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Data Sheet

August 13, 2026

KEITHLEY

Keithley 7020D

Applications Handler and fixture digital control with repeated mate cycles 40-bit status readback in 7001/7002 Driving relays with flyback diodes on each output Industrial production cables preferring D-sub over DIN Key Features Same 80-bit density as 7020 with D-sub pigtailed Internal 5.3 V or user 25 V pull-up PTC current limit per output 7020-DT related D-sub twin variant Inputs and outputs electrically independent Technical Specifications Model: 7020-D Manufacturer: Keithley Instruments Instrument Type: Digital I/O interface card D-sub variant Alias: 7020D; 7020-D; 7020-DT related Host Mainframes: 7001 and 7002 Digital Inputs: 40 independent Digital Outputs: 40 independent open collector Input Pull Up: 10 kohm internal Input Logic Low: 0.



MODEL

Keithley 7020D

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

7020D

LISTING

<https://aumictechlabs.com/products/7020d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 7020-D is an 80-bit digital I/O interface card delivering 40 independent inputs and 40 independent outputs for high-density signal monitoring and control in automated test systems. Two heavy-duty 50-pin D-sub connectors via short cables provide solid mechanical connection suitable for production environments with frequent connect/disconnect cycles. Open-collector output drivers with integrated flyback diodes, factory-installed 10kΩ pull-up resistors, and flexible voltage configuration support demanding industrial and ATE applications. Technical Specifications Digital I/O Architecture 40 independent digital inputs with internal 10kΩ pull-up resistors 40

independent digital outputs configured as open-collector drivers Input logic levels: 0.8V maximum (low), 2V minimum (high) Maximum input voltage: 42V peak Output Driver Characteristics Pull-up voltage: internally supplied at 5.3V; external connection accepts user-supplied voltage to 25V maximum Internal 10k Ω pull-up resistors; removable for external pull-up devices Positive Temperature Coefficient (PTC) circuit protector in series with each output Per-channel maximum sink current: 65mA Per-bank (8-bit) maximum sink current: 500mA Per-card maximum sink current: 1A Output protection resistance: <18 Ω Collector-emitter saturation voltage: <0.75V @ 1mA, <1V @ 65mA Input Specifications Input logic low current: -600 μ A maximum @ 0V Input logic high current: 50 μ A maximum @ 5V Power Supply Internal 5.3V supply or external user-supplied voltage option Key Features Two 50-pin D-sub connectors with short cable assemblies for reliable industrial interconnection Internal flyback diode protection on all output drivers Jumper-selectable dual pull-up voltage support Integrated input and output protection Compact high-density implementation Typical Applications Automated test equipment (ATE) with extensive digital control and monitoring Production line relay and solenoid control Industrial process monitoring with parallel signal acquisition Large-scale digital switching and sequencing Compatibility & Integration The 7020-D integrates into test systems requiring high-channel-count digital I/O in a single card slot. D-sub connector configuration optimizes for production environments where mechanical durability and frequent cable handling are operational requirements.

7020D Characteristics / Specifications

PARAMETER	VALUE
Model	7020-D
Manufacturer	Keithley Instruments
Instrument Type	Digital I/O interface cardDsub variant
Alias	7020D; 7020-D; 7020-DT related
Host Mainframes	7001 and 7002
Digital Inputs	40 independent
Digital Outputs	40 independent open collector
Input Pull Up	10 kohm internal
Input Logic Low	0.8 V max
Input Logic High	2 V min
Input Low Current	-600 uA max at 0 V
Input High Current	50 uA max at 5 V
Input Maximum Voltage	42 V peak
Input Logic	positive true
Output Pull Up Internal	5.3 V
Output Pull Up External	25 V max
Output Sink Per Channel	65 mA
Output Sink Per Bank	500 mA (8 bits)
Output Sink Per Card	1 A
Output Protection	PTC in series, less than 18 ohm
Collector Emitter Sat	less than 0.75 V at 1 mA; less than 1 V at 65 mA
Output Logic	negative true
Flyback Diode	internal on each driver
Connector 7020 D	50-pin male and female D-sub on cables
Related DIN Connector	7020 96-pin male DIN

PARAMETER	VALUE
Operating Temperature	0 C to 50 C, up to 35 C less than 80 percent RH
Storage Temperature	-25 C to 65 C
Banks	five driver ICs of 8 outputs each
Accessory Kit	7011-KIT-R included class on selector literature
Related	7020, 7020-DT, 7020-MTC-2

General Specifications & Supplementary Characteristics

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Storage temperature	25 C to 65 C
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Banks	five driver ICs of 8 outputs each
Accessory Kit	7011-KIT-R included class on selector literature
Related	7020, 7020-DT, 7020-MTC-2 Notes Specs from Keithley Model 7020 / 7020-D digital I/O interface card instruction manual and selector guide. Confirm D-sub versus DIN before buying cables. Electrical table matches 7020; connector is theDdifferentiator. Not a 40-channel analog mux (that is 7011).

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

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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.