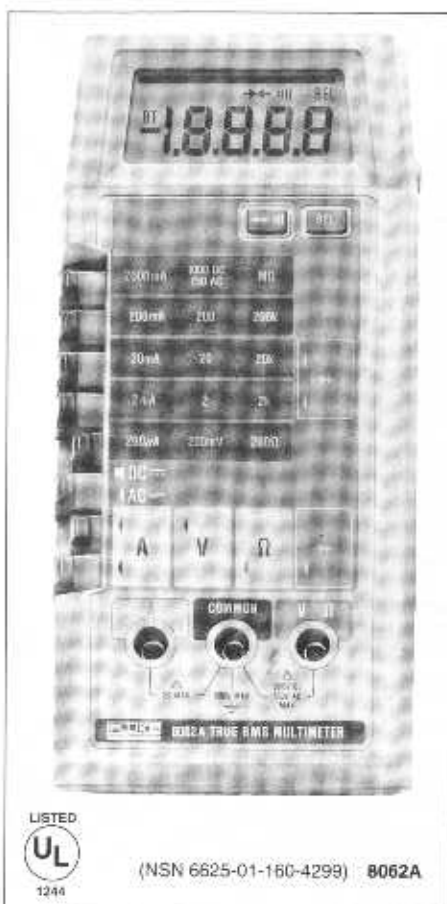


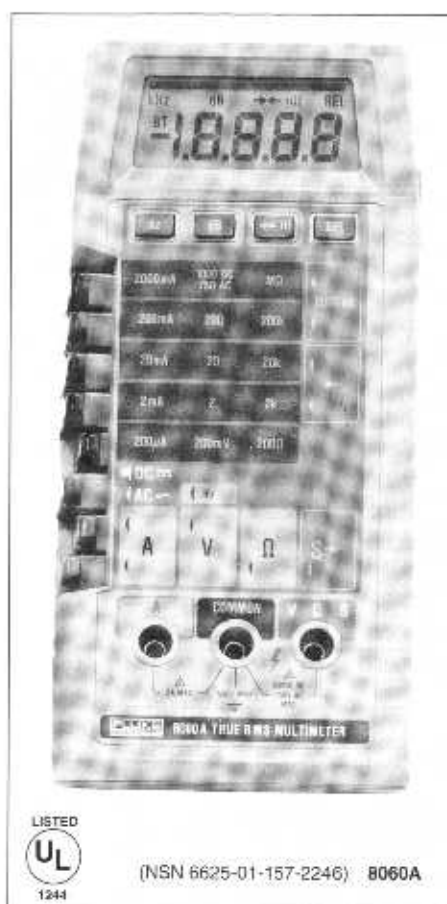
8060A & 8062A

Available through Distributors



8062A 4 1/2 Digit DMM

- 4 1/2 digit (20,000 count) resolution
- True-rms ac measurements
- Fast audible/visual continuity tests
- Relative reference (offset)
- Low-power ohms all resistance ranges
- Constant-current diode test mode
- Measure resistances to 300 MΩ
- True-rms ac voltages to 30 kHz
- 0.05% basic dc accuracy
- Self diagnostics
- UL 1244 listed
- 1-year warranty



8060A 4 1/2 Digit DMM

- 4 1/2 digit (20,000 count) resolution
- True-rms ac measurements
- Fast audible/visual continuity tests
- Relative reference (offset)
- Low-power ohms all resistance ranges
- Constant-current diode test mode
- Measure resistances to 300 MΩ
- True-rms ac voltages to 100 kHz
- 0.04% basic dc accuracy
- Self diagnostics
- UL 1244 listed
- 1-year warranty
- Plus
- Frequency Counter... 12 Hz to 200 kHz
functional to 700 kHz
- dBm or relative dB measurements
- Conductance measurements

The 8060A and 8062A 4 1/2 digit handheld DMMs offer more measurement capabilities than found in most bench/portable models. They are Fluke's finest microcomputer-based handheld DMMs offering unique features never before found in a small low-cost DMM. The 8060A even measures frequency - from 12 Hz to more than 200 kHz - autoranging over four ranges from 200 Hz to 200 kHz.

At the touch of a single button you can select V, Hz, and dB.

Relative Reference

When measuring ohms, the microcomputer lets you automatically subtract lead resistance, displaying only the difference between a stored reference value and a measured value. The relative mode is great for measuring changes, especially in dB and frequency measurements.

