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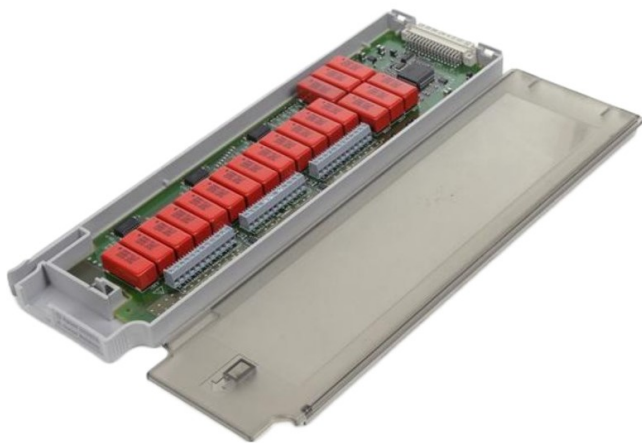
Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 34902A

Current Measurement: user provided shunt resistors required Mainframe Compatibility: 34970A and 34972A Series Family: Keysight 34970A plug-in modules From Agilent/Keysight 34970A Data Acquisition/Switch Unit datasheet multiplexer specifications table for 34902A. Not recommended for ac line without external transient suppression per OEM note. Agilent Keysight 34902A 16 Channel Reed Multiplexer The Agilent/Keysight 34902A is a 16-channel 2-wire reed multiplexer for the 34970A/34972A. OEM module tables list 300 V / 50 mA switching, 250 ch/s scanning, and a built-in thermocouple cold junction. High-throughput automated test scanning and high-speed data logging into the 34970A internal DMM. Closed Channel Resistance: less than 1 Ohm



MODEL

**Agilent / Keysight
34902A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

34902A

LISTING

<https://aumictechlabs.com/products/34902a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 34902A is a 16-channel multiplexer module that integrates with the 34970A and 34972A Data Acquisition/Switch Units to expand automated test and data logging capabilities. Built around reed relay switching technology, the module delivers scan rates up to 250 channels/second and supports both two-wire and four-wire measurement configurations on the same card. Individual channels handle switching up to 300 V, with current measurement capability via user-supplied external shunt resistors. A built-in thermocouple reference junction eliminates

the need for external temperature compensation hardware. The 34902A mounts directly into compatible mainframes, providing cost-effective channel expansion without sacrificing switching speed or measurement flexibility.

Technical Specifications

- 16 channels per module
- Reed relay switching architecture
- Scan rate: Up to 250 channels/second
- Maximum switching voltage: 300 V per channel
- Wiring modes: Two-wire and four-wire (mixable on same module)
- Current measurement: Requires user-provided external shunt resistors
- Temperature measurement: Built-in thermocouple reference junction
- Module weight: Approximately 4 lbs

Key Features

- High-speed scanning optimized for automated production test
- Mixed-mode wiring configuration enables single-module deployment across diverse signal types
- Compact form factor for space-constrained test racks
- Thermocouple reference junction simplifies temperature data acquisition workflows

Typical Applications

- Automated component characterization and functional testing
- Multi-channel data logging and monitoring
- Temperature and voltage measurement in manufacturing environments
- Production test systems requiring high channel density and fast switching

Compatibility & Integration

The 34902A plugs directly into Agilent/Keysight 34970A or Keysight 34972A Data Acquisition/Switch Units. Host mainframes provide connectivity via GPIB, RS-232 (34970A), LAN, and USB (34972A) interfaces.

Features & description

From manufacturer datasheet

Built-in thermocouple reference junction

Two-wire and four-wire channels mixable Connects to the 34970A internal DMM Technical Specifications Model: 34902A Instrument Type: Reed multiplexer module Number Of Channels: 16 Wiring: 2 wire or 4 wire selectable Max Scan Speed: 250 channels per second Open Close Speed: 120 per second Max Voltage: 300 V dc or ac rms Max Current: 50 mA dc or ac rms Max Power: 2 W or 2 VA Offset Voltage Initial: less than 6 uV Closed Channel Resistance: less than 1 Ohm Isolation Channel To Channel: greater than 10 GOhm Bandwidth: 10 MHz Channel Crosstalk At 10 MHz: minus 45 dB Capacitance HI To LO: less than 50 pF Capacitance LO To Earth: less than 80 pF Thermocouple Cold Junction Accuracy Typical: 0.8 C Switch Life No Load Typical: 100 million operations Switch Life Rated Load Typical: 100 thousand operations resistive Scanning DCV Into Memory: 250 ch/s Scanning DCV With Scaling And Alarm: 220 ch/s class Scanning Temperature Thermistor Or TC: 160 ch/s class Scanning ACV: 100 ch/s class AC Line Note: not recommended for connection to ac line without external transient suppression Current Measurement: user provided shunt resistors required Mainframe Compatibility: 34970A and 34972A Operating Temperature: 0 C to 55 C

34902A Characteristics / Specifications

PARAMETER	VALUE
Model	34902A
Instrument Type	Reed multiplexer module
Number Of Channels	16
Wiring	2 wire or 4 wire selectable
Max Scan Speed	250 channels per second
Open Close Speed	120 per second
Max Voltage	300 V dc or ac rms
Max Current	50 mA dc or ac rms
Max Power	2 W or 2 VA
Offset Voltage Initial	less than 6 uV
Closed Channel Resistance	less than 1 Ohm
Isolation Channel To Channel	greater than 10 GOhm
Bandwidth	10 MHz
Channel Crosstalk At 10 MHz	minus 45 dB
Capacitance HI To LO	less than 50 pF
Capacitance LO To Earth	less than 80 pF
Thermocouple Cold Junction Accuracy Typical	0.8 C
Switch Life No Load Typical	100 million operations
Switch Life Rated Load Typical	100 thousand operations resistive
Scanning DCV Into Memory	250 ch/s
Scanning DCV With Scaling And Alarm	220 ch/s class
Scanning Temperature Thermistor Or TC	160 ch/s class
Scanning ACV	100 ch/s class
AC Line Note	not recommended for connection to ac line without external transient suppression

PARAMETER	VALUE
Current Measurement	user provided shunt resistors required
Mainframe Compatibility	34970A and 34972A
Operating Temperature	0 C to 55 C
Storage Temperature	minus 20 C to 70 C
Series Family	Keysight 34970A plug-in modules

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 20 C to 70 C
Operating temperature	0 C to 55 C
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Series Family	Keysight 34970A plug-in modules Notes From Agilent/Keysight 34970A Data Acquisition/Switch Unit datasheet multiplexer specifications table for 34902A. Not recommended for ac line without external transient suppression per OEM note.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes
From Agilent/Keysight 34970A Data Acquisition/Switch Unit datasheet multiplexer specifications table for 34902A. Not recommended for ac line without external transient suppression per OEM note.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.