

SECTION 9

Clamp-On Probes & Multimeters

(Analog / Digital)

- AEMC
- Amprobe
- Fluke
- UEI
- Yokogawa (YCA)

Clamp-On Probes & Multimeters from the following manufacturers are also available but not shown in catalog:

- Extech

CLAMP-ON PROBES & MULTIMETERS



Clamp-On Multimeters

Clamp-On Meters Models 500, 501, 502 & 503



Models 500, 501, 502 & 503



Features

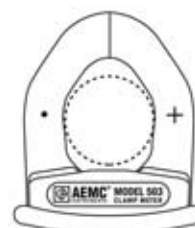
- Compact size — fits into your pocket
- 400AAC or 400AAC/DC current measurements
- 600VAC/DC volts measurements
- TRMS measurements (Model 502)
- Resistance measurements to 400Ω
- Continuity with beeper below 40Ω
- Frequency measurements from V and A (Models 501 and 502)
- Hold function to “freeze” readings
- Push-button for easy Apc zeroing (Model 503)
- Large, easy-to-read 4000-count display
- 42-segment analog bargraph
- Includes test leads and soft carrying pouch

SPECIFICATIONS

MODELS	500	501	502 TRMS	503
AC Current (Auto-Ranging)	0.05 to 400A	0.05 to 400A	0.05 to 400Arms	0.05 to 400A
Resolution	0.1A	0.01A and 0.1A	0.01A and 0.1A	0.01A and 0.1A
Accuracy	50 to 60Hz ±2% of Reading ± 5cts 60 to 500Hz ±2.8% of Reading ± 5cts	±1.9% of Reading ± 5cts ±2.5% of Reading ± 5cts	±1.9% of Reading ± 5cts ±2.5% of Reading ± 5cts	±1.5% of Reading ± 10cts ±2.5% of Reading ± 10cts
AC Voltage (Auto-Ranging)	0.5 to 600V	0.5 to 600V	0.5 to 600Vrms	0.5 to 600V
Resolution	0.1V and 1V	0.1V and 1V	0.1V and 1V	0.1V and 1V
Accuracy	50 to 60Hz ±1.0% of Reading ± 5cts 60 to 500Hz ±1.5% of Reading ± 5cts	±0.8% of Reading ± 5cts ±1.5% of Reading ± 5cts	±1.5% of Reading ± 5cts ±1.5% of Reading ± 5cts	±0.8% of Reading ± 5cts ±1.5% of Reading ± 5cts
Input Impedance	1MΩ	1MΩ	1MΩ	10MΩ
DC Current	DC Voltage (Auto-Ranging)	—	0.2 to 600V	0.2 to 600V 0.2 to 500V
Resolution	—	0.1V and 1V	0.1V and 1V	0.1V and 1V
Accuracy	—	±1% of Reading ± 2cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts
Input Impedance	—	1MΩ	1MΩ	10MΩ
Resistance	0.3 to 400Ω	0.2 to 400Ω	0.2 to 400Ω	0.2 to 400Ω
Accuracy	±1.9% of Reading ± 3cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts
Max Test Voltage	1.5Vdc	1.5Vdc	1.5Vdc	1.5Vdc
Continuity	<35Ω	<40Ω	<40Ω	<40Ω
Max Test Voltage	1.5Vdc	1.5Vdc	1.5Vdc	1.5Vdc
Frequency (Auto-Ranging)				
CURRENT INPUT				
Range	20Hz to 4kHz	1Hz Resolution	1Hz Resolution	—
>4kHz to 10kHz	—	10Hz Resolution	10Hz Resolution	—
Accuracy	—	±0.1% of Reading ± 1ct	±0.1% of Reading ± 1ct	—
Min Input Signal	—	2Arms	2Arms	—
Input Impedance	—	1MΩ	1MΩ	—
Overload Protection	—	600Arms	600Arms	—
VOLTAGE INPUT				
Range	10Hz to 4kHz	1Hz Resolution	1Hz Resolution	—
>4kHz to 40kHz	—	10Hz Resolution	10Hz Resolution	—
>40kHz to 400kHz	—	100Hz Resolution	100Hz Resolution	—
Accuracy	—	±0.1% of Reading ± 1ct	±0.1% of Reading ± 1ct	—
Min Input Signal	4kHz	5Vrms	5Vrms	—
40kHz	—	5Vrms	5Vrms	—
400kHz	—	5Vrms	5Vrms	—
Input Impedance	—	1MΩ	1MΩ	—
Overload Protection	—	600Vrms	600Vrms	—
Power Source	Two 1.5V AAA batteries	Two 1.5V AAA batteries	Two 1.5V AAA batteries	Two 1.5V AAA batteries



Models 500, 501, 502 and 503 include a pair of test leads, soft carrying pouch and user manual.



Jaw Opening: 1.1" (28mm)
Conductor Size:
one 500MCM cable

CATALOG NO. DESCRIPTION

2117.54	Clamp-On Meter Model 500 (AC, 400AAC, 600VAC, Ohms, Continuity)
2117.21	Clamp-On Meter Model 501 (AC, 400AAC, 600VAC/DC, Ohms, Continuity)
2117.66	Clamp-On Meter Model 502 (TRMS, 400AAC, 600VAC/DC, Ohms, Continuity)
2117.22	Clamp-On Meter Model 503 (AC/DC, 400AAC/DC, 600VAC/DC, Ohms, Continuity)

Clamp-On Multimeters

Clamp-On Meters Models 511, 512 & 514

Features:

- Standard size, full function clamp-on meters
- 1000Aac or 1000Aac/dc current measurements
- 600Vac/dc volt measurements
- TRMS measurements (Models 512 and 514)
- Resistance measurements to 4000Ω
- Continuity with beeper below 40Ω
- Frequency measurements from V and A
- Diode test
- 1ms Peak function for fast capture of signals
- Hold function to “freeze” readings
- Push-button for easy Adc zeroing
- Large easy-to-read 4000-count display
- 42-segment analog bargraph
- Supplied with test leads and soft carrying pouch



Models 511, 512 & 514



Models 511, 512 & 514 are supplied with a pair of test leads and soft carrying pouch

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Specifications

MODELS	511	512 Trms	514 Trms
AC Amperes (Auto Ranging*):	0.05 to 1000A	0.05 to 1000Arms	0.05 to 400Arms
Resolution	0.01A, 0.1A & 1A	0.01A, 0.1A & 1A	0.01A, 0.1A & 0.1A
Accuracy	±1.9% Reading ± 5cts	±1.9% Reading ± 5cts	±1.9% Reading ± 5cts ±2.5% Reading ± 5cts
AC Volts (Auto Ranging):	0.5 to 750V	0.5 to 750Vrms	0.5 to 750Vrms
Resolution	0.1V & 1V	0.1V & 1V	0.1V & 1Vrms
Accuracy	1.2% Reading ± 5cts	1.2% Reading ± 5cts	1.5% Reading ± 5cts
Input Impedance	1MΩ	1MΩ	10MΩ
DC Amperes (Auto Ranging):	—	—	1A to 1000A
Resolution	—	—	0.01A, 0.1A & 0.1A
Accuracy	—	—	2.5% Reading ± 10cts
DC Volts (Auto Ranging):	0.2 to 1000V	0.2 to 1000V	0.2 to 1000V
Resolution	0.1V & 1V	0.1V & 1V	0.1V & 1Vrms
Accuracy	.75% Reading ± 2cts	.75% Reading ± 2cts	1% Reading ± 2cts
Input Impedance	10MΩ	10MΩ	10MΩ
Resistance-Ohms (Ω):	0.2 to 4000Ω	0.2 to 4000Ω	0.2 to 4000Ω
Accuracy	1% Reading ± 2cts	1% Reading ± 2cts	1% Reading ± 2cts
Max Test Voltage	15Vdc	15Vdc	15Vdc
Diode:	0.6mA	0.6mA	0.6mA
Open Circuit Voltage	3Vdc	3Vdc	3Vdc
Continuity (Beeper):	<40Ω	<40Ω	<40Ω
Max Test Voltage	1.5Vdc	1.5Vdc	1.5Vdc
Frequency (Hz) (Auto Ranging):			
Current Input	4 to 10kHz	4 to 10kHz	4 to 10kHz
Resolution	1Hz	1Hz	1 to 10Hz
Accuracy	±0.1% Reading + 1ct	±0.1% Reading + 1ct	±0.1% Reading + 1ct (20 to 10kHz)
Min Input Signal	2Arms	2Arms	2Arms & 5Arms
Voltage Input	4 to 10kHz	4 to 10kHz	4 to 10kHz
Resolution	1 to 10Hz	1 to 10Hz	1 to 10Hz
Accuracy	±0.1% Reading + 1ct	±0.1% Reading + 1ct	±0.1% Reading + 1ct (10 to 10kHz)
Min Input Signal	5Vrms	5Vrms	5Vrms & 10Vrms

*Note: The Model 514 is not Auto Ranging

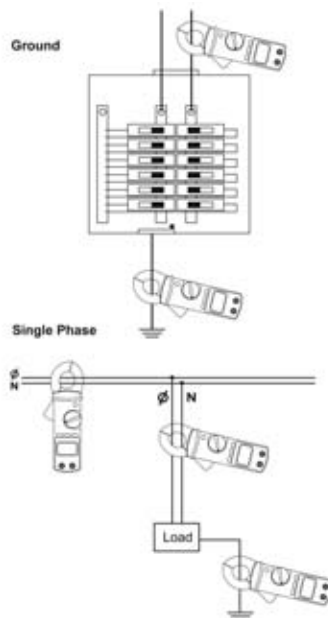
Catalog No.	Description
2117.67	AC Clamp-on Meter Model 511 (1000Aac, 1000Vac/dc, Ohms, Continuity)
2117.68	Trms Clamp-on Meter Model 512 (Trms, 1000Aac, 600Vac/dc, Ohms, Continuity)
2117.70	DC/AC TRMS Clamp-on Meter Model 514 (Trms, 1000Aac/dc, 600Vac/dc, Ohms, Continuity)

