

16-channel Low Thermal Multiplexer (VMIP™)

Overview

The VM8016 is a high precision, low thermal relay multiplexer. The design ideally suits the needs of instrumentation and data acquisition/process control, and is recommended for use in high accuracy applications, where a general-purpose switch module will not suffice. It is also ideal in general-purpose applications when combined with other VMIP™ instruments, saving VXIbus card slot space. The relays are designed specifically for switching low level signals, and employ a thermally compensating ceramic chip to minimize the offset generated by the relay at the junctions.

The VM8016 belongs to the VMIP™ family of products. This gives the user the added flexibility of combining it with other instruments to create a multi-function C-size card, or with other VM8016s to provide up to 48 channels of low-level signal switching in a single C-size card slot.

Programming

The VM8016 is programmed using word-serial message-based commands that are SCPI compatible. SCPI commands are available to configure the VM8016 as either a 2- or 4-wire multiplexer, for programmable delays between relay closures to synchronize with external devices such as DMMs, or simply to open or close relays.

Specifications

Maximum Switching Voltage:	200 V dc or 200 V peak ac
Maximum Switching Current:	0.5 A
Minimum Carry Current:	1.0 A
Maximum Power per Channel:	10 w
Maximum Thermal EMF:	<1 μ V
Closed Channel Path Resistance:	<0.5 Ω
Insulation Resistance: (between any two points)	10 ¹¹ Ω

Features

Low Thermal Offset Relays, <0.5 μ V

High Insulation Resistance - 10¹¹ Ω

Ideal for High-precision
Signal Switching with DMMs

Designed for 2- or 4-wire Switching

Configured as 2 (1x8) 2-wire
Multiplexers

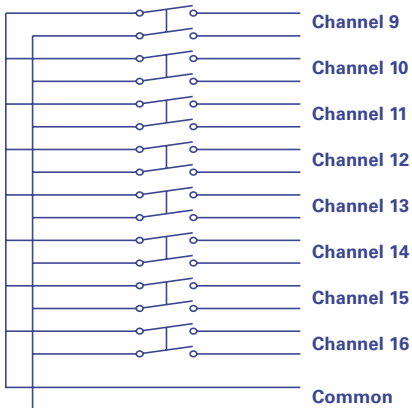
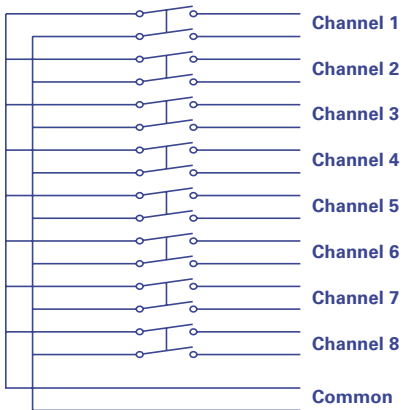
SCPI Compatible

Message-based Control

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Closed Channel Capacitance:	<50 pF
Minimum Bandwidth:	50 MHz
Minimum Relay Life:	100 x 10 ⁶ (1 V, 10 mA)

Configuration



Ordering Information

VM8016

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(Must be configured with a VM9000 host module)