

Digital multimeter selection guide

Models	Advanced meters			Wireless meters		General purpose
	87 V	289	287	233	3000 FC	179
Basic features						
Counts	20000	50000	50000	6000	6000	6000
True-rms readings	ac	ac+dc	ac+dc	ac	ac	ac
Basic dc accuracy	0.05 %	0.025 %	0.025 %	0.25 %	0.09 %	0.09 %
Wide bandwidth	20 kHz	100 kHz	100 kHz			
Auto/manual ranging	•/•	•/•	•/•	•/•	•/•	•/•
ATEX II 2G Ex ia IICT4 safety rating Z1/Z2						
Measurements						
Voltage ac/dc	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Current ac/dc	10 A	10 A	10 A	10 A	400 mA	10 A
Resistance	50 MΩ	500 MΩ	500 MΩ	40 MΩ	50 MΩ	50 MΩ
Frequency	200 kHz	1 MHz	1 MHz	50 kHz	100 kHz	100 kHz
Capacitance	10,000 μF	50,000 μF	50,000 μF	10,000 μF	10,000 μF	10,000 μF
Temperature	+1090 °C	+1350 °C	+1350 °C	+400 °C		+400 °C
dB		60 dB	60 dB			
Conductance	50 nS	50 nS	50 nS			
Duty cycle/pulse width	•/-	•/•	•/•			
Continuity/diode test	•	•	•	•	•	•
Motor Drive (ASD) Measurements	•	•				
VoltAlert™, non-contact voltage detection						
VCHEK™						
LoZ: low input impedance		•				
Lo ohms		•				
Microamps	•	•	•			
Display						
Removable wireless display				•		
Remote wireless readings, connects to smart phone		(with ir3000 FC connector, sold separately)	(with ir3000 FC connector, sold separately)		•	
Dot matrix display		•	•		•	
Dual display		•	•		•	
Analog bargraph	•	•	•			•
Backlight	Two level	Two level	Two level	•	•	•
Graphical trend display		•	•			
Diagnostics and data						
Min/Max recording with time stamp	•/-	•/•	•/•	•/-	•/-	•/-
Fast Min/Max	250 μs	250 μs	250 μs			
Display Hold/Auto (Touch) Hold	•/•	•/•	•/•	•/•	•/•	•/•
Relative reference	•	•	•			
Stand alone logging		•	•		(with FC app)	
Trend Capture		•	•		(with FC app)	
Readings memories		10,000	10,000		(with FC app)	
USB interface		•	•			
Other features						
Real time clock		•	•			
Automatic selection, ac/dc volts						
Closed case calibration	•	•	•	•	•	•
Separate battery/fuse access	•/-	•/•	•/•	•	•	•
Automatic power off	•	•	•	•	•	•
Low battery indication	•	•	•	•	•	•
Operating temperature range	-20 °C, +55 °C	-20 °C, +55 °C	-20 °C, +55 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C
Warranty and electrical safety						
Warranty (years)	Limited lifetime	Limited lifetime	Limited lifetime	3	3	Lifetime
Input alert	•	•	•			
IP Rating	IP30				IP54	
Safety rating (EN 61010) CAT III	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Safety rating (EN 61010) CAT IV	600 V	600 V	600 V	600 V	600 V	600 V

