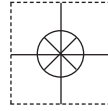


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**OM-EL-WiFi-TP**  
**Temperature Data Logger**



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It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

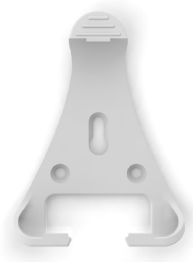
**WARNING:** These products are not designed for use in, and should not be used for, human applications.

# OM-EL-WiFi-TP

## WiFi Temperature & Humidity Data Logging Sensor

### FEATURES

- Temperature data logging sensor with thermister probe
- WiFi capability and integrated display
- Wireless connectivity to PC via WiFi
- Easy sensor set-up using free PC software
- View and analyse multiple sensors using the PC application, including immediate graphing of historic data
- Measurement range -40 to +125°C (-40 to +257°F)
- 802.11b compliant
- Capable of logging greater than 1 million data entries
- Sensor memory stores all data even if WiFi is temporarily disconnected
- Main unit IP55, probe IP67
- Rechargeable internal lithium polymer battery
- Configurable high and low alarms with indicator
- Max & Min readings
- Low battery indicator
- WiFi connection indicator
- USB port used for recharging
- Supplied with removable thermister probe, micro USB lead & wall bracket



The OM-EL-WiFi-TP sensor measures the temperature of the environment in which the probe is situated. Data is transmitted wirelessly via a WiFi network to a PC and viewed using a free software package. During configuration the sensor will search for an existing wireless network whilst physically connected to the PC. It can then be placed anywhere within range of the network. If the sensor temporarily loses connectivity with the network, it will log readings until it is able to communicate again with the PC application (max 120 days at 10 second sample interval). The range of the sensor can be increased by using WiFi extenders.

The probe can be used in a wide range of temperature situations e.g. manufacturing processes, cold storage and hot storage.

This OM-EL-WiFi-TP is a low powered battery device. When configured using typical sampling periods (e.g. once every 60 seconds) the sensor will operate for over one year. The battery can then be recharged via a PC or USB +5V wall adapter using the USB lead provided.

The software installed on the PC will allow set-up, data logging and data review. Set-up features will include sensor name, °C/°F, sample rate, and high/low alarms. Once configured, historic data can be viewed via the graphing tool or exported to Excel. This software will be available for free from [www.omega.com](http://www.omega.com).

### ORDERING INFORMATION

WiFi Temperature &  
Humidity Data Logging  
Sensor

OM-EL-WiFi-TP

[www.omega.com](http://www.omega.com)

This sensor stands alone by itself on a horizontal surface and comes with a wall bracket that can be screwed onto a wall or flat surface. The sensor clips into the bracket.

The sensor is supplied with a thermister probe with an attachment so that the probe can be securely fixed to flat surfaces.

The probe is removable so alternative probes can also be used to meet specific requirements providing they operate within the same temperature range.

All OM-EL-WiFi-TP sensors are thoroughly tested pre-release but the sensor may experience compatibility issues with certain WiFi networks. In this instance we recommend the use of network accessories available on the Omega website.

Specifications	Minimum	Typical	Maximum	Unit
Battery life		>1*		Year
USB supply voltage	4.5v		5.5v	V d.c.
Probe temperature measurement range	-40 (-40)		+125 (+257)	°C (°F)
Internal resolution		+/- 0.1		°C
Probe temperature accuracy (overall error)		+/- 0.5	+/- 2.0	°C
Probe clip operating temperature range	-40 (-40)		+100 (212)	°C (°F)
Logging rate (user configurable)	Every 10s	30 seconds	Every 12hrs	Transmission rate
Unit operating temperature range	-20 (-4)		+60 (+140)	°C (°F)

\* Typical but could be less if frequent transmissions

*Warning - do not exceed operating temperatures*

## EXAMPLE OF UNIT WHILST PHYSICALLY CONNECTED TO PC DURING SET-UP



## HARDWARE

- Battery: Rechargeable via USB connection
- Microcontroller: ARM MCU
- 1x micro USB Type B (bottom of unit) for connection of unit to PC via USB cable supplied.
- Removable probe: 50cm, 304 stainless steel end cap, high temperature flexible cable with tight bend radius

[www.omega.com](http://www.omega.com)

## PHYSICAL DIMENSIONS

All dimensions in millimetres (mm)



## LCD SCREEN SHOTS



3) MINIMUM RECORDED VALUES SINCE LAST RESET

4) RECEIVED SIGNAL STRENGTH INDICATOR (RSSI) (VALUE BETWEEN 0 & 10)

5) DATA SYNCING



## ADDITIONAL FUNCTIONALITY

When the user cycles through to the Received Signal Strength Indicator (RSSI) screen the unit automatically transmits a dummy message every 2 seconds to enable an RSSI reading to be displayed. If there is any outstanding data waiting to be transmitted, this data will be sent at the same time but if not it'll just send the dummy message and the next data package will be sent as per the unit configuration.

When on Max or Min screen, holding the button for 3 seconds will clear the stored values.

The sensor can be restarted by holding the button for 10 seconds until the screen blanks and LOW is shown flashing in the top right hand corner of the display. The sensor will retain all settings but will lose any data that has not been transferred to the PC. The sensor can be reset to factory state by holding the button for 20 seconds but this will delete all settings and stored data.

*Note: neither the restart or the reset will delete data already transferred to your PC.*

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## WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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## RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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