





# Model 612/614 Temperature Monitor

Cryomagnetics' Model 612 and 614
Temperature Monitors are designed to provide the user with easy to use, precision temperature monitoring at a reasonable cost. Available in the two independent channel Model 612 and four independent channel Model 614. The unit has been designed to meet the requirements of monitoring temperature in superconducting magnet systems.

The bright TFT-LCD display offers user selectable formats which include simultaneous display of all channels. A 4-key keypad allows for navigation through an intuitive menus tree where most features and functions can be configured.

#### **Sensor Types Supported:**

Auto-ranged, Constant-Voltage, AC excitation Negative Temperature Coefficient (NTC) sensors. Industry standard sensors including Ruthinium-Oxide, Carbon-Glass, CernoxTM, Carbon-Ceramic, Germanium and others are supported.

Constant-Current, AC excitation,
Positive Temperature Coefficient (PTC)
resistor sensors types include Platinum
and Rhodium-Iron

10μA Constant-Current, DC excitation Silicon Diode sensors are supported across their full range.

#### **Input Power:**

The monitors are shipped with a 12VDC@1A external power supply but may be powered by any source providing 7.5 to 24 Volts AC or DC. The IEEE 802.3af Power-over-Ethernet (PoE) specification is also supported, allowing the monitor to be powered by its local area network connection. Since PoE provides both instrument power and data over a single cable, remote data acquisition and high channel count systems can be simplified. PoE requires the use of a powered hub or power injector. Ethernet cables up to 300 meters may then be used.

#### **Data Logging:**

Data Logging is performed by continuously recording temperature and status to a non-volatile internal circular memory buffer. Data is time stamped so that the actual time of an event can be determined.

LabVIEW® virtual instrument drivers are available to allow computer control via a familiar, intuitive interface. Firmware

#### Standard Features:

- Model 612, Two independent channels.
- Model 614, Four independent channels.
- Front panel display units, K, C, F or resistance.
- Supports Diode, Platinum, RTD and most cryogenic RTD sensors.
- Auto Ranging, 500mK to 1200K.
- Continuous data logging into internal non-volatile memory.
- Visual, remote and audible alarms plus notification via email if setpoints exceeded.
- Two 10A Dry contact relay outputs.
- Input Power: 7.5 to 24 VAC or DC, or IEEE 802.3af Power Over Ethernet (PoE).
- Remote control via 100/10, USB RS-232 standard.
- Remote command language SCPT compliant.
- Firmware updatable via Ethernet connection.
- LabVIEW® drivers available at no extra charge.

#### Optional Features:

• Option 1: IEEE-488.2 Interface

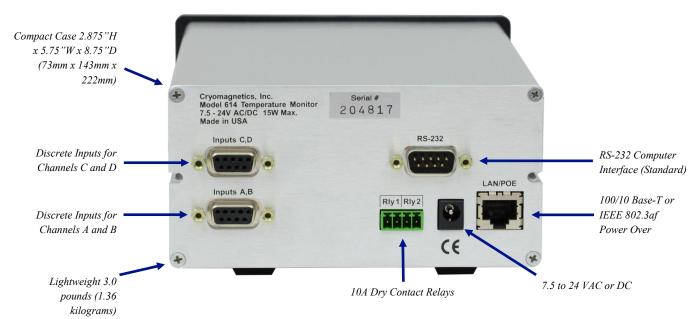
### Web based access to data and instrument configuration



Model 612 Web interface

Monitors connect directly to any 100/10 Ethernet Local-Area-Network (LAN). The TCP and UDP data port servers bring fast Ethernet connectivity to data acquisition software including LabView<sup>TM</sup>. Using the SMTP protocol, the monitor will send email based on selected alarm conditions. Using the Ethernet HTTP protocol, the monitor's embedded web server allows the instrument to be viewed and configured from any web browser.

Remote Command Language: The Monitor's remote command language is SCPI compliant according to the IEEE-488.2 specification. SCPI establishes a common language and syntax across various types of instruments. It is easy to learn and easy



**Model 614 Rear Panel View** 

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# Model 4G Series of Four Quadrant Superconducting Magnet power Supplies

Available in outputs of 100A, 150A, 200A and 100A-Dual Configurations, The Model 4G represents our "4th Generation" of power supplies optimized for the high inductive loads associated with superconducting magnet operation.

#### Model LM-510 Liquid Cryogen Monitor

It is now possible to purchase a liquid cryogen monitor capable of simultaneously monitoring and displaying level for up to two LHe and/or LN2 channels. Available as the LM-510-13 option, the unit can be configured to monitor and control liquid levels in recondensing dewar systems.