Models	Compact meters					Specialty meters			
	117	116	115	114	113	28 II	27 II	28IIE	279 FC
Basic features									
Counts	6000	6000	6000	6000	6000	20000	6000	20000	6000
True-rms readings	ac	ac	ac	ac	ac	ac		ac	ac
Basic dc accuracy	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.05 %	0.1 %	0.05 %	0.09 %
Wide bandwidth						20 kHz	30 kHz	20kHz	
Auto/manual ranging	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•
ATEX II 2G Eex ia IICT4 safety rating Z1/Z2								•	
Measurements									
Voltage ac/dc	600 V	600 V	600 V	600 V	600 V	1000 V	1000 V	1000 V	1000 V
Current ac/dc	10 A	600 µA	10 A			10 A	10 A	10 A	2500 A AC (with iFlex)
Resistance	40 MΩ	40 MΩ	40 MΩ	40 MΩ	60 kΩ	50 MΩ	50 MΩ	50 MΩ	50 MΩ
Frequency	100 kHz	100 kHz	100 kHz			200 kHz	200 kHz	200 kHz	100 kHz
Capacitance	10,000 µF	10,000 µF	10,000 µF		10,000 µF	10,000 µF	10,000 µF	10,000 µF	10,000 µF
Temperature		+400 °C				+1090 °C		+1090 °C	Infrared camera -10 °C to +200 °C
dB									
Conductance						60 nS	60 nS	60 nS	
Duty cycle/pulse width						•/-	•/-	•/-	
Continuity/diode test	•	•	•	•	•	•	•	•	•
Motor Drive (ASD) Measurements						•		•	•
VoltAlert™, non-contact voltage detection	•								
VCHEK™					•				
LoZ: low input impedance	•	•		•	•				
Lo ohms									
Microamps		•				•	•	•	
Display									
Removable wireless display									
Remote wireless readings, connects to smart phone									•
Dot matrix display									
Dual display									
Analog bargraph	•	•	•	•	•	•	•	•	
Backlight	•	•	•	•	•	Two level	Two level	Two level	•
Graphical trend display									
Diagnostics and data									
Min/Max recording with time stamp	•/-	•/-	•/-	•/-	•/-	•/-	•/-	•/-	•/-
Fast Min/Max						250 µs		250 µs	
Display Hold/Auto (Touch) Hold	•/-	•/-	•/-	•/-	•/-	•/•	•/•	•/•	•/•
Relative reference						•	•	•	
Stand alone logging									(with FC app)
Trend Capture									(with FC app)
Readings memories									(with FC app)
USB interface									
Other features									
Real time clock									
Automatic selection, ac/dc volts	•	•		•	•				
Closed case calibration	•	•	•	•	•	•	•	•	•
Separate battery/fuse access	•	•	•	•	•	•/•	•	•/-	•
Automatic power off	•	•	•	•	•	•	•	•	•
Low battery indication	•	•	•	•	•	•	•	•	•
Operating temperature range	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-10 °C, +50 °C	-40 °C, +55 °C	-40 °C, +55 °C	-15 °C, +50 °C	-15 °C, +50 °C
Warranty and electrical safety									
Warranty (years)	3	3	3	3	3	Limited lifetime	Limited lifetime	3	3
Input alert						•	•	•	
IP Rating	IP42	IP42	IP42	IP42	IP42	IP67	IP67	IP67	IP40
Safety rating (EN 61010) CAT III	600 V	600 V	600 V	600 V		1000 V	1000 V	1000 V	1000 V
Safety rating (EN 61010) CAT IV					600 V	600 V	600 V	600 V	600 V

Find how-to videos, application notes, and other useful resources on the digital multimeter product pages on www.fluke.com

DIGITAL MULTIMETERS



Fluke 3000 FC True-rms Wireless Multimeter

Reduce the risk of arc flash and stay safe

The Fluke 3000 FC True-rms Wireless Multimeter and Fluke Connect wireless test tools keep you safe from hazardous measurement situations. Just deenergize the cabinet, open the panel while wearing PPE and connect the remote modules, whether they are voltage modules, current clamps, flexible current loops or thermometers. Then, from a safe distance, read the results on the 3000 FC True-rms Wireless Multimeter.

You can display the meter measurement, plus readings from up to three wireless modules. Better still, the Fluke 3000 FC True-rms Wireless Multimeter can send measurement data to your smartphone, so you can save and share measurements from the field with your team anytime, from anywhere.

The Fluke 3000 FC True-rms Wireless Multimeter with the Fluke Connect® app has all the essentials for convenient test and measurement troubleshooting.

- AC and dc voltage measurements to 1000 V
- AC and dc current with 0.01 mA resolution
- Continuity, resistance, diode test, capacitance and frequency measurements
- Min/Max recording
- CAT III 1000 V, CAT IV 600 V; IP54



Specifications

Functions	Range and resolution	Basic accuracy
AC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	1.0 % + 3
DC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.09 % + 2
Continuity		Meter beeps at < 25 Ω, beeper detects opens or shorts of 250 μs or longer
Resistance	600 Ω, 600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 600.0 kΩ, 50.00 MΩ	0.5 % + 1
Diode test	2.000 V	1 % + 2
Capacitance	1000 nF, 10.00 μF, 100.0 μF, 9999 μF ¹	1.2 % + 2
mA AC (45 Hz to 1 kHz)	60.00 mA, 400.0 mA ³	1.5 % + 3
mA dc ²	60.00 mA, 400.0 mA ³	0.5 % + 3
Frequency	0.01 Hz, 0.1 Hz, 0.001 kHz, 0.01 kHz	0.1 % + 1

¹In the 9999 μF range for measurements to 1000 μF, the measurement accuracy is 1.2 % + 2.

