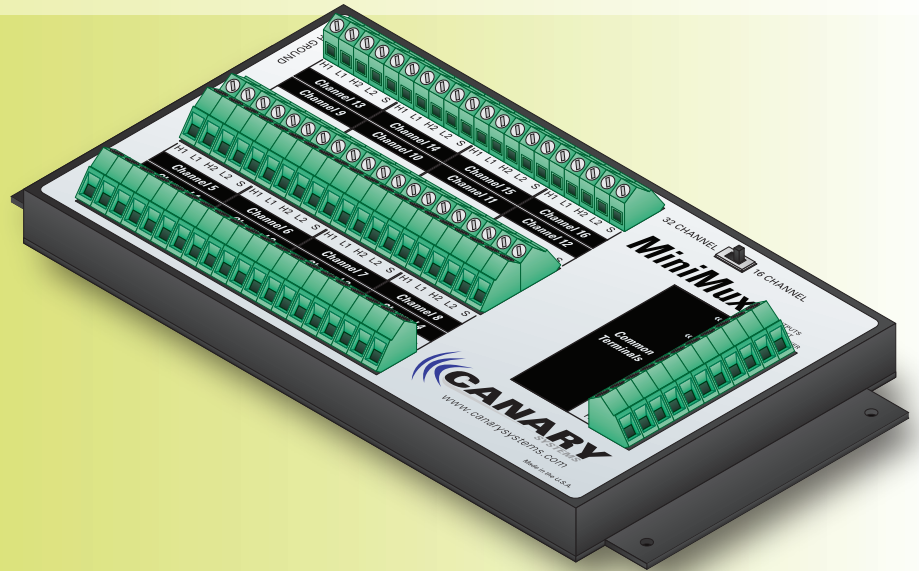


Key Features

- Low-cost 16 or 32-channel expansion
- Supports 2 (32 channel) or 4-wire (16 channel) switching
- Supports unlimited Daisy-Chaining of multiple boards with only two control signals
- Compatible with numerous control modules
- Transient protection on power and control inputs. Spark gaps on all channels
- Very low operating and quiescent power
- Compact footprint

Specifications

Power Requirements	9-16 VDC (unregulated)
Quiescent Current	100 μ A (Mux Not Enabled)
Channel Activated Current (2-wire)	42 mA
Channel Activated Current (4-wire)	42 mA
Control Line Input Impedance	>10 K Ω
Control Line Input Levels	5 V thru 12 V (16 V max)
Contact Isolation Voltage	1500 V rms
Dimensions (L×W×H)	165 × 85 × 25 mm
Operating Temp	-40 to +70°C (-40 to +160°F)
Relay Contact Type	Gold-clad silver alloy
Relay on Resistance	75 milliohms
Relay Coil Resistance	1,028 ohms
Relay Operate Time	~2 milliseconds
Relay Release Time	~1 milliseconds
Relay Max Switching Voltage	125 VAC, 110 VDC
Relay Max Switching Current	2 A
Relay Mechanical Life	Minimum 10 ⁸ Cycles
Gas Tube Breakover Voltage	75 VDC
Gas Tube Current Limit	1kA



The MiniMux 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, 16-channel by 4-wire switching, or 32-channel by 2-wire switching. An externally accessible switch configures the switching mode. Multiple MiniMux's (of either switching configuration) can be daisy-chained to form much larger switching networks. Low contact resistance relays provide compatibility with a wide range of instruments, including vibrating wire, resistance strain gage, thermocouples, linear potentiometers and 4-20 mA, among others.

Two control inputs provide for activating the MiniMux and then advancing through the channels. Logic levels for either the enable or clocking input can

utilize 5 V to 12 V logic input, with a maximum input of 16 V. The control inputs are compatible with a wide variety of control modules including those manufactured by Campbell Scientific, Sutron and Datataker.

Transient protection 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. Spark gaps protect signals on all channels from lightning damage.

All components have been selected for ultra-high reliability and function in demanding environments that may include high heat, humidity and/or dust.