

MODEL 2750 MULTIMETER/SWITCH SYSTEM

SWITCH/CONTROL MODULE SPECIFICATIONS

7701

7701 Low-Voltage 32-Channel Differential Multiplexer

Features

- Configurable for 32 channels of differential measurements, with up to 16 channels of 4-pole measurements.
- Configurable for 32 channels of common-side 4-wire ohms.
- Configurable as two independent banks of multiplexers.
- Two female D-shell connectors are standard for secure hook-up and quick teardown.
- 150V, 1A capacity for voltage channels; 60W, 125VA.
- Two mating IDC connectors for ribbon cable (Model 7790) are supplied.
- Relay closures stored in on-board memory.
- Screw terminal jumpers allow user-configurable DMM connections.

GENERAL

32 CHANNELS: 32 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 and Model 2750 rev. A01.

DMM CONNECTIONS: Screw terminals provide internal DMM connections to channels 34 and 35 and connections to external wiring access.

CAPABILITIES

CHANNELS 1–32: Multiplex one of 32 2-pole or one of 16 4-pole signals into DMM. Configuration supports dual 1×16 independent multiplexers.

INPUTS

MAXIMUM SIGNAL LEVEL: Any channel to Any Channel (1–32): 150V DC or 150Vrms (212V 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): >10⁵ operations at max signal level.
>10⁸ operations cold switching.

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

CONTACT POTENTIAL: <6μV per contact pair.

OFFSET CURRENT: <100pA.

CONNECTOR TYPE: 50-pin female D-shell, Channels 1–24.
25-pin female D-shell, Channels 25–32.
Supplied with male IDC ribbon cable connectors.

ISOLATION BETWEEN ANY TWO TERMINALS: >10⁹Ω, <200pF.

ISOLATION BETWEEN ANY TERMINAL AND EARTH: >10⁹Ω, <400pF.

CROSS TALK (1MHz, 50Ω Load): <–35dB.

INSERTION LOSS (50Ω Source, 50Ω 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:

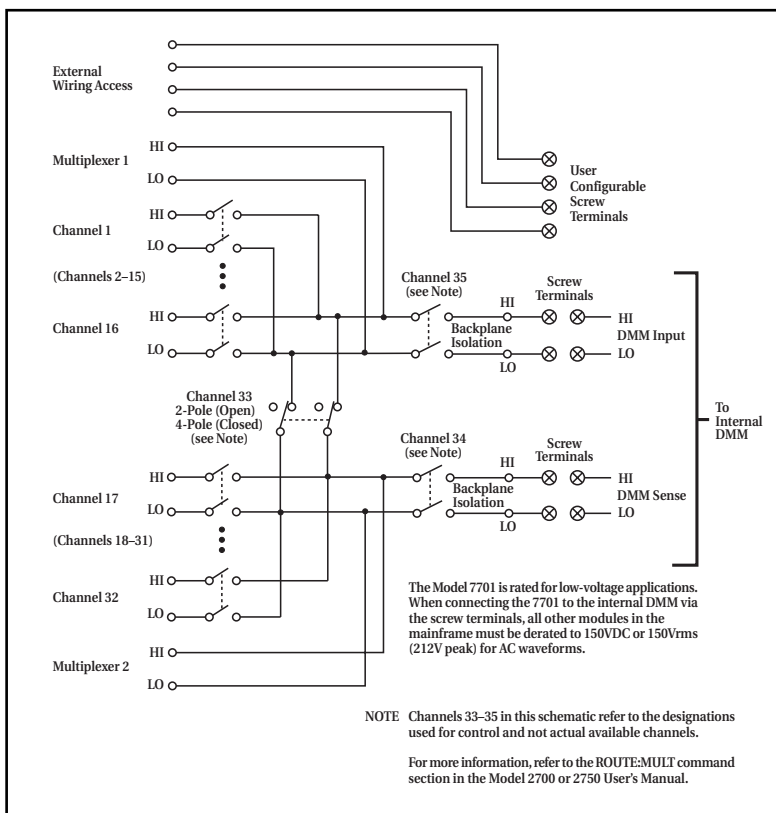
OPERATING ENVIRONMENT: Specified for 0°C to 50°C.
Specified to 50% R.H. at 35°C.

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



See page 36 for common-side 4-wire ohms configuration example.