

## KEYSIGHT TECHNOLOGIES (AGILENT HP)

## 34902A

The Keysight/Agilent 34902A is a 16-channel reed-relay multiplexer module for the Agilent 34970A Data Acquisition/Switch Unit. It supports mixed 2-wire and 4-wire scanning to the mainframe's internal DMM with scan rates up to 250 channels/second and includes a built-in thermocouple reference junction for temperature measurements.

## SPECIFICATIONS

## General

|            |                                                               |
|------------|---------------------------------------------------------------|
| Interfaces | Via 34970A mainframe: GPIB, RS-232 (module has no direct I/O) |
| Display    | None (controlled via 34970A mainframe)                        |

## Physical

|              |                                        |
|--------------|----------------------------------------|
| Power Supply | Powered by 34970A mainframe (internal) |
|--------------|----------------------------------------|

## Product Identification and Compatibility

|                                          |                                                                  |
|------------------------------------------|------------------------------------------------------------------|
| Model                                    | 34902A                                                           |
| Manufacturer                             | Keysight Technologies (Agilent/HP legacy)                        |
| Device Type                              | 16-channel reed multiplexer module                               |
| Compatible Mainframes                    | Agilent/Keysight 34970A and 34972A Data Acquisition/Switch Units |
| Slot Requirement                         | Occupies 1 slot in 34970A mainframe                              |
| Multiplexer Topology                     | 16:1, 2-wire to common (routes to internal DMM)                  |
| Channel Count (2-Wire)                   | 16                                                               |
| Channel Count (4-Wire)                   | Up to 8 (by pairing 2-wire channels)                             |
| Built-In Thermocouple Reference Junction | Yes (on module)                                                  |
| Routing to Mainframe DMM                 | Reed relays multiplex inputs to 34970A internal DMM              |

## Relay Characteristics

|                   |             |
|-------------------|-------------|
| Switching Element | Reed relays |
|-------------------|-------------|

## Scanning and Triggering

|                            |                                      |
|----------------------------|--------------------------------------|
| Maximum Scan Rate (2-Wire) | Up to 250 channels/second            |
| Scanning Modes             | 2-wire and 4-wire scanning supported |

Measurement Routing Features

|                                 |                                                    |
|---------------------------------|----------------------------------------------------|
| DC Voltage Routing              | Supported (via 34970A internal DMM)                |
| AC Voltage Routing              | Supported (via 34970A internal DMM)                |
| DC Current Routing              | Supported with user-provided shunt resistors       |
| AC Current Routing              | Supported with user-provided shunt resistors       |
| 2-Wire Resistance Routing       | Supported                                          |
| 4-Wire Resistance Routing       | Supported                                          |
| Temperature Measurement Support | Thermocouples (uses built-in CJC on module)        |
| CJC Method                      | Built-in thermocouple reference junction on module |
| Sense Lead Support (4-Wire)     | Yes                                                |

Connectivity and Termination

|                      |                                         |
|----------------------|-----------------------------------------|
| Front Connector Type | Screw-terminal block, isothermal design |
|----------------------|-----------------------------------------|

Software and Control (via Mainframe)

|                                   |                       |
|-----------------------------------|-----------------------|
| Remote Interfaces (via mainframe) | GPIB, RS-232          |
| Command Set (via mainframe)       | SCPI (through 34970A) |

TECHNOLOGY

Reed-relay multiplexer with built-in thermocouple reference junction (CJC).

APPLICATIONS

High-throughput automated test; high-speed data logging and monitoring.

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.