

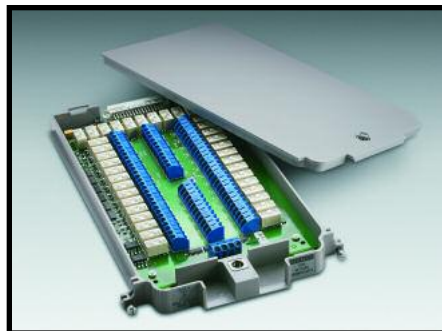
7708

40-Channel Differential Multiplexer Module with Automatic CJC and Screw Terminals

- 40 differential channels for general-purpose measurements
- Two- or four-wire measurements
- 300V, 1A capacity for voltage channels; 60W, 125VA
- Oversize screw terminal connection blocks are standard for easier connection
- Relay closures stored in onboard memory

Ordering Information

7708 40-Channel Differential Multiplexer Module with Automatic CJC and Screw Terminals



The Model 7708 plug-in module offers 40 channels of 2-pole or 20 channels of 4-pole multiplexer switching that can be configured as two independent banks of multiplexers. The built-in CJC sensors automatically linearize thermocouples, making the Model 7708 ideal for RTD, thermistor, and thermocouple temperature applications. It is also well suited for mixed-signal measurement applications that require multi-point monitoring, such as environmental stress screening.

CAPABILITIES

CHANNELS 1–40: Multiplex one of 40 2-pole or one of 20 4-pole signals into DMM.

INPUTS

MAXIMUM SIGNAL LEVEL:

Channels (1–40): 300V DC or rms, 1A switched, 60W, 125VA maximum.

CONTACT LIFE (typ): $>10^5$ operations at max. signal level.
 $>10^8$ operations cold switching.

CONTACT RESISTANCE: $<1\Omega$ at end of contact life.

CONTACT POTENTIAL:

$<\pm 500\text{nV}$ typical per contact, $1\mu\text{V}$ max.
 $<\pm 500\text{nV}$ typical per contact pair, $1\mu\text{V}$ max.

OFFSET CURRENT: $<100\text{pA}$.

CONNECTOR TYPE: Screw terminal, #20 AWG wire size.

ISOLATION BETWEEN ANY TWO TERMINALS: $>10^{10}\Omega$, $<100\text{pF}$.

ISOLATION BETWEEN ANY TERMINAL AND EARTH: $>10^9\Omega$, $<200\text{pF}$.

CROSS TALK (10MHz, 50 Ω Load): $<-40\text{dB}$.

INSERTION LOSS (50 Ω Source, 50 Ω Load): $<0.1\text{dB}$ below 1MHz. $<3\text{dB}$ below 2MHz.

COMMON MODE VOLTAGE: 300V between any terminal and chassis.

TEMPERATURE ACCURACY USING INTERNAL CJC: 1.0°C (see mainframe specification for details).

GENERAL

40 CHANNELS: 40 channels of 2-pole relay input. All channels configurable to 4-pole.

RELAY TYPE: Latching electromechanical.

ACTUATION TIME: $<3\text{ms}$.

FIRMWARE: Specified for Model 2700 rev. B02, 2701 rev. A01, and 2750 rev. A01 or higher.

ENVIRONMENTAL

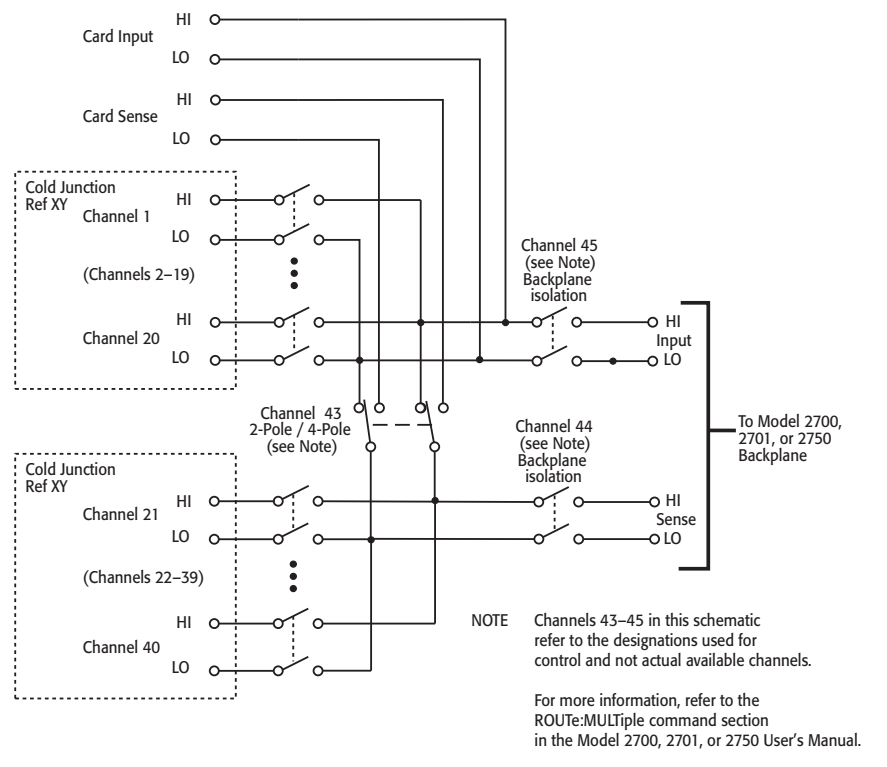
OPERATING ENVIRONMENT: Specified for 0°C to 50°C .
Specified to 80% R.H. at 35°C .

STORAGE ENVIRONMENT: -25°C to 65°C .

WEIGHT: 0.52kg (1.16 lb).

ACCESSORIES AVAILABLE

7401 Type K Thermocouple Wire, 30.5m (100 ft).



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