7708

- 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: Multiple 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.
  - >10^5 operations cold switching.
- CONTACT RESISTANCE:
  - <1 Ω at end of contact life.
- CONTACT POTENTIAL:
  - <±500nV typical per contact, 1μV max.
  - <±500nV typical per contact pair, 1μV max.
- OFFSET CURRENT:
  - <100pA.

**ISOLATION BETWEEN ANY TWO TERMINALS:**

- >10^3Ω

**ISOLATION BETWEEN ANY TERMINAL AND EARTH:**

- >10^9Ω

**CROSS TALK (10MHz, 50Ω Load):**

- <–40dB

**INSERTION LOSS (50Ω Source, 50Ω Load):**

- <3dB 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:
  - <5ms.
- 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).

For more information, refer to the ROUTe:MULTiple command section in the Model 2700, 2710, or 2750 User’s Manual.