

7709 6x8 Matrix Module

GENERAL

MATRIX CONFIGURATION: 6 rows \times 8 columns.
CONTACT CONFIGURATION: 2 pole Form A.
FIRMWARE: Specified for Model 2700 rev. B03 and Model 2750 rev. A01.
RELAY TYPE: Latching electromechanical.
ACTUATION TIME: <3ms.

CAPABILITIES

DMM CONNECTION:

2-Wire Functions

Row 1, channels 1–8, through channel 50.

4-Wire Functions

Row 1, channels 1–4 (Input) through channel 50 and Row 2, channels 13–16 (Sense), through channel 49.

CLOSE CHANNEL: CLOSE command connects channels 1–8 to DMM. For 4-wire, channels 1–4 are automatically paired with channels 13–16. **ROUTE:MULTIPLE** allows any combination of rows and columns to be connected at the same time.

INPUTS

MAXIMUM SIGNAL LEVEL: Any Channel to Any Channel (1–48): 300VDC or 300Vrms (425V peak) for AC waveforms, 1A switched, 60W, 125VA maximum.

SAFETY: Conforms to European Union Directive 73/23/EEC EN61010-1, CAT I.

CONTACT LIFE (typ): $>10^5$ operations at max signal level.
 $>10^8$ operations no load.¹

CONTACT RESISTANCE: <1 Ω any path and additional 1 Ω at end of contact life.

CONTACT POTENTIAL: <3 μ V per contact pair.

OFFSET CURRENT: <100pA.

CONNECTOR TYPE: 50-pin female D-shell for rows and columns.
 25-pin female D-shell for “daisy-chain” rows.
 Supplied with male IDC ribbon cable connectors.

ISOLATION BETWEEN ANY TWO TERMINALS: $>10^9$, <200pF

ISOLATION BETWEEN ANY TERMINAL AND EARTH: $>10^9$, <400pF

CROSSTALK (1MHz, 50 Ω Load): <-35dB.

INSERTION LOSS (50 Source, 50 Load): <0.35dB below 1MHz.
 <3dB below 2MHz.

COMMON MODE VOLTAGE: 300VDC or 300Vrms (425V peak) for AC waveforms between any terminal and chassis.

ENVIRONMENTAL:

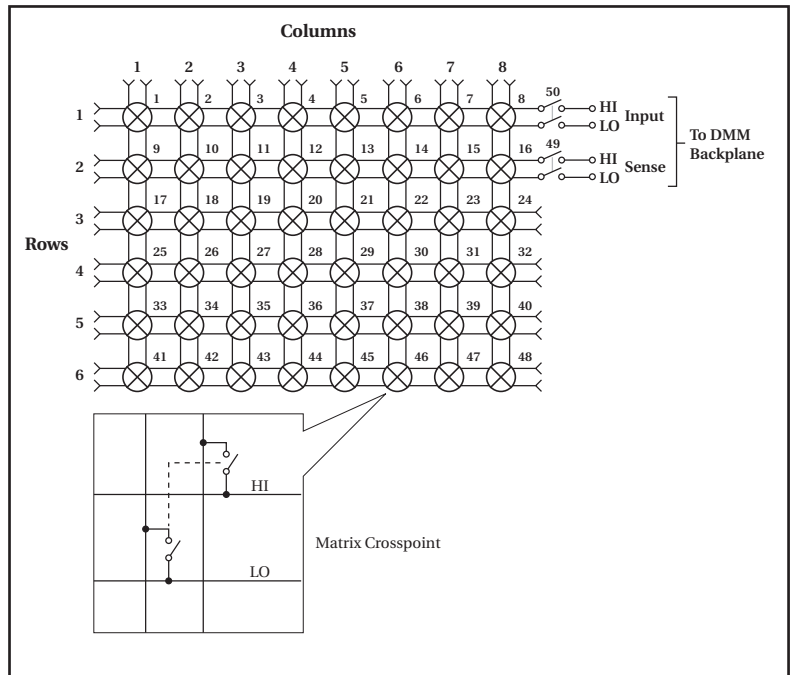
OPERATING ENVIRONMENT: Specified for 0°C to 50°C.
 Specified to 50% R.H. at 35°C.

STORAGE ENVIRONMENT: -25°C to 65°C.

WEIGHT: <0.52kg (1.16 lb).

ACCESSORIES AVAILABLE:

Model 7789 50/25 Pin Male D-Shell Solder Cup Connectors
 Model 7790 50/50/25 Pin Female/Male D-Shell IDC Connectors



1. Minimum signal level 10mV, 10uA.