Clamp-On Multimeters

TRMS Leakage Current Meter Model 565



Model 565



Features

- Check for leakage and locate insulation breakdowns on live circuits
- Measures leakage current down to 600mA with up to 10µA resolution
- Measures current up to 100Arms
- Measures up to 600VAC/DC
- Measures Hz on either V or A inputs
- Measures Resistance and Continuity
- Hold feature freezes Value
- Max feature keeps track of highest measured In-rush value
- Zero button ideal for measuring relative values
- Filter to isolate 50/60Hz fundamental from harmonics
- Compatible with VDE 0404

SPECIFICATIONS

MODEL	565	
mA AC Current (TRMS, Auto-Ranging)	0 to 600mA	
Resolution	60mA	0.01mA (10µA)
	600mA	0.1mA (100µA)
Accuracy	50 to 60Hz	1.2% of Reading ± 5cts
	50 to 500Hz	2.5% of Reading ± 5cts
	500Hz to 3kHz	3.5% of Reading ± 10cts
AC Current (TRMS, Auto-Ranging)	10 to 100A	
Resolution	10A	0.001A (1mA)
	100A	0.01A (10mA)
Accuracy	50 to 60Hz	1.2% of Reading ± 5cts
	50 to 500Hz	2.5% of Reading ± 5cts
	500Hz to 3kHz	3.5% of Reading ± 10cts
AC Voltage (TRMS)	0 to 600V	
Accuracy	50 to 60Hz	1.0% of Reading ± 5cts
	50 to 500Hz	1.2% of Reading ± 5cts
	500Hz to 3kHz	2.5% of Reading ± 5cts
DC Voltage	0 to 600V	
Resolution	0.1V	
Accuracy	1.0% of Reading ± 3cts	
Resistance	0 to 1kΩ	
Accuracy	1.0% of Reading ± 3cts	
Continuity	Buzzer activates <35kΩ (0 to 1kΩ)	
Frequency (Auto-Ranging)		
Function	A-Hz	V-Hz
Resolution	0 to 100Hz	0.1Hz
	100Hz to 1kHz	1Hz
Sensitivity	10mArms min	5Vrms min
Accuracy	0.5% of Reading ± 2cts	
Filter	On (50/60Hz only); Off (Full frequency range)	
In-Rush	Max 100mS sample time	
Power Source	Two 1.5V AAA batteries	



Model 565 includes two color-coded 5 ft test leads, batteries, soft carrying case and user manual.



Jaw Opening: 1.10" (28mm)
Conductor Size:
1" (26mm)

CATALOG NO. DESCRIPTION

2117.56	TRMS Leakage Current Meter Model 565 (TRMS, 100A, 600VAC/DC, Hz, Ohms, Continuity)
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Power Quality Meters and Loggers

Clamp-On Harmonic Meter Model 721

Features:

- Designed for traditional and nonlinear loads
- Simple clamp-on operation and power quality features
- No menus, no calculations and no analyzing
- Accurate true RMS readings of amperes and volts
- Direct reading of %THD, %DF, CF and Peak
- Recording mode for Min, Max, Avg, Max Peak
- Works with oscilloscopes as a harmonic and current transducer
- Rugged Lexan® construction for professional daily use
- Built to IEC 1010, 600V, Cat. III safety standards
- Compact size

Specifications

MODEL	721
AC Current (TRMS)	
Input Range:	0.05 to 700.0Arms, 0.05 to ±999.9A peak
AC Voltage (TRMS)	
Input Range:	0.05 to 600Vrms, 0.05 to ±1200V peak
Total Harmonic Distortion (%THD)	
Range:	0.5% to 600.0%, 25th order
Distortion Factor (%DF)	
Range:	0.5% to 100%
Crest Factor (CF)	
Range:	1.00 to 10.00
Resolution:	0.1Ω and 1Ω
Basic Accuracy:	1% of Reading (40 to 450Hz)
Frequency (Hz)	
Range:	0.5 to 9999Hz
Analog Output	
Range:	1 mV/A (0.5 to 700Arms), or 10 mV/A (0.05 to 60Arms)



Model 721



Catalog No.	Description
1208.52	Clamp-on Harmonic Meter Model 721 (9999-count, Trms, V, A, F, Hz, THD, CF)

Harmonic Power Meter Model 725



Model 725



Simple clamp-on operation with power quality functions

Features:

- 31-segment analog bar graph
- Low battery indicator level check
- Audible control/warning indications
- Built to IEC 1010, 600V, Cat. III safety standards
- Recording mode, Min, Max, Avg, Max Peak
- Direct reading %THD, %DF, CF, Peak (+ or -)
- Smooth function for stable readings
- Automatic or manual ranging
- Peak measurements (AC or DC) (+ or -)
- Percent ripple for DC
- Auto-off feature

Specifications

MODEL	725
AC Current (TRMS)	
Input Range:	0.3 to 1000.0Arms, ±0.5 to ±1500A peak
AC Voltage (TRMS)	
Input Range:	0.05 to 600Vrms, ±0.05 to ±1500V peak
Crest Factor:	>5 below 300V
Input Impedance:	0.5Hz to 5kHz
DC Current	
Range:	±0.1 to ±1500A
DC Voltage	
Input Range:	±0.05 to ±600V
Total Harmonic Distortion (% THD)	
Range:	0.2% to 1000% (to RMS or Fund)
Distortion Factor (%DF)	
Range:	0.2% to 100%
Individual Harmonics	
Range 1st through the 25th:	0.2% to 300% (%TDH or %DF)
Transformer Harmonic Derating Factor (CBEMA THDF)	
Range:	.10 to 1.00
Transformer K Factor Rating	
Range:	1 to 30
Frequency (Hz)	
Range:	0.5 to 20,000Hz

Catalog No.	Description
2111.39	Clamp-on Harmonic Meter Model 725 (600Vac/dc and 1500Aac/dc)

Current Measurement Probes

AmpFlex™ Flexible Current Probes

- Current ranges from 50 μ A to 30,000 Arms
- Measures both AC, DC and power quality features
- Used with DMMs, oscilloscopes, data loggers, handheld scopes and meters
- Voltage or current output
- Output connections; jacks, leads or BNC
- Flexible and fixed jaw models



Five questions for selecting the proper current measurement probe

- Is AC, DC or both to be measured?
- What current rating is needed?
- What is the conductor size to be clamped onto?
- Is mV or mA output required?
- What lead termination is needed? BNC (scope), Jack (accepts 4mm), or Lead (integral banana plug)?



Features:

- Measure from 30Arms to 30,000Arms
- Lengths from 24" to 60" standard
- Accuracy 1% of Reading
- Shape Memory allows pre-forming before installation
- Very low phase shift error
- Single and dual range models standard

*Dimensions rounded off

Note: Output is safety shrouded
4mm male banana plug
Measurement range starts at 0.5A
for all flexible probes

Model	Current Range	Output	Sensor Length inches (mm*)	Max. Conductor Size inches (mm*)	Catalog No.
30-24-1-100	30A	100mV/A	24 (610)	8 (190)	2112.14
200-24-1-1	200A	1mV/A	24 (610)	8 (190)	2112.20
300-24-1-10	300A	10mV/A	24 (610)	8 (190)	2112.29
300-24-1-1	300A	1mV/A	24 (610)	8 (190)	2112.24
300-24-2-10	30/300A	100/10mV/A	24 (610)	8 (190)	2112.88
500-24-1-1	500A	1mV/A	24 (610)	8 (190)	2112.34
500-24-2-1	50/500A	10/1mV/A	24 (610)	8 (190)	2112.93
1000-24-1-1	1000A	1mV/A	24 (610)	8 (190)	2112.39
1000-36-1-1	1000A	1mV/A	36 (910)	11 (290)	2112.41
1000-48-1-1	1000A	1mV/A	48 (1220)	15 (390)	2112.42
1000-24-2-1	100/1000A	10/1mV/A	24 (610)	8 (190)	2112.98
1000-36-2-1	100/1000A	10/1mV/A	36 (910)	11 (290)	2113.00
1000-48-2-1	100/1000A	10/1mV/A	48 (1220)	15 (390)	2113.01
3000-24-1-1	3000A	1mV/A	24 (610)	8 (190)	2112.46
3000-36-1-1	3000A	1mV/A	36 (910)	11 (290)	2112.48
3000-48-1-1	3000A	1mV/A	48 (1220)	15 (390)	2112.49
3000-24-2-0.3	300/3000A	3.3/0.3mV/A	24 (610)	8 (190)	2114.87
3000-36-2-0.3	300/3000A	3.3/0.3mV/A	36 (910)	11 (290)	2114.88
3000-24-2-1	300/3000A	10/1mV/A	24 (610)	8 (190)	2113.05
3000-36-2-1	300/3000A	10/1mV/A	36 (910)	11 (290)	2112.00
3000-48-2-1	300/3000A	10/1mV/A	48 (1220)	15 (390)	2112.01
6000-24-1-0.1	6000A	0.1mV/A	24 (610)	8 (190)	2112.62
6000-36-1-0.1	6000A	0.1mV/A	36 (910)	11 (290)	2112.64
6000-48-1-0.1	6000A	0.1mV/A	48 (1220)	15 (390)	2112.65
6000-60-1-0.1	6000A	0.1mV/A	60 (1520)	19 (490)	2112.66
6000-24-2-0.1	600/6000A	1/0.1mV/A	24 (610)	8 (190)	2113.19
6000-36-2-0.1	600/6000A	1/0.1mV/A	36 (910)	11 (290)	2113.21
6000-48-2-0.1	600/6000A	1/0.1mV/A	48 (1220)	15 (390)	2113.22
6000-60-2-0.1	600/6000A	1/0.1mV/A	60 (1520)	19 (490)	2113.23
10000-24-1-0.1	10,000A	0.1mV/A	24 (610)	8 (190)	2112.70
10000-36-1-0.1	10,000A	0.1mV/A	36 (910)	11 (290)	2112.72
10000-48-1-0.1	10,000A	0.1mV/A	48 (1220)	15 (390)	2112.73
10000-60-1-0.1	10,000A	0.1mV/A	60 (1520)	19 (490)	2112.74
10000-24-2-0.1	1000/10,000A	1/0.1mV/A	24 (610)	8 (190)	2113.27
10000-36-2-0.1	1000/10,000A	1/0.1mV/A	36 (910)	11 (290)	2112.02
10000-48-2-0.1	1000/10,000A	1/0.1mV/A	48 (1220)	15 (390)	2112.03
10000-60-2-0.1	1000/10,000A	1/0.1mV/A	60 (1520)	19 (490)	2113.29
30000-24-1-0.1	30,000A	0.1mV/A	24 (610)	8 (190)	2112.78
30000-36-1-0.1	30,000A	0.1mV/A	36 (910)	11 (290)	2112.80
30000-48-1-0.1	30,000A	0.1mV/A	48 (1220)	15 (390)	2112.81
30000-60-1-0.1	30,000A	0.1mV/A	60 (1520)	19 (490)	2112.82
30000-24-2-0.1	3000/30,000A	1/0.1mV/A	24 (610)	8 (190)	2113.33
30000-36-2-0.1	3000/30,000A	1/0.1mV/A	36 (910)	11 (290)	2113.35
30000-48-2-0.1	3000/30,000A	1/0.1mV/A	48 (1220)	15 (390)	2113.36
30000-60-2-0.1	3000/30,000A	1/0.1mV/A	60 (1520)	19 (490)	2113.37



