

WiFi-DTC

Dual Channel External Thermocouple WiFi Temperature Sensor



- **Dual channel recording through two external thermocouple probes**
- **Wirelessly stream and view data on the FilesThruTheAir™ Cloud or on a PC**
- **Sensor set up is easy using our free PC software**
- **View and analyse multiple sensors, including graphing of historic data**
- **Measures temperature range of -270°C to +1300°C (-454°F to +2372°F) (probe dependent)**
- **Configurable high and low alarms with indicator**
- **Sensor memory stores data even if WiFi is temporarily disconnected**

The WiFi-DTC datalogging sensor measures the temperature of the environment in which the probes are situated. This sensor is typically accurate to $\pm 1.5^{\circ}\text{C}$ (with the K type probes supplied). The unit is freestanding, but 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. The probes are connected using the industry standard miniature thermocouple connector, which allows alternative K, N, J and T type probes to be used.

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

Data is streamed wirelessly to either the FilesThruTheAir™ Cloud or a local PC. During configuration the sensor will search for an existing wireless network whilst physically connected to the PC. Once connected it can then be placed anywhere within range of the network. If the sensor temporarily loses connectivity with the network or PC, it will log readings until the connection is re-established (max 30 days at 10 second sample interval).

Although the FilesThruTheAir™ WiFi sensors have an impressive range this can be increased by using WiFi extenders which are available from www.filesthrutheair.com.

The WiFi-DTC is a low power device containing a rechargeable battery. When configured using typical sample and transmit periods the sensor can operate for up to six months. The battery can be recharged via a standard +5V wall adapter or a USB port using the cable provided.

The LCD display includes several features including Max and Min readings and indicators for battery state, alarms, WiFi connection and signal strength.

With our free PC software you can choose to store your sensor data either locally on a single PC, or make it universally accessible on the FilesThruTheAir™ Cloud. Whichever you choose, you'll be able to analyse data, draw graphs and export the latest and historic data in various formats.

You can change the sensor's settings to suit your needs, options include:

- Assigning names to the sensor and each measuring channel
- Selecting the units of measurement
- Choosing the sample rate and transmission period
- Setting high and low alarm levels for each channel.

Once configured, sensor settings can be changed remotely, without the need to reconnect it to your PC.

The WiFi-DTC has a protection rating of IP43. The sensor is IEEE 802.11b compliant, supports WEP, WPA/WPA2 encryption and enterprise networks*.

A range of recommended accessories, including ADSL routers, USB mains chargers and spare probes are available from www.filesthrutheair.com.

*MS-CHAPv2, PEAP, EAP-FAST, EAP-TTLS

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| Specifications | Minimum | Typical | Maximum | Unit |
|---|-------------|---------|---------------|---------|
| Battery life | | >6* | | Months |
| USB supply voltage | 4.5 | | 5.5 | Vdc |
| Operating temperature range | -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 range | -270 (-454) | | +1300 (+2372) | °C (°F) |
| Temperature measurement resolution | | 0.1 | | °C |
| Temperature display resolution | | 0.1 | | °C |
| Temperature accuracy | | ±1.5 | | °C |

Warning - do not exceed operating temperatures

Battery Life and Power Supply

The product will arrive partly charged but ideally you should charge it for 24 hours before use for optimum performance. 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 cable 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.

We're committed to continuously improving our products. Specifications are liable to change without warning.

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