

DATA SHEET



EX1200-2087A

8 (1X2) 2-WIRE, 1000 VDC MUX WITH
BUILT IN FAILSAFE MONITORING

FEATURES

Built in Self-Test to verify health of relays and isolate failures

Switch signals up to 1000 VDC

Extensive signal shielding employed on-board for excellent signal fidelity

Ideal for switching in power distribution (PDU) applications that require high-reliability switching where cost of failure is high



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RELIABLE DATA FIRST TIME EVERY TIME

OVERVIEW

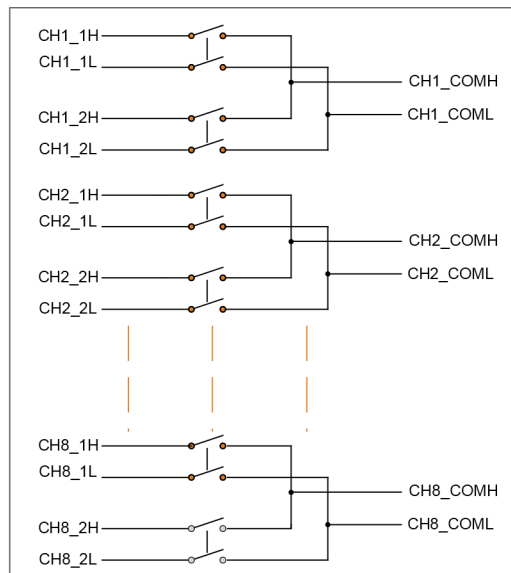
The EX1200 2087A is a high voltage multiplexer module with built in self-monitoring capability which allows each relay to be monitored continuously and prevents unintentional routing of high voltage signals to/from the UUT.

When high voltages are switched through relays, the potential difference between the contacts can cause arcing which can melt a small section of the contacts. If the contacts are still closed when the molten section resolidifies, the contacts may weld together and damage the relay. While this is not a common occurrence, welded contacts could cause signals to be routed when not intended and could affect the test system or the unit under test.

The EX1200 2087A self-monitoring mechanism continuously monitors the relays to ensure that contacts haven't been welded shut and the unit under test isn't exposed to unintended connection paths. When failures are detected, interrupts can be generated that immediately stop the test. It is the first relay board in its class to offer this level of assurance and protection and is ideal for safety critical applications where cost of failure can be high, for example to test power distribution systems, electrical safety testing, and insulation testing.

The EX1200 2087A has been designed to switch voltages up to 1000V at power levels up to 25 VA. Each card contains eight banks of 1x2, 2 wire multiplexers. The EX1200 2087A can be controlled programmatically using IviSwitch compliant calls. Both path level programming and individual relay control are available.

EX1200-2087A BLOCK DIAGRAM



General Specifications

RELAY TYPE	Reed
CONFIGURATION	Eight (1x2) 2-wire
MAXIMUM SWITCHING VOLTAGE	1000 VDC, 700 VAC
MAXIMUM SWITCHING CURRENT	1 A
MAXIMUM CARRYING CURRENT	2 A
PATH RESISTANCE	< 1 Ω (resistive load)
INSULATION RESISTANCE	> 1 x 10 ⁷ Ω
BANDWIDTH (-3 DB)	400 kHz (typical)
RATED SWITCH OPERATION	
MECHANICAL	1 x 10 ⁸
ELECTRICAL	1 x 10 ⁶ at full load
SWITCHING TIME	<1 ms
CONNECTOR TYPE	160-pin DIN

Ordering Information

[EX1200-2087A](#) 16-Channel, 1000V Multiplexer with Built in Self-Test

ACCESSORIES AND TOOLS

70-0363-504	Strain relief bracket (includes connector, recommended accessory)
70-0363-503	Strain relief bracket kit (without connector)
52-0109-000	Crimp pin (includes 100 crimp pins)
27-0088-160	Mating connector (one per board)
46-0010-000	Crimp tool (DIN)
46-0011-000	Extraction tool (DIN)
70-0363-505	160-pin, unterminated cable assembly, 3 ft