Current Measurement Probes

LongLife AmpFlex® Flexible Current Probes



Model LGLF 1000-24-1-1

SPECIFICATIONS				
MODELS	LGLF 1000-24-1-1	LGLF 1000-24-2-1	LGLF 3000-36-1-1	LGLF 3000-36-2-1
ELECTRICAL				
Current Range	5 to 1000A	5 to 100A; 50 to 1000A	5 to 3000A	5 to 300A; 50 to 3000A
Output Signal	1mV/A	10mV/A and 1mV/A	0.333mV/A	3.33mV/A and 0.333mV/A
Residual Current	500mArms	200mArms	500mArms	200mArms
MECHANICAL				
Maximum Conductor Size	24": 7.6" (193mm) 36": 11.5" (292.1mm)			
Sensor Length	24" (609mm)	24" (609mm)	36" (914mm)	36" (914mm)
Cable Length	6.5 ft (2m) sensor to case			
Output Connection	Double insulated 14" (355mm) lead with safety banana plugs			

Features

- Single or dual range to measure up to 3000A
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- Waterproof sensor
- 9V Alkaline battery for typical use of 2000 hours continuous operation
- Shape Memory for pre-shaping of sensor before use
- Insensitive to DC, measures only AC component on DC + AC
- Excellent linearity
- EN 61010, 1000V Cat. III, 600V Cat. IV, Pollution Degree 2

CATALOG NO.	DESCRIPTION
2120.66	LongLife AmpFlex® Model LGLF 1000-24-1-1 (1000A, 24", 0.1mV/A)
2120.67	LongLife AmpFlex® Model LGLF 1000-24-2-1 (100/1000A, 24", 10mV/1mV/A)
2120.68	LongLife AmpFlex® Model LGLF 3000-36-1-1 (3000A, 36", 0.3mV/A)
2120.69	LongLife AmpFlex® Model LGLF 3000-36-2-1 (300/3000A, 36", 0.3mV/3.3mV/A)

FlexProbe® Flexible Current Probe Models 24-3001 & 24-3002



Model 24-3001

Model 24-3002



SPECIFICATIONS		
MODELS	24-3001	24-3002
ELECTRICAL		
Current Range	300/3000Aac	
Output Signal	mV output (4000mV peak max)	
Three Position Slide Switch	10mV/A	5A to 300Arms
	1mV/A ON/OFF	50A to 3000Arms
MECHANICAL		
Maximum Conductor Size	7.6" (193mm)	
Sensor Length	24" ± 1" (610mm ± 25.4mm)	
Cable Length	6.5 ft (2m)	
Output Connection	Double insulated 14" (355mm) lead with safety banana plugs	4mm safety banana plugs (red and black)



Banana (female) - BNC (male) (XM-BB)
Catalog #2118.46 (optional)

Features

- 24" flexible sensor fits around conductors up to 7.6" in diameter
- Dual measurement ranges of 300A and 3000Aac
- Read amperage directly on DMM display
- mV output directly proportional to the AC current measured
- Output is 10mV/A on 300A range and 1mV/A on 3000A range
- Accuracy of 1% of Reading ± 500mA
- 4% influence of conductor position in jaw
- Up to 300 hours of battery life with Lithium battery
- Dual banana plug termination for direct input into DMMs (Model 24-3001)
- Electronic module with 4mm safety banana plugs with 3/4" spacing (Model 24-3002)
- Flashing LED low battery indicator
- EN 61010, 1000V Cat. III, 600V Cat IV, Pollution Degree 2

CATALOG NO.	DESCRIPTION
2120.81	FlexProbe® Model 24-3001 (300/3000Aac, 24", 10mV/A/1mV/A, with lead)
2120.82	FlexProbe® Model 24-3002 (300/3000Aac, 24", 10mV/A/1mV/A)
Accessories (Optional)	
2118.46	Banana (Female) - BNC (Male) Adapter (XM-BB)

Current Measurement Probes

AC/DC Current Probes MR400 & MR500 Series



Specifications

MODELS	MR410	MR411	MR520	MR521
Measurement Range AC:	1A to 400A	0.2A to 40A 0.5A to 400A	1A to 1000A	0.2A to 100A 0.5A to 1000A
Measurement Range DC:	1A to 600A	0.4A to 60A 0.5A to 600A	1A to 1500A	0.4A to 150A 0.5A to 1500A
Output Signal Voltage (mV):	1mV/Aac/dc	10mV/Aac/dc 1mV/Aac/dc	1mV/Aac/dc	10mV/Aac/dc 1mV/Aac/dc
Maximum Conductor Size: Ø Cable	One 1.18" (30mm) Two 0.95" (24mm) 2 x 500MCM		One 1.5" (39mm) Two 0.98" (25mm)	
Bus Bar	Two 1.2 x 0.4" (31.5 x 10mm)		One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)	
Output Connection:	Lead	Lead	Lead	Lead

Features:

- MR400 Series has a measurement range of 400Aac/600Adc
- MR500 Series has a measurement range of 1000Aac/1500Adc
- Two distinct jaw shapes to be used for hooking or prying around the conductor
- Conforms to IEC 1010, 600V, Cat. III safety standard
- Low phase shift for power measurements
- Designed for DMMs, recorders, oscilloscopes, power and harmonic meters

Catalog No.	Description
1200.70	AC/DC Current Probe Model MR410 (Lead – 1mV/A – 600A max)
1200.68	AC/DC Current Probe Model MR411 (Lead – 10mV/A – 60A max & 1mV/A – 600A max)
1200.71	AC/DC Current Probe Model MR520 (Lead – 1mV/A – 1500A max)
1200.69	AC/DC Current Probe Model MR521 (Lead – 10mV/A – 150A max & 1mV/A 1500A – max)

DC/AC MicroProbes Models K100/K110

Features:

- Measures extremely low level DC from 100µA
- Outputs signal proportional to total current (DC + AC)
- Low noise
- Ultra-compact size and non-contact clamp-on convenience
- Simple plug-in operation
- Designed for use with digital multimeters and oscilloscopes
- Accurate display of wave forms
- No range or mode (AC/DC) switching required
- Extended battery life
- Red LED indicates momentary or continuous overload
- Green LED indicates power and battery condition

SPECIFICATIONS

MODELS	K100	K110
Current Range:	0 to ±4.5Aac 0 to 3Arms	0 to ±450Aac 0 to 300mArms
Output (Vout):	1mV/mA	10mV/mA
Resolution:	DC: 50µA typical, AC: 100µA typical	DC: 50µA typical, AC: 100µA typical
Accuracy:	DC: 1% Reading ± 200µA, AC: 2% Reading ± 200µA	DC: 0.5% Reading ± 150µA, AC: 0.8% Reading ± 200µA
Output Noise:	<100µV, DC to 3kHz	<100µV, DC to 3kHz
Frequency Response:	DC to 2kHz (@ -3dB sine)	DC to 1500kHz (@ -3dB sine)



Model K100



Catalog No.	Description
1200.67	DC/AC Microprobe Model K100 (1mV/mA - 4.5A max)
2111.73	DC/AC Microprobe Model K110 (10mV/mA - 450mA max)

