MLMux5

Overview

The **Canary Systems® MLMux5** is designed to expand the number of instruments that can be read by a compatible Automatic Data Acquisition System (ADAS). It supports two switching modes, **5-channel** by 4-wire switching, or **10-channel** by 2-wire switching. A switch on the face of the module configures the switching mode.

The use of low contact resistance relays means almost universal instrument support, a high degree of lightning protection on the control lines, and virtually infinite channel isolation. The MLMux5 is **compatible with a wide range of instruments**, including vibrating wire, resistance strain gage, thermocouples, linear potentiometers, and 4-20 mA, among others.

System Details

Two control inputs activate the MLMux5 and then advance through the channels. Logic levels for either the enable or clocking input can utilize 3.3V to 12V logic input, with a maximum input of 16V. The control inputs are **compatible with a variety of control modules** including those manufactured by Campbell Scientific, Sutron and dataTaker.

Transient protection in the form of plasma surge arrestors on the control inputs provides high reliability from electrical transients, whether ESD or lightning. The power inputs are also equipped with transient protection and reverse-polarity protection.

All components, such as terminal blocks, relays, and flash microcontroller, have been selected for **ultra-high reliability and function**, helping ensure years of reliable and trouble-free operation in demanding environments that may include high heat, humidity, and/or dust.
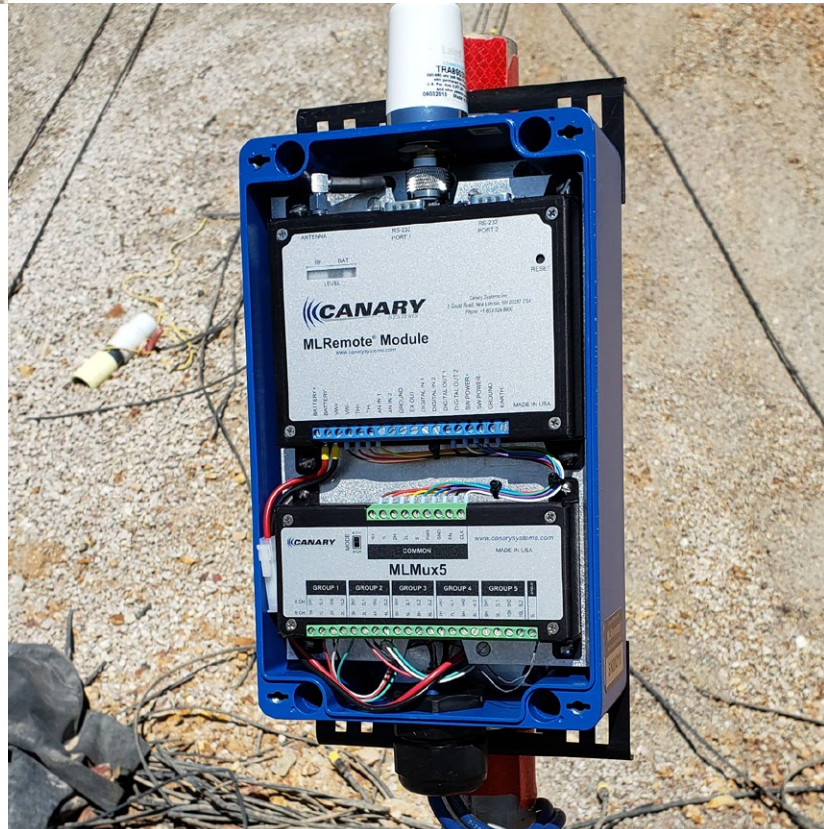
ADD MULTIPLE INSTRUMENTS

EFFICIENT & LOW POWER

EXPAND MLREMOTE

Designed for MLRemote®

The **MLRemote®** is a low-power, point-to-multipoint, programmable wireless datalogging system designed for demanding environments. It is ideal for environments where the monitoring assets consist of numerous types of instruments, distributed over a large area, and are difficult to access or otherwise manage. The system was purpose designed for the mining, geotechnical, structural and environmental markets.

The MLMux5 module is designed specifically for the MLRemote system, optimized for low power consumption and efficient communications. Our web-based system configuration and management platform, **MLWeb Hardware**, provides for communicating with each MLBase and managing and organizing all MLRemote communications.

Programmable

MLMux5 is programmable through Canary Systems' own browser-based **MLWebHardware** platform. Within MLWebHardware, a user can navigate to the Multiplexer section to mark the MLMux5 as active or inactive, the number of channels, and to match the Enable and Clock settings to the physical wiring of the device.

Channels can also be configured within MLWebHardware. These can be assigned to connected instrumentation such as vibrating wire piezometers, as well as corresponding values such as temperature or other types of data.

Specifications

- Power requirements: 4-20VDC
- Active Current with one Channel Active: 2mA at 12VDC
- Standby Current: 1.2mA at 12VDC

- Quiescent Current: 0.6 µA
- Control Line Input Levels: 3.3 to 12V (16V Max)
- Contact Resistance: 0.8 Ω

- Maximum Switched Current: 2.5 A at 60 VCD
- Operating temperature: -40 to +85° C (-40 to +185° F)