

# 7702 40-Channel Differential Multiplexer

## GENERAL

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

**2 CHANNELS:** 2 channels of current only input.

**RELAY TYPE:** Latching electromechanical.

**ACTUATION TIME:** <3ms.

## CAPABILITIES

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

**CHANNELS 41-42:** Multiplex one of 2 2-pole current signals into DMM.

## INPUTS

### MAXIMUM SIGNAL LEVEL:

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

**Channels (41-42):** 60V DC or 30V rms, 3A switched, 60W, 125VA maximum.

**CONTACT LIFE (typ):** >10<sup>9</sup> operations at max signal level.  
>10<sup>8</sup> operations no load.<sup>1</sup>

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

**CONTACT POTENTIAL:** < $\pm$ 500nV typical per contact, 1 $\mu$ V max.  
< $\pm$ 500nV typical per contact pair, 1 $\mu$ V max.

**OFFSET CURRENT:** <100pA.

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

**ISOLATION BETWEEN ANY TWO TERMINALS:** >10<sup>10</sup>, <100pF

**ISOLATION BETWEEN ANY TERMINAL AND EARTH:** >10<sup>9</sup>, <200pF

**CROSS TALK (10MHz, 50 Load):** <-40dB.

**INSERTION LOSS (50 Source, 50 Load):** <0.1dB below 1MHz.  
<3dB below 2MHz.

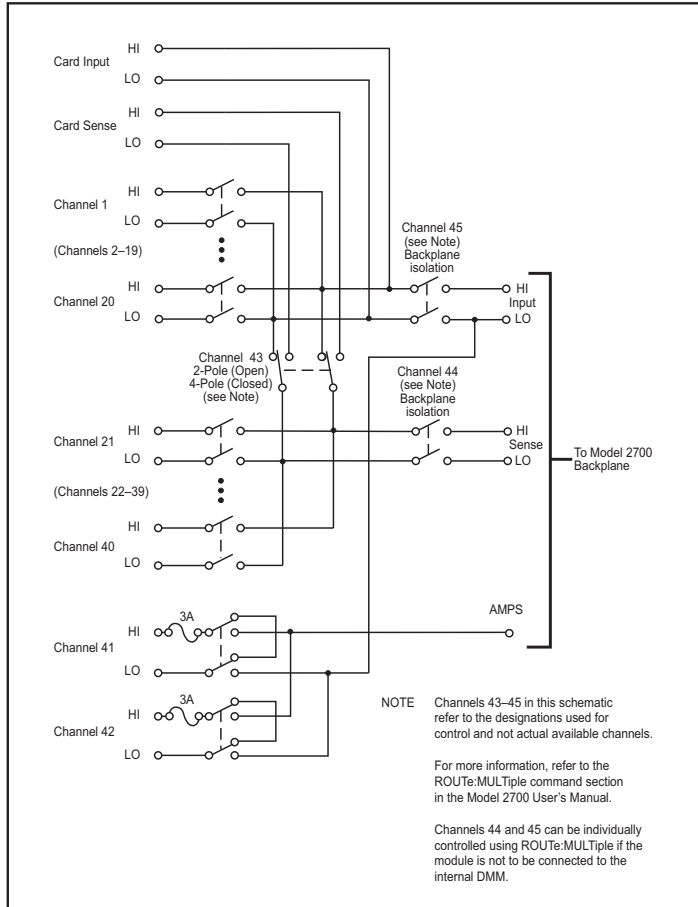
**COMMON MODE VOLTAGE:** 300V between any terminal and chassis.

## 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:** 0.5kg (1.1 lb).



Specifications subject to change without notice.

1. Minimum signal level 10mV, 10uA.