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Data Sheet

August 13, 2026

KEITHLEY

Keithley 7037-D 30-Channel Digital I/O Card

Keithley Digital Input Board. Current: 1A, Current: $10^9\Omega$, Current: 16mA per relay.



MODEL

Keithley 7037-D

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

7037-D

LISTING

<https://aumictechlabs.com/products/7037-d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley 7037-D is a 30-channel digital I/O card designed for integration into automated test and measurement systems. It combines single-pole relay switching with independent digital inputs and outputs, delivering versatile signal routing and control for complex test environments. The card accommodates 30 independent 1-pole Form A relay channels alongside 10 digital inputs and 10 digital outputs, all accessible through two heavy-duty 50-pin D-sub connectors rated for frequent industrial connections. Technical Specifications Relay Switching 30 independent channels, 1-pole Form A configuration Maximum signal: 110V DC, 110V rms, 155V peak (between any two inputs or chassis) Switched current: 1A; power rating: 30VA (resistive load) Channel resistance: $<1.25\Omega$ per conductor Contact potential: $<4\mu\text{V}$ per contact Offset current: $10^9\Omega$, $10^9\Omega$, $<100\text{pF}$ Crosstalk at 1MHz, 50 Ω load: $<-40\text{dB}$ Insertion loss: $<0.25\text{dB}$ below 1MHz, $<3\text{dB}$ below 10MHz Relay drive current: 16mA per relay Digital I/O 10 independent outputs: open-collector drivers with internal 10k Ω pull-up resistors and flyback diodes Output pull-up voltage: 5V internally supplied; external connection available up to 42V maximum Output short circuit protection: up to 25V Maximum sink current: 250mA per channel, 1A per card Configurable negative or positive true logic 10 independent inputs with configurable 10k Ω pull-up or pull-down

resistors Maximum input voltage: 42V peak Input logic: positive true Key Features Heavy-duty 50-pin D-sub connectors for industrial production environments Hardware-configurable digital I/O logic levels Flyback diode protection on output drivers Low contact resistance and minimal crosstalk for signal integrity Typical Applications Portable device testing, automated test setups, multi-channel signal routing, equipment control with external device monitoring. Compatibility & Integration Compatible with Keithley 7001 and 7002 switch mainframes, as well as other 7XXX series cards.

Features & description

From manufacturer datasheet

Features

- 30 FormAanalog channels plus 10 DI / 10 DO (7036 is 40 analog, no digital) • Open-collector outputs with flyback diodes and user pull-up to 42 V • Hardware-selectable positive or negative true output logic • Digital inputs with 10 kohm pull-up or pull-down • D-sub pigtails for industrial cabling; 7037-DT mass-term option

7037D Characteristics / Specifications

PARAMETER	VALUE
Model	7037-D
Manufacturer	Keithley Instruments
Instrument Type	30 channel FormAswitch card with digital I/O
Alias	7037-D; 7037D; Keithley 7037-D
Host Mainframes	Keithley 7001 and 7002
Relay Channels	30 independent 1 pole
Contact Configuration	1 pole FormAConnector Type: cables with 50 pin male and female D-sub
Max Voltage DC	110 V DC between any two inputs or chassis
Max Voltage RMS	110 V rms
Max Voltage Peak	155 V peak
Max Switched Current	1 A
Max VA	30 VA resistive load
Contact Life Cold	1e8 closures
Contact Life Max Signal	1e5 closures
Channel Resistance	less than 1.25 ohm per conductor
Contact Potential	less than 4 uV per contact
Offset Current	less than 100 pA
Actuation Time	3 ms
Isolation Channel	greater than 1e9 ohm, less than 25 pF
Isolation Common Mode	greater than 1e9 ohm, less than 100 pF
Crosstalk	less than minus 40 dB at 1 MHz, 50 ohm load
Insertion Loss Low	less than 0.25 dB below 1 MHz (50 ohm source and load)
Insertion Loss High	less than 3 dB below 10 MHz
Relay Drive Current	16 mA per relay
Digital Inputs	10 independent

PARAMETER	VALUE
Digital Outputs	10 independent
Output Drivers	10 open collector with 10 kohm factory pull ups and flyback diodes
Pullup Internal	5 V
Pullup External	user supplied up to 42 V maximum
Output Short Protect	up to 25 V
Sink Current Channel	250 mA maximum
Sink Current Card	1 A maximum
Output Logic	hardware configurable negative or positive true
Input Pull Resistors	10 kohm, pull up or pull down
Input Max Voltage	42 V peak
Input Logic	positive true
Operating Temperature	0 C to 50 C, up to 35 C at less than 80 percent RH
Storage Temperature	minus 25 C to 65 C
Related Analog Only	7036 (40 channel Form A, 96 pin DIN)
Related Mass Term	7037-DT connector board

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 25 C to 65 C
Operating temperature	0 C to 50 C, up to 35 C at less than 80 percent RH
Operating Temperature	0 C to 50 C, up to 35 C at less than 80 percent RH
Related Analog Only	7036 (40 channel Form A, 96 pin DIN)
Related Mass Term	7037-DT connector board Notes Specs from Keithley 7036/7037-D datasheet. 7037-D is not a 40-channel analog-only card; 7036 has the extra 10 analog channels and no digital I/O. Confirm 7037-DT if a mass-terminated connector is required.

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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Notes

Specs from Keithley 7036/7037-D datasheet. 7037-D is not a 40-channel analog-only card; 7036 has the extra 10 analog channels and no digital I/O. Confirm 7037-DT if amass-terminated connector is required.

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
<https://aumictechlabs.com>

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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.