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Data Sheet

August 13, 2026

--MODEL

Keithley 7751 500V Source/Switch Card

Keithley 7751 500 V Source Switch Card for 2790 The Keithley 7751 is the high-voltage source/switch module for the Model 2790 SourceMeter Switch System (airbag inflator/continuity testers). Programmable DC voltage 50-500 V (Ch. 28), 100 mV resolution, accuracy plus/minus (0.5 percent + 0.13 V) 2-year 23 plus/minus 5 C. Output current 50 uA max for rated accuracy, less than 1 mA typical into short; safety limit 1 mA. Rise 50 to 500 V 250 ms max to 0.1 percent; fall 500 to 50 V 1000 ms max. Current source 0-50 mA for continuity. I/V converter for insulation resistance; current measure 0-50 uA, accuracy plus/minus (0.5 percent + 6 nA) 2-year; voltage burden less than 1 mV. High-ohms floor 10 Mohm class (7753 is 1 Mohm). Four banks of two-pole relays. Cable-discharge 100 kohm shunt on Ch. 20. Max capacitance 1 nF. 7752 omits the HV source; 7753 is 500 uA I-measure / 1 Mohm floor. The Keithley 7751 is the high-voltage source/switch module for the Model 2790 SourceMeter Switch System (airbag inflator/continuity testers). Programmable DC voltage 50-500 V (Ch. 28), 100 mV resolution, accuracy plus/minus (0.5 percent + 0.13 V) 2-year 23 plus/minus 5 C. Output current 50 uA max for rated accuracy, less than 1 mA typical into short; safety limit 1 mA. Rise 50 to 500 V 250 ms max to 0.1 percent; fall 500 to 50 V 1000 ms max. Current source 0-50 mA for continuity. I/V converter for insulat



MODEL

--model 7751

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

7751

LISTING

<https://aumictechlabs.com/products/7751-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 7751 is a high-voltage Source/Switch Module engineered for the Keithley 2790 SourceMeter Switch System. It delivers programmable DC voltage sourcing from 50V to 500V with 100mV resolution and concurrent multi-channel relay switching. The module combines voltage and current sourcing with a built-in current-to-voltage converter for precision insulation resistance and continuity measurements. Primary applications include automotive component testing, airbag inflator validation, and bridgewire resistance characterization.

Technical Specifications

Voltage Source Programmable range: 50V to 500V, 100mV resolution Accuracy: 0.5% + 0.13V (2-year) Temperature coefficient: 0.03%/°C (0–18°C, 28–40°C) for 10MΩ range; 0.05%/°C for 100MΩ; 0.12%/°C for 1GΩ Maximum output current: 50μA at rated accuracy Typical short-circuit current: <1mA Rise time: 250ms (50V to 500V), 1000ms (500V to 50V) to 0.1% of final value

Current Source Programmable range: 0mA to 50mA, 10μA resolution Output voltage compliance: 5.5V ±10% Accuracy: 0.06% + 10μA (2-year) Settling time: 1ms typical to 0.1% of final value Temperature coefficient: (0.001% + 0.25μA)/°C (0–18°C, 28–40°C)

Current Measurement (I/V Converter) Measurement range: 0μA to 50μA Accuracy: 0.5% (of reading) + 5nA to 6nA (2-year) Voltage burden: <1mV Minimum resistance measurement: 10MΩ at rated accuracy

Relay Switching Configuration: 4 Form A channels or 4 sets of 4-pole or 8 sets of 2-pole signals Type: Latching electromechanical Actuation time: 10⁶ operations typical

Key Features Four relay banks enable single or dual inflator unit interfacing Low-current measurement capability down to nanoampere levels Fast relay switching with <3ms actuation High impedance testing suited for insulation and continuity validation

Typical Applications Automotive airbag inflator electrical testing Bridgewire and shunt bar resistance measurement High-voltage insulation resistance characterization Conductor continuity verification

Compatibility & Integration Exclusively designed for integration with the Keithley 2790 SourceMeter Switch System mainframe.

7751 Characteristics / Specifications

PARAMETER	VALUE
Model	7751
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Source/switch module
Family	7751/7752/7753
Alias	7751; Keithley 7751
Host	Keithley 2790 SourceMeter Switch System only
Voltage Output	programmable 50 to 500 V (Ch. 28)
Programming Resolution	100 mV
Voltage Accuracy	plus/minus (0.5 percent + 0.13 V) 2 year 23 plus/minus 5 C
Voltage Current Rated	50 uA max for rated accuracy
Voltage Current Typical Short	less than 1 mA
Safety Current Limit	1 mA
Rise Time	50 to 500 V to 0.1 percent, 250 ms max
Fall Time	500 to 50 V to 0.1 percent, 1000 ms max
Voltage Tempco	plus/minus (0.001 percent + 0.005 V) per C (0-18 C and 28-40 C)
Current Source	programmable 0 to 50 mA
Current Measure Range	0 to 50 uA
Current Measure Accuracy	plus/minus (0.5 percent of reading + 6 nA) 2 year
Current Measure Tempco	plus/minus (0.02 percent + 0.5 nA) perC Voltage Burden: less than 1 mV
High Ohms Floor	10 Mohm class
Resistance Example 50 mA 20 ohm	0.09 percent + 2 mohm (2 year)
Dry Circuit Ohms	1 mA max with 7751/7752/7753
Switch Banks	four banks two-pole relays
Cable Discharge	100 kohm shunt Ch. 20
Max Capacitance	1 nF

PARAMETER	VALUE
Related 77	0-500 uA I-measure, 1 Mohm floor, 500 uA HV accuracy current
Form	2790 plug-in module
Status	Keithley 2790 card Notes Specs from Keithley SPEC-2790E 7751/7752/7753 (50-500 V, 50 uA / 6 nA, 0-50 mA I-source, 10 Mohm floor). Confirm 7751 versus 7752/7753 on the module label.

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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Current Source	programmable 0 to 50 mA
Current Measure Range	0 to 50 uA
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Specifications

PARAMETER	VALUE
Dry Circuit Ohms	1 mA max with 7751/7752/7753
Switch Banks	four banks two-pole relays
Cable Discharge	100 kohm shunt Ch. 20

Specifications

PARAMETER	VALUE
Max Capacitance	1 nF
Related 7752	current source and switch only (no HV)
Related 7753	0-500 uA I-measure, 1 Mohm floor, 500 uA HV accuracy current

Form: 2790 plug-in module

Status: Keithley 2790 card

Notes

Specs from Keithley SPEC-2790E 7751/7752/7753 (50-500 V, 50 uA / 6 nA, 0-50 mA I-source, 10 Mohm floor). Confirm 7751 versus 7752/7753 on the module label.

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>

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.