

Diligence **WiFi** CMKREC027 RF312GLYCOL Glycol Simulant Data Logger



The RF312GLYCOL data logger with detachable glycol buffer probe is designed for use in monitoring the temperature of vaccines, medications and food storage.

The RF312 Glycol Monitoring Kit includes a high accuracy data logger and a detachable glycol buffer probe designed specifically for use in monitoring the temperature of vaccines, medications and food storage. The high accuracy data logger is typically accurate to $\pm 0.1^{\circ}\text{C}$ (-10°C to $+60^{\circ}\text{C}$) / $\pm 0.2^{\circ}\text{F}$ ($+14^{\circ}\text{F}$ to $+140^{\circ}\text{F}$). Data is streamed wirelessly over any WiFi network and can be viewed locally on a PC using our free software package, or from anywhere, using the Comark Cloud.

The glycol buffer probe provides a buffered response to changes in temperature. This helps to simulate the thermal lag experienced by products stored in the monitored environment.

Features

- 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
- High accuracy glycol buffer probe temperature measurement range -40°C to $+60^{\circ}\text{C}$ / -40°F to $+140^{\circ}\text{F}$
- Configurable high and low alarms with indicator
- Data logger memory stores data even if WiFi is temporarily disconnected

Setting up your RF312 Glycol Monitoring Kit is easy, using our free PC software. Choose to store your data locally on the PC, or make it universally accessible on the Comark Cloud. Whichever you choose, you'll be able to view historic data in graphs or tables, and export it in various formats. At any time, you can change the data logger settings, including Name, $^{\circ}\text{C}/^{\circ}\text{F}$, Sample Rate, and High/Low alarm levels. Our software and firmware updates are available free from www.comarkinstruments.com.

During configuration, the data logger 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 data logger temporarily loses connectivity with the network, it will log readings until it is able to communicate again with the PC application or the Cloud (max 30 days at 10 second sample interval). Although the WiFi data loggers have an impressive range this can be increased by using WiFi extenders.

The data logger is a battery powered device with an internal rechargeable lithium polymer battery, but can be permanently powered using an RF320 USB power supply (available separately).

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

The RF312Glycol has a protection rating of IP42 and the glycol probe, IP67. The RF312Glycol is free standing, but can be attached to a wall or surface using the bracket provided. The glycol buffer probe is supplied with a detachable magnetic base for easy installation.

The data logger is IEEE 802.11g compliant, supports WEP, WPA/WPA2 encryption and enterprise networks*.

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

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Specifications

Sensors	Thermistor
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	-40°C to +100°C / -40°F to +212°F
Temperature measurement resolution	0.01°C / 0.01°F
Temperature display resolution	0.01°C / 0.01°F
Temperature accuracy (system)	±0.1°C (-10°C to +60°C) / ±0.2°F (+14°F to +140°F) ±0.6°C (-40°C to +60°C) / ±1.1°F (-40°F to +140°F)
Glycol buffer response time (t90)	40 minutes
Glycol buffer probe lead length	3 metres

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

(Glycol Buffer Probe - Replacement Part Number: RFAXGLYCOL)

The t90 response is the time taken for the temperature probe to achieve 90% of the ambient temperature, after being subjected to an instant change.

*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.

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