

**7707**

- 300V, 1A capacity; 60W, 125VA maximum (analog)
- 33V, 100mA capacity (digital)
- Digital outputs are short circuit protected
- Relay closures stored in onboard memory

**Ordering Information**

**7707 32-channel Digital I/O Module with 10-channel Differential Multiplexer**

**Accessories Supplied**  
Two mating IDC connectors

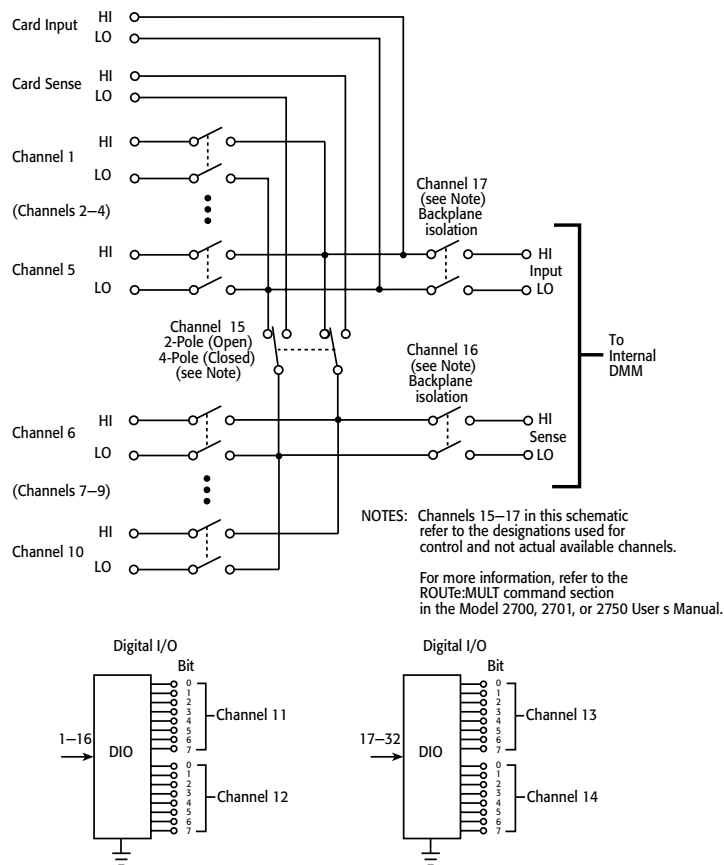
**SERVICES AVAILABLE**

7707-3Y-EW 1-year factory warranty extended to 3 years from date of shipment

## 32-channel Digital I/O Module with 10-channel Differential Multiplexer



The Model 7707 plug-in module offers 10 channels of 2-pole or 5 channels of 4-pole multiplexer switching that can be configured as two independent banks of multiplexers. The Model 7707 also provides 32 digital input/output channels (four 8-bit ports) for I/O control. Connect the Model 7707 to industry standard solid-state relays to switch up to 980VA.

**CAPABILITIES**

**CHANNELS 1–10:** Multiplex one of 10 2-pole or one of 5 4-pole signals into DMM.

**CHANNELS 11–14:** 32 Digital Inputs/Outputs referenced to chassis ground.

**THERMAL PROTECTION:** Channels 11–14 are thermally protected to 1A.

**INPUTS (Channels 1–10)**

**MAXIMUM SIGNAL LEVEL:** Any Channel to Any Channel (1–10): 300VDC or 300Vrms (425V peak) for AC waveforms, 1A switched, 60W, 125VA maximum.

**SAFETY CATEGORY:** Conforms to European Union Directive 73/23/EEC EN 61010-1, CAT I.

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

<sup>1</sup> Minimum signal level 10mV, 10 $\mu$ A.

**CONTACT RESISTANCE:**  $<1\Omega$  any path and additional  $1\Omega$  at end of contact life.

**CONTACT POTENTIAL:**  $<6\mu$ V typical per contact pair and additional 5 $\mu$ V with Channels 11–14 at rate  $V_{OUT}(L)$ .

**OFFSET CURRENT:**  $<100$ pA.

**CONNECTOR TYPE:** 50-pin male D-shell, Channels 11–14. 25-pin female D-shell, Channels 1–10. Supplied with female and male IDC ribbon cable connectors.

**ISOLATION BETWEEN ANY TWO TERMINALS:**  $>10^9\Omega$ ,  $<100$ pF with isolation channels 16 and 17 open.

**ISOLATION BETWEEN ANY TERMINAL AND EARTH:**  $>10^9\Omega$ ,  $<200$ pF.

**CROSS TALK (10MHz, 50 $\Omega$  Load):**  $<-35$ dB.

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

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

**DIGITAL INPUT/OUTPUT (Channels 11–14)**

$V_{IN}(L)$ :  $<0.8$ V (TTL).

$V_{IN}(H)$ :  $>2$ V (TTL).

$V_{OUT}(L)$ :  $<1.0$ V @  $I_{OUT} = 100$ mA.

$V_{OUT}(H)$ :  $>2.4$ V @  $I_{OUT} = 1$ mA.

$V_{OUT}(H)$ MAX.:  $<40$ V with external open drain pull-up.

READ/WRITE SPEED: 50/s.

**GENERAL**

**10 CHANNELS:** 10 channels of 2-pole relay input.

All channels configurable to 4-pole.

**RELAY TYPE:** Latching electromechanical.

**ACTUATION TIME:**  $<3$ ms.

**FIRMWARE:** Specified for Model 2700 rev. B03, 2701 rev. A01, and 2750 rev. A01 or higher.

**CAPACITY:** Model 2700: (1) 7707 and (1) 77XX, except 7706.

Model 2701: Any combination of 77XX modules.

Model 2750: (4) 7707 and (1) 77XX, except 7706.

A 7706 module may be substituted for a 7707 module.

**ENVIRONMENTAL**

**OPERATING ENVIRONMENT:** Specified for 0°C to 50°C.

Specified to 50% R.H. at 35°C.

**STORAGE ENVIRONMENT:**  $-25^\circ\text{C}$  to  $65^\circ\text{C}$ .

**WEIGHT:**  $<0.5$ kg (1.1 lbs).

**ACCESSORIES AVAILABLE**

7790	50/50/25 Pin Female/Male D-Shell IDC Connectors
7705-MTC-2	50 Pin Male to Female D-sub Cable, 2m (6.6 ft).
7707-MTC-2	25 Pin Male to Female D-sub Cable, 2m (6.6 ft).

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