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Data Sheet

August 13, 2026

KEITHLEY

Keithley 2002 8½-Digit Multimeter with Scanning

Keithley 2002 8.5 Digit High Performance Multimeter The Keithley 2002 is an 8.5-digit systems DMM, the highest-resolution member of the 2000/2001/2002 family. Basic 1-year DCV accuracy 0.0006 percent. DCV from 1 nV to 1100 V. Resistance to 1 Gohm with 100 nohm class sensitivity. Same high-speed A/D as 2001: over 2000 readings/s at 4.5 digits; 44 readings/s at 7.5 digits with full accuracy. Built-in scanner mainframe. 8K memory standard; 32K/128K optional. Peak detector, open-lead detect, single-phase 4-wire ohms. GPIB and RS-232. 90-day, 1-year, and 2-year specification intervals. The Keithley 2002 is an 8.5-digit systems DMM, the highest-resolution member of the 2000/2001/2002 family. Basic 1-year DCV accuracy 0.0006 percent. DCV from 1 nV to 1100 V. Resistance to 1 Gohm with 100 nohm class sensitivity. Same high-speed A/D as 2001: over 2000 readings/s at 4.5 digits; 44 readings/s at 7.5 digits with full accuracy. Built-in scanner mainframe. 8K memory standard; 32K/128K optional. Peak detector, open-lead detect, single-phase 4-wire ohms. GPIB and RS-232. 90-day, 1-year, and 2-year specification intervals. 2-year specs that can exceed a 6.5-digit DMM 90-day spec



MODEL

Keithley 2002

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

2002

LISTING

<https://aumictechlabs.com/products/2002-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 2002 is an 8½-digit digital multimeter with integrated scanning capabilities, delivering laboratory-grade accuracy and resolution for production testing, design verification, and metrology. Built on a 28-bit ADC architecture, it achieves true 8½-digit resolution with 1 nV DCV sensitivity and 0.0006% basic accuracy across a single 1 µV to 20 V range. Beyond voltage and resistance, the instrument captures AC measurements from 1 Hz to 15 MHz, including peak, RMS, average, and crest factor; temperature via thermocouple and RTD sensors; and transient spikes as brief as 1 µs. An optional rear-panel multiplexer card transforms the 2002 into a multi-point scanning system, while simultaneous multi-parameter display on a single connection reduces instrument overhead.

Technical Specifications

DC Voltage: 1 nV sensitivity; 0.0006% basic accuracy; 1 µV to 20 V range
AC Voltage: 750 V maximum; measurements from 1 Hz to 15 MHz; better than 0.1% accuracy at 1 Hz
Resistance: 1000 Ω maximum; 4-wire single-phase method with open-lead detection
Current: 2 A maximum (DC and AC)
Frequency: 1 Hz to 15 MHz measurement range with adjustable trigger level
Temperature: J, K, N, T, E, R, S, B thermocouple and RTD types supported
Spike Capture: Peak detection down to 1 µs; 1 MHz repetitive or 1 µs single-event operation
ADC Resolution: 28-bit converter; true 8½-digit display

Key Features

Advanced AC measurement modes: peak, RMS, average, AC, AC+DC coupling, and low-frequency RMS Crest factor measurement for signal characterization
Simultaneous multi-parameter display from single connection
Built-in current, temperature, peak spike, and AC crest factor functions
Optional rear-panel multiplexer card slot for multi-point scanning

Typical Applications

Precision production testing with minimal range-shift error
Design verification requiring transient capture and multi-frequency analysis
Metrology and calibration work demanding sub-microvolt resolution
Compatibility & Integration Scanning option via card-slot multiplexer for expanded channel measurement.

