Diligence WiFi

Dual channel data logger via two external thermocouple probes

The RF314Dual WiFi data logger measures the temperature of the environment in which the probes are situated. This data logger is typically accurate to ±2.7°F (with the K type probes supplied). It is freestanding, 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 an existing wireless network while physically connected to the PC. Once connected it can then be placed anywhere within range of the network. If the data logger 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).

The RF314Dual is a low power device containing a rechargeable battery. When configured using typical sample and transmit periods 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 free 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 analyze data, draw graphs and export the latest and historic data in various formats.

You can change the data logger's settings to suit your needs, including:
- 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 and without the need to reconnect to your PC.

The RF314Dual has a protection rating of IP43. The data logger is IEEE 802.11g compliant, supports WEP, WPA/WPA2 encryption and enterprise networks*.

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

Features

- Dual channel recording through two external thermocouple 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 of -454°F to +2372°F / -270°C to +1300°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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The Professionals' Choice

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Specifications RF314DUAL

Sensors	Thermocouple (K, N, J, T)
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	−454°F to +2372°F / −270°C to +1300°C
Temperature measurement resolution	0.01°F / 0.01°C
Temperature display resolution	0.01°F / 0.01°C
Temperature accuracy (system)	±2.7°F / ±1.5°C
Logger dimension	Height 3 1/4" x Width 3 3/4" x Depth 1 1/2"

Warning - do not exceed operating temperatures.

Probes (sold separately) - see www.comarkusa.com for details

Part No	Description	Sensor Type	Lead Length
AK28M	Flexible Air Probe	K	1 meter
AK29M	Flexible Air Probe	K	5 meters
AK31M	Flexible Air Probe	K	10 meters
PK20M	Oven/Meat Penetration Probe	K	1.2 meters
PK23M	Oven/Meat Penetration Probe	K	2.5 meters

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.

ISO 9001 Quality Management FM29700

UKAS CALIBRATION 0451