

7701 32-channel Differential Multiplexer Module

Datasheet

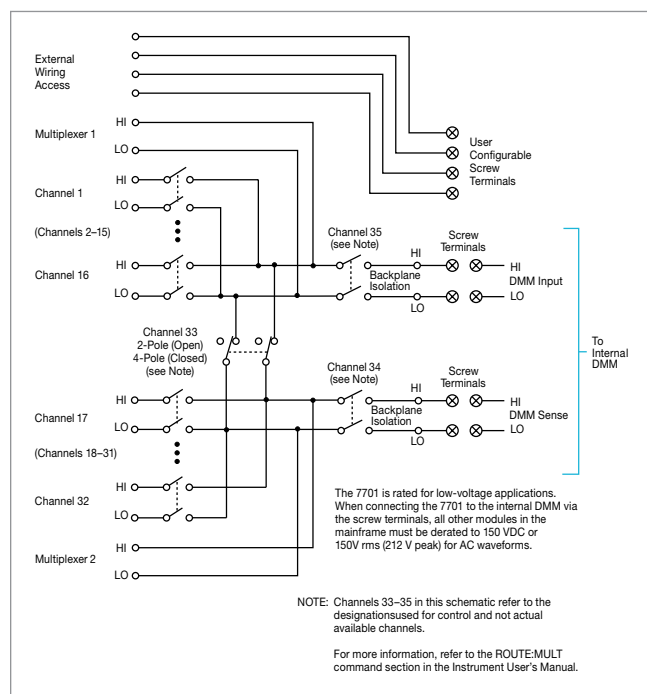


KEITHLEY
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The 7701 plug-in module offers 32 channels of 2-pole or 16 channels of 4-pole multiplexer switching. Its 32 channels can be configured for common-side 4-wire ohms. They can also be configured as two independent banks of multiplexers. It is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

Key Features

- 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
- 150 V, 1 A capacity for voltage channels; 60 W, 125 VA
- Relay closures stored in onboard memory
- Screw terminal jumpers allow user-configurable DMM connections



Specifications

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): 150 V DC or 150 Vrms (212 V peak) for AC waveforms, 1 A switched, 60 W, 125 VA maximum.

Contact Life (typ): >10⁵ operations at max. signal level.
>10⁸ operations no load¹.

1. Minimum signal level 10 mV, 10 μ A.

Contact Resistance <1 Ω any path and additional 1 Ω at end of contact life.

Contact Potential <6 μ V per contact pair.

Offset Current <100 pA.

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

>10⁹ Ω , <200 pF.

Isolation Between Any Terminal and Earth

>10⁹ Ω , <400 pF.

Cross Talk (1 MHz, 50 Ω Load)

<–35 dB.

Insertion Loss (50 Ω Source, 50 Ω Load)

<0.35 dB below 1 MHz. <3 dB below 2 MHz.

Common Mode Voltage

300 VDC or 300 Vrms (425 V 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 <3 ms.

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

Environmental and Safety

Operating Environment: Specified for 0° to 50°C. Specified to 80% R.H. at 35°C.

Storage Environment: –25° to 65°C.

EMC: Conforms to European Union EMC Directive.

Safety: Conforms to European Union Low Voltage Directive

RoHS: Conforms to European Union RoHS Directive

Weight

<0.52 kg (1.16 lb).

Supplied Accessories

7709-306A 50-pin D-Sub Male IDC Connector Kit

7709-307A 25-pin D-Sub Male IDC Connector Kit

J-15 Jumper Wires, quantity 4

Available Accessories

7789 50-pin male, 25-pin male D-shell solder cup connectors

7790 50-pin male, 50-pin female, 25-pin male D-shell IDC connectors

Available Services

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

Ordering Information

7701 32-channel, Differential Multiplexer Module

Warranty 1 year

Contact Information:

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