

# 7701

# 32-channel Differential Multiplexer Module

- Configurable for 32 channels of differential measurements, with up to 16 channels of 4-pole measurements
- Two female D-shell connectors are standard for secure hook-up and quick teardown
- 150V, 1A capacity for voltage channels; 60W, 125VA
- Relay closures stored in onboard memory
- Screw terminal jumpers allow user-configurable DMM connections

## Ordering Information

**7701** 32-channel, Differential Multiplexer Module

### Accessories Supplied

Two mating IDC connectors for ribbon cable



The Model 7701 plug-in module offers 32 channels of 2-pole or 16 channels of 4-pole multiplexer switching. Its 32 channels can be configured for common-side 4-wire ohms. They can also be configured as two independent banks of multiplexers. It is ideal for RTD or thermistor temperature applications.

### CAPABILITIES

**CHANNELS 1–32:** Multiplex one of 32 2-pole or one of 16 4-pole signals into DMM. Configuration supports dual 1x16 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):** >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 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:** >10<sup>9</sup>Ω, <200pF.

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

### 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, Model 2701 rev. A01, and Model 2750 rev. A01 or higher.

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

### 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.

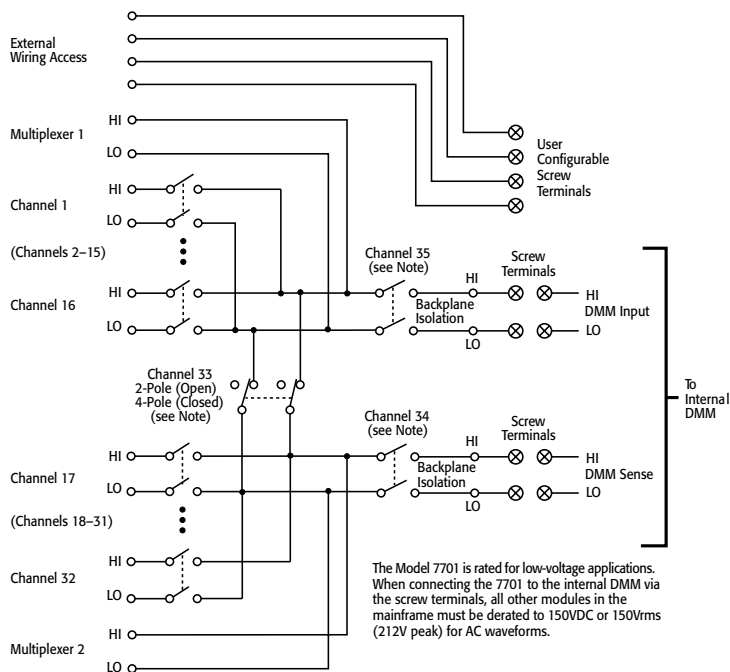
**WEIGHT:** <0.52kg (1.16 lb).

### ACCESSORIES AVAILABLE

7789	50/25 Pin Male D-Shell Solder Cup Connectors
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).

### SERVICES AVAILABLE

7701-3Y-EW	1-year factory warranty extended to 3 years from date of shipment
------------	---



NOTE: Channels 33–35 in this schematic refer to the designations used for control and not actual available channels.

For more information, refer to the ROUTE:MULT command section in the Model 2700, 2701, or 2750 User's Manual.

1.888.KEITHLEY (U.S. only)

www.keithley.com

A Greater Measure of Confidence

**KEITHLEY**

A Tektronix Company

Use with Integra Series mainframes: 2700, 2701, 2750

DIGITAL MULTIMETERS & SYSTEMS