



# Diligence WiFi

## Dual channel data logger with thermistor sensor

The RF312DualPlus data logger can measure two temperature points with a single unit.

The two probes can measure the environment in which they are situated, e.g. one could measure a refrigerator and the other could measure a freezer. This high accuracy data logger is accurate to  $\pm 0.4^{\circ}\text{F}$  ( $+5^{\circ}\text{F}$  to  $+176^{\circ}\text{F}$ ) /  $\pm 0.2^{\circ}\text{C}$  ( $-15^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ ). The unit comes with a bracket that can be used to mount the data logger on a wall or surface. The probes are connected to the data logger via a 160mm Y splitter cable which is provided.

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

The RF312DualPlus is a low power device containing a rechargeable battery. When configured, the data logger 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, RF312 connection and signal strength. With our free PC software you can choose to store your data logger data either locally on a single PC, or make it universally accessible on the Comark Cloud. Whichever you choose, you'll be able to analyze data, draw graphs and export the latest and historic data in various formats. Comark Cloud App has been released for Android users who wish to view data on the go.

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

- Assigning names to the data logger 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, data logger settings can be changed remotely, without the need to reconnect it to your PC.

The RF312DualPlus has a protection rating of IP43 and the probes IP67. The data logger is IEEE 802.11g compliant, supports WEP, WPA/WPA2 encryption and enterprise networks\*\*.

\*Please refer to specification for details

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

### Features

- Dual channel recording through two external thermistor probes
- Wirelessly stream and view data on the Comark Cloud or on a PC
- Data logger set up is easy using our free PC software
- View and analyze multiple data loggers, including graphing of historic data
- Measures temperature range  $-40^{\circ}\text{F}$  to  $+257^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ ) (probe dependent)
- Configurable high and low alarms with indicator
- Data logger memory stores data even if WiFi is temporarily disconnected

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## Specifications RF312DualPlus

Sensors	Thermistor
Battery Life	>6* months
USB supply voltage	4.5 to 5.5 Vdc
Operating temperature range	-4°F to +140°F / -20°C to +60°C
Logging period (user configurable)	10 seconds to 12 hours (Typical 10 minutes)
Transmission period (user configurable)	1 minute to 24 hours (Typical 1 hour)
Temperature measurement range	-40°F to +257°F / -40°C to +125°C
Temperature measurement resolution	0.01°F / 0.01°C
Temperature display resolution	0.01°F / 0.01°C
Temperature accuracy (system)	±0.4°F (+5°F to +176°F) / ±0.2°C (-15°C to +80°C) ±1°F (-40°F to +257°F) / ±0.6°C (-40°C to +125°C)

Warning - do not exceed operating temperatures



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## Probe Specification

Sensor	Thermistor
Temperature range	-40°F to +257°F / -40°C to +125°C
Probe length	9' 10" / 3 metres

## 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 +32°F to 104°F / 0°C to +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.

\*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.

## Warranty

All Comark instruments have a minimum one year warranty unless otherwise stated. The warranty for temperature probes is six months and all other probes are unwarranted because the conditions of use are beyond our control. The Comark Warranty covers manufacturing defects and component failure and applies worldwide. In line with our policy of continuous development, we reserve the right to alter any product specification without notice. Comark has an accredited UKAS (NIST equivalent) calibration laboratory for temperature and humidity measurement and offers full service and recalibration facilities.