

KEYSIGHT TECHNOLOGIES (AGILENT HP)

34922A

The Keysight 34922A is a high-density, 70-channel multiplexer module designed for the 34980A Multifunction Switch/Measure Unit. It features low-thermal armature latching relays, offering fast scan rates up to 120 channels per second, ideal for high-density automated test applications.

SPECIFICATIONS

General

Interfaces	Two 78-pin D-sub male connectors, backplane interface to Keysight 34980A mainframe
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Physical

Power Supply	Powered directly via the Keysight 34980A mainframe backplane
Operating Temperature	0 °C to 55 °C °C
Weight	0.27 kg kg

General & Configuration

Number of Channels	70 (2-wire) or 35 (4-wire)
Multiplexer Topology	Two banks of 35 channels
Relay Type	Armature latching
Compatible Mainframe	Keysight 34980A

Voltage & Current Ratings

Maximum Switching Voltage	300 V DC or AC RMS
Maximum Switching Current	1 A
Maximum Carry Current	2 A
Maximum Switching Power	60 W (DC), 62.5 VA (AC)
Maximum Terminal Voltage to Earth	300 V CAT I

Signal Integrity & DC Performance

Thermal EMF	< 3 uV (typical, 2-wire differential)
Initial Contact Resistance	< 1.5 Ohm
Channel-to-Channel Isolation	> 10 ¹⁰ Ohm

AC Performance

AC Bandwidth	25 MHz (typical, 50 Ohm system)
Crosstalk @ 1 MHz	-45 dB (typical)
Crosstalk @ 100 kHz	-65 dB (typical)

Timing & Speed

Maximum Scan Rate	120 channels/s
Relay Switch Time	4 ms (typical, including settling)

Reliability & Lifespan

Mechanical Relay Life	100,000,000 cycles
Electrical Relay Life (Low Load)	10,000,000 cycles
Electrical Relay Life (Full Load)	100,000 cycles
Relay Cycle Counter	Yes (stored in non-volatile memory)

Connectivity & Accessories

Terminal Block Accessory	34922T
Module Connector Type	Two 78-pin D-sub male

Electrical Specifications

Volt-Hertz Limit	1 x 10 ⁷ V-Hz
Transient Overvoltage Protection	1500 Vpk

Environmental & Storage

Storage Temperature	-40°C to 70°C
Operating Humidity	80% R.H. at 40°C (non-condensing)
Storage Humidity	95% R.H. at 40°C (non-condensing)

Configuration

Multiplexer Configurations	2-wire or 4-wire (software selectable)
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Connectivity

Analog Bus Connection	No connection to internal analog buses
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Compliance & Safety

Pollution Degree	Pollution Degree 2
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TECHNOLOGY

Armature Relay

APPLICATIONS

High-density data acquisition and signal routing

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