Current Measurement Probes

Oscilloscope & BNC Terminated Probes



Model SL261



Model MN261



Model MR461



Model MR561



Model SR661



Model JM861

Model	Measurement Range		Output Signal	Phase Shift**	Maximum Conductor Size		Output Connection
	AC	DC			Ø Cable	Bus Bar	
SL261	100mA to 10A 1 to 100A	100mA to 10A 1 to 100A	100mV/Aac/bc 10mV/Aac/bc	<1.5°	0.46" (11.8mm)	N/A	Lead w/BNC
MN261	0.1 to 24A 0.1 to 240A	—	100mV/Aac 10mV/Aac	<2.5°	0.78" (19.8mm)	N/A	Lead w/BNC
MR461	0.2 to 40A 0.5 to 400A	0.4 to 60A 0.5 to 600A	10mV/Aac/bc 1mV/Aac/bc	<1.5°	One 1.18" (30mm) Two 0.95" (24mm) 2 x 500MCM	Two 1.2 x 0.4" (31.5 x 10mm)	Lead w/BNC
MR561	0.2 to 100A 0.5 to 1000A	0.4 to 150A 0.5 to 1500A	10mV/Aac/bc 1mV/Aac/bc	<1.5°	One 1.5" (39mm) Two 0.98" (25mm)	One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)	Lead w/BNC
SR661	0.1 to 12A 0.1 to 120A 1 to 1200A	—	100mV/Aac 10mV/Aac 1mV/Aac	<1°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Lead w/BNC
JM861	1 to 30A 1 to 300A 1 to 3000A	—	10mV/Aac 1mV/Aac 0.1mV/Aac	<1°	2.52" (64mm) 2.52 x 3.94" (64 x 100mm)	1.97 x 5.31" (50 x 135mm)	Lead w/BNC

**Phase shift indicated at maximum rating
Not all models are UL approved; please consult factory.

CATALOG NO.	DESCRIPTION
1201.51	AC/DC Current Probe Model SL261 (BNC – 100mV/A – 10A & 10mV/A – 100A)
2115.82	AC Current Probe Model MN261 (BNC – 100mV/A – 24A; 10mV/A – 240A)
1200.72	AC Current Probe Model MR461 (BNC – 10mV/A – 60A max & 1mV/A – 600A max)
1200.73	AC Current Probe Model MR561 (BNC – 10mV/A – 150A max & 1mV/A – 1500A max)
2113.49	AC Current Probe Model SR661 (BNC – 100mV/A – 10A; 10mV/A – 100A; 1mV/A – 1000A max)
2110.90	AC Current Probe Model JM861 (BNC 10mV/A – 30A; 1mV/A – 300A; 0.1mV/A – 3000A)

Current Measurement Probes

General Purpose Probes



Series	Model	Ratio	Measurement Range		Output Signal		Phase Shift**	Maximum Conductor Size		Output Connection	Catalog No
			AC	DC	Current	Voltage		Ø Cable	Bus Bar		
	MN103	—	1mA to 10A 1 to 100A	—	—	1mVAc/mAac 1mVAc/Aac	N/A	0.47" (12mm)	N/A	Lead	1031.02
	MN106	1000:1	2 to 150A	—	1mAac/Aac	—	<10°			Lead	1031.17
	MN114	—	1mA to 10A	—	—	100mVAc/Aac	<8°			Lead	2110.71
	MN185	1000:1	50mA to 150A	—	1mAac/Aac	—	<3.5°			Jack	100.185
	MN210	1000:1	0.5 to 240A	—	1mAac/Aac	—	<2.5°	0.78" (19.8mm)	N/A	Jack	2115.72
	MN211	1000:1	0.5 to 240A	—	1mAac/Aac	—	<2.5°			Lead	2115.73
	MN212	1000:1	0.5 to 240A	—	1mAac/Aac*	—	<2.5°			Jack	2115.74
	MN213	1000:1	0.5 to 240A	—	1mAac/Aac*	—	<2.5°			Lead	2115.75
	MN250	—	0.1 to 240A	—	—	1mVAc/Aac	<2.5°			Jack	2115.76
	MN251	—	0.1 to 240A	—	—	1mVAc/Aac	<2.5°			Lead	2115.77
	MN252	—	0.1 to 240A	—	—	10mVAc/Aac	<2.5°			Jack	2115.78
	MN253	—	0.1 to 240A	—	—	10mVAc/Aac	<2.5°			Lead	2115.79
	MN254	—	0.1 to 24A 0.1 to 240A	—	—	100mVAc/Aac 10mVAc/Aac	<2.5°			Jack	2115.80
	MN255	—	0.1 to 24A 0.1 to 240A	—	—	100mVAc/Aac 10mVAc/Aac	<2.5°			Lead	2115.81
	MN290	—	0.5 to 240A	—	—	100mVdc/Aac	N/A			Jack	2115.83
	MN291	—	0.5 to 240A	—	—	100mVdc/Aac	N/A			Lead	2115.84
	MN306	—	10mA to 12A	—	—	100mV/Aac	<2.5°		0.78" (19.8mm)	Jack	2116.22
	MN307	—	10mA to 12A	—	—	100mV/Aac	<2.5°			Lead	2116.23
	MN312	1000:1	0.1 to 200A	—	1mAac/Aac*	—	<2.5°			Jack	2116.24
	MN313	1000:1	0.1 to 200A	—	1mAac/Aac*	—	<2.5°			Lead	2116.25
	MN352	—	0.1 to 240A	—	—	10mV/Aac	<2.5°			Jack	2116.26
	MN353	—	0.1 to 240A	—	—	10mV/Aac	<2.5°			Lead	2116.27
	MN373	—	0.01 to 2.4A 0.1 to 200A	—	—	1000mV/Aac 10mV/Aac	<3°			Lead	2116.28
	MN375	—	0.1 to 10A	—	—	100mV/Aac	<1.5°			Lead	2115.41
	SL201	—	50mA to 1.5A 500mA to 120A	50mA to 2A 500mA to 150A	—	1mV/mAac/bc 1mV/Aac/bc	<3°	0.46" (11.8mm)	N/A	Lead	1201.40
	SL206	—	10mA to 1.5A 50mA to 60A	10mA to 2A 50mA to 80A	—	1mV/mAac/bc 10mV/Aac/bc	<1°			Lead	1201.45
	MD301	—	2 to 500A	—	—	1mVdc/Aac	N/A	1.18" (30mm) 2 x 500MCM	2.48 x 0.20" (63 x 5mm)	Lead	1201.07
	MD303	1000:1	4 to 500A	—	1mAac/Aac	—	<7°			Lead	1201.21
	MD304	100:1	1 to 600A	—	10mAac/Aac	—	<3°			Lead	1201.37
	MD305	1000:1	1 to 600A	—	1mAac/Aac	—	<1°			Lead	1201.36
	MD314	—	4 to 500A	—	—	1mVAc/Aac	<7°			Lead	2110.75

**Phase shift indicated at maximum rating
Not all models are UL approved; please consult factory.

Current Measurement Probes

General Purpose Probes



Series	Model	Ratio	Measurement Range		Output Signal		Phase Shift**	Maximum Conductor Size		Output Connection	Catalog No
			AC	DC	Current	Voltage		Ø Cable	Bus Bar		
	SR600	1000:1	0.1 to 1000A	—	1mAac/Aac	—	<0.5°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Jack	2113.42
	SR601	1000:1	0.1 to 1000A	—	1mAac/Aac*	—	<0.5°			Jack	2113.43
	SR604	1000:1	0.1 to 1000A	—	1mAac/Aac*	—	<0.5°			Lead	2113.44
	SR631	1000:5	0.1 to 1000A	—	5mAac/Aac*	—	<1°			Jack	2113.47
	SR632	1000:5	0.1 to 1000A	—	5mAac/Aac*	—	<1°			Lead	2114.79
	SR634	250:5 500:5 1000:5	1 to 250A 1 to 500A 1 to 1000A	—	20mAac/Aac 10mAac/Aac 5mAac/Aac*	—	<1°			Jack	2113.48
	SR651	—	0.1 to 1000A	—	—	1mVac/Aac	<0.5°			Jack	2113.45
	SR652	—	0.1 to 1000A	—	—	1mVac/Aac	<0.5°			Lead	2113.46
	SR701	1000:1	1mA to 1000A	—	1mAac/Aac*	—	<0.5°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Jack	2116.29
	SR704	1000:1	1mA to 1000A	—	1mAac/Aac*	—	<0.5°			Lead	2116.30
	SR751	—	0.1 to 1000A	—	—	1mVac/Aac	<0.7°			Jack	2116.31
	SR752	—	0.1 to 1000A	—	—	1mVac/Aac	<0.7°			Lead	2116.32
	SR759	—	1mA to 1A 10mA to 10A 0.1 to 100A 1 to 1000A	—	—	1000mVac/Aac 100mVac/Aac 10mVac/Aac 1mVac/Aac	<1°			Lead	2116.33
	JM800A	1000:1	1 to 1000A	—	1mAac/Aac	—	<1°	2.52" (64mm)	1.97 x 5.31" (50 x 135mm) 2.52 x 3.94" (64 x 100mm)	Lead	2110.79
	JM810A	2000:2	1 to 2000A	—	1mAac/Aac	—	<0.5°			Lead	2110.80
	JM813	3000:3	1 to 2400A	—	1mAac/Aac	—	<0.5°			Jack	2110.93
	JM815A	1000:5	1 to 1000A	—	5mAac/Aac	—	<0.5°			Lead	2110.81
	JM830A	3000:1	1 to 2400A	—	.33mAac/Aac	—	<0.5°			Lead	2110.83
	JM835A	3000:5	1 to 3000A	—	1.6mAac/A	—	<1°			Lead	2110.84
	JM840A	500:1 1000:1 1500:1	1 to 500A 1 to 1000A 1 to 1500A	—	2mAac/Aac 1mAac/Aac .66mAac/Aac	—	<0.5°			Jack	2110.85
	JM850A	1000:1 2000:1 3000:1	1 to 1000A 1 to 2000A 1 to 2400A	—	1mAac/Aac .5mAac/Aac .33mAac/Aac	—	<0.5°			Jack	2110.87
	JM865A	1000:5 2000:5 3000:5	1 to 1000A 1 to 2000A 1 to 2400A	—	5mAac/Aac 2.5mAac/Aac 1.67mAac/Aac	—	<0.5°			Jack	2110.88
	JM875	—	100mA to 30A 1 to 300A 1 to 2000A	—	—	100mVac/Aac 10mVac/Aac 1mVac/Aac	<0.5°			Jack	2110.89

