KEITHLEY
A Tektronix Company

Model 3761 10-channel Low Current Multiplexer Card

Specifications

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SPECIFICATION CONDITIONS

This document contains specifications information for the Model 3761 10-channel Low Current Multiplexer Card. Specifications are the standards against which the Model 3761 is tested. Upon leaving the factory, the Model 3761 meets these specifications. Typical and characteristic values are nonwarranted, apply at 23 °C (73 °F), and are provided solely as useful information. Measurement accuracies are specified under these conditions: 23 °C ±5 °C, 5 percent to 70 percent relative humidity, non-condensing.

CONFIGURATION

Current mode: Single-pole multiplexer with automatic input shorting relay to maintain low input resistance for off-channels. Signal LO is common for all ten channels and the output.

Voltage mode: Single-pole multiplexer. Signal LO is common for all ten channels and the output.

Category	Specification	
Channel configuration	1 x 10 single-pole multiplexer	
Contact configuration	Form A **Current mode:** When a channel is open, signal HI is connected to signal LO. Signal LO is common for all ten channels and the output. **Voltage mode:** When a channel is open, signal HI is high impedance. Signal LO is common for all ten channels and the output.	
Connector type	SMA	
Maximum signal level	100 mA, 30 VDC peak, resistive load	
Contact life	$>10^7$ closures (cold switching); $>10^6$ closures (at maximum signal level)	
Contact resistance	<1 Ω maximum to rated life, measured at 10 mA	
Contact potential	<200 µV	
Channel-to-channel isolation (voltage mode)	$>10^{14}$ Ω, <5 pF	
Input isolation	**Differential**	$>10^9$ Ω, <70 pF
	Common mode	$>10^9$ Ω, <150 pF
Common mode voltage	30 V peak between any terminal and chassis	
Voltage coefficient of leakage (voltage mode)	<100 fA per volt (typical)	

Category	General specification
Warm up	One hour to rated accuracies
Actuation time	<1 ms typical, exclusive of mainframe
Relay type	Dry reed
Relay drive current	16 mA per relay (typical)
Relay drive scheme	Direct
Environment	**Indoor use only** **Operating:** 0 °C to 50 °C (32 °F to 122 °F), 70% relative humidity up to 35 °C (95 °F); derate 3% relative humidity per °C, 35 °C to 50 °C, noncondensing **Storage:** −25 °C to 65 °C (-13 °F to 149 °F) **Altitude:** 0 to 2000 m (0 to 6562 feet) above sea level **Pollution degree:** 2
Dimensions	25.40 mm high x 166.12 mm wide x 263.40 mm long (1.00 in. x 6.54 in. x 10.37 in.)
Weight	0.93 kg (2 lb)
Safety	NRTL listed to UL61010-1 and CAN/CSA C22.2 NO. 61010-1-12; UL 61010-2-030 and CAN/CSA-22.2 NO.61010-2-030-12. Conforms with European Union Low Voltage Directive
EMC	Conforms to European Union EMC Directive

3761 Simplified schematic