Overload Protected & Rugged

The 8060A and 8062A are well-suited to the needs of engineers and technicians skilled in audio, video, telecommunication, or computer technology. They have rugged cases, safety engineered jacks and test leads, double-fused current inputs, and extensive overload protection for all other functions and ranges.

Automatic MΩ Range Selection

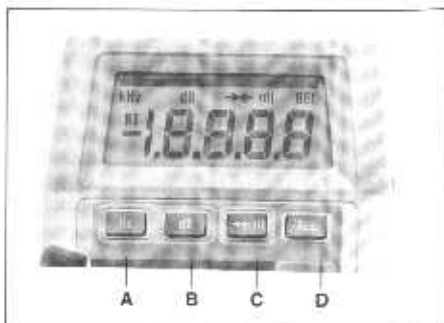
To keep the front panel simple, there is only one manually-selectable position above 200 kΩ. When that position is used, the appropriate 2 MΩ, 20 MΩ, or 300 MΩ range is automatically selected.

Frequency Counter

It is easy to accurately measure the dB gain or loss of amplifiers, filters, attenuators, etc. with a DMM that has dB readout. To combine that feature in a handheld DMM that also measures frequency provides a nearly ideal test instrument for many applications. When you need the best in a handheld DMM, you should buy the 8060A. It has features you won't find even in most bench/portable DMMs.

True-RMS AC

Because true-rms measurements of ac yield accurate results on non-sinusoidal waveforms as well as sine waves, the 4 1/2 digit resolution, wide



bandwidth, and exceptional accuracy of the 8060A and 8062A make them a superior tool for exacting technical people.

Special Functions

Several special annunciator symbols appear in the display as a reminder of what mode or modes have been selected when pushbuttons **A, B, C,** and **D** are used. Only pushbuttons **C** and **D** and corresponding functions appear on the 8062A.

(A) Pushing the Hz button when in the ac voltage mode selects the frequency function. The best of four ranges (200 Hz, 2 kHz, 20 kHz, and 200 kHz) is then automatically selected for frequencies between 12 Hz and 200 kHz. Readings are updated every 1.3 seconds or less even for low-frequency ranges.

(B) Pushing the dB button converts voltage readings to the equivalent in decibels. The reading may be relative to 1 milliwatt (dBm) and a 600 ohm load, or they may be relative to any level previously stored as a "relative reference."

(C) This pushbutton converts resistance measurements to fast indications of continuity, either audibly with a beep tone or quietly by the appearance of the solid black bar across the top of the display. Continuity as brief as 50 microseconds is enough to be recognized, stored, and indicated.

(D) When you first push the REL button it stores the displayed reading and subsequently subtracts that value from all subsequent readings for that measurement function. REL appears in the display as a reminder until the 8060A or 8062A is turned off or the pushbutton is pressed a second time.

Specifications

Technical Specifications

All accuracy specifications apply for one year after purchase or recalibration when operated in a temperature of 18°C to 28°C and a relative humidity of up to 80%, unless otherwise noted.

DC Voltage

Ranges: ±200 mV, ±2V, ±20V, ±200V, ±1000V
Resolution: 10 µV on the 200 mV range
Input Impedance: 10 MΩ on all ranges, >1000 MΩ selectable for 200 mV and 2V ranges
Accuracy: ±(% of rdg + digits)

Range	8060A	8062A
200 mV, 2V	0.04% + 2*	0.05% + 2
20V, 200V, 1000V	0.05% + 2	0.07% + 2

*Accuracy ± (0.05% of reading + 2 digits) for >1000 MΩ input impedance

Normal Mode Noise Rejection: ≥60 dB at 50 Hz and 60 Hz

Common Mode Noise Rejection: ≥120 dB at dc, ≥90 dB at 50 Hz and 60 Hz, with 1 kΩ unbalance

Overload Protection: 1000V dc, 750V rms ac (not to exceed a volt-hertz product of 10⁷) on all ranges, continuous except limited to 20 seconds on 200 mV and 2V ranges

Response Time: ≤1 second to rated accuracy

AC Voltage (True-RMS, AC Coupled)

Ranges: 200 mV, 2V, 20V, 200V, 750V
Resolution: 10 µV on the 200 mV range
Input Impedance: 10 MΩ, ≤100 pF (dBm mode also)

Crest Factor: Waveforms with peak/rms ratio of 1:1 to 3:1

Voltage Readout, 8060A: From 5% to 100% of range

Range	Accuracy: ±(% of Rdg + Digits)					
	20 Hz	45 Hz	1 kHz	10 kHz	30 kHz	50 100 kHz
200 mV		0.2% +10	0.2% +20	0.5% +40	1% +100	
2V	1% +10	0.5% +10	0.5% +20	1% +40	2% +100	3% +200
20V						
200V						
750V	Not Spec'd	1% +10	Not Specified			

