## DATA SHEET



EX1200-4003
DUAL $4 \times 16$ TWO-WIRE MATRIX, 300 V/2 A

## eatures

Dual (4x16) 2-wire configuration
Configure as $(8 \times 16)$ or ( $4 \times 32$ ) under program control
switch up to $300 \mathrm{~V}, 2 \mathrm{~A}$ - highest at this density in its class

Highest-performance matrix in its class 45 MHz bandwidth, unmatched signal integrity

Extensive signal shielding employed on
CBs for excellent
signal fidelity
internal configuration relays can be used to construct larger building blocks (e.g. $8 \times 16$ )

EX1200 series can support $4 \times 192$, or $8 \times 96$ configurations in a full rack mainframe

## OVERVIEW

The EX1200-4003 high-density matrix module allows the user to connect any input row to any output column with a DPST relay at every row/column crosspoint. This architecture provides the framework for flexible switch system designs where multiple test instruments need to be connected to common test points. For example, a digital multimeter, counter/timer, and digitizer can be connected to the input rows and then each device can be connected to any of the output columns depending on the measurement function that is desired during the test. The connection between rows and columns occur internal to the module which greatly reduces external cabling

The smallest building block is a $(4 \times 16) 2$-wire matrix and rows and columns can easily be expanded to form larger matrices. A ( $4 \times 192$ ) 2-wire matrix can be accommodated in an EX1 200 series full rack mainframe. The two banks of matrices can be connected under program control to further simplify field wiring

Relays capable of switching up to 300 V and up to 2 A are used to maximize the range of application spaces that can be addressed with this module. All relays are failsafe which ensures that no undesired signals are present at the user interface in the case of power interruption


## General Specifications

CHANNEL COUNT
RELAY TYPE
MAXIMUM SWITCHING VOLTAGE
MAXIMUM SWITCHING CURRENT
MAXIMUM SWITCHING POWER
MINIMUM CONTACT RATING
RATED SWITCH OPERATIONS
Mechanical
Electrical
SWITCHING TIME
PATH RESISTANCE INSULATION RESISTANCE

MAXIMUM THERMAL OFFSET PER CHANNEL (HI-LO) BANDWIDTH (-3 dB)

CAPACITANCE
Open channel
Channel-mainframe
High-low
CROSSTALK (TYPICAL)
1 MHz
10 MHz
ISOLATION (TYPICAL)
1 MHz
10 MHz
CONNECTOR TYPE

Configurable as dual ( $4 \times 16$ ), or single ( $8 \times 16$ ) two-wire matrices
Electromechanical, fail-safe
300 V AC rms, 300 V DC
2 A
60 W DC, 62.5 VA
$100 \mu \mathrm{~V}$
$1 \times 10^{8}$
$1 \times 10^{5}$ at full load
$<5 \mathrm{~ms}$
$<500 \mathrm{~m} \Omega$
$>1 \times 10^{9} \Omega$
$<10 \mu \mathrm{~V}$
45 MHz (typical, $4 \times 16$ configuration)
< 90 pF
< 390 pF
< 170 pF
$<-55 \mathrm{~dB}$
$<-45 \mathrm{~dB}$
$<-60 \mathrm{~dB}$
$<-55 \mathrm{~dB}$
104-pin

## Ordering Information

EX1200-4003
ACCESSORIES AND TOOLS
70-0363-501
27-0389-104

27-0390-104
70-0297-001
70-0367-001

Dual $4 \times 16$ two-wire matrix, $300 \mathrm{~V} / 2 \mathrm{~A}$

104-pin HD D-sub mating connector and backshell, with 3 ft unterminated 22 AWG wire 104-pin HD D-sub mating connector with hood and pins, fixed contacts (no crimp tool required)

104-pin HD D-sub mating connector, backshell and pins, crimp style
Crimp tooling, includes handle and positioner, 22 AWG
EX1200-TB104, differential module

