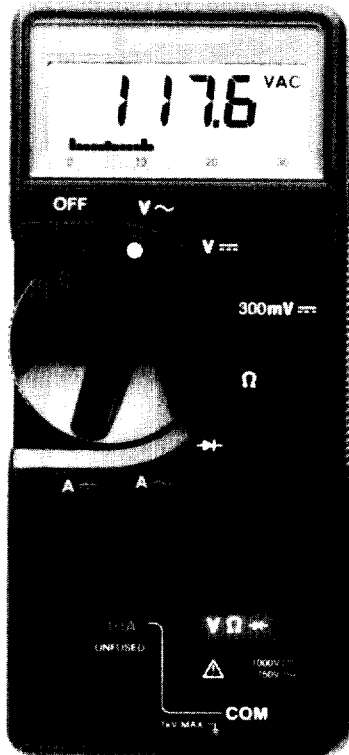
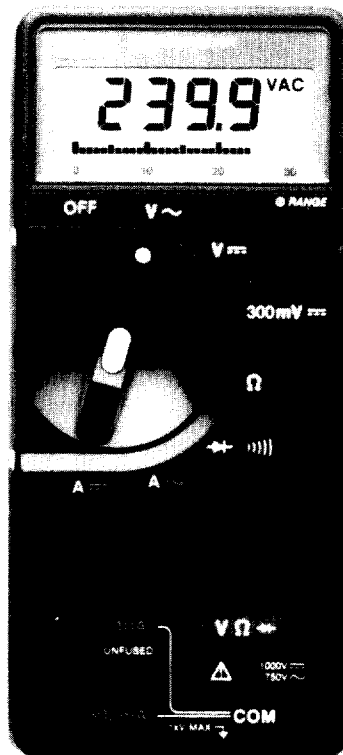


HANDHELD MULTIMETERS

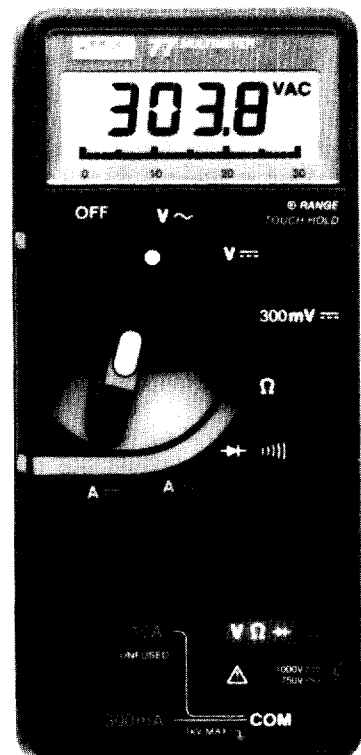
Fluke 73/75/77 Analog/Digital Multimeters . . . Available through Distributors (See page 248)



Fluke 73



Fluke 75



Fluke 77

The Fluke 73

- 3½ digit, 3200 count display
- 32 segment analog bar graph
- 0.7% basic dc accuracy
- Single rotary switch control
- Autoranging selection
- 2000 hours on a single 9-volt battery
- One current range: 10A
- "Sleep Mode" if battery not switched off
- Tough textured case resists grime
- 3 year warranty, 1-year calibration cycle
- UL 1244 listed, VDE listed

The Fluke 75

- 3½ digit, 3200 count display
- 32 segment analog bar graph
- 0.5% basic dc accuracy
- Single rotary switch control
- Autoranging selection
- 2000 hours on a single 9-volt battery
- Three current ranges: 10A, 320 mA, and 32 mA (ideal for 4-20 mA current measurements)
- "Sleep Mode" if battery not switched off
- Tough textured case resists grime
- 3 year warranty, 1-year calibration cycle
- UL 1244 listed, VDE listed
- Plus**
- Continuity beeper
- "Range Hold" manual range selection

The Fluke 77

- 3½ digit, 3200 count display
- 32 segment analog bar graph
- 0.3% basic dc accuracy
- Single rotary switch control
- Autoranging selection
- 2000 hours on a single 9-volt battery
- Three current ranges: 10A, 320 mA, 32 mA
- "Sleep Mode" if battery not switched off
- Tough textured case resists grime
- 3 year warranty, 1-year calibration cycle
- UL 1244 listed, VDE listed
- Plus**
- "Touch Hold" (patent pending) to capture readings
- Multipurpose protective holster
- Continuity beeper
- Range Hold

HANDHELD MULTIMETERS

Available through Distributors (See page 248) . . . Fluke 73/75/77

These digital multimeters with analog bar graph display utilize the latest advances in microcircuit technology without compromising quality or capability. The result is a series of meters with features never before found, not even on expensive instruments.

