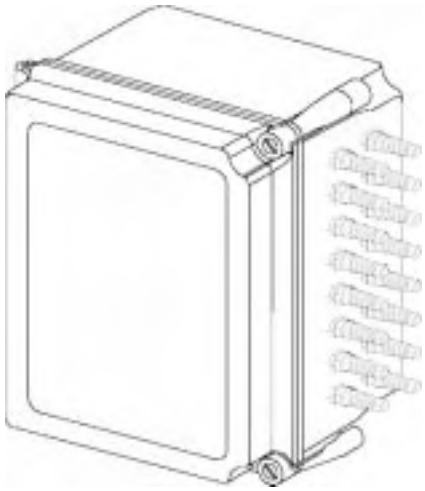
Instrument Multiplexer

Model MiniMux

Key Features

- **Low cost.**
- **Housed in a rugged NEMA 4X fiberglass enclosure.**
- **Two different switching modes are supported.**
- **Compatible with multiplexers from other manufacturers.**
- **Quick release cover latches provide easy access.**
- **Various cable entry options are available.**
- **Equipped with a connector for the datalogger connection.**
- **Clear cover available for wiring inspection (optional).**
- **Latches include knockout for padlocking enclosure.**



Multiplexer shown with Standard Cable Fittings

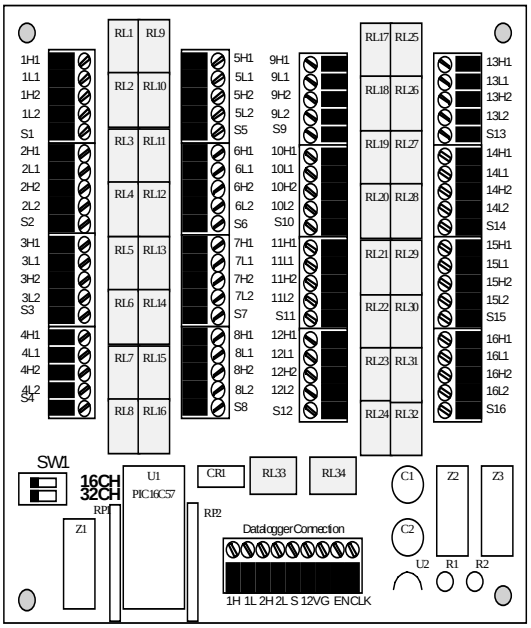
The MiniMux expands the number of instruments that can be read by the CR10 or CR10X Controller to 16 or 32 instruments. The MiniMux is housed in a rugged weather resistant NEMA 4X fiberglass polyester enclosure. It offers lower cost than the MultiMux but does not have provision for installing lightning protection components, 6-wire switching or manual switching.

The MiniMux supports 2 different switching modes, a 16x4-wire mode for vibrating wire instruments (with thermistor or RTD), load cells and other 4 wire instruments, and a 32x2-wire switching mode for thermocouples, thermistors, 4-20mA and other 2-wire instruments. The switching mode is selected via a 2 position switch on the board. Schematic representation for each of these modes follows on the reverse.

There are a number of cable entry options available including individual strain reliefed glands, larger glands for multiconductor cables and connectors.

Contact Canary Systems to obtain your MiniMux Ordering Guide (pdf available at www.canarysystems.com) or if you require additional application information.

Specifications follow on the reverse.



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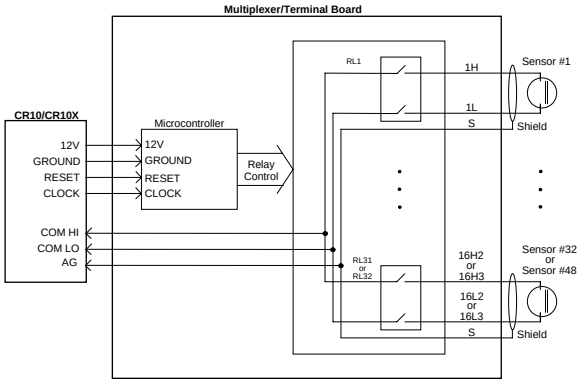
Specifications

General

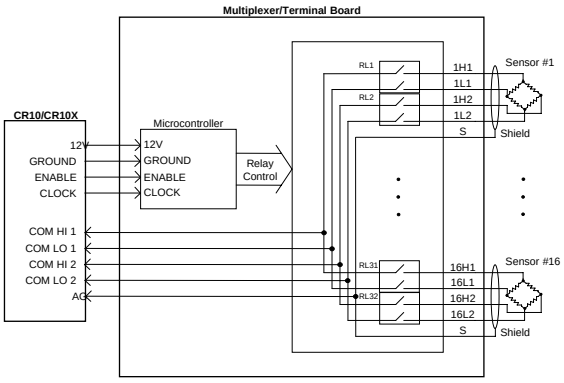
Power requirements: 9-16 VDC (unregulated)
Quiescent current: 100 µA
Channel activated current (2 or 4-wire): 40 mA
Control line input impedance: 10 kilohms
Control line input levels: TTL or RS-232 (<9 VDC)
Transient protection: 17 VDC, 1500W Transzorbs
Operating temperature: -40 to +70° C (-40 to +160° F)

Relays

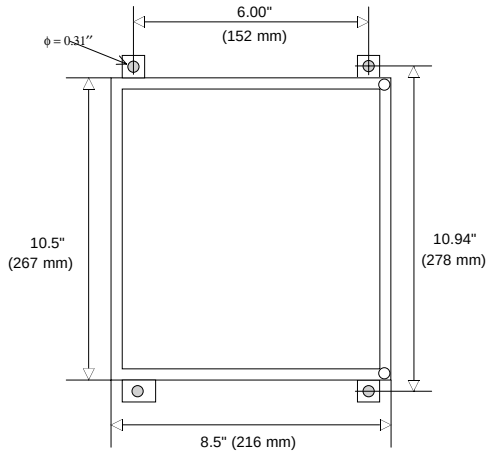
Power: 11 mA @ 12VDC (140 mW)
Contact type: Gold-clad silver alloy
Electrostatic capacitance: 3 picofarads
On resistance: 50 milliohms
Coil resistance: 1,028 ohms
Maximum switching voltage: 125 VAC, 110 VDC
Maximum switching power: 30 W (resistive load)
Maximum switching current: 1 A
Operate time: ~2 milliseconds
Release time: ~1 milliseconds
Initial contact bounce: ~1 millisecond
Surge withstand (between open contacts): 1,500 V
Switching life (mechanical): 100,000,000 operations



32 Channel 2-wire Switching Schematic



16 Channel 4-wire Switching Schematic



Overall Size and Mounting

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