²Input burden voltage (typical): 400 mA input 2 mV/mA.

³400.0 mA accuracy specified up to 600 mA overload.

For all specifications: accuracy is specified for one year after calibration, at operating temperatures of 18 °C to 28 °C, with relative humidity at 0 % to 90 %. Accuracy specifications take the form of ± ([% of Reading] + [Number of least significant digits]). **(Not compatible with Fluke CNX test tools)**

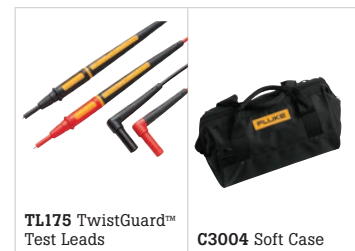
Ordering information

Models	Included accessories
FLK-3000FC FC Wireless Digital Multimeter	Test leads, alligator clips, holster, AA batteries installed, information packet

Kits—buy more, save more



Recommended accessories



Fluke 170 Series Digital Multimeters

Maintenance experts can find most electrical and HVAC problems

The Fluke 170 Series True-rms Multimeters is simple to use with significant improvements over the original Fluke 70 Series.

- Wide 1000 V measurement range
- True-rms for precise measurement of non-linear signals
- Capacitance, resistance, continuity and frequency
- Built-in thermometer (Fluke 179 only)
- Backlight for work in dimly lit areas (Fluke 177 and 179 only)
- Min/Max/Avg to record signal fluctuations
- Display hold and auto hold
- Manual and automatic ranging
- Basic dc accuracy (179/0.09%, 177/0.09%, 175/0.15%)
- Also available: 177 with true-rms and backlight and 175 with true-rms

Specifications

DC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 0.09% (Models 177 and 179) ± 0.15% (Model 175)
AC voltage ¹	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 1.0% of reading
DC current	60.00 mA, 400.0 mA, 6.000 A, 10.00 A ²	± 1.0% of reading
AC current ²	60.00 mA, 400.0 mA, 6.000 A, 10.00 A ²	± 1.5% of reading
Resistance	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 50.00 MΩ	± 0.9% of reading
Capacitance	1000 nF, 10.00 μF, 100.0 μF, 9999 μF	± 1.2% of reading
Frequency ³	99.99 Hz, 999.9 Hz, 9.999 Hz, 99.99 kHz	± 0.1% of reading
Temperature (179 only)	-40 °C to +400 °C (-40 °F to +752 °F)	1.0% of reading
Battery life	200 hours typical for alkaline	
Dimensions (HxWxL)	4.3 cm x 9.0 cm x 18.5 cm (1.7 in x 3.5 in x 7.3 in)	

¹All ac voltage and ac current ranges are specified from 5% of range to 100% of range.

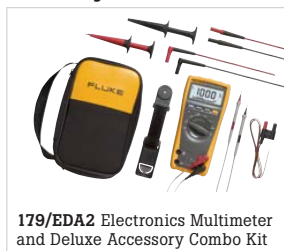
²10 A continuous, 20 A for up to 30 seconds.

³Voltage frequency is specified from 2 Hz to 100 kHz. Current frequency is specified from 2 Hz to 30 kHz.

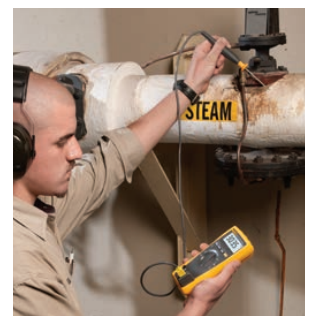
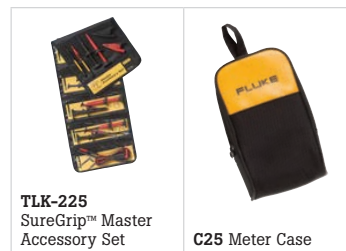
Ordering information

Models	Included accessories
FLUKE-179 Digital Multimeter	Test leads, temperature probe, 9 V battery (installed), manual
FLUKE-177 Digital Multimeter	Test leads, 9 V battery (installed), manual
FLUKE-175 Digital Multimeter	Test leads, 9 V battery (installed), manual

Kits—buy more, save more



Recommended accessories



DIGITAL MULTIMETERS



Fluke 289 and 287 True-rms Logging Multimeters

Find little problems before they become big ones

The Fluke 289 and 287 are high performance industrial logging multimeters. The large 50,000 count, 1/4 VGA dot matrix display and multiple on screen displays give you sharp, clear readings. Use the logging function with expanded memory for unattended monitoring of signals over time. With on-board TrendCapture, you can graphically review up to 10,000 recorded events and logged readings. Then, zoom on trend provides an unprecedented ability to zoom in up to 14 times to view and analyze data—all without needing a PC.

