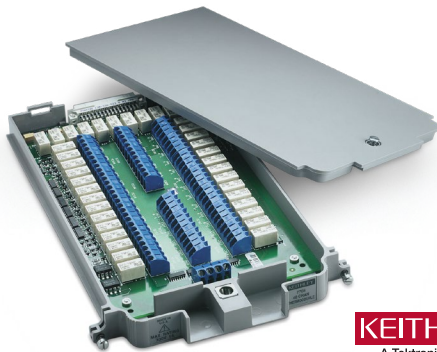


7708 40-channel, Differential Multiplexer Module

with Automatic CJC and Screw Terminals

Datasheet

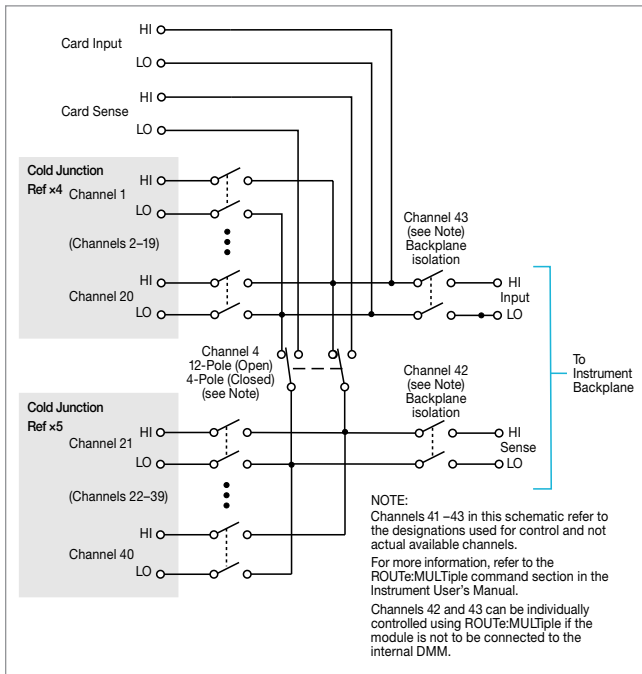


KEITHLEY
A Tektronix Company

The 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 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.

Key Features

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



Specifications

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) 300 V DC or rms, 1 A switched, 60 W, 125 VA maximum.

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

1. Open thermocouple detector on during thermocouple measurements. Minimum signal level 10 mV, 10 μA.

Contact Resistance <2 Ω at end of contact life.

Contact Potential <±500 nV typical per contact, 1 μV max.
<±500 nV typical per contact pair, 1 μV max.

Offset Current <100 pA.

Connector Type Screw terminal, #20 AWG wire size.

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)

<-40 dB.

Insertion Loss (50 Ω Source, 50 Ω Load)

<0.1 dB below 1 MHz. <3 dB below 2 MHz.

Common Mode Voltage

300 V between any terminal and chassis.

General

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

Relay Type Latching electromechanical.

Actuation Time <3 ms.

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

CC-92-1 Set of 20 Cable Ties

TL-23 Screwdriver

Available Accessories

7708-3Y-EW 1-year factory warranty extended to 3 years from date of shipment

Ordering Information

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

Warranty 1 year

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