

# 7708 40-Channel Differential Multiplexer w/Automatic CJC

## GENERAL

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

**RELAY TYPE:** Latching electromechanical.

**ACTUATION TIME:** <3ms.

Specified for Model 2700, firmware revision BO2 or later.

## CAPABILITIES

**CHANNELS 1–40:** Multiplex one of 40 2-pole or one of 20 4-pole signals into DMM. Configuration supports dual 1–20 independent multiplexers.

## INPUTS

### MAXIMUM SIGNAL LEVEL:

**Channels (1–40):** 300V DC or rms, 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>

**CONTACT RESISTANCE:** <2 Ω at end of contact life.

**CONTACT POTENTIAL:** <±500nV typical per contact, 1μV max.  
<±500nV typical per contact pair, 1μV max.

**OFFSET CURRENT:** <100pA.

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

**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, 50 Ω Load):** <-40dB.

**INSERTION LOSS (50 Ω Source, 50 Ω Load):** <0.35dB below 1MHz.  
<3dB below 2MHz.

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

**T/C COLD JUNCTION:** 1.0°C (18°–28°C Mainframe Temp)  
1.5°C (0°–18°C & 28°–50°C Mainframe Temp).

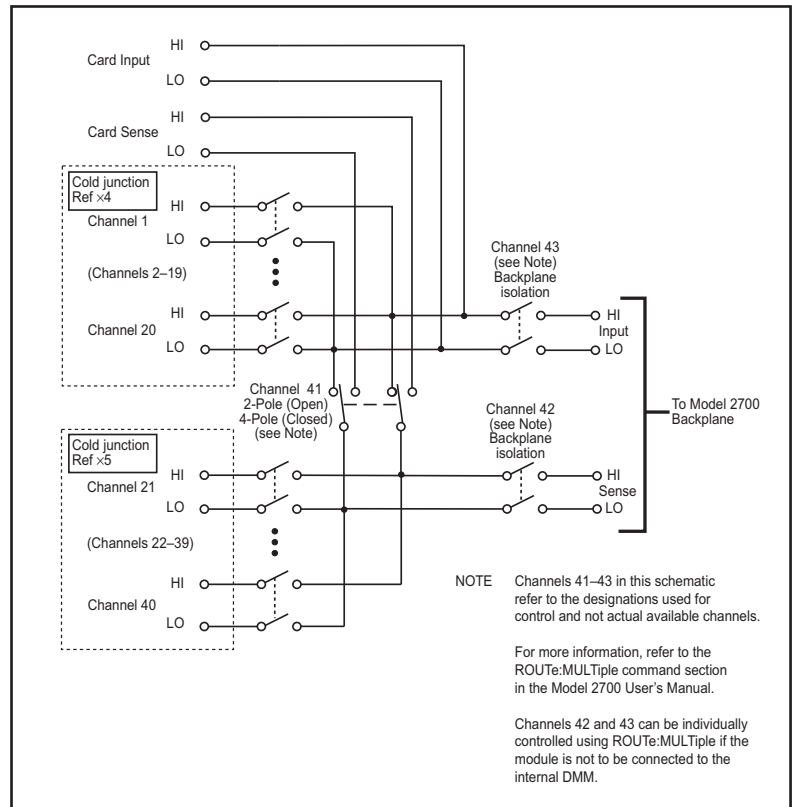
## ENVIRONMENTAL:

**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).

Specifications are subject to change without notice.



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