

# 7012-C 7012-S

## 4x10 Matrix Cards



- 4x10 2-pole matrix
- Available with screw terminal or mass terminated connections
- Rows connect to 7001/7002 backplane for easy matrix expandability
- 500nV, 100pA offsets

### Ordering Information

**7012-C** 4x10, 2-Pole Matrix with 96-Pin Mass Terminated Connector Board

**7012-S** 4x10, 2-Pole Matrix with Screw Terminal Connector Board

### ACCESSORIES AVAILABLE

**FOR 7012-C**

- 7011-KIT-R 96-Pin Female Connector Kit
- 7011-MTC-1 96-Pin Mass Terminated Cable, Female to Female, 1m
- 7011-MTC-2 96-Pin Mass Terminated Cable, Female to Female, 2m
- 7011-MTR 96-Pin Male Connector Kit

**FOR 7012-S**

- 7012-ST Extra Screw Terminal Connection Board

The 7012 provides 4 rows by 10 columns of 2-pole matrix switching. The four rows of this card can be connected to the analog backplane within the 7001 or 7002 to make a larger matrix (4x20) or use it with the 7011 multiplexer card for greater flexibility through row expansion. Each row is connected to the backplane with its own jumpers that can be removed to isolate an individual row from the backplane.

**MATRIX CONFIGURATION:** 4 rows by 10 columns. Jumpers can be removed to isolate any row from the backplane.

**CONTACT CONFIGURATION:** 2-pole Form A (Hi, Lo).

**CONNECTOR TYPE:**

**7012-C:** 96-pin male DIN connector.

**7012-S:** Screw terminal, #16AWG maximum wire size, with .092 inch O.D. 28 conductors per card maximum. #22AWG typical wire size with .062 inch O.D. 88 conductors per card maximum.

**MAXIMUM SIGNAL LEVEL:**

**DC Signals:** 110V DC between any two pins, 1A switched, 30VA (resistive load).

**AC Signals:** 125V rms and 175V AC peak, between any two pins, 1A switched, 60VA (resistive load).

**COMMON MODE VOLTAGE:** 175V peak, any pin to chassis.

**CONTACT LIFE: Cold Switching:** 10<sup>8</sup> closures. **At Maximum Signal Levels:** 10<sup>5</sup> closures.

**CHANNEL RESISTANCE (per conductor):** <1Ω.

**CONTACT POTENTIAL:**

**7012-C:** <1μV per channel contact pair  
<3μV typical per single contact.

**7012-S:** <500nV per channel contact pair  
<1.5μV typical per single contact.

**OFFSET CURRENT:** <100pA.

**ACTUATION TIME:** 3ms.

**ISOLATION: Path:** >10<sup>9</sup>Ω, <50pF. **Differential:** >10<sup>9</sup>Ω, <200pF. **Common Mode:** >10<sup>9</sup>Ω, <400pF.

**CROSSTALK (1MHz, 50Ω Load):** <-40dB.

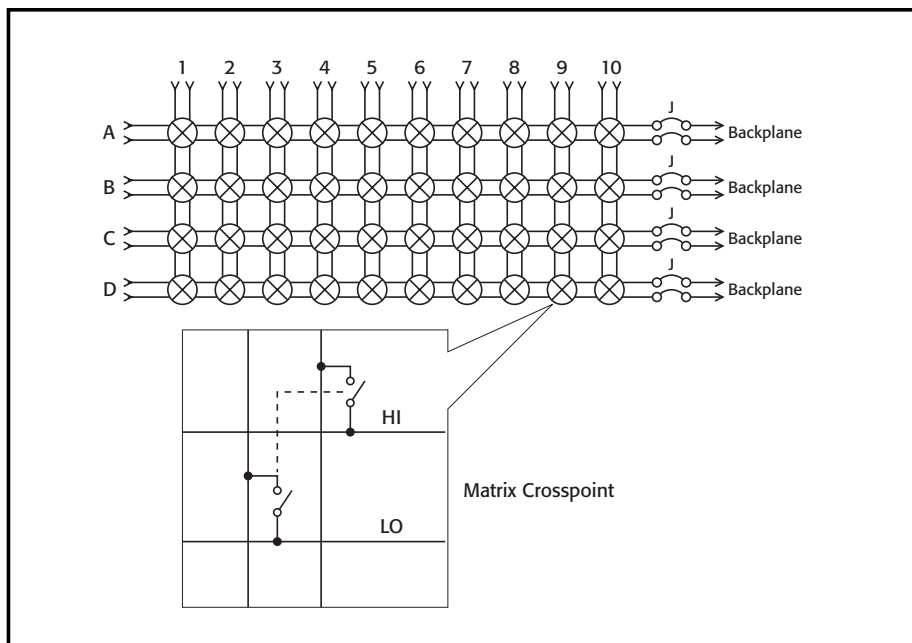
**INSERTION LOSS (50Ω Source, 50 Load):** <0.1dB below 1MHz, <3dB below 2MHz.

**RELAY DRIVE CURRENT (per relay):** 16mA.

**EMC:** Conforms to European Union Directive 89/336/EEC.

**SAFETY:** Conforms to European Union Directive 73/23/EEC (meets EN61010-1/IEC 1010).

**ENVIRONMENT: Operating:** 0° to 50°C, up to 35°C <80% RH. **Storage:** -25°C to 65°C.



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