	Relative humidity
		Temperature
		Dewpoint

Tested Devices and Operating Systems					
Apple®	Samsung®	Google®	Amazon®	Sony®	Xiaomi®
iPhone 4s (iOS 7.0.4)	Galaxy Tab 3 (Android 4.4.2)	Nexus 4 (Android 4.4)	Kindle Fire HDX 7" (3rd Gen) Fire OS 4.5.1 (based on Android 4.4.2) and Fire OS 3.0 (based on Android 4.2.2)	Experia Z2 SGP511 (Android 4.4.2)	MiPad (Android 4.4.2)
iPhone 5 (iOS 7.1.2, 8.1.2)	Galaxy Tab 4 (Android 4.4.2)	Nexus 7 (Android 4.4.3, 5.0.2)			
iPhone 6 (iOS 8.2, 8.3)	Galaxy Tab S5 (Android 4.4.2, 4.4.4)	Nexus 10 (Android 4.2.2)	<i>Note: UWBT app will not run on Kindle Fire HD 7" (2nd Gen), Kindle Fire (2nd Gen) or Kindle Fire (1st Gen).</i>		
iPad and iPad mini (iOS 7.1.2, 8.1.2, 8.2, 8.3)					

Apps operate in portrait and landscape mode for tablets, but in portrait mode only for smart phones.



UWBT-TC-UST with KQSS sensor attached, paired with Samsung Galaxy Tab (sensor and tablet displaying temperature not included). Shown smaller than actual size.



Sampling Rate: 10 samples per second through 1 sample per minute

Operating Temperature: -20 to 60°C (-4 to 140°F)

Operating Humidity: Up to 95% RH, non-condensing

Wireless Communication: *Bluetooth* v2.1 + EDR, Class 1

OMEGA® *Bluetooth*® Wireless Module Certification: FCC, CE, ICS and SIG qualified

Wireless Range

Tablets and Phones for Android: 46 m (150') line of sight, indoors or outdoors

Tablets Using iOS: 37 m (120') line of sight, indoors or outdoors

Smart Phones Using iOS: 9 m (30') line of sight, indoors or outdoors

Transmitter Dimensions: 155.2 H x 55.9 W x 28.9 D mm (6.11 x 2.20 x 1.14") without sensor attached

Transmitter Weight: ~0.127 kg (0.28 lbs) without sensor attached, varies slightly by model

Software Apps

Language Selections for Apps and the PC Software: English, German, Spanish, French, Italian, Portuguese, Japanese, Korean, Simplified Chinese

Smart Device Sizes Supported: 4, 5, 7, 8, 10 inches

Number of Transmitters to Pair: 4 for Android devices, 3 for devices running iOS operating systems

Process Value Display Format: Digital, gauge, line graph

Maximum File Size Saved on a Smart Phone or Tablet: 100,000 data points per measurement

Setting Options

- Sensor Name:** Name can be changed in the app
- Sensor Type:** Thermocouple type, or RTD type
- Engineering Unit:** °C, °F, K, °R
- Transmitter Time and Date:** Set via software app
- High and Low Alarm Set Points:** Within the input range
- Alarm Dead Band:** Within the input range
- Zero Offset:** Add or subtract a zero offset
- Time Axis:** Elapsed time or actual time
- Display Sampling Rate:** 10 samples per second through 1 sample per minute, (1 sample per second through 1 sample/minute for RH model)
- Y Axis Scaling:** Either automatic or fixed scaling
- Language Selection:** Up to 9 languages

Logging Options

- Logging on Smart Phone and Tablet:** 1 sample per second up to 1 sample per minute
- Logging on Transmitter:** 10 samples per second up to 1 sample per minute
- Start/Stop Logging on Device:** Set via software app
- Download Logged Data from Transmitter:** Set via software app

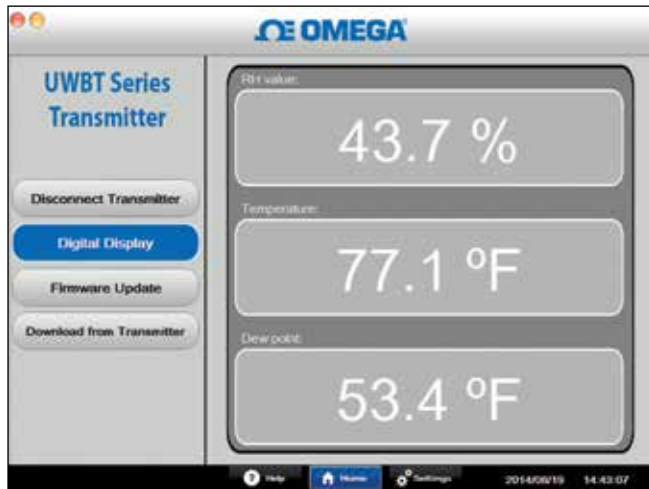
Email Logged Data: Set via software app

Save Logged Data to the Cloud: Set via software app, Dropbox, SugarSync®, Google Drive™, iCloud® (iOS only), and OneDrive® online storage services

Line Graph

Live sensor line graph in real time with high and low alarm lines; Play back logged data file with zoom in/out capability

Windows® and Mac OS® Software



UWBT PC app displaying live sensor data.

