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Data Sheet

August 13, 2026

KEITHLEY

Keithley 7057A 9-Channel Thermocouple Scanner Card

The 7057A is the thermocouple scanner plug-in for the Model 705/706 scanner mainframes, combining 2-pole FormA scanning with an isothermal block and thermistor cold-junction sensor. Input terminals are #10 alloy-copper in the isothermal block. Peak signals are 35 V or 100 mA. Any channel may also scan low-level DC. The 7057A is the later 7057 family card (manual 7057A-901-01). Temperature is computed from scanned microvolt data plus the CJC reading using ITS tables or polynomials in the controller. Multi-point thermocouple logging in a 705/706; mixed TC and low-level DC on one card; isothermal reference versus 7059 low-voltage (non-TC) card; two cards per 705 mainframe. Connections: rear of 705 via screw terminals class (#4 class literature) Related 7056: general purpose 10-channel 2-pole Related 7059: low voltage, less than 1 uV vs copper class Related 7402: listed with 7057A in 705 manual accessory tables



MODEL

Keithley 7057A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

7057A

LISTING

<https://aumictechlabs.com/products/7057a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley 7057A is a 9-channel thermocouple scanner card engineered for integration into Keithley scanner mainframes. It delivers automated, high-precision temperature measurements by multiplexing signals from multiple thermocouple sources while maintaining sub-microvolt contact

potential and integrated cold junction compensation. The card combines thermocouple scanning with an onboard temperature reference function, eliminating the need for external compensation and enabling accurate thermal profiling across distributed measurement points. Technical Specifications Channels & Switching 9 thermocouple channels plus 1 temperature reference channel 2-pole Form A relay configuration with common guard Contact potential: less than $1\text{ }\mu\text{V}$ per channel (10^8 closures cold switching; $> 10^6$ closures at maximum signal levels Relay drive current: 12 mA typical Signal Handling Signal level: up to 35 V peak; up to 100 mA peak (resistive load only); 2 VA maximum (non-inductive load only) Channel isolation: $> 10^8\text{ }\Omega$, 10 pF Input isolation: $> 10^7\text{ }\Omega$, 150 pF Common mode voltage: 200 V peak Temperature Reference Type: Linearized thermistor bridge Output: $-1\text{ mV}/^\circ\text{C}$ (0 mV at $+30^\circ\text{C}$) Accuracy (1 year): $\pm 0.25^\circ\text{C}$ (10°C to 35°C); $\pm 0.5^\circ\text{C}$ (0°C to 10°C and 35°C to 50°C) Temperature offset: $\pm 0.05^\circ\text{C}$ maximum within isothermal block; $\pm 0.1^\circ\text{C}$ maximum between any two terminals Dynamic offset: $\pm 0.1^\circ\text{C}$ maximum after one hour settling following 10°C environmental step change Warm-up time: 1 hour to rated accuracy Physical & Connectivity Dimensions: 32 mm H $\times$ 114 mm W $\times$ 272 mm L Weight: 0.54 kg Connections: Screw terminals (#4) on isothermal block; accepts #18 AWG wire maximum Operating environment: 10°C to 35°C Key Features Unified thermocouple scanning and temperature reference on a single card Sub-microvolt contact potential eliminates measurement drift Isothermal block design minimizes inter-channel temperature gradients Low relay drive current reduces mainframe power demands High channel isolation enables multi-point monitoring in electrically noisy environments Typical Applications Thermal profiling across semiconductor processes and manufacturing equipment Environmental and chamber monitoring with distributed sensor networks Process control requiring simultaneous multi-point temperature feedback Equipment validation and thermal characterization studies Compatibility & Integration The 7057A installs directly into Keithley scanner mainframes via rear-panel connectivity. Its compact form factor and standardized screw terminal interface facilitate integration into existing multi-channel measurement systems without external reference hardware.

Features & description

From manufacturer datasheet

Features

- Built-in thermistor CJC bridge on the isothermal block

7057A Characteristics / Specifications

PARAMETER	VALUE
Model	7057A
Manufacturer	Keithley Instruments
Instrument Type	Thermocouple scanner card
Alias	7057A; 7057
Host mainframe	Model 705 and 706 scanners
Switching	two FormAcontacts
Maximum peak voltage	35 V
Maximum peak current	100 mA
Input terminals	number 10 alloy copper in isothermal block
Cold junction	thermistor sensor with on-card bridge
Reference use	heat-sink temperature for TC compensation
Low level use	any channel may monitor low-level signals
Poles	2 pole
Install	field installable plug-in
Connections	rear of 705 via screw terminals class (#4 class literature)
Mainframe bus	IEEE-488 Model 705
Cards per 7	two scanner cards
Related 70	low voltage, less than 1 uV vs copper class
Related 74	listed with 7057A in 705 manual accessory tables
Calibration	channel isolation and common-mode isolation procedures in 7057A manual
Form	705/706 plug-in scanner
Temperature conversion	controller tables or polynomials, not a stand-alone thermometer
Manual	7057A-901-01 Rev. D class (January 1992 literature)
Not 70	705-series card, not 7001/7002

PARAMETER	VALUE
CJC	uniform temperature reference block Notes Specs from Keithley Model 705 scanner manual (7057 description) and 7057A instruction manual identity. Confirm 7057 versus 7057A PCB. Peak 35 V / 100 mA; do not switch 7056-class power on this card.

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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Specifications

PARAMETER	VALUE
Mainframe bus	IEEE-488 Model 705
Cards per 705	two scanner cards
Related 7056	general purpose 10-channel 2-pole

Specifications

PARAMETER	VALUE
Related 7058	low current scanner
Related 7059	low voltage, less than 1 uV vs copper class
Related 7402	listed with 7057A in 705 manual accessory tables

Specifications

PARAMETER	VALUE
Calibration	channel isolation and common-mode isolation procedures in 7057A manual
Form	705/706 plug-in scanner
Temperature conversion	controller tables or polynomials, not a stand-alone thermometer

Specifications

PARAMETER	VALUE
Manual	7057A-901-01 Rev. D class (January 1992 literature)
Not 7011	705-series card, not 7001/7002
CJC	uniform temperature reference block

Notes

Specs from Keithley Model 705 scanner manual (7057 description) and 7057A instruction manual identity. Confirm 7057 versus 7057A PCB. Peak 35 V / 100 mA; do not switch 7056-class power on this card.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.