

# EL-WiFi-21CFR-DTC

## 21CFR Remote WiFi Temperature Sensor Dual Channel External Thermocouple



- Can be installed as part of a 21CFR compliant system with additional controls including permission-based use, authority level sign-off and full system audit
- Dual channel recording through two external K-Type Thermocouple Probes (supplied) 0 to +200°C (+32°F to +392°F), for details see TC probes datasheet
- Thermocouple probe temperature measurement range -270 to +1372°C (-454 to +2501°F) (allows interchangeable probes)
- Easy sensor set-up using free 21CFR WiFi Sensor Software
- Wirelessly stream and view data on the 21CFR Cloud
- Configurable high and low alarms with indicator



The EL-WiFi-21CFR-DTC measures the temperature of the environment in which the probes are situated. Featuring industry standard miniature thermocouple connectors, the device is compatible with K, N, J and T-type probes.

Data is streamed wirelessly over any compatible WiFi network to be viewed on the 21CFR 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 21CFR Cloud (max 30 days at 10-second sample interval).

The sensor is IEEE 802.11bgn\* (2.4GHz) compliant, supports WEP, WPA/WPA2 encryption and enterprise networks (PEAP, TTLS, FAST).

The EL-WiFi-21CFR-DTC has a protection rating of IP40 and the probe tip IP67. The unit is freestanding, but it can be attached to a wall or surface using the bracket provided. The unit can be clipped in and out of the bracket as required.

### SPECIFICATIONS

	Minimum	Typical	Maximum	Unit
Battery life		>6		Months
Probe measurement range	K-type (supplied) 0 (+32) K-type -270 (-454) J-type -210 (-346) T-type -270 (-454)		+200 (+392) +1372 (+2501) +1200 (+2192) +400 (+752)	°C (°F)
USB supply voltage (@500mA)	4.5	5.0	5.5	Vdc
Operating temperature range (logger)	-20 (-4)		+60 (+140)	°C (°F)
Logging period (user configurable)	10 sec	10 min	12 hrs	
Transmission period (user configurable)	1 min	1 hr	24 hrs	
Temperature measurement resolution		0.1 (0.2)		°C (°F)
Temperature display resolution		0.1		
Temperature accuracy (display)		±1.5 (±3)		°C (°F)
Temperature accuracy (K-type probe supplied)		±2.5 (±4.5)		°C (°F)
IP Rating	Logger IP40, Probe Tip IP67 (Bung fully inserted, not permanently powered, thermocouple connector fitted and fully inserted, device mounted vertically.)			
Dimensions (Display)	82 x 70 x 36mm (3.22 x 2.75 x 1.41")**			

\* MAC Address starting 98:8B:AD:2..... only. \*\*Excluding mounting bracket.

### 21CFR COMPLIANCE

Permission based use and access	✓
Authority based action sign-off	✓
Data records cannot be edited or deleted	✓
Complete system audit trail	✓
For a detailed compliance checklist, please visit <a href="http://www.lascarelectronics.com/markets/21cfr/">www.lascarelectronics.com/markets/21cfr/</a>	

### ACCESSORIES

PSU-5VDC-USB-USA	USB Mains Power Adapter for USA
PSU USB-UK	USB Mains Power Adapter for UK
PSU USB-EU	USB Mains Power Adapter for EU
EL-P-TC-K	Replacement 1.5 K-type thermocouple with stainless steel probe (Class 2)

### INCLUDED IN THE BOX

EL-WIFI WALL BRACKET	Wall mounting bracket for EL-WiFi sensors
2x EL-P-TC-K	1.5m K-type thermocouple with stainless steel probes (Class 2)
CABLE USB A-MICRO B	USB Type A to Micro B



### CALIBRATION CERTIFICATES NOW AVAILABLE

Lascar now offers a Traceable Calibration Certificate Service on Temperature Data Loggers. Using reference equipment which has been calibrated by a UKAS/NIST accredited laboratory and using apparatus traceable to national or international standards. For more information, please visit [www.lascarelectronics.com/calibration](http://www.lascarelectronics.com/calibration).



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Dual Channel External Thermocouple



## 21CFR WIFI SENSOR SOFTWARE

EasyLog 21CFR WiFi software\* is available as a free download from [download.filesthrutheair.com](http://download.filesthrutheair.com). Easy to install and use, EasyLog 21CFR WiFi Sensor Software allows easy sensor set-up and connection of sensors to a WiFi network and the 21CFR Cloud.

## 21CFR CLOUD

21CFR Cloud subscription delivers all of the flexibility of a remote monitoring system: Interact with sensors via any internet-enabled device; manage and monitor sensors; access event logs and set up email alerts; assign authorisation levels to user accounts and view comprehensive audit trail records. Unlike the standard EasyLog Cloud service, 21CFR Cloud includes other controls such as permission-based use, authority sign-off and full system audit to ensure data monitored and collected is regulated to 21CFR Part 11 standard.



For full pricing information and to create an account, please visit <https://21cfr.wifisensorcloud.com/>. Any queries or questions, please do not hesitate to contact our team.

**Detailed data reporting**

**Authority sign-off on actions**

**Detailed system audit reporting**

A Cloud account subscription is created during the WiFi sensor set-up process using EasyLog 21CFR WiFi Sensor Software. 21CFR WiFi Sensors are only compatible with the 21CFR Cloud [21cfr.wifisensorcloud.com](http://21cfr.wifisensorcloud.com).

Download the latest version of the software free of charge from [download.filesthrutheair.com](http://download.filesthrutheair.com)

## BATTERY LIFE AND POWER SUPPLY

The battery can be recharged (unit must be between 0 - 40 °C) via a PC, a USB +5V wall adapter, or a portable USB battery pack using the USB lead provided. It can also be permanently powered by a USB wall adapter or USB battery pack. Readings may be affected while the internal battery is being charged. However, once charged, continued connection of the charger will have no effect.

Battery life is dependent on: transmission period, WiFi encryption method, WiFi encryption key rotation frequency (determined by the router/access point), signal strength between router/access point and WiFi device, presence volume and type of WiFi traffic from other devices, sample rate and operating temperature.

Specifications liable to change without prior warning

\*Requires Windows 7, 8.1, 10