**Phase shift indicated at maximum rating
Not all models are UL approved; please consult factory.

Output Terminations



Lead with BNC:
Insulated 6.5 ft (2m)
coaxial cable with
insulated BNC
connector rated
600Vrms



Jacks:
Two standard
safety banana
jacks (4mm)



Leads:
Double/
reinforced
5 ft (1.5m) lead
with 4mm safety
banana plug



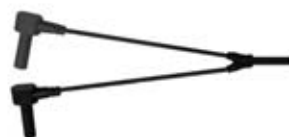
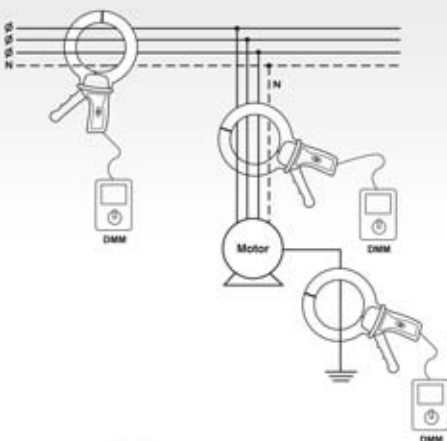
Shrouded
Banana Plugs:
Two 4mm safety
banana plugs;
standard 1/2" (19mm) spacing

Leakage Current Meters and Probes

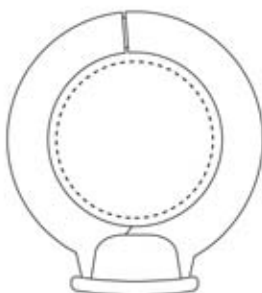
AC Leakage Current Probe Model 2620

Features

- Very high sensitivity
- Differential or leakage current from 500 μ A
- Current up to 400A
- Two switch-selectable measurement ranges: 4A/400A
- Large inside jaw diameter allows use on large or multiple conductors
- Works with single-, dual- and three-phase systems
- Connect directly to DMMs on mV or VAC range



Model 2620 includes double reinforced 5 ft (1.5m) leads with 4mm safety banana plugs



Jaw Opening: 4.4" (112mm)
Conductor Size: 4.4" (112mm)

Check for leakage and locate insulation breakdowns on live circuits



Model 2620

SPECIFICATIONS

MODEL	2620	
ELECTRICAL		
	4A Range	400A Range
Current Range	500µA to 4A	500mA to 400A
Output Signal	1mV/mA (4V max)	1mV/A (4V max)
Accuracy		
500µA to 10mA	3% of Reading ± 1mV	—
10mA to 100mA	0.5% of Reading ± 0.5mV	—
100mA to 4A	0.5% of Reading ± 0.5mV	—
500mA to 10A	—	0.5% of Reading ± 0.5mV
10A to 100A	—	0.35% of Reading ± 0.5mV
100A to 400A	—	0.35% of Reading ± 1mV
Phase Shift		
10mA to 100mA	<15°	—
100mA to 4A	<10°	—
10A to 100A	—	<1°
100A to 400A	—	<0.6°
Load Impedance	1MΩ min	1MΩ min
Frequency Range	48 to 1000Hz	48 to 1000Hz
MECHANICAL		
Dimensions	11.22 x 6.89 x 1.77" (285 x 175 x 45mm)	
Weight	2.87 lbs (1300g)	

CATALOG NO. DESCRIPTION

2125.52 AC Leakage Current Probe Model 2620 (4A, 1V/A & 400A, 1mV/A output)

Accessories (Optional)

1971.01 Artificial Neutral Model AN-1



Digital Multimeters

50,000 - Count TRMS Digital Multimeter MX50 Series



Models MX53[®], MX54[®] & MX56[®]

Available on
AEMC[®] Web Store
ONLY - at
SPECIAL PRICING!



Features

- 50,000-count, 5000-count selectable
- Accuracy to 0.025%
- True RMS (AC or AC + DC)
- Selectable input impedance — 10mΩ or 1GΩ on 500mVdc range
- DC to 100kHz
- Capacitance and frequency
- IP67 rated
- EN 61010, 600V Cat. III and 1000V Cat. II
- Includes rugged, shockproof, protective, blue holster with Multistand (for lead and probe storage) and test leads
- Three year warranty



SPECIFICATIONS

MODELS	MX53 [®]	MX54 [®]	MX56 [®]
AC Current	5mA to 10A	500μA to 10A	500μA to 10A
Resolution	1μA to 10mA	10nA to 1mA	10nA to 1mA
Accuracy*	±1% of Reading ± 3cts	±0.6% of Reading ± 30cts	±0.6% of Reading ± 30cts
AC Voltage	0.5 to 750V	0.5 to 750V	0.5 to 750V
Resolution	100μV to 1V	10μV to 100mV	10μV to 100mV
Accuracy*	±1% of Reading ± 3cts	±0.3% of Reading ± 30cts	±0.3% of Reading ± 30cts
Input Impedance	10MΩ	10MΩ	10MΩ
DC Current	5mA to 10A	500μA to 10A	500μA to 10A
Resolution	100nA to 1mA	10nA to 1mA	10nA to 1mA
Accuracy*	±0.2% of Reading ± 2cts	±0.05% of Reading ± 2cts	±0.05% of Reading ± 2cts
DC Voltage	0.5 to 1000V	0.5 to 1000V	0.5 to 1000V
Resolution	10μV to 100mV	10μV to 100mV	10μV to 100mV
Accuracy*	±0.1% of Reading ± 2cts	±0.05% of Reading ± 2cts	±0.025% of Reading ± 2cts
Input Impedance	10MΩ	10MΩ	10MΩ
Resistance	500Ω to 50MΩ	500Ω to 50MΩ	500Ω to 50MΩ
Resolution	10mΩ to 1kΩ	10mΩ to 1kΩ	10mΩ to 1kΩ
Accuracy*	±0.1% of Reading ± 3cts	±0.07% of Reading ± 2cts	±0.07% of Reading ± 2cts
Continuity	10 to 20Ω	10 to 20Ω	10 to 20Ω
Response Time	1ms	1ms	1ms
Diode Test	1mV	1mV	1mV
Test Current	1mA ± 20%	1mA ± 20%	1mA ± 20%
Capacitance	50nF to 50mF	50nF to 50mF	50nF to 50mF
Resolution	10pF to 10μF	10pF to 10μF	10pF to 10μF
Accuracy	±1% of Reading ± 2cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts
Frequency	0.62Hz to 500kHz	0.62Hz to 500kHz	0.62Hz to 500kHz
Accuracy	0.03% of Reading	0.03% of Reading	0.03% of Reading
dB Function	—	10mVac to 750Vac	10mVac to 750Vac
Resolution	—	0.01dB	0.01dB
Pulse Count	—	Up to 99,999-counts	Up to 99,999-counts
Pulse Width	—	20μs (min)	20μs (min)
Power Line Noise Analysis	—	1 to 100kHz	1 to 100kHz
Resistive Power (Programmable reference)	—	1 to 9999Ω	1 to 9999Ω
Resolution	—	100μW	100μW
Temperature	—	—	—
Range (User selectable in °F or °C)	—	-328° to 1472°F (-200° to 800°C)	—
Sensor	—	PT100/PT1000	—
Digital Display	50,000-count	50,000-count	50,000-count
Analog Bargraph	34-segment	34-segment	34-segment
Safety Rating	EN 61010	EN 61010	EN 61010

*Accuracy dependent on range

CATALOG NO.	DESCRIPTION
2116.69	DMM Model MX53 [®] (50,000-count, TRMS, 0.1% Accuracy, with Holster)
2116.70	DMM Model MX54 [®] (50,000-count, TRMS, 0.05% Accuracy, with Holster)
2116.72	DMM Model MX56 [®] (50,000-count, TRMS, 0.025% Accuracy, with Holster)

Other products from the Chauvin Arnoux® Group

Intrinsically Safe Digital Multimeter Model MX 57EX



Model MX 57EX



An intrinsically safe multimeter for use in dangerous or explosive atmospheres

Features

- ATEX 6005X, EEx ib group I, IIc and temperature class T6 assigned specifications
- Logic signal measurement and ADP input
- Min/Max/Avg functions
- Bargraph with zoom (x5) and center zero
- Rugged design — IP67 rating
- Protection by 500mA intrinsic safety fuse for the current range
- Includes test leads