Voltage Readout, 8062A: From 5% to 100% of range

Range	Accuracy: ±(% of Rdg + Digits)				
	20 Hz	45 Hz	500 Hz	1 kHz	10 30 kHz
200 mV				0.5% +20	1% +40
2V	1% +10	0.5% +10		5% +20	5% +40
20V					
200V					
750V	Not Spec	2% +10	Not Spec'd		

dBm, 600Ω Reference, 8060A: From 5% to 100% of range (-50 to +60 dBm)

Range	Accuracy in dB					
	20 Hz	45 Hz	1 kHz	10 kHz	30 kHz	50 100 kHz
2.45 mV-10.23 mV	-0.5	±1.0	±3.0	Not Spec'd		
10.24 mV-19.99 mV		±0.2	±0.5	±1.0	±2.2	
20 mV-199.99V		+0.15	-0.3	-0.65	+1.2	
200V-750V	-0.5	Not specified				

Useful Frequency Range: -3 dB at 420 kHz at 100% of range, 220 kHz at 5% of range, typical

Common Mode Noise Rejection: ≥60 dB at 50 Hz and 60 Hz, 1 kΩ unbalance

Overload Protection: 1000V dc or peak ac, 750V rms ac (not to exceed a volt-hertz product of 10⁷) on all ranges, continuous, except 300V dc or rms ac on the 200 mV and 2V ranges for 20 seconds maximum

Response Time: ≤5 seconds to rated accuracy, any range

DC Current

Range	Resolution	Accuracy: ±(% Rdg + Digits)		Burden Voltage
		8060A	8062A	
200 µA	0.01 µA	0.2% + 2	0.3% + 2	≤0.3V
2 mA	0.1 µA			
20 mA	1 µA	0.3% + 2	0.7% + 2	
200 mA	10 µA			
2000 mA	100 µA			≤0.9V

Input Protection: 2A/250V fuse in series with 3A/600V fuse

Response Time: ≤1 second to rated accuracy

AC Current (True-RMS)

Has dc-coupled current path, ac-coupled voltage-sensing circuits

Ranges, Resolution, Burden Voltage: Same as for dc current

Accuracy, 8060A: ±(% of Rdg + Digits) from 5% to 100% of range

Range	20 Hz-45 Hz	45 Hz-3 kHz	3 kHz-10 kHz	10 kHz-30 kHz
	200 µA			
2 mA	1%	0.75%	2%	2%
20 mA	+10	+10	+20	+40
200 mA				
2000 mA			Not Specified	

Accuracy, 8062A: ±(% of Rdg + Digits) from 5% to 100% of range

Range	20 Hz-45 Hz	45 Hz-3 kHz	3 kHz-10 kHz	10 kHz-30 kHz
	200 µA			
2 mA	1%	0.75%	2%	2%
20 mA	+10	+10	+20	+40
200 mA	1.5%	1%		
2000 mA	+10	+10	Not Specified	

Crest Factor: 1:1 to 3:1

Response Time: ≤5 seconds to rated accuracy

Handheld Multimeters

8060A & 8062A

Resistance

Ranges: 200Ω, 2Ω, 20 kΩ, and 200 kΩ manually selected plus 2 MΩ, 20 MΩ, 100 MΩ, and 300 MΩ automatically selected in the MΩ range

Resolution and Accuracy

Range	Resolution	Accuracy: ±(% of Rdg + Digits)	
		8060A	8062A
200Ω	0.01Ω	0.07% + 2 + 0.02Ω	0.1% + 2 + 0.02Ω
2 kΩ	0.1Ω		
20 kΩ	1Ω	0.07% + 2	0.1% + 2
200 kΩ	10Ω		
2 MΩ*	100Ω	0.15% + 2	0.2% + 2
20 MΩ*	10 kΩ	0.2% + 3	0.25% + 3
100 MΩ*	100 kΩ	1% + 3	1% + 3
300 MΩ*	1 MΩ	2% + 3	2% + 3

*These four autoranging MΩ ranges have a high enough source voltage to turn on a silicon junction.