Digital/Analog

The Model 73, 75, and 77 provide a 3200 count digital display that gives extended resolution, and a 32 segment bar graph that reacts 10 times faster than the numerical display, allowing you to make peaking and dipping adjustments easier than with digital-only DMMs.

Autoranging

With autoranging, you choose the function you want and the meter automatically selects the range with the greatest accuracy and resolution. Symbols on the liquid crystal display remind you what is being measured and the range of measurement.

Range Hold

Since repetitive go-no-go tests and peaking/dipping adjustments are more easily done using one range, the manual range function will prove a real boon to users making these tests frequently. Touching the pushbutton once prevents the meter from changing ranges. Pushing the button again changes the range, and holding the button down for a couple of seconds restores the "Autorange" function.

Audible Tones

A continuous audible tone provides a fast check for continuity of current paths having 150 ohms or less.

A brief tone indicates a voltage drop of about 0.6 volts, the normal forward bias for semiconductor devices passing about 500 micro Amps.

Touch Hold

"Touch Hold" captures a reading and displays it from memory even after the probe has been removed from the circuit. As soon as the reading stabilizes, the meter makes a distinctive audible chirp and automatically holds the reading. "Touch Hold" reduces the chance of circuit damage when a probe slips and contacts two points at once because you can concentrate on touching the right test point and nothing else. "Touch Hold" reduces the risk of electrical shock and also gives the user time to log the reading if needed or refer back to the reading before the next measurement.

Multipurpose Holster

Our multipurpose holster is made of a tough resilient plastic that snaps over the instrument, protecting it from even the most severe shock. Both test leads may be snapped into the holster in position so only one hand is needed to hold both the meter and probe tip in contact with the test point. You can also hang the meter on your belt or for easy viewing while probing, tilt it back on its bail for bench use.

Specifications

Accuracy specifications apply for 1 year after purchase or recalibration when operated in a temperature of 18°C to 28°C and a relative humidity of up to 90% (80% for 32 MΩ resistance range) unless otherwise noted.

DC Voltage

Range	Resolution	Accuracy: ±(% of Rdg + Digits)		
		73	75	77
320 mV	0.1 mV			
3.2V	1 mV			
32V	10 mV	0.7% + 1	0.5% + 1	0.3% + 1
320V	100 mV			
1000V	1V	0.8% + 1	0.6% + 1	0.4% + 1

Input Resistance: 10 MΩ

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

Common Mode Noise Rejection: ≥120 dB for dc, 50 Hz, and 60 Hz

Overload Protection: 500V dc or rms ac for 320 mV range and 1000V dc or 750V rms ac for other ranges

Response Time: ≤1 second to rated accuracy

AC Voltage (Average-Sensing, RMS-Indicating)

Range	Resolution	Accuracy: ±(% of Rdg + Digits)		
		73	75	77
3.2V	1 mV	3% + 2*	2% + 2*	2% + 2*
32V	10 mV			
320V	100 mV	3% + 2**	2% + 2**	2% + 2**
750V	1V			

* 45 Hz to 500 Hz

** 45 Hz to 1 kHz

Typical frequency response is -0.5 dB at 10 kHz on the 32V and 320V ranges and +3 dB at 5 kHz on the 3.2V and 750V range.

Input Impedance: 10 MΩ and ≤50 pF on all ranges

Common Mode Noise Rejection: ≥60 dB dc to 60 Hz, 1 kΩ unbalance

Overload Protection: 1000V dc, 750V rms ac

Response Time: ≤2 seconds to rated accuracy

DC Current

Range	Resolution	Accuracy: ±(% of Rdg + Digits)		
		73	75	77
32 mA	0.01 mA	—	1.5% + 2	1.5% + 2
320 mA	0.1 mA	—	2% + 2	2% + 2
10A	10 mA	2% - 2	1.5% + 2	1.5% + 2

Voltage Burden: 0.2V on 32 mA range, 2.0V max. on 320 mA range, 0.5V on 10A range

Input Protection: 630 mA/250V fuse in series with 0.36Ω fusible resistor for 300 mA input; 10A input unfused

Response Time: ≤1 second to rated accuracy

AC Current (Average-Sensing, RMS-Indicating)

Range	Resolution	Accuracy: ±(% of Rdg + Digits)*		
		73	75	77
32 mA	0.01 mA	—		
320 mA	0.1 mA	—	3% + 2	3% + 2
10A	10 mA	3% + 2		