SPECIFICATIONS

MODEL	MX 57EX TRMS																	
AC Current	500µA		5mA		50mA		500mA											
Resolution	10nA		100nA		1µA		10µA											
Bandwidth	DC to 5kHz		DC to 5kHz		DC to 5kHz		DC to 5kHz											
Accuracy	±0.75% of Reading ± 30cts		±0.6% of Reading ± 30cts		±0.6% of Reading ± 30cts		±0.7% of Reading ± 30cts											
Protection	600Vrms		600Vrms		600Vrms		600Vrms											
AC Voltage	500mV		5V		50V		500V*		1000V*									
Resolution	10µV		100µV		1mV		10mV		100mV									
Bandwidth	40Hz to 1kHz		1kHz to 4kHz		4kHz to 10kHz		10kHz to 30kHz		30kHz to 50kHz									
Accuracy	±0.3% of Reading ± 30cts		1% of Reading ± 30cts		±2% of Reading ± 30cts		±2% of Reading ± 30cts		±3% of Reading ± 30cts									
Input Impedance	11MΩ		11MΩ		10MΩ		10MΩ		10MΩ									
Protection	1100Vpk		1100Vpk		1100Vpk		1100Vpk		1100Vpk									
DC Current	500µA			5mA			50mA			500mA								
Resolution	10nA			100nA			1µA			10µA								
Accuracy	±0.2% of Reading ± 5cts			±0.2% of Reading ± 2cts			±0.05% of Reading ± 2cts			±0.2% of Reading ± 2cts								
Protection	600Vrms			600Vrms			600Vrms			600Vrms								
DC Voltage	500mV			5V			50V			500V*			1000V*					
Resolution	10µV			100µV			1mV			10mV			100mV					
Accuracy	±0.025% of Reading ± 2cts			±0.025% of Reading ± 2cts			±0.025% of Reading ± 2cts			±0.025% of Reading ± 2cts			±0.2% of Reading ± 2cts					
Input Impedance	11MΩ			11MΩ			10MΩ			10MΩ			10MΩ					
Protection	1100Vpk			1100Vpk			1100Vpk			1100Vpk			1100Vpk					
Resistance	500Ω			5kΩ			50kΩ			500kΩ			5MΩ			50MΩ		
Resolution	10mΩ			100mΩ			1Ω			10Ω			100Ω			1kΩ		
Accuracy	±0.07% of Reading ± 5cts			±0.07% of Reading ± 2cts			±0.07% of Reading ± 2cts			±0.07% of Reading ± 2cts			±0.3% of Reading ± 2cts			±1% of Reading ± 2cts		
Max Open-Circuit Voltage	7V			7V			7V			7V			7V			7V		
Protection	600V			600V			600V			600V			600V			600V		
Continuity	10 to 20Ω																	
Response Time	1ms																	
Diode Test	0 to 2V																	
Test Current	1mA ± 20%																	
Capacitance	50nF to 50mF																	
Accuracy	1% of Reading ± 2cts																	
Frequency	0.62Hz to 500kHz																	
Accuracy	0.03% of Reading ± 2cts																	
Temperature																		
Range (User selectable in °F or °C)	-328° to 1472°F (-200° to 800°C)																	
Sensor	PT100/PT1000																	
Digital Display	50,000-count																	
Analog Bargraph	34-segment																	
Safety Rating	NF EN 50014, EN 50014: 1992; NF EN 50020, EN 50020: 1994																	
Agency Approval	Ex II 2G/D or EX I M2, IP 67 T85, LCIE 02 ATEX 6005X, EEx ib IIC T6 or EEx ib I																	

*Operating voltages are limited to 60V peak value or currents to 500mA for intrinsically safe operation

CATALOG NO.	DESCRIPTION
2130.65	DMM Model MX 57EX (Intrinsically Safe, 50,000-count, TRMS, 0.025% Accuracy)



Digital Multimeters

Professional Digital Multimeter CA5000 Series

Features

- Tough, reliable, economical, professional DMMs in choice of 2000-, 4000- and 40,000-count models
- Automatic AC/DC selection (Model CA5205)
- Automatic shutdown after 30 minutes of nonuse or continual use (selectable)
- Large backlit LCD (model dependent)
- Clear push-button functions
- Large rotary range selector and dedicated push-buttons
- Safety rated to EN 61010, 600V Cat. III for protection against spikes and over-voltage
- Accurate average sensing or TRMS models for linear loads and distorted signals
- Complete line of accessories including leads and industry's largest selection of current probes
- Includes rugged, shockproof, protective, dirt resistant gray holster with Multistand™ (for lead and probe storage) and test leads
- Three year warranty

Available on
AEMC® Web Store
ONLY – at
SPECIAL PRICING!



CA5000 Series



SPECIFICATIONS

MODELS	CA5205 ⁽²⁾	CA5210 ⁽³⁾	CA5220	CA5230 TRMS	CA5240 TRMS
AC Current Range ⁽¹⁾	–	–	3 ranges: 40mA to 10A	3 ranges: 40mA to 10A	3 ranges: 40mA to 10A
Accuracy*	–	–	±1.5% of Reading ± 2cts	±0.8% of Reading ± 4cts	±0.9% of Reading ± 5cts
AC Voltage Range ⁽¹⁾	5 ranges: 200mV to 600V	5 ranges: 400mV to 600V	5 ranges: 400mV to 600V	5 ranges: 400mV to 600V	5 ranges: 400mV to 600V
Accuracy*	±1% of Reading ± 5cts	±1.5% of Reading ± 1ct	±1.5% of Reading ± 1ct	±1% of Reading ± 3cts	±1.5% of Reading ± 20cts
DC Current Range ⁽¹⁾	–	–	3 ranges: 40mA to 10A	3 ranges: 40mA to 10A	3 ranges: 40mA to 10A
Accuracy*	–	–	±1.5% of Reading ± 2cts	±1.2% of Reading ± 5cts	±0.5% of Reading ± 10cts
DC Voltage Range ⁽¹⁾	5 ranges: 200mV to 600V	5 ranges: 400mV to 600V	5 ranges: 400mV to 600V	5 ranges: 400mV to 600V	5 ranges: 400mV to 600V
Accuracy*	±1% of Reading ± 1ct	±1% of Reading ± 1ct	±1% of Reading ± 1ct	±0.25% of Reading ± 1ct	±0.1% of Reading ± 3cts
Resistance⁽¹⁾ Accuracy*	6 ranges: 200Ω to 20MΩ ±1.5% of Reading ± 5cts	6 ranges: 400Ω to 40MΩ ±1.5% of Reading ± 3cts	6 ranges: 400Ω to 40MΩ ±1.5% of Reading ± 3cts	6 ranges: 400Ω to 40MΩ ±0.5% of Reading ± 3cts	6 ranges: 400Ω to 40MΩ ±0.2% of Reading ± 3cts
Continuity	≤700Ω	≤40Ω	≤40Ω	≤40Ω	≤40Ω
Diode Test	1mV	1V	1mV	1mV	1mV
Accuracy*	±2% of Reading ± 15mV	±2% of Reading ± 15mV	±2% of Reading ± 15mV	±1% of Reading ± 2cts	±1% of Reading ± 10cts
Capacitance Accuracy*	– –	5 ranges: 4nF to 40μF ±5% of Reading ± 10cts	5 ranges: 4nF to 40μF ±5% of Reading ± 10cts	5 ranges: 4nF to 40μF ±1.5% of Reading ± 4cts	5 ranges: 4nF to 40μF ±1.5% of Reading ± 5cts
Frequency Accuracy*	– –	– –	5 ranges: 10Hz to 200kHz ±0.1% of Reading ± 2cts	5 ranges: 100Hz to 400kHz ±0.1% of Reading ± 20cts	6 ranges: 100Hz to 2MHz ±0.1% of Reading ± 10cts
Digital Display	2000-count	4000-count	4000-count	4000-count	40,000-count
Analog Bargraph	–	40-segment	40-segment	40-segment	40-segment
Safety Rating	EN 61010, 600V Cat. III	EN 61010, 600V Cat. III	EN 61010, 600V Cat. III	EN 61010, 600V Cat. III	EN 61010, 600V Cat. III

⁽¹⁾Use on frequency: 0 to 60Hz

⁽²⁾Automatic recognition of DC or AC

⁽³⁾Additional function "ADP": input 0 to 400mVdc for accessories

* Accuracy dependent on range

CATALOG NO.	DESCRIPTION
2116.73	DMM Model CA5205 (2000-count, Average Sensing, 1% Accuracy)
2116.74	DMM Model CA5210 (4000-count, Average Sensing, 1% Accuracy)
2116.75	DMM Model CA5220 (4000-count, Average Sensing, 1% Accuracy)
2116.76	DMM Model CA5230 (4000-count, TRMS, 0.25% Accuracy)
2116.77	DMM Model CA5240 (40,000-count, TRMS, 0.1% Accuracy)

Rotary Scale Clamp-Ons

RS-3 Super



Features



- Drop Proof to 5 Feet.
- Taut Band Movement.
- Operates on Frequencies of 50 through 400Hz.
- Model RS-3 (not shown) and RS-3 SUPER has fuse protection on the ohmmeter range against misapplication to 600 volts.
- Extendo Leads act as an extra pair of hands, making voltage measurements faster and easier. They are supplied with all "RS-A" models and have replaceable screw-in probe tips.
- Clamp-on transformer jaws. Take current readings without interrupting service. Clamp around conductors up to 1" (2.54cm) in diameter or 500MCM. 2" (5.08cm) or 2000MCM for 1000 ampere models.
- Pointer lock. Take readings in hard to reach or darkened areas, lock the pointer and read where it's convenient.
- Recessed break-resistant window magnifies scale, makes reading easier.
- Leads lock in. Can't unexpectedly pull out and leave high voltage exposed.
- All RS model instruments are supplied with all-weather test leads, carrying case and ohmmeter battery adapter where applicable.
- Models RS-7 and RS-7A have a volt/amp output jack for connecting an accessory recording module, model PRS-7R, not supplied

• Models RS-1000S and RS-1007S have built-in, manually-set surge indicating capability. Measure motor starting currents and voltage increases lasting 1/6 second or longer.

