

# 7703 32-channel, High Speed, Differential Multiplexer Module

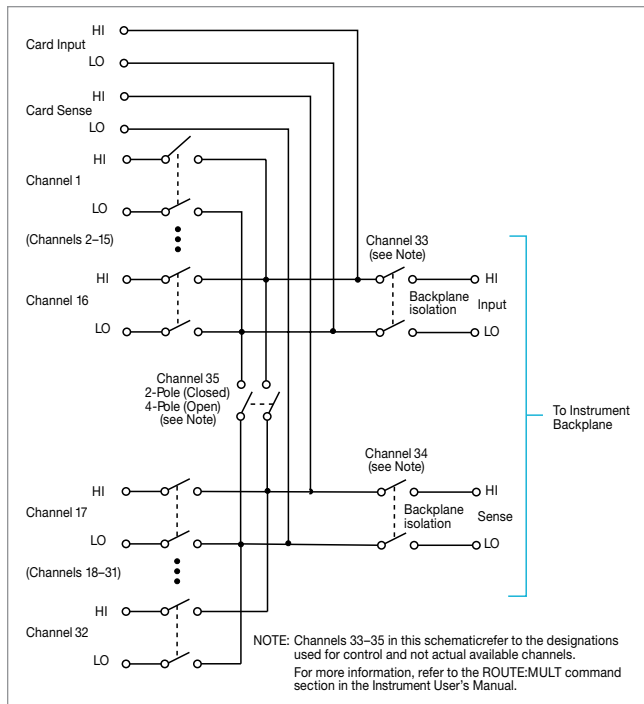
## Datasheet



The 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, 500 mA; 10 VA. The relay closures are stored in onboard memory. The 7703 is ideal for RTD and thermistor temperature applications.

### Key Features

- 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



### Specifications

#### 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)** 300 V DC or rms, 0.5 A switched, 10 W maximum.

**Contact Life (typ.)** >5x10<sup>4</sup> operations at max. signal level.  
>10<sup>8</sup> operations cold switching.

**Contact Resistance** <1 Ω at end of contact life.

**Contact Potential** <±3 μV typical per contact, 6 μV max.  
<±3 μV typical per contact pair, 6 μV max.

**Offset Current** <100 pA.

**Connector Type** 50 pin D-sub ×2.

**Relay Drive Current** 20 mA per channel.

**Isolation Between Any Two Terminals**  
>10<sup>9</sup> Ω, <200 pF.

**Isolation Between Any Terminal and Earth**  
>10<sup>9</sup> Ω, <400 pF.

**Cross Talk (1 MHz, 50 Ω Load)**  
<-40 dB.

**Insertion Loss (50 Ω Source, 50 Ω Load)**  
<0.35 dB below 1 MHz. <3 dB below 2 MHz.

##### Common Mode Voltage

300 V 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 ms.

#### Environmental and Safety

**Operating Environment:** Specified for 0° to 50°C. Specified to 40% R.H. at 35°C.

**Storage Environment:** -25° to 65°C.

**EMC:** Conforms to European Union EMC Directive.

**Safety:** Conforms to European Union Low Voltage Directive

**RoHS:** Conforms to European Union RoHS Directive

**Weight** 0.8 kg (1.75 lbs).

### Supplied Accessories

**7703-306A** 50-pin D-Sub Male Shell Connector Kit, quantity 2

### Available Accessories

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

**7788** 50-pin D-Sub male connector kit, quantity 2

**7790** 50-pin male, 50-pin female, 25-pin male D-shell IDC connectors

### Available Services

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

### Ordering Information

**7703** 32-channel, High Speed, Differential Multiplexer Module

**Warranty** 1 year

**Contact Information:**

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