EL-WiFi-TP
WiFi Temperature Probe 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
- Supported Security Protocols WEP, WPA/WPA2 – PSK

The 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 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.tiptemp.com.

www.tiptemp.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 EL-WiFi 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 TIP Temperature 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	Transmisson 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
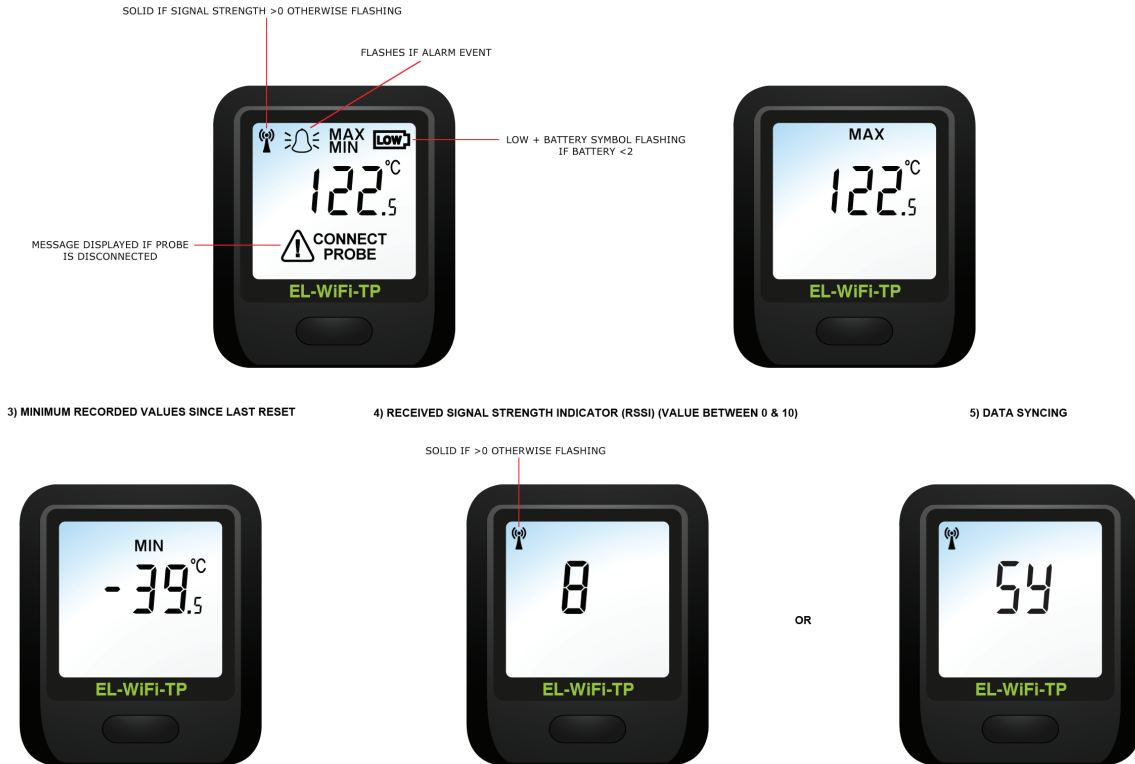
www.tiptemp.com

PHYSICAL DIMENSIONS
All dimensions in millimetres (mm)

LCD SCREEN SHOTS

SOLID IF SIGNAL STRENGTH >0 OTHERWISE FLASHING

FLASHES IF ALARM EVENT

LOW + BATTERY SYMBOL FLASHING IF BATTERY <2

MESSAGE DISPLAYED IF PROBE IS DISCONNECTED

122.5 ℃

⚠ CONNECT PROBE

EL-WiFi-TP

MAX

122.5 ℃

EL-WiFi-TP

3) MINIMUM RECORDED VALUES SINCE LAST RESET

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

5) DATA SYNCING

SOLID IF >0 OTHERWISE FLASHING

MIN

-39.5 ℃

EL-WiFi-TP

8

EL-WiFi-TP

OR

54

EL-WiFi-TP

ADDITIONAL FUNCTIONALITY

When the user cycles through to the Recieved 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.