

## SWITCH/CONTROL MODULE SPECIFICATIONS

### Model 7700 20-Channel Differential Multiplexer w/Automatic CJC

#### Features

- 20 channels for general-purpose measurements, plus two channels to measure current.
- 2- or 4-wire measurement.
- Oversize screw terminal connection blocks are standard for easier connections.
- Automatic CJC sensors on the scanner card mean there are no other accessories required to make thermocouple temperature measurements.
- 300V, 1A capacity for voltage channels; 60W, 125VA.
- 3A capacity for current channels.

#### GENERAL

**20 CHANNELS:** 20 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 1-20:** Multiplex one of 20 2-pole or one of 10 4-pole signals into DMM.

**CHANNELS 21-22:** Multiplex one of 2 2-pole current signals into DMM.

#### INPUTS

##### MAXIMUM SIGNAL LEVEL:

**Channels (1-20):** 300V DC or rms, 1A switched, 60W, 125VA maximum.

**Channels (21-22):** 60V DC or 30V rms, 3A switched, 60W, 125VA maximum.

**CONTACT LIFE (typ):** >10<sup>5</sup> operations at max signal level.  
>10<sup>8</sup> operations cold switching.

**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> $\Omega$ , <100pF.

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

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

**INSERTION LOSS (50 $\Omega$  Source, 50 $\Omega$  Load):** <0.1dB 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:** 0.45kg (1 lb).