2002 Characteristics / Specifications

PARAMETER	VALUE
Model	2002
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	8.5 digit high performance digital multimeter
Alias	2002; Keithley 2002
Resolution	8.5 digits
Basic DCV Accuracy	0.0006 percent (1 year)
DCV Range	1 nV to 1100 V
ACV Range	100 nV class to 750 V
DCI Sensitivity	10 pA class
DCI Range	200 uA to 2 A class
Resistance Sensitivity	100 nohm class
Resistance Maximum	1 Gohm
Basic Ohms Accuracy	0.0007 percent class
Frequency Range	1 Hz to 2 MHz
Peak Detector	1 MHz repetitive; 1 us single spike
Reading Rate 4.5 Digit	more than 2000 readings/s
Reading Rate 7.5 Digit	up to 44 readings/s full accuracy DCV/ohms
Reading Memory Standard	8K readings
Reading Memory Optional	32K and 128K
Scanner	built-in mainframe (optional cards)
Remote Interfaces	GPIB IEEE-488; RS-232
Calibration Intervals	90 day, 1 year, 2 year
Related 7.5 Digit	Model 2001
Max Input	plus/minus 1100 V peak, 2e7 V Hz above 20 V
Temperature	T/C and RTD family

PARAMETER	VALUE
Offset Compensation	yes
Open Lead Detect	yes Notes Specs from Keithley Model 2002 specification and high-performance DMM comparison. Confirm memory option and scan card. 2-year interval isadocumented 2002 calibration choice.

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.

Performance Multimeter

Overview

The Keithley 2002 is an 8.5-digit systems DMM, the highest-resolution member of the 2000/2001/2002 family. Basic 1-year DCV accuracy 0.0006 percent. DCV from 1 nV to 1100 V. Resistance to 1 Gohm with 100 nohm class sensitivity. Same high-speed A/D as 2001: over 2000 readings/s at 4.5 digits; 44 readings/s at 7.5 digits with full accuracy. Built-in scanner mainframe. 8K memory standard; 32K/128K optional. Peak detector, open-lead detect, single-phase 4-wire ohms. GPIB and RS-232. 90-day, 1-year, and 2-year specification intervals.

Applications

8.5-digit DCV metrology

Precision ohms and low-level DC

Production test with transfer-level DCV

Scanned multipoint with optional cards

Key Features

8.5-digit resolution (1 nV DCV)

2-year specs that can exceed a 6.5-digit DMM 90-day spec

Open-lead detection

Single-phase 4-wire ohms

Peak detector to 1 MHz / 1 us

Technical Specifications

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PARAMETER	VALUE
Model	2002
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	8.5 digit high performance digital multimeter

Specifications

PARAMETER	VALUE
Alias	2002; Keithley 2002
Resolution	8.5 digits
Basic DCV Accuracy	0.0006 percent (1 year)

Specifications

PARAMETER	VALUE
DCV Range	1 nV to 1100 V
ACV Range	100 nV class to 750 V

PARAMETER	VALUE
DCI Sensitivity	10 pA class

Specifications

PARAMETER	VALUE
DCI Range	200 uA to 2 A class
Resistance Sensitivity	100 nohm class
Resistance Maximum	1 Gohm

Specifications

PARAMETER	VALUE
Basic Ohms Accuracy	0.0007 percent class
Frequency Range	1 Hz to 2 MHz
Peak Detector	1 MHz repetitive; 1 us single spike

Specifications

PARAMETER	VALUE
Reading Rate 4.5 Digit	more than 2000 readings/s
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Reading Memory Standard	8K readings

Specifications

PARAMETER	VALUE
Reading Memory Optional	32K and 128K
Scanner	built-in mainframe (optional cards)
Remote Interfaces	GPIB IEEE-488; RS-232

Specifications

PARAMETER	VALUE
Calibration Intervals	90 day, 1 year, 2 year
Related 7.5 Digit	Model 2001
Max Input	plus/minus 1100 V peak, 2e7 V Hz above 20 V

Specifications

PARAMETER	VALUE
Temperature	T/C and RTD family
Offset Compensation	yes
Open Lead Detect	yes

Notes

Specs from Keithley Model 2002 specification and high-performance DMM comparison. Confirm memory option and scan card. 2-year interval isadocumented 2002 calibration choice.

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.