OS: Windows 7, Windows 8.1, and Mac OS X 10.8.5

Setting Options

- Sensor Name:** Name can be changed in PC software
- Sensor Type:** Thermocouple type, or RTD type
- Engineering Unit:** °F or °C, K, °R
- Transmitter Time and Date:** Set via PC software
- High and Low Alarm Set Points:** Within sensor range
- Alarm Dead Band:** Within sensor range

Zero Offset: Add or subtract a zero offset

Sampling Rate: 10 samples per second through 1 sample per minute, (1 sample per second through 1 sample/minute for RH model)

Download Logged Data from Transmitter: Set via PC software

Upgrade Transmitter Firmware: Set via PC software

Language Selection: Up to 9 languages

UWBT-TC Thermocouple Transmitter

Thermocouple Input Ranges		
Thermocouple Type	Range (°C)	Range (°F)
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

J, K: ±0.5% of reading or ±0.8°C (1.5°F), whichever is greater

T, E, N: ±0.5% of reading or ±1.7°C (3°F), whichever is greater

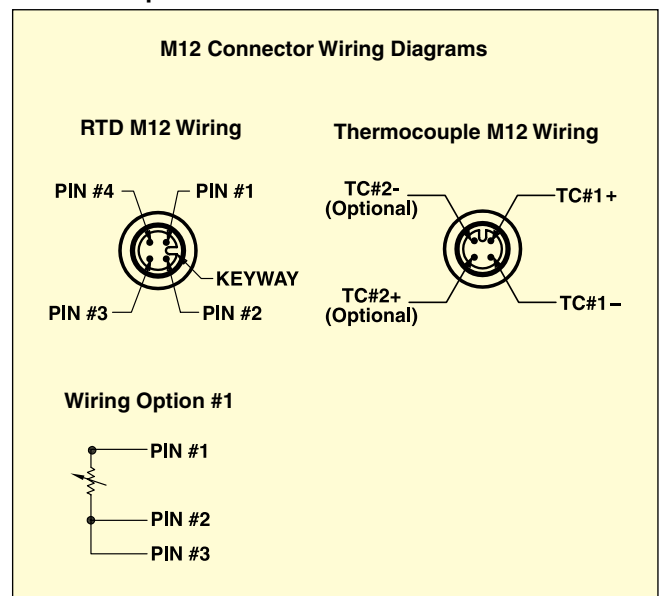
R, S, B, C: ±0.5% of full scale

Reading Resolution: 0.1°F or °C

Open Sensor or Out of Range: Indicated by transmitter LED

Input Source Resistance: 100 Ω

Thermocouple Connection: Female uni-connector or M12



UWBT-RTD, RTD Transmitter

RTD Input: Pt100 2 or 3 wire, 0.00385 or 0.00392 curves, Pt1000 2 or 3 wire, 0.00385 or 0.00392 curves

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

Accuracy: 0.5°C (1°F)

Resolution: 0.1 °F or °C

Open Sensor or Out of Range: Indicated by transmitter LED

Lead Wire Compensation: Applies to 3 wire RTD
RTD Connection: 3 position terminal block or M12



UWBT-RTD-TB RTD with terminal block connection, paired with a Samsung Galaxy Tab (not included). Shown smaller than actual size.



Test array of multiple pH units used with the UWBT transmitter.

UWBT-PH, pH Transmitter

pH Input:

Range: 0 to 14 pH

Accuracy: 0.1 pH

Resolution: 0.01 pH

Input Connection: BNC

Temperature Input

Type: 100 Ω platinum RTD

Range: 0 to 100°C (32 to 212°F)

Accuracy: ±1°C (1.8°F)

Connection: 2 position terminal block

pH Temperature Compensation:

Either fixed temperature, or automatic from pH electrode with built-in RTD sensor Pt100 (0.00385 curve)



UWBT-PH paired with a Samsung Galaxy S5 (not included) displaying pH and ambient temperature. Shown smaller than actual size.