- Two terminal 50 ohm range with 1 milliohm resolution, 10 mA source current. Useful for measuring and comparing differences in motor winding resistance or contact resistance (289)
- Low-pass filter for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (289)
- Add the wireless data logging capabilities of Fluke Connect® with Share-Live™ video call with the if3000 FC connector
- True-rms ac bandwidth 100 kHz; dBV/dBm; dc mV resolution 1 μV; Megohm range up to 500 MΩ
- Conductance 50.00 nS
- Min/Max/Avg/duty cycle/pulse width
- Isolated optical DMM interface with USB PC connection
- Over 200 hours logging capacity with new power saving function
- Lo Ohm capability; Lo Z volts; Lo Pass Filter

Specifications

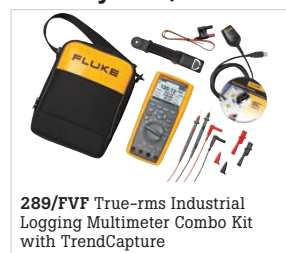
Functions	Range and resolution	Basic accuracy
AC or dc voltage	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V	0.025 % 0.4 % (true-rms) (ac)
AC current dc current	500.00 μA, 5000.0 μA, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A	0.15 % 0.7 % (true-rms)
Temperature (excluding probe)	-200.0 °C to 1350.0 °C (-328.0 °F to 2462.0 °F)	1.0 %
Resistance	50.000 Ω, 500.00 Ω, 5.0000 kΩ, 50.000 kΩ, 500.00 kΩ, 5.0000 MΩ, 50.00 MΩ, 500.0 MΩ	0.05 %
Capacitance	1.000 nF, 10.00 nF, 100.0 nF, 1.000 μF, 10.00 μF, 100.0 μF, 1000 μF, 10.00 mF, 100 mF	1.0 %
Frequency	99.999 Hz, 999.99 Hz, 9.9999 kHz, 99.999 kHz, 999.99 kHz	.005 %

Ordering information

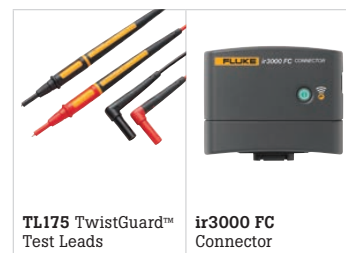
Models	Included accessories
FLUKE-289 True-rms Industrial Logging Multimeter with TrendCapture	Test leads, alligator clips, holster, AA batteries installed, information packet
FLUKE-287 True-rms Electronics Logging Multimeter with TrendCapture	Test leads, alligator clips, holster, AA batteries installed, information packet



Kits—buy more, save more



Recommended accessories



Fluke 87V Industrial Multimeters

The perfect DMM for a heavy industrial environment

The Fluke 87V Industrial Multimeter has measurement functions, trouble-shooting features, resolution and accuracy to solve industrial problems on motor drives, in-plant automation, power distribution and electro-mechanical equipment. The Fluke 87V Industrial Multimeter offers a unique function for accurate voltage and frequency measurements on adjustable speed motor drives and electrically noisy equipment. The large digit display with a bright, two level backlight makes it significantly easier to read.

Electrical safety

All inputs are protected to CAT III 1000 V and CAT IV 600 V. They can withstand impulses in excess of 8,000 V to help protect you from arc blast resulting from surges and spikes.

