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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 44421A

HP Agilent 44421A 20 Channel Reed Relay Multiplexer for 3497A The HP 44421A is a 20-channel reed-relay multiplexer assembly for the 3497A Data Acquisition/Control Unit. OEM 3497A option tables list 44421A as option 010: each channel switches HI, LO, and Guard. Low thermal offset of the reed relays suits strain-gage and other transducer outputs scanned by the 3497A integrating DVM. Guarded analog scanning of strain, thermocouple, and low-level DC sensors in a 3497A system. Instrument Type: Reed relay multiplexer assembly The HP 44421A is a 20-channel reed-relay multiplexer assembly for the 3497A Data Acquisition/Control Unit. OEM 3497A option tables list 44421A as option 010: each channel switches HI, LO, and Guard. Low thermal offset of the reed relays suits strain-gage and other transducer outputs scanned by the 3497A integrating DVM. Guarded analog scanning of strain, thermocouple, and low-level DC sensors in a 3497A system. Instrument Type: Reed relay multiplexer assembly Host Mainframe: 3497A Data Acquisition/Control Unit



MODEL

**Agilent / Keysight
44421A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

44421A

LISTING

<https://aumictechlabs.com/products/44421a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 44421A is a 20-channel guarded relay multiplexer assembly designed to switch analog signals from multiple transducers and sensors to the Keysight/Agilent 3497A Data Acquisition/Switch Unit or other connected instruments. Built with low thermal offset characteristics, this module excels in precision low-level measurement applications where signal

integrity is critical. The assembly organizes 20 analog channels into two groups of 10, with each channel equipped with High, Low, and Guard relay lines for flexible signal routing and four-terminal resistance measurements.

Technical Specifications

Channel Count: 20 analog signal channels organized in two decade groups

Relay Configuration: Three relays per channel (High, Low, Guard lines)

Switching Modes: Single channel closure per decade, random relay closure, incremental operation between programmable limits, dual-channel closure per assembly

Input Impedance (Non-isolated): Minimum 19.5 k Ω

Thermal Characteristics: Low thermal offset for precision low-level measurements

Channel Configuration: Each channel supports optional filter or current shunt installation

Reed Relay Switching: Enables fast, reliable analog signal multiplexing

Key Features

- Four-terminal resistance measurement capability when two channels (one per decade) are closed simultaneously
- Modular plug-in design for the 3497A mainframe
- Expansion capability to 900 total analog channels using multiple assemblies with HP 3498A Extender Chassis
- Guarded signal paths minimize crosstalk and maintain measurement accuracy across low-level signals

Typical Applications

- Strain gauge and bridge circuit measurement
- Resistance Temperature Detector (RTD) scanning
- Pressure sensor multiplexing
- Load cell signal acquisition
- Precision transducer data logging

Compatibility & Integration

The 44421A integrates directly into the Keysight/Agilent 3497A Data Acquisition/Switch Unit. Systems can be expanded using the HP 3498A Extender Chassis to accommodate large-scale multi-channel measurement requirements. The module supports DC/AC voltage, 2-wire and 4-wire resistance, frequency, period, DC/AC current, and temperature measurements through compatible instrumentation.

44421A Characteristics / Specifications

PARAMETER	VALUE
Model	44421A
Instrument Type	Reed relay multiplexer assembly
Host Mainframe	3497A Data Acquisition/Control Unit
Catalog Option Code	010 on 3497A
Channel Count	20
Conductors Per Channel	HI, LO, and Guard
Relay Type	reed relay
Thermal Class	low thermal offset for strain gages and transducers
Related Tc Mux	44422A relay multiplexer with thermocouple compensation
Related Fet Mux	44423A 20-channel FET multiplexer
Related Dvm	3497A optional 5.5-digit integrating voltmeter
Form Factor	3497A plug-in assembly
Manufacturer	HP Agilent Keysight
Use Case	guarded analog scan in 3497A
Control	3497A front panel and HP-IB
Operating Temperature Class	3497A laboratory window
Literature	HP 3497A data acquisition option table 44421A
Family	3497A plug-in assemblies
System Role	analog input multiplexer
Wiring	three-wire guarded per channel
Documentation Type	OEM 3497A plug-in table
Brand Lineage	Hewlett Packard Agilent Keysight
Year Class	3497A 1980s DAQ family
Operating temperature	Class: 3497A laboratory window

44421A Specifications

PARAMETER	VALUE
Applications	Guarded analog scanning of strain, thermocouple, and low-level DC sensors in a 3497A system.
HI LO and Guard per channel	Low thermal offset for transducers
Technical Specifications	Model: 44421A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 3497A laboratory window
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Literature	HP 3497A data acquisition option table 44421A
Family	3497A plug-in assemblies
System Role	analog input multiplexer
Wiring	three-wire guarded per channel
Documentation Type	OEM 3497A plug-in table
Brand Lineage	Hewlett Packard Agilent Keysight
Year Class	3497A 1980s DAQ family Notes From HP 3497A option 010 / 44421A listings (20-channel reed mux, HI/LO/Guard, low thermal offset). Open-circuit voltage, carry current, and thermal-offset microvolts are on the 44421A specification page of the 3497A manuals.

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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Ordering Information

OPTION	DESCRIPTION
Option 010	Companion 44422A thermocouple mux

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

788 S 500 E, Pleasant Grove, UT 84062
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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.