

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

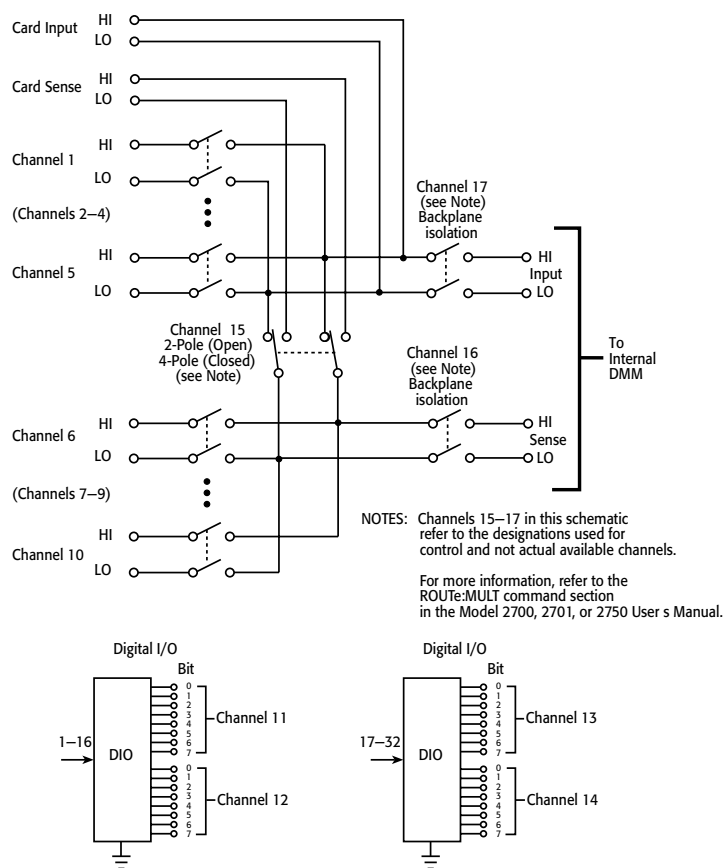
SERVICES AVAILABLE

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 load¹.

¹ Minimum signal level 10mV, 10 μ A.

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

CONTACT POTENTIAL: $<6\mu$ V typical per contact pair and additional 5 μ 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 Ω Load): <-35 dB.

INSERTION LOSS (50 Ω Source, 50 Ω 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°C to 65°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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