- Measure 20 A for up to 30 seconds, 10 A continuously
- Expanded capacitance range to 10,000 μ F
- Peak capture to record transients as fast as 250 μ s
- Measure up to 1000 V ac and dc
- Auto and manual ranging for maximum flexibility
- Frequency to 200 kHz and % duty cycle
- Min/Max/Avg recording to capture variations automatically
- Relative mode to remove test lead resistance from low ohms measurements
- Also available as 83V average responding multimeter

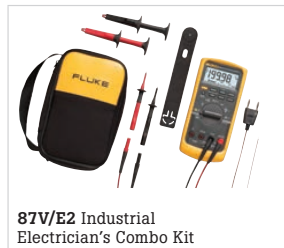
Specifications

Functions	Range and resolution	Basic accuracy	
		87V	83V
DC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.05 %	0.1 %
AC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.7 % (true-rms)	0.5 %
DC current	600.0 μ A, 6000 μ A, 60.00 μ A, 600.0 mA, 6.000 A, 10.00 A	0.2 %	0.4 %
AC current	600.0 μ A, 6000 μ A, 60.00 μ A, 600.0 mA, 6.000 A, 10.00 A	1.0 % (true-rms)	1.2 %
Temperature (excluding probe)	-200 °C to 1090 °C (-328 °F to 1994 °F)	1.0 %	
Temperature probe	-40 °C to 260 °C (-40 °F to 500 °F)	2.2 °C or 2 %	
Resistance	600.0 Ω , 6.000 k Ω , 60.00 k Ω , 600.0 k Ω , 6.000 M Ω , 50.00 M Ω	0.2 %	0.4 %
Capacitance	10.00 nF, 100.0 nF, 1.000 μ F, 10.00 μ F, 100.0 μ F, 9,999 μ F	1.0 %	1.0 %
Frequency	199.99 Hz, 1.9999 kHz, 19.999 kHz, 199.99 kHz	0.005 %	0.005 %
Battery life	400 hours typical with backlight off		
Dimensions (LxWxD)/Weight	201 mm x 98 mm x 52 mm (7.9 in x 3.8 in x 2 in)/355 g (22 oz)		

Ordering information

Models	Included accessories
FLUKE-87-5 Industrial True-rms Multimeter with Temperature	Test leads, alligator clips, holster, batteries (installed), temperature probe (87V only), information packet
FLUKE-83-5 Industrial Multimeter	Test leads, alligator clips, holster, batteries (installed), temperature probe (87V only), information packet

Kits—buy more, save more



Recommended accessories



DIGITAL MULTIMETERS



Fluke 27 II, 28 II and 28 II Ex Digital Multimeters

Designed for tough work environments

The 27 II, 28 II and 28 II Ex Digital Multimeters all have IP67 waterproof and dustproof rating. They also have an extended operating temperature range of -15 °C to +55 °C (5 °F to 131 °F) and 95 % humidity. These meters offer unique functions for accurate voltage and frequency measurements on adjustable speed motor drives and electrically noisy equipment (28 II and 28 II Ex). A built in thermometer allows you to take temperature readings without having to carry a separate instrument.

- Resistance and continuity. Relative mode to remove test lead resistance from low ohms measurements
- MSHA, CSA and TÜV approvals (27 II, 28 II)
- Intrinsically safe certifications from the world's leading certification bodies (28 II Ex, pg 67)
- Tested to withstand a 3 m (10 ft) drop
- Wide 1000 V measurement range
- True-rms ac voltage and current for accurate measurements on non-linear signals (28 II, 28 II Ex)
- Low pass filter (28 II, 28 II Ex)
- Average responding voltage and current measurements (27 II)
- 10 A continuous (20 A for 30 seconds)
- Frequency and capacitance
- Record signal fluctuations using the Min/Max function

Specifications

	27 II	28 II	28 II Ex
Volts ac, dc	1000 V		
Amps ac, dc	10A		
Resistance	0.1 Ω to 50 MΩ		
Display counts	6000	6000/19,999	6000/19,999
Temperature	-200 °C to +1090 °C		-200 °C to +1090 °C
Low pass filter (measurement on VSD's)	•		•
Safety rating (EN 61010)	CAT IV 600 V, CAT III 1000 V		
Measurement method	Avg. responding	True-rms	True-rms
Power	Three AA batteries		
Battery life	800 hours		400 hours
Dimensions (DxWxH)	6.35 cm x 10.0 cm x 19.81 cm (2.5 in x 3.93 in x 7.8 in)		
Weight with holster	698.5 g (1.54 lb)		

Ordering information

Models	Included accessories
FLUKE-28-II Industrial Multimeter	Test leads, temperature probe, alligator clips, batteries, holster, information pack
FLUKE-28-II EX Intrinsically Safe Industrial Multimeter See page 67 for more information	Test leads, temperature probe, alligator clips, batteries, holster, information pack
FLUKE-27-II Industrial Multimeter	Test leads, temperature probe, alligator clips, batteries, holster, information pack