• "A" Models include deluxe "AR" carrying case, Extendo Leads and VRC-320 Alligator Clip Adapter

case breakdown voltage: 3500VAC
book-P/N 915740

Model	AC Voltage Ranges	AC Current Ranges	Resistance* Accuracy	Case	Operating Freq.	Jaw Size	Weight
RS-1	0-150/600	0-6/15/40/100	N/A	SV-RS	60Hz	1" (2.54cm)	10 oz. (283 g)
RS-1A	0-150/600	0-6/15/40/100	N/A	AR	60Hz	1" (2.54cm)	10 oz. (283 g)
RS-1B	0-150/600	0-6/15/40/100	25Ω midscale ± 3% arc	SV-RS	60Hz†	1" (2.54cm)	10 oz. (283 g)
RS-1BA	0-150/600	0-6/15/40/100	25Ω midscale ± 3% arc	AR	60Hz†	1" (2.54cm)	10 oz. (283 g)
RS-2	0-150/300	0-6/15/40/100	N/A	SV-RS	60Hz	1" (2.54cm)	10 oz. (283 g)
RS-2A	0-150/300	0-6/15/40/100	N/A	AR	60Hz	1" (2.54cm)	10 oz. (283 g)
RS-3	0-150/300/600	0-6/15/40/100/300	25Ω midscale ± 3% arc	SV-RS	60Hz	1" (2.54cm)	10 oz. (283 g)
RS-3A	0-150/300/600	0-6/15/40/100/300	25Ω midscale ± 3% arc	AR	60Hz†	1" (2.54cm)	10 oz. (283 g)
RS-3 SUPER	0-150/300/600	0-6/15/40/100/300	25Ω midscale ± 3% arc	SV-RS	50 - 400Hz	1" (2.54cm)	10 oz. (283 g)
RS-3A SUPER	0-150/300/600	0-6/15/40/100/300	25Ω midscale ± 3% arc	AR	50 - 400 Hz	1" (2.54cm)	10 oz. (283 g)
RS-300	0-150/300/600	0-6/15/40/100/300	N/A	SV-RS	60Hz†	1" (2.54cm)	10 oz. (283 g)
RS-300A	0-150/300/600	0-6/15/40/100/300	N/A	AR	60Hz†	1" (2.54cm)	10 oz. (283 g)
RS-5	0-300/600	0-10/40/100/300	N/A	SV-RS	50Hz	1" (2.54cm)	10 oz. (283 g)
RS-5A	0-300/600	0-10/40/100/300	N/A	AR	50Hz	1" (2.54cm)	10 oz. (283 g)
RS-7	0-150/300/600	0-5/25/50/100/250	25Ω midscale ± 3% arc	SV-RS	60Hz†	1" (2.54cm)	10 oz. (283 g)
RS-7A	0-150/300/600	0-5/25/50/100/250	25Ω midscale ± 3% arc	AR	60Hz†	1" (2.54cm)	10 oz. (283 g)
RS-1000	0-150/300/600	0-15/40/100/300/1000	25Ω midscale ± 3% arc	E	60Hz†	2" (5.08cm)	12 oz. (340 g)
RS-1000S	0-150/300/600	0-15/40/100/300/1000	25Ω midscale ± 3% arc	E	60Hz†	2" (5.08cm)	12 oz. (340 g)
RS-1007	0-150/300/750	0-15/40/100/300/1000	25Ω midscale ± 3% arc	E	60Hz†	2" (5.08cm)	12 oz. (340 g)
RS-1007S	0-150/300/750	0-15/40/100/300/1000	25Ω midscale ± 3% arc	E	60Hz†	2" (5.08cm)	12 oz. (340 g)

* All the above listed models have a 25-ohm midscale ohmmeter. Integral fuse/battery attachment OHB-3HE supplied with fuse. Use "AA" battery, not supplied

† Alternate frequency calibration available.

NOTES:

- RS Models are "average" sensing instruments calibrated to read out in RMS.
- Accuracy (except ohms) based on sinusoidal waveform is ± 3% Full Scale.
- Display is rotary/analog and zero adjust is manual.
- Model RS-3 SUPER is calibrated to operate on frequencies of 50 through 400 Hz operation for the maritime and aircraft industries.

FLUKE®

Digital Multimeters

Fluke 87V Industrial Multimeter

Diagnostic functions for maximum industrial productivity



True-rms

The Fluke 87V has measurement functions, troubleshooting features, resolution and accuracy to solve more problems on motor drives, in-plant automation, power distribution and electro-mechanical equipment. The 87V has more problem-solving power, safety, convenience and impact protection.

New features for maximum productivity

- Unique patent pending function for accurate voltage and frequency measurements on adjustable speed motor drives and electrically noisy equipment (87V)
- Large digit display with bright two level backlight makes the 87V significantly easier to read
- Measure 20 A for up to 30 sec, 10 A continuously
- Optional magnetic hanger for easy setup and viewing while freeing your hands for other tasks (TPAK)
- Expanded capacitance range to 10,000 μ F
- Built-in thermometer (87V)
- New design with better impact protection

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.



Also available as 83V average responding multimeter, see below for specifications

Application note, literature code 2155830:

Multimeter measurements on adjustable speed drives utilizing the Fluke 87V DMM



Features - 83V and 87V DMMs

Feature	87V	83V
True-rms ac voltage and current for accurate measurements on non linear signals	*	
Selectable filter for accurate voltage and frequency measurements on motor drives	*	
0.05 % dc accuracy	*	
4-1/2 digit mode for precise measurements	*	
Built-in thermometer lets you carry one less tool	*	
Large display digits and two level bright white backlight for increased visibility	*	*
10,000 μ F capacitance range for components and motor caps	*	*
Peak capture to record transients as fast as 250 μ s	*	
Measure up to 1000 V ac and dc	*	*
Measure up to 10 A, 20 A for up to 30 seconds	*	*
Auto and manual ranging for maximum flexibility	*	*
Analog bargraph	*	*
Frequency to 200 kHz and % duty cycle	*	*
Min/Max and average recording to capture variations automatically	*	*
Relative mode to remove test lead resistance from low ohms measurements	*	*
Access door for fast battery changes without breaking the calibration seal	*	*

Specifications - 83V and 87V DMMs

Function	Range and resolution	Basic accuracy	
		87V	83V
DC volts	600.0 mV, 6,000 V, 60.00 V, 600.0 V, 1000 V	0.05 %	0.1 %
AC volts	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 (ext. probe)	-200 °C to 1090 °C (-328 °F to 1994 °F)	1.0 %	
808K Temperature Probe	-40 °C to 260 °C (-40 °F to 500 °F)	2.2 °C or 2 %	
Resistance	600.0 Ω , 6,000 Ω , 60.00 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, 1,999.9 kHz, 19,999 kHz, 199.99 kHz	0.005 %	0.005 %

Battery life: 400 hours typical with backlight off. Size (LxWxD): 201 mm x 98 mm x 52 mm (7.9 in x 3.8 in x 2 in). Weight: 355 g (22 oz)

Fluke 87V/E Industrial Electrician Combo Kit

Includes special accessories to increase productivity.

- 1.5 m heat resistant silicone test leads
- Removable test probes with 4 mm of exposed metal for use on industrial circuits
- Plunger style alligator clips
- Magnetic hanger to position and hold meter to steel surfaces
- Temperature probe
- Packaged in a durable carrying case

Included accessories

Every Fluke 83V and 87V meter comes packaged with TL75 Test Leads, AC72 Alligator Clips, holster, 9 V battery (installed), 808K Temperature Probe (87V only) CD-ROM (users manual and technical notes) and operator's guide.

Ordering information

Fluke-83-S Industrial Multimeter
Fluke-87-S Industrial True-rms Multimeter with Temperature
Fluke-87-S/E Industrial Electrician Combo Kit

Process Calibration Tools

Fluke 787 and 789 ProcessMeter™ Test Tools

Safety rated multimeters with mA source

True-rms



Fluke 789 ProcessMeter

With the Fluke 789 ProcessMeter, process technicians can do a lot more while carrying a lot less.

Key Fluke 789 features:

- 24 V loop power supply
- HART mode setting with loop power (adds 250 ohm resistor)
- Double-sized, dual display
- 20 mA drive into 1200 ohms
- Backlight with two brightness settings
- 0 to 100 % mA Span Check buttons to toggle between 4 mA and 20 mA
- Infrared I/O serial port compatible with FlukeView® Forms Software
- Improved battery power with four AA batteries
- CAT IV 600 V safety-rated
- Plus all the proven 787 features

Fluke 787 ProcessMeter

- Simultaneous mA and % of scale readout on mA output
- 25 % Manual Step plus Auto Step and Auto Ramp on mA output
- Min/Max/Average/Hold/Relative modes
- Externally accessible battery for easy changes
- CAT III 1000 V safety-rated, true-rms multimeter



(Fluke 789 only)

Application note, literature code 2041342:

In-field valve positioner checks

Valve positioners open and close with a 4 to 20 mA signal applied. This application note explains how to adjust these valves so they open and close correctly.



