

7700 20-Channel Differential Multiplexer w/Automatic CJC

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 300V rms (425V peak) for AC waveforms, 1A switched, 60W, 125VA maximum.

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

CONTACT LIFE (typ): >10⁵ operations at max signal level.
>10⁸ operations no load.¹

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

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

OFFSET CURRENT: <100pA.

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

ISOLATION BETWEEN ANY TWO TERMINALS: >10¹⁰, <100pF

ISOLATION BETWEEN ANY TERMINAL AND EARTH: >10⁹, <200pF

CROSS TALK (50 Load):

	w/Internal DMM	w/o Internal DMM*
10MHz:	<-40dB	<-40dB
25MHz:	**	<-25dB

* Channels 24 and 25 are open. Refer to ROUTe:MULTiple command in 27xx User's manual.

** Not valid

INSERTION LOSS (50 Source, 50 Load):

	w/Internal DMM	w/o Internal DMM*
<0.1dB	1MHz	1MHz
<3db	2MHz	50MHz

* Channels 24 and 25 are open. Refer to ROUTe:MULTiple command in 27xx User's manual.

COMMON MODE VOLTAGE: 300V or 300V rms (425V peak) for AC waveforms between any terminal and chassis.

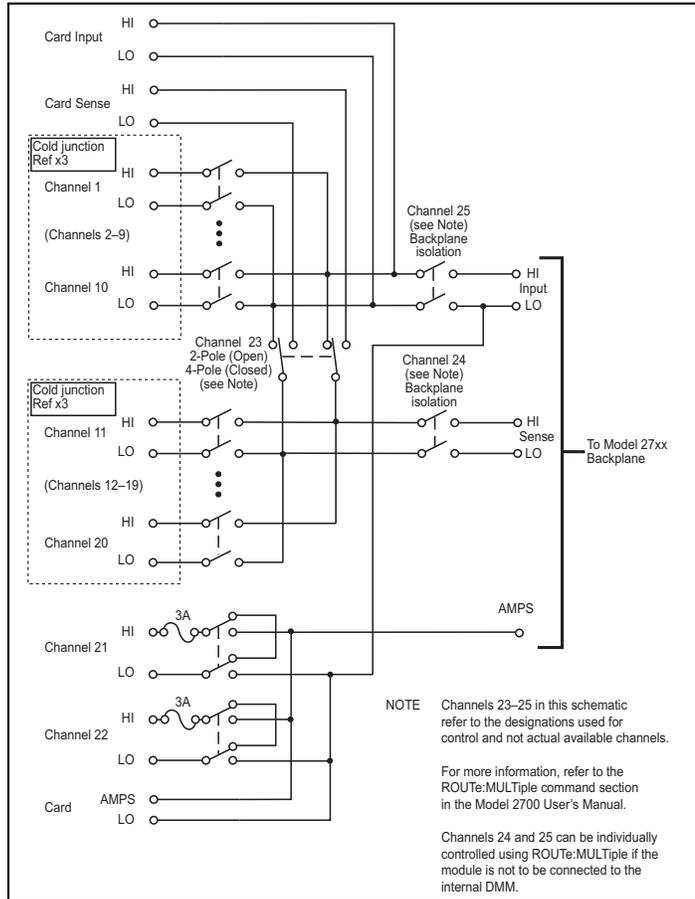
T/C COLD JUNCTION: 1.0°C (18°-28°C Mainframe Temp)
1.5°C (0°-18°C & 28°-50°C Mainframe Temp).

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).



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