Recommended accessories

 TLK-225 SureGrip™ Master Accessory Set	 PV350 Pressure-Vacuum Module	 TL225 Stray Voltage Adapter Test Lead Kit	 C550 Tool Bag
---	---	---	--



Fluke 233 Remote Display Digital Multimeter

Now, you can be in two places at once

The Fluke 233 Remote Display Digital Multimeter has a removable display that solves several problems. First, you no longer have to hold both the meter and the test leads to make a measurement. Second, it allows you to measure where the measurement point is separated from controls or where the operator can't stay close to the meter during measurements due to various hazards or moving machinery. Third, Fluke's wireless technology allows the display to be carried up to 9 m (30 feet) away from the point of measurement for added flexibility and the removable magnetic display can be conveniently mounted where it is easily seen.

- Low-power 802.15.4 wireless technology does not interfere with measurement accuracy
- Use as a conventional multimeter when the display is connected
- True-rms ac voltage and current; built-in thermometer
- Radio transmitter automatically turns off when the display is connected to the meter
- Record signal fluctuations using the Min/Max function
- Measure up to 1000 V ac and dc
- Measure up to 10 A (20 A for 30 seconds)
- 10,000 μ F capacitance range
- Frequency up to 50 kHz
- Resistance, continuity and diode test
- Min/Max/Avg recording to capture variations automatically
- New, improved battery life





Specifications

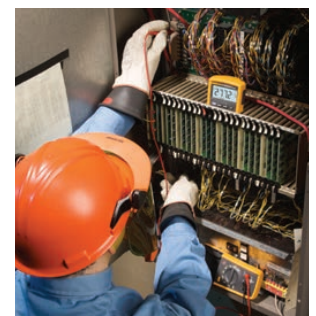
Functions	Specifications	
DC voltage	Range	0.1 mV to 1000 V
	Accuracy	0.25% + 2
AC voltage	Range	0.1 mV to 1000 V
	Accuracy	1.0% + 3
DC current	Range	0.001 A to 10 A
	Accuracy	1.0% + 3
AC current	Range	0.001 A to 10 A
	Accuracy	1.5% + 3
Resistance	Range	0.1 Ω to 40 M Ω
Capacitance		1000 nF to 9999 μ F
Frequency		0.1 Hz to 50.00 kHz
Temperature		-40 °C to +400 °C (-40 °F to 752 °F)
Power		Three AA batteries main body, two AA batteries display module
Battery life		400 hours
Safety rating		CAT IV 600 V, CAT III 1000 V
Size (HxWxL)		5.3 cm x 5.3 cm x 19.3 cm (2.08 in x 2.08 in x 7.6 in)
Weight		604 g (1.3 lb)

Ordering information

Models	Included accessories
FLUKE-233 Remote Display Multimeter	Test leads, temperature probe, alligator clips, batteries, information pack

Recommended accessories

			
80PK-22 SureGrip™ Immersion Temperature Probe	80AK-A Thermocouple Adapter	TL220 SureGrip™ Industrial Test Lead Set	TLK289 SureGrip™ Industrial Master Test Lead Set and Case



DIGITAL MULTIMETERS



Fluke 11X Series True-rms Digital Multimeters

Dependable DMMs for electrical and HVAC purposes

The Fluke 117 Digital Multimeter includes integrated non-contact voltage detection to help get the job done faster. The Fluke 115 Digital Multimeter is the solution for a wide variety of electrical and electronic testing applications.

The Fluke 116 Digital Multimeter was specifically designed for the HVAC professional. The Fluke 114 Digital Multimeter is the best troubleshooting tool for “go/no-go” testing and the 113 is a basic electrical and utility multimeter.

- VoltAlert™ technology for integrated non-contact voltage detection (117)
- AutoVolt feature for automatic ac/dc voltage selection (117, 116, 114)
- Built in thermometer for HVAC applications (116)
- Microamps to test flame sensors (116)
- VCHEK™ LoZ low impedance measurement function to simultaneously test for voltage or continuity (113)
- LoZ: Low input impedance prevents false readings due to “ghost voltage” (117, 116, 114)
- Min/Max/Avg to record signal fluctuations
- Large display and white LED backlight to work in poorly lit areas more effectively
- Compact ergonomic design for one-handed operation

