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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 34972A

HP Agilent 34972A Data Acquisition Switch Unit The Agilent/Keysight 34972A is the LXI LAN USB successor to the 34970A, retaining the 3-slot mainframe with built-in 6.5-digit DMM. OEM 34970A/34972A family literature specifies the same 0.004% basic dcV accuracy and up to 250 ch/s scanning with compatible modules. Automated temperature voltage and resistance logging over LAN or USB, production switch/measure ATE, and benchtop multi-channel DAQ with modular multiplexers. Built-in 6.5-digit DMM measurement engine The Agilent/Keysight 34972A is the LXI LAN USB successor to the 34970A, retaining the 3-slot mainframe with built-in 6.5-digit DMM. OEM 34970A/34972A family literature specifies the same 0.004% basic dcV accuracy and up to 250 ch/s scanning with compatible modules. Automated temperature voltage and resistance logging over LAN or USB, production switch/measure ATE, and benchtop multi-channel DAQ with modular multiplexers. Built-in 6.5-digit DMM measurement engine Three module slots for switch and control cards



MODEL

**Agilent / Keysight
34972A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

34972A

LISTING

<https://aumictechlabs.com/products/34972a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 34972A is a modular LXI data acquisition and switching unit built around a 6 1/2-digit (22-bit) DMM, delivering integrated measurement and signal routing for automated test and data logging. Its three-slot mainframe accepts plug-in switch and control modules, configurable for up

to 60 two-wire channels, 120 single-ended channels, or 96 matrix crosspoints. The instrument scans up to 250 channels per second with 0.004% basic DC voltage accuracy and measures 11 signal types: DC/AC volts, DC/AC current, 2-wire and 4-wire resistance, frequency, period, and temperature via thermocouples, RTDs, and thermistors.

Technical Specifications

Mainframe: 3 configurable module slots

Internal DMM Resolution: 6 1/2-digit (22-bit)

Measurement Functions: 11 input signal types including temperature, DC/AC volts, DC/AC current, 2-wire and 4-wire resistance, frequency, and period

Scanning Speed: Up to 250 channels/second

DC Voltage Accuracy: 0.004% basic

Non-Volatile Memory: 50,000 readings

Channel Density Options: Up to 60 two-wire channels, 120 single-ended channels, or 96 matrix crosspoints

Alarm Outputs: 4 TTL outputs with per-channel Hi/LO alarm limits

Per-Channel Configuration: Independent function, scaling ($Mx+B$), and alarm threshold settings

Key Features

Built-in signal conditioning eliminates external module requirements for many applications

8 different switch and control plug-in module options

Relay maintenance counter tracks every closure for predictable service intervals

Screw-terminal connections on all modules

Backward compatible with 34970A series modules and SCPI command set

Gigabit Ethernet (10/100/1000 BaseT) and USB 2.0 connectivity

USB memory port for direct data export

Web-based graphical interface for remote setup and control

Typical Applications

Automated test systems, environmental monitoring, production data logging, multi-channel signal acquisition, and temperature measurement networks.

Compatibility & Integration

Full SCPI compliance enables integration with existing test frameworks. BenchVue software simplifies instrument control and test automation. Native LAN and USB support connect directly to PCs and networks without additional I/O cards.

Features & description

From manufacturer datasheet

Built-in 6.5-digit DMM measurement engine

Three module slots for switch and control cards Up to 250 channels per second scanning LAN and USB connectivity replacing RS-232 on 34972A Measures 11 input signal types including thermocouples RTDs and thermistors Technical Specifications Internal DMM Resolution: 6.5 digits (22 bits) Basic 1 Year DCV Accuracy: 0.004 percent Basic 1 Year ACV Accuracy: 0.06 percent Basic 1 Year Resistance Accuracy: 0.01 percent A/D Linearity: 2 ppm of reading + 1 ppm of range Module Slots: 3 Max Single Ended Measurements Class: up to 120 Max Matrix Crosspoints Class: up to 96 Scan Rate 34902A DCV: 250 ch/s Scan Rate Single Channel DCV Into Memory: 490 ch/s class family Scan Rate 34901A/34908A DCV: 60 ch/s class family Remote Interfaces: LAN USB and GPIB class family Form Factor: 3.5 inch half rack Thermocouple Measurements: Supported RTD Measurements: Supported Thermistor Measurements: Supported DC AC Volts: Supported Two and Four Wire Resistance: Supported Frequency and Period: Supported DC AC Current: Supported LXI Connectivity: Yes Module Compatibility: 34970A family modules Notes From Keysight 34970A/34972A Data Acquisition/Switch Unit Family literature. 34972A replaces RS-232 with LAN/USB while retaining the same DMM engine and module ecosystem; cite the family sheet for interface footnotes.

34972A Characteristics / Specifications

PARAMETER	VALUE
Internal DMM Resolution	6.5 digits (22 bits)
Basic 1 Year DCV Accuracy	0.004 percent
Basic 1 Year ACV Accuracy	0.06 percent
Basic 1 Year Resistance Accuracy	0.01 percent
A/D Linearity	2 ppm of reading + 1 ppm of range
Module Slots	3
Max Single Ended Measurements Class	up to 120
Max Matrix Crosspoints Class	up to 96
Scan Rate 34902A DCV	250 ch/s
Scan Rate Single Channel DCV Into Memory	490 ch/s class family
Scan Rate 34901A/34908A DCV	60 ch/s class family
Remote Interfaces	LAN USB and GPIB class family
Form Factor	3.5 inch half rack
Thermocouple Measurements	Supported
RTD Measurements	Supported
Thermistor Measurements	Supported
DC AC Volts	Supported
Two and Four Wire Resistance	Supported
Frequency and Period	Supported
DC AC Current	Supported
LXI Connectivity	Yes
Module Compatibility	34970A family modules

34972A Specifications

PARAMETER	VALUE
HP Agilent 34972A Data Acquisition Switch Unit	Overview
Key Features	Built-in 6.5-digit DMM measurement engine
Three module slots for switch and control cards	Up to 250 channels per second scanning
Technical Specifications	Internal DMM Resolution: 6.5 digits (22 bits)

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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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.