

7703

32-channel, High Speed, Differential Multiplexer Module

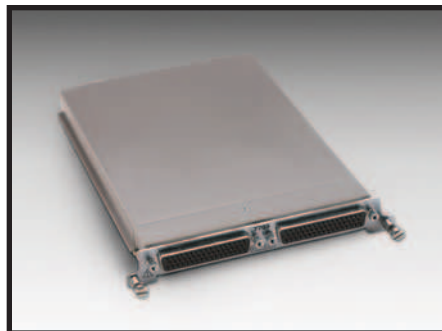
- 32 channels for general purpose measurements
- Relay actuation time of less than 1ms for high-speed scanning
- Two- or four-wire measurement
- Two 50-pin female D-sub connectors are standard for secure hook-up and quick teardown

Ordering Information

7703 32-channel, High Speed, Differential Multiplexer Module

Accessories Supplied

Two mating connectors with solder cup (Model 7788)



The Model 7703 plug-in module offers 32 channels of 2-pole or 16 channels of 4-pole multiplexer switching that can be configured as two independent banks of multiplexers. The non-latching reed relays provide high speeds and are designed for 300 volt, 500mA; 10VA. The relay closures are stored in onboard memory. The Model 7703 is ideal for RTD and thermistor temperature applications.

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): $>5 \times 10^4$ operations at max. signal level.
 $>10^8$ operations cold switching.

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

CONTACT POTENTIAL:

$<\pm 3\mu\text{V}$ typical per contact, $6\mu\text{V}$ max.
 $<\pm 3\mu\text{V}$ typical per contact pair, $6\mu\text{V}$ max.

OFFSET CURRENT: $<100\text{pA}$.

CONNECTOR TYPE: 50 pin D-sub $\times 2$.

RELAY DRIVE CURRENT: 20mA per channel.

ISOLATION BETWEEN ANY TWO TERMINALS: $>10^9\Omega$, $<200\text{pF}$.

ISOLATION BETWEEN ANY TERMINAL AND EARTH: $>10^9\Omega$, $<400\text{pF}$.

CROSS TALK (1 MHz, 50 Ω Load): $<-40\text{dB}$.

INSERTION LOSS (50 Ω Source, 50 Ω Load): $<0.35\text{dB}$ below 1MHz. $<3\text{dB}$ below 2MHz.

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

GENERAL

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

RELAY TYPE: Reed.

ACTUATION TIME: $<1\text{ms}$.

FIRMWARE: Specified for Model 2700 rev. A01, 2701 rev. A01, and 2750 rev. A01 or higher.

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 .

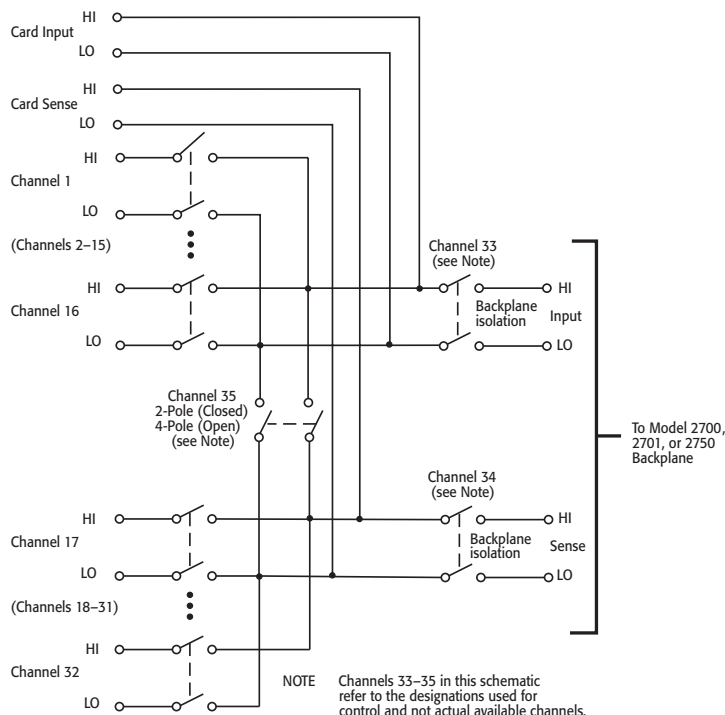
WEIGHT: 0.8kg (1.75 lbs).

ACCESSORIES AVAILABLE

7705-MTC-2 50 Pin Male to Female DSUB Cable, 2m (6.6 ft).

SERVICES AVAILABLE

7703-3Y-EW 1-year factory warranty extended to 3 years from date of shipment



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