



# Diligence **WiFi**

## Comark RF314DUAL

### Dual channel data logger via two external thermocouple probes

The RF314Dual data logger measures the temperature of the environment in which the probes are situated. This data logger is typically accurate to  $\pm 1.5^{\circ}\text{C}$ . It is free standing, but can be attached to a wall or surface using the bracket provided and can be clipped in and out 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 Comark Cloud or a local PC. During configuration, the data logger will search for and display all the local WiFi Networks it can find. Having selected your chosen WiFi Network, it can then be placed anywhere within range. 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 rate). Although the Diligence WiFi data loggers have an impressive range this can be increased by using WiFi extenders.

The RF314Dual 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, WiFi connection and signal strength.

With our PC software you can choose to store your 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 analyse data, draw graphs and export the latest and historic data in various formats.

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

The RF314Dual has a protection rating of IP40. The data logger is IEEE 802.11bgn compliant, supports WEP, WPA/WPA2 encryption and enterprise networks\*.

### Features

- Dual channel recording through two external thermocouple probes
- Wirelessly stream and view data on the Comark Cloud or on a PC
- Easy data logger set-up using PC software application or the Comark Cloud App
- View and analyze multiple data loggers, including graphing of historic data
- Measures temperature range of  $-270$  to  $+1372^{\circ}\text{C}$  /  $-454^{\circ}\text{F}$  to  $2501^{\circ}\text{F}$  (probe dependent)
- Configurable high and low alarms with indicator
- Data logger memory stores data even if WiFi is temporarily disconnected maximum of 30 days at a 10 second sample rate

\*PEAP, EAP-FAST, EAP-TTLS



Use Comark Cloud to manage and store temperature and humidity data on-line.

- Monitor multiple sites
- View on mobile devices
- Have multiple users
- Receive email alerts when alarms occur or if a device needs attention
- NEW Cloud App for easy logger set up

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## Dual channel data logger via two external thermocouple probes



### Specifications

Sensors	Thermocouple (K, N, J, T)
Battery Life	3-6 months depending on frequency of transmissions*
USB supply voltage	4.5 to 5.5 Vdc
Operating temperature range	-20°C to +60°C / -4°F to +140°F
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	-270 to +1372°C / -454°F to 2501°F
Temperature measurement resolution	0.1°C / 0.2°F
Temperature display resolution	0.1°
Temperature accuracy (instrument)	±1.5°C / ±3°F

For more details of the Diligence WiFi range, please see [www.comarkinstruments.com](http://www.comarkinstruments.com)

Probes (sold separately) - see [www.comarkinstruments.com](http://www.comarkinstruments.com) for details

Part No	Description	Sensor Type	Lead Length
AK28M	Flexible Air Probe	K	1 metre
AK29M	Flexible Air Probe	K	5 metres
AK31M	Flexible Air Probe	K	10 metres
PK23M	Oven/Meat Penetration Probe	K	2.5 metres
SK29M	Clamp Probe with Velcro Strap	K	2.5 metres

### \*Battery Life and Power Supply

The product will arrive partly charged and ideally should be charged for 24 hours before use for optimum performance. The battery can be recharged via a PC, a USB +5V wall adapter RF320 (UK/US), or a portable USB battery pack using the USB lead provided. When charging the unit must be operating between 0°C to +40°C / +32°F to 104°F. The data logger can also be permanently powered by the RF320 USB wall adapter. 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.

### Warranty

Each Comark product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is one (1) year, unless otherwise stated, and the warranty period begins on the date of shipment. Temperature probes are warranted for six (6) months.

The warranty extends only to the original buyer or end-user of a Comark authorized reseller. This warranty does not cover damage resulting from normal wear and tear, abuse, misuse, accidental breakage, negligence, defects caused by modifications, repair and servicing not made or authorised by Comark Instruments, damage caused by handling, operating, storing, or using the product outside the intended uses described by our product literature. Disposable batteries are also exempt from warranty.

Warranties on dishwasher safe models apply only where the product has been used in a commercial dishwasher. Comark Instruments products are not suitable for use or cleaning in domestic dishwashers.

Comark's warranty obligation is limited, at Comark's option, to refund of the purchase price, free of charge repair, or replacement of a defective product returned within the warranty period. Products must be returned to Comark or one of Comark's authorized service agents.

This warranty is the buyer's sole and exclusive remedy and is in lieu of all other warranties, express or implied, including but not limited to any implied warranty of fitness for a particular purpose. Comark shall not be liable for any special, indirect, incidental or consequential damages or losses, including loss of data, whether arising from breach of warranty or based on contract, tort, reliance or any other theory. Since some countries or states do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warrant may not apply to every buyer.

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