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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E1344A 16-Channel T/C High-Voltage Relay Multiplexer

Agilent HP Keysight E1344A 16 Channel Thermocouple High Voltage Relay Multiplexer The Agilent E1344A isaB-size 1-slot register-based VXI multiplexer that switches 16 channels of high, low, and guard for high-voltage and thermocouple measurements. It includes a built-in thermistor reference junction on the terminal card and works with VXI DMMs such as E1326B/E1411B for scanned temperature conversions. VXI data acquisition of thermocouples, high-voltage multiplexing to 250 V, and automated scanning with Agilent VXI DMMs for voltage current and resistance. The Agilent E1344A isaB-size 1-slot register-based VXI multiplexer that switches 16 channels of high, low, and guard for high-voltage and thermocouple measurements. It includes a built-in thermistor reference junction on the terminal card and works with VXI DMMs such as E1326B/E1411B for scanned temperature conversions. VXI data acquisition of thermocouples, high-voltage multiplexing to 250 V, and automated scanning with Agilent VXI DMMs for voltage current and resistance. Built-in thermistor cold-junction reference



MODEL

**Agilent / Keysight
E1344A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E1344A

LISTING

<https://aumictechlabs.com/products/e1344a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight E1344A is a B-size, 1-slot VXI register-based multiplexer module engineered for high-voltage thermocouple measurements. It switches 16 channels of high, low, and guard signals to a compatible DMM, enabling multi-point temperature acquisition with automatic cold junction compensation. The module handles DC and AC voltages up to 250 V with channel currents to 50 mA, delivering thermal measurement accuracy within 10 μ V differential offset per channel.

Technical Specifications

- Maximum voltage (DC): 250 Vdc (any terminal to any other or chassis)
- Maximum voltage (AC rms): 250 V rms (any terminal to any other or chassis)
- Maximum current per channel (non-inductive): 50 mA
- Maximum power per channel: 1 VA
- Maximum thermal offset (differential Hi-Lo): 10 μ V
- Closed channel resistance: 100 $\Omega \pm 10\%$
- Channel configuration: 16-channel switching (high, low, guard)
- Form factor: B-size, 1-slot VXI module

Key Features

- Thermocouple-compensated relay switching for 16 independent channels
- Automatic cold junction compensation for standard thermocouple types
- Register-based control via SCPI commands
- Includes one analog bus cable for mainframe connectivity
- Closed channel resistance of 100 $\Omega \pm 10\%$ ensures signal integrity
- Thermal offset specification of 10 μ V minimizes measurement error in precision applications

Typical Applications

- Multi-point thermocouple temperature monitoring across industrial, laboratory, and environmental test environments.
- Channel scanning with automatic type conversion for diverse thermocouple inputs.
- Integration with VXI-based measurement systems requiring synchronized voltage, current, or resistance measurements alongside temperature data.

Compatibility & Integration

Operates with Agilent E1326B or E1411B DMMs. For B-size mainframes (E1300B, E1301B), connect via the analog bus cable supplied with the E1326B DMM. C-size mainframes require the E1403C active adapter. The module ships with one analog bus cable for direct slot-adjacent module connection.

Features & description

From manufacturer datasheet

Built-in thermistor cold-junction reference

High-voltage switching to 250 Vdc or Vac rms 16-channel 3-wire or 8-channel 4-wire configurations
Register-based B-size single-slot VXI module SCPI setup with automatic thermocouple conversions
when paired with supported DMMs Technical Specifications Model: E1344A Instrument Type: 16
channel T/C high-voltage relay multiplexer Card Format: VXI B-size 1 slot register based Channel Count
Three Wire: 16 Channel Count Four Wire: 8 Connections Per Channel: high low guard Maximum
Voltage: 250 Vdc or Vac rms (354 V peak) Maximum Current Per Channel: 50 mA nonconductive
Maximum Power Per Channel: 1 VA Thermocouple Reference: built-in thermistor on terminal card
Component Assembly: E1343-66201 Terminal Module: E1344-80001 Functionally Related Model:
E1343A without TC reference Paired Dmm Examples: E1326B E1411B Measurement Types With Dmm:
temperature voltage current 2-wire and 4-wire resistance Switching Topology: relay multiplexer
Module Id Jumpers: distinct from E1343A Static Precautions: required when servicing Cooling:
provided by VXI mainframe Programming: SCPI with supported command module/DMM Service
Manual Family: E1343A/E1344A/E1345A/E1347A User Manual Family: E1343A/E1344A/E1345A/E1347A

E1344A Characteristics / Specifications

PARAMETER	VALUE
Model	E1344A
Instrument Type	16 channel T/C high-voltage relay multiplexer
Card Format	VXI B-size 1 slot register based
Channel Count Three Wire	16
Channel Count Four Wire	8
Connections Per Channel	high low guard
Maximum Voltage	250 Vdc or Vac rms (354 V peak)
Maximum Current Per Channel	50 mA nonconductive
Maximum Power Per Channel	1 VA
Thermocouple Reference	built-in thermistor on terminal card
Component Assembly	E1343-66201
Terminal Module	E1344-80001
Functionally Related Model	E1343A without TC reference
Paired Dmm Examples	E1326B E1411B
Measurement Types With Dmm	temperature voltage current 2-wire and 4-wire resistance
Switching Topology	relay multiplexer
Module Id Jumpers	distinct from E1343A
Static Precautions	required when servicing
Cooling	provided by VXI mainframe
Programming	SCPI with supported command module/DMM
Service Manual Family	E1343A/E1344A/E1345A/E1347A
User Manual Family	E1343A/E1344A/E1345A/E1347A
Terminal Module Part	E1344-80001
Maximum Voltage Peak	354 V

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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Terminal Module Part	E1344-80001
Maximum Voltage Peak	354 V

Notes

Voltage/current/power limits and channel/thermistor configuration from Agilent E1343A/E1344A service and user literature (5965-5600E class / 9018-01667 service manual).

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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NIST-traceable calibration · SAM registered ·
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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.