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Data Sheet

August 13, 2026

KEITHLEY

Keithley 7164 / 7164-M 20-Channel Scanner Card

Keithley Data Acquisition Systems (DAQ). Voltage: 350V peak between any terminal and earth.

**MODEL****Keithley 7164 /
7164-M****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****7164 / 7164-M****LISTING**[https://aumictechlabs.c
om/products/7164-7164
-m-2/](https://aumictechlabs.com/products/7164-7164-m-2/)

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NAICS 423690 · 811210 · 541380

This unit

The Keithley 7164/7164-M is a 20-channel scanner card for integrating with Keithley data acquisition systems and mainframes. It routes multiple signals to a single measurement instrument - such as a multimeter or source meter - enabling efficient automated test setups and data logging. The 7164-M variant employs mercury wetted reed relays for superior contact performance and signal integrity across demanding measurement applications. Technical Specifications Channel Configuration & Contacts 20 channels in 2-pole Form A configuration Common guard/shield connection per channel Mercury wetted reed relays (7164-M) Contact resistance: less than 1Ω at end of life Contact potential: less than ±500nV typical per contact; 1μV maximum Relay Signal Ratings DC: 110V DC, 1A switched, 30VA maximum (resistive load) AC: 125V AC rms or 175V AC peak, 100kHz maximum, 1A switched, 62.5VA maximum (resistive load) Contact life: greater than 10⁵ operations at maximum signal level; greater than 10⁸ operations cold switching Actuation time: 2.5ms maximum on/off Input Characteristics Connector: Screw terminal, #22 AWG wire Isolation between any two terminals: greater than 10⁹Ω, less than 75pF Isolation between any terminal and earth: greater than 10⁹Ω, less than 150pF Common mode voltage: 350V

peak between any terminal and earth Maximum voltage between any two terminals: 110V DC, 125V AC rms Key Features Mercury wetted reed relays deliver low contact potential for precision measurements Cold switching rated to 10^8 operations ensures extended operational life Screw terminal connectors accept #22 AWG conductors for field wiring Superior isolation characteristics minimize crosstalk in multi-channel measurement configurations Form A relay configuration provides straightforward two-pole switching architecture Typical Applications Multi-channel DC and AC signal routing to digital multimeters Source meter multiplexing in automated parametric test systems Data acquisition switching matrices for environmental chamber testing Precision measurement instrument signal distribution Compatibility & Integration Designed for Keithley data acquisition systems and mainframes. Verify specific mainframe compatibility based on system requirements. Physical dimensions: 21mm H × 72mm W × 221mm D.

Features & description

From manufacturer datasheet

Features

- 50-pinDversus screw-terminal 70xx cards
- Common guard/shield on the 2-pole FormAtree
- Specified as a 1-of-20 selector, not an arbitrary matrix
- 7164-M mercury-wetted contacts; 7164-D dry reed
- 7001/7002 mainframe family (not 705 plug-in 7058/7059)

71647164M Characteristics / Specifications

PARAMETER	VALUE
Model	7164
Manufacturer	Keithley Instruments
Instrument Type	20 channel 2 pole scanner card
Alias	7164; 7164-D; 7164-M; 7164M; 7164D
Host Mainframes	Keithley 7001 and 7002
Channel Count	20
Poles	2
Contact Configuration	FormAwith common guard/shield
Selector Use	one of twenty channels only
Connector Type	50 pinDContact Type Dry: dry reed (7164-D)
Contact Type Mercury	mercury wetted reed (7164-M)
Max Voltage 7164M	100 V peak
Max Switched Current 7164M	0.75 A
Max Carry Current 7164M	1 A
Max VA 7164M	10 VA resistive load only
Contact Life Cold	greater than 1e7 closures class (RevAsheet)
Contact Life Max Signal	greater than 1e6 closures class at maximum signal
Channel Isolation	greater than 1e9 ohm, less than 50 pF (RevAsheet)
Common Mode Isolation	greater than 1e9 ohm class
Relay Drive Current	16 mA per relay typical class
Related Dry	7164-D
Related Mercury	7164-M
Form	single slot 7001/7002 card
Interconnect	50 pinDto twisted pair ribbon
Guard	common guard/shield connection

PARAMETER	VALUE
Mainframe Slots	one card slot in 7001 or 7002

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	
Technical Specifications	
PARAMETER	VALUE
Model	7164
Manufacturer	Keithley Instruments
Instrument Type	20 channel 2 pole scanner card
Alias	7164; 7164-D; 7164-M; 7164M; 7164D
Host Mainframes	Keithley 7001 and 7002
Channel Count	20
Poles	2
Contact Configuration	Form A with common guard/shield
Selector Use	one of twenty channels only
Connector Type	50 pin D
Contact Type Dry	dry reed (7164-D)
Contact Type Mercury	mercury wetted reed (7164-M)
Max Voltage 7164M	100 V peak
Max Switched Current 7164M	0.75 A
Max Carry Current 7164M	1 A
Max VA 7164M	10 VA resistive load only
Contact Life Cold	greater than 1e7 closures class (Rev A sheet)
Contact Life Max Signal	greater than 1e6 closures class at maximum signal
Channel Isolation	greater than 1e9 ohm, less than 50 pF (Rev A sheet)
Common Mode Isolation	greater than 1e9 ohm class
Relay Drive Current	16 mA per relay typical class
Related Dry	7164-D
Related Mercury	7164-M
Form	single slot 7001/7002 card
Interconnect	50 pin D to twisted pair ribbon
Guard	common guard/shield connection

PARAMETER	VALUE
Mainframe Slots	one card slot in 7001 or 7002
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Related Dry	7164-D
Related Mercury	7164-M
Form	single slot 7001/7002 card
Interconnect	50 pinDto twisted pair ribbon
Guard	common guard/shield connection
Mainframe Slots	one card slot in 7001 or 7002

Notes

Specs from Keithley Model 7164 20-Channel Scanner Card Specifications Rev. A (7164-D dry reed; 7164-M mercury-wetted, 100 V peak, 0.75 A switched, 1 A carry, 10 VA). ConfirmDversusMon the card silkscreen. Do not apply 7164-M current ratings toadry-reed 7164-D without the D-column of Rev. A.

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.