

# MODEL 2700 MULTIMETER/DATA ACQUISITION SYSTEM

## SWITCH/CONTROL MODULE SPECIFICATIONS

### Model 7702 40-Channel Differential Multiplexer

#### Features

- There are 40 channels for general-purpose measurement, plus 2 channels to measure current.
- 2- or 4-wire measurement.
- Oversize screw terminal connection blocks are standard for easier connection.
- 300V, 1A capacity for voltage channels; 60W, 125VA.
- 3A capacity for current channels.

#### 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>5</sup> operations at max signal level.  
>10<sup>6</sup> operations cold switching.

**CONTACT RESISTANCE:** <1Ω 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>10</sup>Ω, <100pF.

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

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

**INSERTION LOSS (50Ω Source, 50Ω 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).

