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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E1459A 64-Channel VXI Isolated Digital Input

Agilent E1459A 64 Channel Isolated Digital Input Interrupt The Keysight/Agilent E1459A (formerly Z2404B) isaC-size, 1-slot, register-based 64-channel isolated digital input/interrupt module with four 16-bit ports. OEM manual specs list 115 Vac rms or 115 Vdc channel-to-channel isolation, jumper-selectable 5 to 48 V logic thresholds, and debounce from 18 us to 9600 s. Isolated digital sensing, edge interrupt capture, and noisy industrial input monitoring in VXI ATE. Independent positive and/or negative edge masking The Keysight/Agilent E1459A (formerly Z2404B) isaC-size, 1-slot, register-based 64-channel isolated digital input/interrupt module with four 16-bit ports. OEM manual specs list 115 Vac rms or 115 Vdc channel-to-channel isolation, jumper-selectable 5 to 48 V logic thresholds, and debounce from 18 us to 9600 s. Isolated digital sensing, edge interrupt capture, and noisy industrial input monitoring in VXI ATE. Independent positive and/or negative edge masking Two debounce clock domains for ports 0/1 and 2/3



MODEL

**Agilent / Keysight
E1459A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E1459A

LISTING

<https://aumictechlabs.com/products/e1459a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight E1459A is a 64-channel VXI isolated digital input module for DC level and edge transition sensing up to 48 Vdc in register-based VXI systems. Optical isolation on all inputs

protects against transients up to 125 Vrms or Vdc between channels or to chassis, safeguarding the system from external voltage sources. The module occupies a single C-size slot and operates as a slave device with selectable interrupt levels 1–7.

Technical Specifications

Input Characteristics

64 isolated digital input channels Sensing range: DC levels and edge transitions to 48 Vdc
Maximum input voltage: 60 Vdc (between high and low terminals per channel); 125 Vrms or Vdc (between channels or to chassis)
Nominal input voltages: 5, 12, 24, and 48 Vdc
Threshold voltages: 1–4 Vdc (5 V nominal), 2.5–9.5 Vdc (12 V nominal), 7–17 Vdc (24 V nominal), 14–31 Vdc (48 V nominal)
Input current: 0.5, 1.3, 2.8, or 5.8 mA at nominal voltages
Minimum input pulse width: 100 ms plus debounce time
On-board 5 V supply: 4.5–5.5 Vdc output, 16 mA maximum output current
TTL-compatible logic levels, 5 V maximum

Debounce & Data Transfer

Programmable debounce: 16 μ s to 1074 s in binary increments
Separate debounce periods for channel groups 1–32 and 33–64
16-bit word structure with strobe-in, ready-for-data, and interrupt-out per word
Parallel strobe-in connection for 32- or 64-bit transfers
VXI register access with D16 interface capability

Key Features

- Optical isolation protects VXI systems from external voltage transients
- Programmable debounce with independent group settings reduces noise sensitivity
- On-board 5 V supply with 9.4 k Ω effective pull-up for switch-state detection
- Flexible data transfer via strobe-in parallel connection
- Interrupter capability with selectable interrupt levels

Typical Applications

- Industrial control systems requiring galvanic isolation
- Multi-channel digital acquisition from isolated sensor networks
- Safety-critical systems with voltage transient protection
- VXI test and measurement systems with mixed-voltage inputs

Compatibility & Integration

VXI register-based slave module; A16 addressing; D16 bus interface. Compatible with standard VXI chassis and controllers supporting interrupt-capable modules.

E1459A Characteristics / Specifications

PARAMETER	VALUE
Digital Input Channels	64
Port Organization	four 16 bit ports
Module Size	C
Slots Occupied	1
VXI Device Type	register based
Channel To Channel Isolation	115 Vac rms or 115 Vdc
Maximum Voltage Per Channel	60 Vdc
Logic Threshold Range	5 to 48 V jumper selectable
Debounce Time Minimum	18.0 us
Debounce Time Maximum	9600 s
Debounce Clock Domains	ports 0 and 1 share; ports 2 and 3 share
Internal Sample Clock	1.0 MHz
Minimum Pulse Width	100 us plus debounce time
Plus 5 V Auxiliary Output Voltage	4.5 to 5.5 Vdc
Plus 5 V Auxiliary Output Current	16 mA max
Input Polarity	positive polarity sensing Hi above Lo
Edge Detect Modes	positive, negative, or both
Capture Clock	internal or external per port group
Programming	SCPI and register based
Power Requirements Voltage	+5 Vdc
Wire Size Maximum	No. 16 AWG
Recommended Wire When Fully Wired	No. 20 or 22 AWG
Operating Temperature Class	0 to 55 C
Operating temperature	Class: 0 to 55 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 to 55 C
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Operating Temperature Class	0 to 55 C Notes Values from Keysight E1459A/Z2404B user's manual specification appendix. Confirm jumper threshold and debounce programming for the installed configuration.

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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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.