Specifications

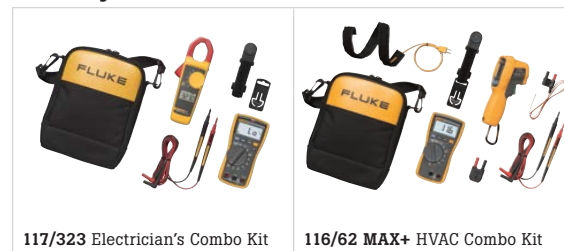
Functions	117	116	115	114	113
AC/DC voltage	600 V	600 V	600 V	600 V	600 V
AC/DC current	10 A	600.0 μ A	10 A		
Resistance	40 M Ω	40 M Ω	40 M Ω	40 M Ω	60 k Ω
Capacitance	1 nF to 9,999 μ F	1 nF to 9,999 μ F	1 nF to 9,999 μ F		
Diode test	•		•		•
Frequency	5 Hz to 99.99 kHz	5 Hz to 99.99 kHz	5 Hz to 99.99 kHz		
Temperature		+400 °C			
Safety rating	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT IV 600 V

Ordering information

Models	Included accessories
FLUKE-117 Multimeter with Non-Contact Voltage	Test leads, holster, users manual and 9 V battery (installed)
FLUKE-116 HVAC Multimeter with Temperature and Microamps	Test leads, integrated temperature probe, holster, users manual and 9 V battery (installed)
FLUKE-115 Multimeter	Test leads, holster, users manual and 9 V battery (installed)
FLUKE-114 Electrical Multimeter	Test leads, holster, users manual and 9 V battery (installed)
FLUKE-113 Utility Meter	Test leads, holster, users manual and 9 V battery (installed)



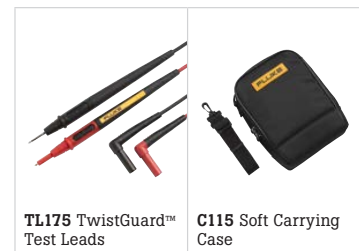
Kits—buy more, save more



117/323 Electrician's Combo Kit

116/62 MAX+ HVAC Combo Kit

Recommended accessories



TL175 TwistGuard™ Test Leads

C115 Soft Carrying Case

Fluke 88V and 77 IV Digital Multimeters

Fluke 88V Automotive Multimeter—designed to help automotive professionals solve problems faster

The Fluke 88V Automotive Multimeter has the measurement functions, troubleshooting features and accuracy to solve virtually any problem with conventional and hybrid vehicles.

- Automotive test functions include dc and ac voltage, resistance and current
- Min/Max recording for logging the highest and lowest readings over time
- Frequency measurements for magnetic sensors and ac/dc frequency signals
- Duty cycle for variable duty cycle signals with selectable trigger, slope and level
- Pulse width for fuel injector on-time measurements
- Conductance testing for secondary ignition coils
- RPM measurements for DIS and conventional ignition systems
- Built-in thermometer

Fluke 77 IV Digital Multimeter—use to repair most electrical and electronic problems

The Fluke 77 IV Digital Multimeter is simple to use and has significant improvements over Fluke's original 70 Series with more measurement functions, conformance to the latest safety standards, and a much larger display that is easier to view.

- Wide 1000 V measurement range
- Average responding ac measurements
- 0.3% accuracy
- 10 amps continuous
- Frequency and capacitance
- Resistance and continuity
- Min/Max to record signal fluctuations
- Auto and manual ranging



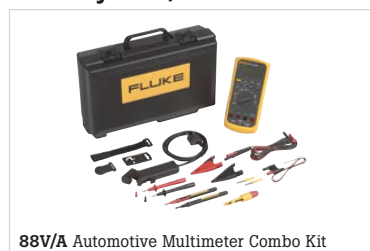
Specifications

	88V	77IV
DC voltage	1000 V	1000 V
AC voltage	1000 V	1000 V
DC current	10 A	10 A
AC current	10 A	10 A
Resistance	50 MΩ	50 MΩ
Capacitance	9,999 μF	9,999 μF
Frequency	200.00 kHz	99.99 kHz
Duty Cycle	99.9%	
Temperature	1994.0 °F (1090 °C)	
Conductance	60.00 nS	

Ordering information

Models	Included accessories
FLUKE-88-5 Automotive Multimeter	Test leads, 9 V battery (installed), information packet
FLUKE-77-4 Digital Multimeter	Test leads, 9 V battery (installed), information packet

Kits—buy more, save more



Recommended accessories