* 45 Hz to 1 kHz

Voltage Burden: 0.2V on 32 mA range, 2.0V on 320 mA range, 0.5V on 10A range

Input Protection: 0.63A/250V fuse in series with 0.36Ω fusible resistor for 300 mA input; 10A input unfused

Response Time: ≤2 seconds to rated accuracy

HANDHELD MULTIMETERS

Fluke 73/75/77... Available through Distributors (See page 248)

Resistance

Range	Resolution	Accuracy: \pm (% of Rdg + Digits)		
		73	75	77
320 Ω	0.1 Ω	1% + 2	0.7% + 2	0.5% + 2
3200 Ω	1 Ω			
32 k Ω	10 Ω	1% + 1	0.7% + 1	0.5% + 1
320 k Ω	100 Ω			
3.2 M Ω	1 k Ω			
32 M Ω	10 k Ω	3% + 1	2.5% + 1	2.0% + 1

Open Circuit Voltage: \leq 3V

Full Scale Voltage: \leq 440 mV on all ranges except \leq 1.4V on 32 M Ω range

Input Protection: 500V dc or rms ac

Response Time: \leq 1s up to 320 k Ω , \leq 2s up to 3.2 M Ω , \leq 10s up to 32 M Ω at rated accuracy

Continuity

Threshold: Approximately 150 ohms

Audible Tone: Continuous tone for continuity. Fluke 75 and 77 only.

Display: Less than .100 indicates continuity, OL (overload) indicates open-circuit, approximately 20,000 ohms or higher.

Response Time: Approximately 100 ms

Diode Test

Test Current: Approximately 500 μ A for a normal forward biased diode

Audible Tone: Brief tone for normal forward biased diode or semiconductor junction. Fluke 75 and 77 only.

Display: An indication of approximately .600V for a normal forward biased silicon diode or semiconductor junction and OL (overload) for a normal reverse biased diode or semiconductor junction

Response Time: Approximately 100 ms

Analog Display

Measurement Rate: 23 measurements per second

"Touch-Hold"

Fluke 77 only. Pushbutton activated mode. Automatically holds stable reading of voltage, resistance, or current indefinitely even if test probe is removed. Reading updated by touching probe to other test points.

General Specifications

Max Common Mode Voltage: 1000V dc or peak ac

Temperature: 0 $^{\circ}$ C to 50 $^{\circ}$ C operating; -40 $^{\circ}$ C to 60 $^{\circ}$ C non-operating

Temperature Coefficient: 0.1 x specified accuracy per $^{\circ}$ C from 18 $^{\circ}$ C to 0 $^{\circ}$ C or 28 $^{\circ}$ C to 50 $^{\circ}$ C

Relative Humidity: \leq 70% to 50 $^{\circ}$ C, \leq 90% to 35 $^{\circ}$ C except \leq 80% using 32 M Ω range

Safety Rating: Protection Class II per IEC 348, UL and VDE

Power: Single 9V battery, NEDA 1604 9V

Battery Life: More than 2000 hours (alkaline) or 1600 hours (carbon-zinc). "Sleep Mode" extends battery life when you forget to turn power off. Sleep mode activates after approximately 1 hour (15 min in diode test)

Size: 166 mm L x 75 mm W x 28 mm H (6.55 in x 2.95 in x 1.12 in)

Weight: 0.28 kg (0.63 lb)

Included: TL 70 Test Leads, manual, warranty card, plus battery and spare fuse (installed). Also C70 Holster included with Fluke 77.

Models

January 1986 prices

Fluke 73 DMM w/3-year warranty 79

Fluke 75 DMM w/beeper, w/3-year warranty 99

Fluke 77* DMM w/Touch-Hold, w/3-year warranty 139

*Includes C70 Multipurpose Holster

Accessories (Also see page 230)

C70 Multipurpose Holster 9

C71 Soft Carrying Case 9

TL70 Replacement Test Leads 5

Y8134 Deluxe Test Lead Kit 20

83RF RF Probe 49

85RF RF Probe 85

80K-6 HV Probe 45

80K-40 HV Probe 80

Y8101* AC Current Probe 59

80i-400* AC Current Probe 69

80i-600* AC Current Probe 109

Y8100 DC/AC Current Probe 229

80J-10 Current Shunt 30

80T-150U Temperature Probe 120

80TK Thermocouple Module 59

*Not applicable to Fluke 73

After-Warranty Service (See page 227)

A full range of service and support agreements is available for this product. See page 227 for instructions on obtaining prices for Fluke maintenance, calibration, training, and consulting programs.