

## KEITHLEY

# 2000

The Keithley 2000 is a high-performance 6.5-digit digital multimeter that combines broad measurement ranges with exceptional speed and accuracy. Featuring a built-in 1024-reading memory buffer and an expansion slot for optional 20-channel multiplexer cards, it is an ideal choice for both precise benchtop troubleshooting and high-throughput automated measurement applications.

### SPECIFICATIONS

#### General

|            |                                  |
|------------|----------------------------------|
| Interfaces | GPIB (IEEE-488), RS-232          |
| Display    | Vacuum Fluorescent Display (VFD) |

#### Physical

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| Power Supply          | 100 V / 120 V / 220 V / 240 V, 50 Hz / 60 Hz / 400 Hz, 22 VA max |
| Operating Temperature | 0 to 50 °C                                                       |
| Dimensions (W×H×D)    | 213 x 89 x 370 mm mm                                             |
| Weight                | 2.9 kg                                                           |

#### General Characteristics

|                                 |                                                                                                                                         |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Resolution (Digits)     | 6.5                                                                                                                                     |
| Reading Memory (Buffer Size)    | 1024 readings                                                                                                                           |
| Supported Measurement Functions | DC Voltage, AC Voltage, DC Current, AC Current, 2-Wire Resistance, 4-Wire Resistance, Frequency, Period, Temperature, Diode, Continuity |
| Warm-up Time                    | 1 hour to rated accuracy                                                                                                                |

#### DC Voltage

|                                          |                                  |
|------------------------------------------|----------------------------------|
| Measurement Ranges                       | 100 mV, 1 V, 10 V, 100 V, 1000 V |
| Maximum Resolution                       | 100 nV                           |
| Accuracy (90 Days)                       | 0.002% (basic)                   |
| Maximum Input Voltage                    | 1000 V DC                        |
| Input Impedance (100 mV to 10 V ranges)  | >10 GΩ                           |
| Input Impedance (100 V to 1000 V ranges) | 10 MΩ ±1%                        |
| Input Bias Current                       | < 30 pA at 25°C                  |

#### AC Voltage

|                       |                 |
|-----------------------|-----------------|
| Frequency Range       | 3 Hz to 300 kHz |
| Measurement Technique | True RMS        |

## DC Current

|                       |     |
|-----------------------|-----|
| Maximum Input Current | 3 A |
|-----------------------|-----|

## Resistance

|                                     |                |
|-------------------------------------|----------------|
| Measurement Types (2-Wire / 4-Wire) | 2-Wire, 4-Wire |
|-------------------------------------|----------------|

## Frequency and Period

|              |                     |
|--------------|---------------------|
| Period Range | 333 ms to 2 $\mu$ s |
|--------------|---------------------|

## Temperature Measurement

|                              |                                                          |
|------------------------------|----------------------------------------------------------|
| Supported Thermocouple Types | J, K, T (Requires external CJC or scanner card with CJC) |
|------------------------------|----------------------------------------------------------|

## System Speeds and Measurement Rates

|                                            |                                        |
|--------------------------------------------|----------------------------------------|
| Maximum Readings per Second (To Memory)    | 2000 rdgs/s (at 4.5 digits)            |
| Maximum Readings per Second (To Interface) | 50 rdgs/s (at 6.5 digits via IEEE-488) |

## Math and Triggering

|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| Mathematical Operations | REL, Min/Max/Average/StdDev, dB, dBm, Limit Test, %, mX+b |
|-------------------------|-----------------------------------------------------------|

## Interfaces and Expansion

|                 |                                              |
|-----------------|----------------------------------------------|
| Emulation Modes | SCPI, Keithley 199, Fluke 8840A, Fluke 8842A |
|-----------------|----------------------------------------------|

## Environmental and Compliance

|                           |                 |
|---------------------------|-----------------|
| Storage Temperature Range | -40 °C to 70 °C |
|---------------------------|-----------------|

## Physical Characteristics

|                          |               |
|--------------------------|---------------|
| Rack Mount Compatibility | Half-rack, 2U |
|--------------------------|---------------|

## Performance

|                                    |                                                |
|------------------------------------|------------------------------------------------|
| Common Mode Rejection Ratio (CMRR) | 140 dB (DC, 1 k $\Omega$ unbalance in LO lead) |
| Normal Mode Rejection Ratio (NMRR) | 60 dB (for 1 NPLC or greater)                  |

## Diode Test

|                    |      |
|--------------------|------|
| Diode Test Current | 1 mA |
|--------------------|------|

## Continuity

|                      |                                             |
|----------------------|---------------------------------------------|
| Continuity Threshold | Adjustable from 1 $\Omega$ to 1000 $\Omega$ |
|----------------------|---------------------------------------------|

## Power

|                   |               |
|-------------------|---------------|
| Power Consumption | 22 VA maximum |
|-------------------|---------------|

## Environmental

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| Operating Humidity         | 80% RH up to 35°C, 70% RH up to 50°C (non-condensing) |
| Maximum Operating Altitude | 2000 m                                                |
| Pollution Degree           | 2                                                     |

Measurement Configuration

|                             |                                          |
|-----------------------------|------------------------------------------|
| Maximum Common Mode Voltage | 500V peak                                |
| Integration Time Settings   | 0.01, 0.1, 1, 10 Power Line Cycles (PLC) |

Voltage Measurement

|                    |                              |
|--------------------|------------------------------|
| AC Input Impedance | 1 MΩ ±2% shunted by < 100 pF |
| Crest Factor (AC)  | 3:1 at full scale            |

Current Measurement

|                            |                         |
|----------------------------|-------------------------|
| Input Protection (Current) | 3A, 250V fast-blow fuse |
|----------------------------|-------------------------|

TECHNOLOGY

Digital Multimeter (DMM)

APPLICATIONS

Benchtop & System Test

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.