

# 7707

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

- 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**

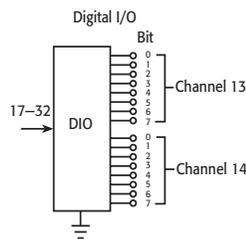
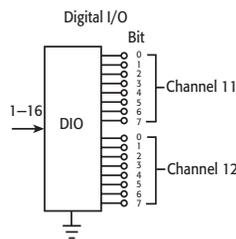
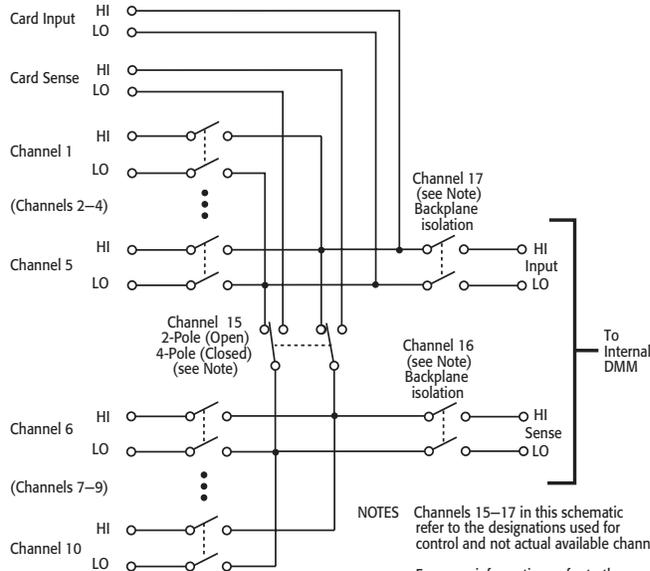
**Accessories Supplied**  
**Two mating IDC connectors**

### SERVICES AVAILABLE

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



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<sup>5</sup> operations at max. signal level: >10<sup>8</sup> operations no load<sup>1</sup>.

<sup>1</sup> Minimum signal level 10mV, 10μA.

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

**CONTACT POTENTIAL:** <6μV typical per contact pair and additional 5μV with Channels 11–14 at rate V<sub>OUT(L)</sub>.

**OFFSET CURRENT:** <100pA.

**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<sup>9</sup>Ω, <100pF with isolation channels 16 and 17 open.

**ISOLATION BETWEEN ANY TERMINAL AND EARTH:** >10<sup>9</sup>Ω, <200pF.

**CROSS TALK (10MHz, 50Ω Load):** <–35dB.

**INSERTION LOSS (50Ω Source, 50Ω Load):** <0.1dB below 1MHz. <3dB 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<sub>IN(L)</sub>: <0.8V (TTL).

V<sub>IN(H)</sub>: >2V (TTL).

V<sub>OUT(L)</sub>: <1.0V @ I<sub>OUT</sub> = 100mA.

V<sub>OUT(H)</sub>: >2.4V @ I<sub>OUT</sub> = 1mA.

V<sub>OUT(H)MAX.</sub>: <40V 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:** <3ms.

**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°C to 65°C.

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

### ACCESSORIES AVAILABLE

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

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