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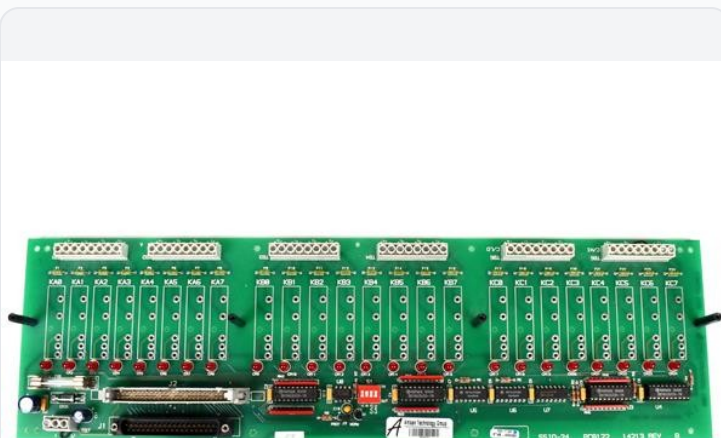
Data Sheet

August 15, 2026

KEITHLEY

Keithley SSIO-24 24-Channel Solid-State I/O Module Board

Keithley SSIO-24 24-Channel Solid-State I/O Module Board The Keithley SSIO-24 is a 24-channel mounting board for miniature solid-state I/O modules providing isolation between TTL-level digital boards and higher-voltage industrial loads. It holds up to 24 small solid-state modules grouped in 8-8-4-4 I/O assignments and connects through Keithley digital I/O cabling such as 37-pin D-sub style links used with PIO and DAS boards. Solid-state modules support AC/DC input and AC/DC output functions with isolation on the order of 4000 V and can interface signals up to about 250 VDC or 280 Vrms depending on the stuffed modules. External +5 VDC is required in some host combinations such as KPCMCIA-PIO24. The Keithley SSIO-24 is a 24-channel mounting board for miniature solid-state I/O modules providing isolation between TTL-level digital boards and higher-voltage industrial loads. It holds up to 24 small solid-state modules grouped in 8-8-4-4 I/O assignments and connects through Keithley digital I/O cabling such as 37-pin D-sub style links used with PIO and DAS boards. Solid-state modules support AC/DC input and AC/DC output functions with isolation on the order of 4000 V and can interface signals up to about 250 VDC or 280 Vrms depending on the stuffed modules. External +5 VDC is required in some host combinations such as KPCMCIA-PIO24. Industrial digital isolation, PLC-like discrete I/



MODEL

Keithley SSIO-24

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

SSIO-24

LISTING

<https://aumictechlabs.com/products/ssio-24-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley SSIO-24 is a 24-channel solid-state I/O module accessory board that interfaces digital signals in automated test and measurement systems. It has high-speed switching with 4000V rms isolation, enabling precise control and monitoring of AC and DC loads across industrial automation, data logging, and system test applications. The board accommodates four color-coded module types DC input, DC output, AC input, and AC output - each optimized for specific voltage and current ranges. A 37-position D-Sub connector integrates with host test systems, while onboard LEDs provide real-time I/O status indication. Technical Specifications Model: SSIO-24 Channels: 24 Termination: Screw-in terminal blocks accepting 22–12 AWG wire Interface Connector: 37-position D-Sub Dimensions: 16" × 4.25" Isolation Voltage: 4000V rms I/O Module Options DC Input (White) Senses AC or DC voltage, outputs 0 or +5V logic signal DC Output (Red) SM-ODC5: 3–60V DC, 3.0A max load current SM-ODC5A: 3–250V DC, 1.0A max load current Response time: 100 μs (on), 750 μs (off) AC Input (Yellow) SM-IAC5: 90–140V AC/DC input SM-IAC5A: 180–280V AC/DC input AC Output (Black) SM-OAC5: 12–140V AC, 3.5A max load current (SM-OAC5R variant for reactive loads, power factor ≤ 0.5) SM-OAC5A: 24–280V AC, 3.5A max load current Response time: 0.5 cycle (on/off) Key Features Miniature solid-state relay modules eliminate mechanical switching wear Color-coded module types simplify field identification and replacement Modular architecture supports mixed-mode I/O configurations LED status indication for each channel Operating temperature range: –30°C to +80°C Storage temperature range: –40°C to +100°C Complies with EN61010-1/IEC 1010 and EU Directive 89/336/EEC Power Requirements External power supply required. Current consumption: 180 mA max./115 mA typical (no modules installed); 610 mA max./270 mA typical (with modules installed). Typical Applications Industrial control systems, automated test equipment, sensor-based data acquisition, switchable load management, and system validation in manufacturing environments.

SSIO Characteristics / Specifications

PARAMETER	VALUE
Model	SSIO-24
Instrument Type	24-channel solid-state I/O mounting board
Socket Count	24
Group Organization	8-8-4-4
Module Types	DC input DC output AC input AC output miniature modules
Isolation Class	4000 V via solid-state modules
Field Voltage Class Dc	up to about 250 VDC depending on module
Field Voltage Class Ac	up to about 280 Vrms depending on module
Connector Class	37-pin D-sub Keithley digital cabling
Host Examples	KPCI-PIO24 KPCMCIA-PIO24 DAS series with recommended cables
External Power	+5 VDC required with some hosts such as KPCMCIA-PIO24
Functional Equivalent Class	PB-24(SM) with Keithley pinout
Fusing	picofuse protection on power and signal paths class
Terminals	screw terminal field connections
Direction Switches	hardware switches must match port direction
Ttl Side	TTL level interface to host digital board
Product Category	Keithley digital I/O accessory
Brand	Keithley
Application Class	isolated industrial discrete I/O
Card Geometry	panel or bench mounting accessory board
Documentation Scope	OEM published numeric tables
Installed Options	determine final calibrated limits

SSIO Specifications

PARAMETER	VALUE
Four thousand volt isolation class via modules	Screw terminal field wiring
Technical Specifications	Model: SSIO-24
Notes	From Keithley digital I/O hardware guides describing SSIO-24. Exact module part numbers determine voltage and current ratings per channel.

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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Field Voltage Class Ac	up to about 280 Vrms depending on module
Connector Class	37-pin D-sub Keithley digital cabling
Host Examples	KPCI-PI024 KPCMCIA-PI024 DAS series with recommended cables
External Power	+5 VDC required with some hosts such as KPCMCIA-PI024
Functional Equivalent Class	PB-24(SM) with Keithley pinout
Fusing	picofuse protection on power and signal paths class
Terminals	screw terminal field connections
Direction Switches	hardware switches must match port direction
Ttl Side	TTL level interface to host digital board
Product Category	Keithley digital I/O accessory
Brand	Keithley
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Documentation Scope	OEM published numeric tables
Installed Options	determine final calibrated limits
Notes	
From Keithley digital I/O hardware guides describing SSIO-24. Exact module part numbers determine voltage and current ratings per channel.	

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
sales@aumictech.com · +1 (484) 841-9341
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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.