



DATA SHEET



EX1200-2007A

48-CHANNEL 1000 V MULTIPLEXER

FEATURES

Highest density module in its class for ability to switch signals up to 1000 VDC (up to 144 two-wire channels in a 1U footprint)

Built-in configuration relays expand the individual building blocks

Ideal for hipot, cable breakdown, source measure unit, and power supply switching

Extensive signal shielding employed on-board for excellent signal fidelity

Fail-safe interrupts can detect fault condition and automatically open up relays to a default state



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Specifications contained within this document are subject to change without notice

RELIABLE DATA FIRST TIME EVERY TIME

OVERVIEW

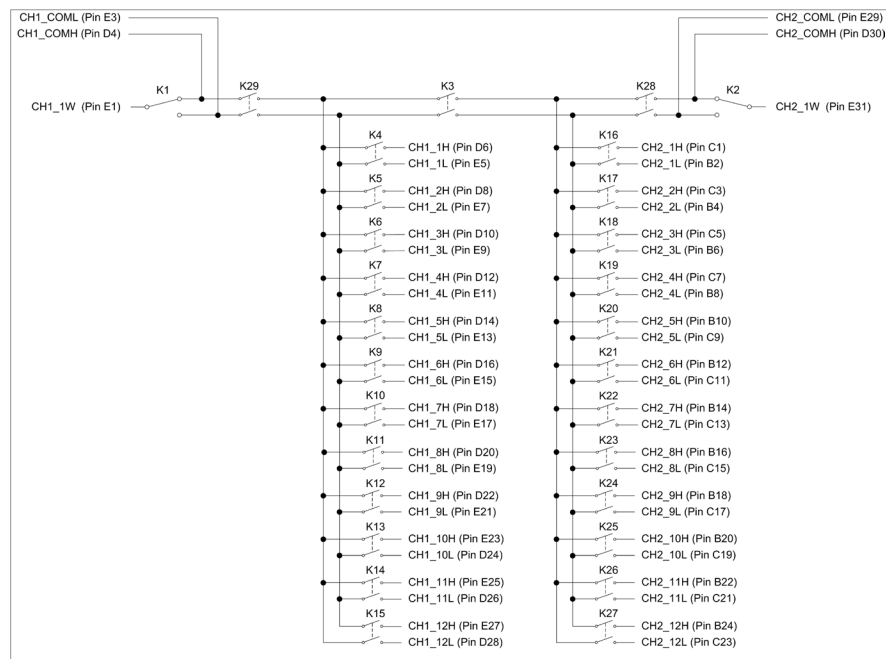
The EX1200-2007A is designed for scanning multiple high-voltage points to a common bus in either 1- or 2-wire configurations. It consists of two individual (1 x 12) 2-wire multiplexers or dual (1 x 24) 1-wire multiplexers that can be interconnected under program control (via bussing relays) to configure larger multiplexers as required. This reduces the need for external cabling and helps reduce unterminated stub effects.

When switching high voltages, the need for signal shielding becomes critical. The EX1200-2007A has been designed to include large shield planes that reduce crosstalk and voltage spikes to adjacent channels.

A fail-safe interrupt line is provided on the front panel that can be used when switching high-voltage source/measure units, or power supplies. This interrupt can be programmed to open up all relays automatically in the event of a fault condition and, thus instantly removing power from the user interface.

Up to 144 2-wire channels can be accommodated in a single EX1200 series 1U mainframe for maximum density, or combined with other EX1200 series modules to create a flexible system switch.

BLOCK DIAGRAM



General Specifications

CHANNEL COUNT	(1 x 24) 2-wire, dual (1 x 12) 2-wire, or dual (1 x 24) 1-wire
RELAY TYPE	Reed
MAXIMUM SWITCHING VOLTAGE	1000 V DC / 700 V AC rms
MAXIMUM SWITCHING CURRENT	1 A
MAXIMUM CARRYING CURRENT	2 A
MAXIMUM SWITCHING POWER	25 W (resistive load)
RATED SWITCH OPERATIONS	
Mechanical	5×10^8
Electrical	1×10^6 (full load)
SWITCHING TIME	< 1 ms
PATH RESISTANCE	< 1Ω
INSULATION RESISTANCE	> $1 \times 10^{10} \Omega$
BANDWIDTH (-3 dB)	60 MHz (typical)
CONNECTOR TYPE	160-pin DIN with interleaved connections

Notes:

The EX1200-2007A is intended to be used as a multiplexer only and not as a splitter (i.e. split a single input signal into multiple paths). Use of the EX1200-2007A as a splitter may cause damage to its circuitry.

Ordering Information

EX1200-2007A	48-channel 1000 V multiplexer
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)
70-0363-507	160-pin to 80-pin, unterminated cable assembly, 3 ft