UWBT-RH, Ambient/Relative Humidity Transmitter

Sensor: Digital temperature and humidity sensor (included)

Humidity

Range: 2 to 98% RH (non-condensing)

Accuracy: 2.5% RH from 20 to 80% RH, 3.5% RH, below 20 and above 80% RH

Resolution: 1% RH

Temperature

Range: -17 to 49°C (1.4 to 120°F)

Accuracy: 1°C (1.8°F)

Resolution: 0.1°C or °F

Dew Point

Range: -54 to 48°C (-66 to 119°F)

Accuracy: 1.5°C (3°F)

Resolution: 0.1°C or °F

Sensor Connection: 8-pin M12

Open Sensor or Out of Range: Indicated by transmitter LED



Country Code	AC Power Adaptor Plugs Included
NA	North America
UK	UK, EU, North America
CN	China
JP	Japan
KR	Korea
SEA	Singapore, Australia
BR	Brazil

To receive an adapter for use in Mexico, please order UWBT-AC-NA.

To receive an EU adapter, please purchase adapter kit UWBT-AC-UK.

To Order

Model No.	Description	Recommended Compatible Sensors
UWBT-TC-UST-(*)	Product Discontinued Wireless transmitter with uni-connector (W male connectors)	TJ36 probes, MQSS Series probes
UWBT-TC-M12-(*)	Product Discontinued Wireless transmitter with M12 connector of 305 mm (12") length or less	M12CM-EXTP-K-SM cables, M12LCP probes
UWBT-RTD-TB-(*)	Product Discontinued Wireless transmitter with 3 position terminal block	PR-10, PR-11, PR-20, PR-30 probes
UWBT-RTD-M12-(*)	Product Discontinued Wireless transmitter with M12 connector of 305 mm (12") length or less	PR-26, PR-31 probes, M12CM-T24 cables (only compatible with cable model numbers ending in -1)
UWBT-RH-(*)	Product Discontinued Temperature/relative humidity Bluetooth wireless transmitter	Sensor is included
UWBT-PH-(*)	Product Discontinued Temperature (RTD) Bluetooth wireless transmitter	PHE Series electrodes

Comes complete with USB cable and AC power adaptor with country specific plug.

Please note that UWBT-RH comes with a field-replaceable M12 RH sensor. For replacement sensor see TH-SP in the replacement parts list.

*Insert country code.

Replacement Parts

Model No.	Description
TH-SP	Field replaceable ambient temperature/relative humidity probe with M12 connection, 72 mm (2.83") long (Please note that this is the only probe compatible with the UWBT-RH)
TB-2	Replacement 2-position pluggable terminal block (for UWBT-pH model) (5 pack)
TB-3	Replacement 3-position pluggable terminal block (for UWBT-RTD-TB model) (5 pack)
UWBT-AC-NA	AC power adaptor with mini-B to A-male USB cable (includes North America plug)
UWBT-AC-UK	AC power adaptor with mini-B to A-male USB cable (includes North America, EU, and UK plugs)
UWBT-AC-CN	AC power adaptor with mini-B to A-male USB cable (includes China plug)
UWBT-AC-JP	AC power adaptor with mini-B to A-male USB cable (includes Japan plug)
UWBT-AC-KR	AC power adaptor with mini-B to A-male USB cable (includes Korea plug)
UWBT-AC-SEA	AC power adaptor with mini-B to A-male USB cable (includes Singapore, and Australian plug)
UWBT-AC-BR	AC power adaptor with mini-B to A-male USB cable (includes Brazil plug)

Typical Accessories

Model No.	Description
For UWBT-TC-UST	
KMQSS-062G-6	Subminiature quick-disconnect probe, Type K, 0.062" OD stainless steel sheath, grounded junction, 6" length
For UWBT-TC-M12	
M12KSS-1/8-U-6-A	Type K ungrounded thermocouple with 304 stainless steel sheathed, 1/8" diameter by 6" long probe and no mounting threads
For UWBT-RTD-TB	
PR-20-2-100-1/8-2-E-T	100 Ω Class A DIN platinum element probe with 3-wire PFA insulated and jacketed cable [260°C (500°F) Max] 1/8" dia by 2" long
For UWBT-RTD-M12	
PR-21A-3-100-A-1/4-0600-M12-1	Pt100, Class A, 1/4" diameter by 6" long RTD probe
For UWBT-PH	
PHE-1311	General purpose pH electrode with BNC connector
PHE-7352-15-PT100	Heavy-duty pH electrode with Pt100 RTD temperature sensor

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