

EL-WiFi-TC

WiFi Thermocouple Data Logging Sensor



FEATURES

- Temperature data logging sensor with K type thermocouple probe and integrated display
- Supports J,K,N,T type thermocouple probes
- Easy sensor set-up using the free PC software application (downloadable from www.smarttechco.com.vn)
- Wirelessly stream data to PC or Cloud* via WiFi
- View and analyse multiple sensors, including immediate graphing of historic data
- Selectable measurement scale °C / °F
- Temperature accuracy $\pm 1.5^{\circ}\text{C}$ (probe dependent)
- Temperature measurement resolution to 0.1°C
- Temperature display resolution to 0.1°C (-99.9 to $+999.9^{\circ}\text{C}$)
- Temperature measurement range -270 to $+1300^{\circ}\text{C}$ (-454 to $+2372^{\circ}\text{F}$) (probe dependent)
- Operating temperature range -20 to $+60^{\circ}\text{C}$ (-4 to $+140^{\circ}\text{F}$)
- Configurable high and low alarms with indicator
- Delayed alarms capability
- Audit function
- Maximum and minimum readings
- Low battery indicator
- WiFi connection indicator
- Signal strength indicator
- 802.11b compliant
- Rechargeable internal lithium polymer battery
- Fully featured LCD segment display
- Sensor memory stores all data even if WiFi is temporarily disconnected
- USB port used for recharging (can only be recharged when unit is between $0 - 40^{\circ}\text{C}$)
- Firmware upgradable via USB (downloadable from the SmartTech website)
- PC can be switched off without loss of data
- Supplied with wall bracket, sticky pad, micro USB lead and thermocouple probe (type K)
- Supported Security Protocols WEP, WPA/WPA2 – PSK



Signal Strength Indicator



Temperature Monitoring



Cloud Service



Alarm Levels



Max & Min Readings



Battery Low Indicator

The EL-WiFi-TC sensor measures the temperature of the environment in which the probe is situated. The accuracy of the K type probe supplied is $\pm 1.5^{\circ}\text{C}$. Data is streamed wirelessly over any WiFi network and can be viewed on a PC using our free software package or on the EasyLog Cloud*. 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 or cloud service (max 30 days at 10 second sample interval). Logged data is retained if the battery goes flat. Although the EL-WiFi sensors have an impressive range this can be increased by using WiFi extenders.

The EL-WiFi-TC is a low powered battery device. When configured using typical transmission periods (e.g. once every hour) the sensor will operate for up to one year (at room temperature). The battery can then be recharged via a PC or USB +5V wall adapter using the USB lead provided or can be permanently powered by the USB wall adapter.

The software installed on the PC will allow set-up, data logging and data review. Set-up features will include sensor name, $^{\circ}\text{C}/^{\circ}\text{F}$, sample rate, and high/low alarms. Once configured, historic data can be viewed via the graphing tool or exported into Excel. This software is available to download for free from www.congngethongminh.vn.

The sensor is a freestanding unit, however, it can be attached to a wall or vertical surface using the bracket and screws/sticky pad provided.

It is supplied with a thermocouple probe with an attachment so that it can be securely fixed to flat surfaces. It is perfect for a wide range of temperature monitoring situations e.g. manufacturing processes, cold/hot storage and laboratory conditions. The probe is removable so alternatives can also be used to meet specific requirements providing they operate within the same temperature range. The EL-WiFi-TC supports J, K, N and T thermocouple probes.

SPECIFICATIONS

Specifications	Minimum	Typical	Maximum	Unit
Battery life		1**		Year
USB supply voltage	4.5	5	5.5	Vdc
Operating temperature range (sensor only)	-20 (-4)		+60 (+140)	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)
Logging Period (user configurable)	10 sec	10 min	12 hrs	
Transmission Period (user configurable)	1 min	1 hr	24 hrs	
Temperature measurement range (probe dependent)	-270 (-454)		+1300 (+2372)	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)
Temperature measurement resolution		0.1		$^{\circ}\text{C}$
Temperature display resolution		0.1		$^{\circ}\text{C}$
Temperature accuracy (-99.9 to +999.9 $^{\circ}\text{C}$)		± 1.5		$^{\circ}\text{C}$
Supplied Probe Specifications (K type)				
Temperature accuracy		± 1.5		$^{\circ}\text{C}$
Temperature range	0 (+32)		+400 (+752)	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)
Probe length			1500	mm

* EasyLog Cloud due to be released late 2013

** Dependent on transmission rate, may be less with frequent transmissions

Warning - do not exceed operating temperatures