Open Circuit Voltage: ≤2.5V all ranges, except ≤4.8V on 200Ω range

Overload Protection: 500V dc or rms ac on all ranges

Response Time: ≤2 seconds to rated accuracy except ≤8 seconds on MΩ ranges

Continuity

Ranges: All resistance ranges

Threshold: For 8060A, <10% of any range used through 200 kΩ range and ≤20 kΩ above 200 kΩ range. For 8062A ≤50% of range and nominally <100 kΩ above 200 kΩ range

Indication: Horizontal bar in display, plus audible tone when desired

Response Time: ≤50 μs continuity, ≥200 ms indication

Diode Test

The diode test function displays the voltage-drop across a semiconductor junction using a 1 mA (±10%) constant current supply and a 2V range. All resistance ranges up to and including the 200 kΩ range have less than enough source voltage to forward-bias a semiconductor junction, so that they can be used for in-circuit measurements.

Reading Accuracy: ±(0.05% + 2 digits) for 8060A, ±(0.06% + 2 digits) for 8062A

Overload Protection: 500V dc or rms ac

Response Time: ≤2 seconds to rated accuracy

Conductance (8060A only)

Range: 2000 nS (equivalent to 500 kΩ)

Resolution: 0.1 nS

Accuracy: (0.5% of reading + 20 digits)

Overload Protection: 500V dc or rms ac

Relative Reference

When the REL button is pushed the displayed reading is stored as a reference and subtracted from subsequent readings to indicate the amount of deviation.

Accuracy: Error will not exceed the sum of the errors of the reference reading and subsequent readings

Frequency (8060A only)

Ranges: 200 Hz, 2000 Hz, 20 kHz, and 200 kHz, automatically selected in the Hz mode, ac voltage function. Measures down to 12 Hz. Will measure to 700 kHz in Extended Frequency Mode.

Resolution: 0.005% of range, e.g., 0.01 Hz in 200 Hz range

Accuracy: ±(0.05% of reading + 1 digit)

Input Impedance: AC coupled into 10 MΩ, 100 pF

Sensitivity: For sine waves, ≥10% of voltage range to 20 kHz, ≥25% of voltage range to 100 kHz, ≥75% of voltage range to 200 kHz

Response Time: ≤1 second above 16 Hz, ≤1.3 seconds from 12.2 Hz to 16 Hz, to rated accuracy

General Specifications

Calibration Cycle: One-year for specified accuracy

Display: 4½ digits (20,000 counts), LCD, auto-zero, autopolarity, low battery (BT) indicator

Max Common Mode Voltage: 500V dc or rms ac

Temperature: 0°C to 50°C operating; -35°C to 60°C non-operating

Temperature Coefficient: ≤0.1 times the applicable accuracy specification per °C from 18°C to 0°C or 28°C to 50°C

Relative Humidity: ≤70% to 50°C or ≤80% to 35°C but ≤70% when measuring resistance above 20 MΩ

Shock and Vibration: Per MIL-T-28800, Class 5

Safety: UL 1244 listed, ANSI C39.5, IEC 348 Class II, and CSA Bulletin 556B

Power: Single 9V battery, NEDA 1604, typically 170 hours of operation with alkaline type

Size: 180 mm L x 86 mm W x 45 mm H (7.1 in L x 3.4 in W x 1.8 in H)

Weight: 0.41 kg (0.90 lb)

Ordering Information

Models

8060A Digital Multimeter

8062A Digital Multimeter

Included with Instrument

One-year product warranty, Instruction manual, TL70A test leads, 9V battery, Operator's card and spare fuse.

Accessories (Also see Section 7)

TL20 Industrial Test Lead Set

TL70A Test Lead Set

Y8132 Test Lead Set

Y8134 Universal Test Lead Kit

Y8140 Test Lead Set

C25 Soft Carrying Case

C90 Vinyl Carrying Case

C100 Hard Carrying Case

A81 Battery Charger/Eliminator

83RF High Frequency Probe, 100 MHz

85RF High Frequency Probe, 500 MHz

80TK Thermocouple Converter

80T-150U Universal Temperature Probe

80K-6 High Voltage Probe

80K-40 High Voltage Probe

80J-10 Current Shunt

Y8100 DC/AC Current Probe

Y8101 AC Current Probe

80I-400 AC Current Probe

80I-410 DC/AC Current Probe

80I-600 AC Clamp-on Current Probe

80I-1010 DC/AC Current Probe

80I-kW Current/Power Probe

Manuals

8060A Instruction*

8060A Operator Card*

8062A Instruction*

8062A Operator Card*

*No charge with purchase of unit

Factory Warranty

One-year product warranty.



AVAILABLE THROUGH
DISTRIBUTORS