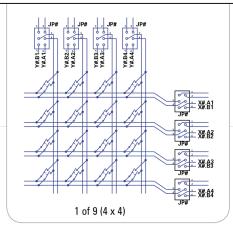


## SMP4001/2/3/4/5/6/7



# Features

SMP4001 9 (4x4) 2-Wire Matrices SMP4002 1 (4x36) 2-Wire Matrix SMP4003 2 (4x16) 2-Wire and 1 (4x4) 2-Wire Matrix

SMP4004 1 (8x16) 2-Wire and

1 (4x4) 2-Wire Matrix

SMP4005 1 (12x12) 2-Wire Matrix SMP4006 3 (4x12) 2-Wire Matrices SMP4007 2 (8x8) 2-Wire Matrices SMP4001-S-xxxx User-defined

Highest Density 2 A Matrix Available on the Market (4x216 in 2 VXIbus Slots)

Extensive Signal Shielding Employed on PCBs for Excellent Signal Fidelity

Matrices Built up Using 4x4 Building Blocks for Configuration Flexibility

2 A Switching per Path

#### 2 A Matrix Switching

### **N** verview

The SMP4000 series high-density matrix modules allow the user to connect any row to any column.

The smallest building block is a (4x4) 2-wire matrix, and rows and columns can easily be expanded to form larger matrices. A (4x216) 2-wire matrix can be accommodated in a double-slot VXIbus card (SM1200).

Various configurations are shipped from the factory, and the user also has the capability to define a custom configuration using the available 9 (4x4) building blocks.

Complete block diagrams for each configuration can be found in the SMIP/ $I^{\text{TM}}$  manual.

#### **Specifications**

Maximum Switching Voltage: 300 V ac, 300 V dc

Maximum Switching Current: 2 A

Maximum Switching Power: 60 W dc, 125 VA

**Path Resistance**:  $<500 \text{ m}\Omega$ 

Insulation Resistance:  $>1x10^9 \Omega$ 

**Maximum Thermal Offset** 

per Channel (HI-LO): <7 µV

Capacitance:

Open Channel <50 pF Channel-Mainframe <80 pF High-Low <50 pF

**Bandwidth (-3 dB):** >45 MHz (SMP4001)

>30 MHz (SMP4005)

Insertion Loss:

100 kHz: <0.1 dB 1 MHz: <0.2 dB 10 MHz: <1.0 dB

Crosstalk:

100 kHz: <-80 dB 1 MHz: <-70 dB 10 MHz: <-50 dB

Isolation:

 100 kHz:
 <-80 dB</td>

 1 MHz:
 <-60 dB</td>

 10 MHz:
 <-50 dB</td>

**Rated Switch Operations:** 

Mechanical: 1x10<sup>7</sup>

Electrical: 5 x10<sup>5</sup> at full load

Switching Time: <3 ms