

7710 20-Channel High-Speed/ Long-Life Differential Multiplexer w/ Automatic CJC Specifications

GENERAL

20 CHANNELS: 20 channels of 2-pole relay input. All channels configurable to 4-pole.

RELAY TYPE: Solid State Opto-Coupled FET

ACTUATION TIME: <0.5mS (100mA load)

FIRMWARE: Specified for Model 2700 Rev. B05, Model 2750 Rev. A04, and Model 2701 Rev. A01.

CAPABILITIES

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

INPUTS

MAXIMUM SIGNAL LEVEL: 60V DC or 42V rms between channel (1-20) HI and channel LO or between any channel HI or LO to any other channel HI or LO, 100mA switched, 6W, 4.2VA maximum.

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

SAFETY: Conforms to European Union Directive 73/23/EEC EN61010-1, CAT I.

EMC: Conforms with European Union Directive 89/336/EEC EN61326-1.

CONTACT LIFE: >10¹⁰ operations at cold switching or max signal level (guaranteed by design).

CONTACT RESISTANCE: <10Ω per channel or <5Ω per conductor. Refer to the Model 7710 User's Guide for measurement considerations when used in a Model 2750 on the 1Ω or 10Ω ranges.

CONTACT POTENTIAL: <3μV per pair.

OFFSET CURRENT: <1nA @ 23°C (±5°C) for 0V, <5nA @ 23°C (±5°C) for 60V, additional 0.13nA per 1°C above 28°C.

CONNECTOR TYPE: 3.5mm Removable Screw Terminals, #20 AWG wire size.

ISOLATION BETWEEN ANY TWO TERMINALS: >10¹⁰Ω @ 23°C, >8•10⁹Ω @ 50°C, <100pF.

ISOLATION BETWEEN ANY TERMINAL AND EARTH: >10¹⁰Ω, <100pF.

CROSSTALK (CH-CH, 500kHz, 50Ω Load): <-40dB.

INSERTION LOSS (50Ω Source, 50Ω Load): <1dB below 500kHz, <3dB below 2MHz.

ENVIRONMENTAL

OPERATING ENVIRONMENT: Specified for 0°C to 50°C.
Specified for 80% R.H. at 35°C.

STORAGE ENVIRONMENT: -25°C to 65°C.

WEIGHT: 0.45kg (1 lb).

ALTITUDE: <2km.

