

## SWITCH/CONTROL MODULE SPECIFICATIONS

### Model 7703 32-Channel High Speed Differential Multiplexer

#### Features

- There are 32 channels for general purpose measurement.
- Relay actuation time of less than 1ms for high-speed scanning.
- 2 or 4 wire measurement.
- Two 50-pin female "D-sub" connectors are standard for secure hook-up and quick teardown.
- Reed relay based design with 300 volt, 500mA; 10VA.
- Two mating connector (Model 7788) supplied.

#### GENERAL

**32 CHANNELS:** 32 channels of 2-pole relay input.  
All channels configurable to 4-pole.

**RELAY TYPE:** Reed.

**ACTUATION TIME:** <1ms.

#### CAPABILITIES

**CHANNELS 1-32:** Multiplex one of 32 2-pole or one of 16 4-pole signals into DMM.

#### INPUTS

##### MAXIMUM SIGNAL LEVEL:

**Channels (1-32):** 300V DC or rms, 0.5A switched, 10W maximum.

**Contact Life (typ):** >5×10<sup>4</sup> operations at max signal level.  
>10<sup>8</sup> operations cold switching.

**CONTACT RESISTANCE:** <1Ω at end of contact life.

**CONTACT POTENTIAL:** <±3μV typical per contact, 6μV max.  
<±3μV typical per contact pair, 6μV max.

**OFFSET CURRENT:** <100pA.

**CONNECTOR TYPE:** 50 pin D-sub × 2.

**RELAY DRIVE CURRENT:** 20mA per channel.

**ISOLATION BETWEEN ANY TWO TERMINALS:** >10<sup>6</sup>Ω, <200pF.

**ISOLATION BETWEEN ANY TERMINAL AND EARTH:** >10<sup>6</sup>Ω, <400pF.

**CROSS TALK (1 MHz, 50Ω Load):** <-40dB.

**INSERTION LOSS (50Ω Source, 50Ω Load):** <0.35dB 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:** 0.8kg (1.75 lbs).