True-rms



Specifications - 787 and 789 ProcessMeter

Measurement function	Best accuracy range and resolution	(% of reading + 1SD)	
V dc	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.1 % + 1	
V dc (true-rms)	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.7 % + 2	
mA dc	30.000 mA	.05 % + 2	
A dc	1.000 A (0.440 A continuous)	0.2 % + 2	
A ac	1.000 A (0.440 A continuous)	1 % + 2	
Resistance	400.0 Ω, 4.000 k, 40.00 k, 400.0 k, 4.0 M, 40 M	0.2 % + 1	
Frequency (0.5 Hz to 20 kHz)	199.99 Hz, 1999.9 Hz, 19.999 kHz	.005 % + 1	
Diode Test	789: 2.000 V (shows diode voltage drop) 2.400 V (shows diode voltage drop)	2 % + 1.2 % + 1	
Continuity	Beeper for resistance < approx. 100 ohms		
Output function	Range and resolution	Drive capability	Accuracy (% of span)
DC current output (internal battery operation)	0.000 mA to 20.000 mA or 4.000 mA to 20.000 mA (selectable at power-up) Over-range to 24.000 mA	789: 24 V compliance or, 1.200 Ohms, @ 20 mA 787: 12 V compliance or, 500 Ohms, @ 20 mA	.05 %
DC current simulate (Ext. 24 Volt loop supply)	0.000 mA to 20.000 mA or 4.000 mA to 20.000 mA (selectable at power-up) Over-range to 24.000 mA	1000 Ohms, @ 20 mA	.05 %
24 V loop supply	789: Minimum 24 V 787: not available	250 Ohms @ 20 mA	> 24 V
Current adjustment modes	Manual: Coarse, Fine, 25 % and 100 % step (100 % step 789 only) Automatic: slow ramp, fast ramp, 25 % step		

Temperature range of 18 °C to 28 °C, for one year after calibration.

Maximum voltage applied between any jack and earth ground: 1000 V rms. Storage temperature: -40 °C to 60 °C. Operating temperature: -20 °C to 55 °C. Relative humidity: 95 % up to 30 °C, 75 % up to 40 °C, 45 % up to 50 °C, 35 % up to 55 °C. Safety: Designed in accordance with IEC 1010-1, ANSI/ISA 98.1-1994 and CAN/CSA C22.2 No. 1010-1-92 Over-voltage CAT III. Size (HxWxD) (787 with holster): 52 mm x 98 mm x 201 mm (2.06 in x 3.86 in x 7.93 in)/538 g (1.4 lb). Size (HxWxD) (789): 50 mm x 100 mm x 203 mm (1.97 in x 3.94 in x 8.00 in)/600 g (1.3 lb).

Recommended accessories - 787 and 789 ProcessMeter



For these and other Fluke accessories see pages 124-131.

Included accessories

Fluke-789 ProcessMeter:
TL71 Premium Safety-Designed Test Lead Set plus alligator clips, 4 AA alkaline batteries (installed), product overview and users manual (CD-ROM) in 14 languages.

Fluke-787 ProcessMeter:
Protective Yellow Holster with test lead storage, TL75 Safety-Designed Test Lead Set plus alligator clips, one 9V alkaline battery (installed), product overview and users manual (CD-ROM) in 14 languages.

Ordering information

Fluke-789 ProcessMeter
Fluke-787 ProcessMeter

FLUKE®

Digital Multimeters

Fluke 73-III and 77-III Digital Multimeters

Classic general purpose multimeters



Fluke 77-III

The 77-III has all the features and functions for a wide range of industrial applications packaged in an ergonomic case with integrated holster.

The 77-III features include:

- Average responding
- Measure voltage to 1000 V
- Measures both amps and milliamps
- Manual or autoranging
- Compatible with the Fluke Magnetic Hanger (TPAK)

Fluke 73-III

The Fluke 73-III product represents one of the best selling multimeter designs of all time. It's classic simplicity combined with attractive feature set make this meter the perfect choice for electronic and automotive applications.

The 73-III features include:

- Average responding
- Measures both amps and milliamps
- Removable high impact holster
- Manual or autoranging



Fluke 27 waterproof multimeter

Completely sealed for extreme conditions

Designed for U.S. military, mining and other extreme applications. A special case with o-rings prevents water from entering the input jacks, switches and fuse door. Use in wet or dusty locations. Meets military specifications for vibration, shock and water resistance.

Mine Safety and Health Administration (MSHA) approved.

- Waterproof design with rugged, o-ring sealer case for use in wet or dusty conditions, protects rotary switch, input jacks, battery and fuse door
- Operates under extreme conditions from -15 °C to +55 °C (5 °F to 131 °F) and 95 % relative humidity
- CAT III 1000 V and CAT IV 600 V approved



Features - 73-III and 77-III DMMs

Feature	77-III	73-III
Features a default Autorange mode that's easy to change to manual by simply touching the RANGE button.	•	•
Extremely rugged overmolded case provides body armor for your meter. (The model 73 features a rugged durable removable holster with Flex-Stand™.)	•	•
New ergonomic styling fits in your hand perfectly.	•	•
Large, high contrast, easy-to-read digital display with an analog bar graph.	•	•
Automatic Touch-Hold® automatically triggers the meter to capture stable non-zero readings freeing you to focus on the test probes.	•	•
Meets IEC 1010 safety standards for 600 V CAT III and 1000 V CAT II applications. Protected from overvoltage transients to 6 kV per IEC 1010-1.	•	•
Meets IEC 1010 safety standards for 600 V CAT II. Protected from overvoltage transients to 4 kV per IEC 1010-1.	•	•

Specifications - 73-III and 77-III DMMs

Function	Maximum	Basic accuracy	Maximum resolution
V dc	Fluke 73: 600 V Fluke 77: 1000 V	0.3 %	0.1 mV
V ac	Fluke 73: 600 V Fluke 77: 1000 V	Fluke 73, 77: 2 %	Fluke 73, 77: 1 mV
DC and ac current	10 A continuous		Fluke 73, 77: 0.01 mA
Resistance	Fluke 73, 77: 32 MΩ	Fluke 73, 77: 0.5 %	Fluke 73, 77: 0.1Ω

Recommended accessories - 73-III and 77-III DMMs



For these and other Fluke accessories see pages 124-131.

Included accessories

Every Fluke 77-III and 73-III meter comes packaged with TL75 test leads, separate holster (Fluke 73-III), 9 V battery (installed) and manual.

Fluke 27 Included accessories

TL75 test leads, alligator clips, 9 V battery (installed) and manual.

Ordering information

Fluke-73-3 Digital Multimeter
Fluke-77-3 Digital Multimeter
Fluke-27YEL Multimeter

Digital Multimeters

Fluke 189 Logging Multimeter

Solve complex problems for electronic and industrial applications



True-rms

The Fluke 189 is the most advanced meter with features, precision and accuracy to troubleshoot industrial and electronic equipment in the field or on the bench. The Fluke 189 has a **built-in data logger** to record measurements unattended. Recorded data can be viewed on the 189 or transferred to a PC with optional FlukeView® Forms software.

- Built in data logger (Fluke 189) records reading and time to catch intermittent problems
- True-rms, 100 KHz bandwidth for precise measurement of non linear signals
- 0.025 % dc accuracy and 1 microvolt resolution for bench meter performance in a handheld package
- Measure 20 A for up to 30 seconds, 10 A continuous
- Temperature, capacitance, dB, frequency, pulse width and duty cycle to find more problems with one tool
- Large bright white display with dual parameter readout to view multiple readings at once
- Min/Max with timestamp to record signal fluctuations
- Peak capture to measure transients as short as 250 µs
- Isolated IR communication port to send data to a PC (with optional FVF pack)
- Premium test leads and alligator clips (AC72) included
- **New!** Optional USB data cable with FlukeView Forms
- **New!** Optional battery pack (BP189) extends battery life to over 400 hours

Electrical safety

All inputs are protected to measurement CAT III 1000 V and CAT IV 600 V.



Available in non-logging version as Fluke 187

Specifications - 187 and 189 DMMs

Function	Range and resolution	Best accuracy 180 Series
V dc	50.000 mV, 500.00 mV, 3000.0 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V	± 0.025 %
V ac	50.000 mV, 500.00 mV, 3000.0 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V	± 0.4 %
A dc	500.00 µA, 5.000 mA, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A*	± 0.15 %
A ac	500.00 µA, 5.000 mA, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A*	± 0.75 %
Resistance	500.00 Ω to 500.0 MΩ	± 0.05 %
Capacitance	1.000 nF to 50.00 mF	± 1.00 %
Frequency	500.00 Hz, 5.0000 kHz, 50.000 kHz, 999.99 kHz	± 0.005 %
Temperature	-200 °C to 1350 °C (-328 °F to 2462 °F)	± 1 % of reading
Duty cycle	10 % to 90 %, resolution 0.01 %	
Pulse width	2 ranges, 499.99 ms and 999.9 ms, best resolution 0.01 ms	3 %
dBm, dBv	-62 to +60, resolution 0.01 dB	0.1 dB

*10 A continuous, 20 A for up to 30 seconds and not specified.

Battery life: 72 hours typical (alkaline), 450 hours typical with Battery Extender (BP189)
Size (LxWxD): 203 mm x 100 mm x 50 mm (8.00 in x 3.94 in x 1.97 in)
Weight: 0.545 kg (19.2 oz)

Recommended accessories - 187 and 189 DMMs



TL910
Electronic Test Probes



TL81A
Test Lead Kit



C125
Meter Case



BP189
High Capacity Battery Pack



FVF-SC2
FlukeView Forms Software

For these and other Fluke accessories see pages 124-131.

Log and document



Buy Combo Pack and Save

NEW! The 189 Data Logging Multimeter and Software Combo Pack gives you a practical, affordable approach to predictive maintenance.

- With built-in data logger, the 189 helps you track down elusive, intermittent problems, monitoring equipment with any of its functions, while you do other jobs
- Overlay data from six meters or six time periods to find cause and effect relationships or for condition monitoring applications
- With break-through accuracy and precision, catch events as brief as 50 ms
- Designed for harsh environments that would ruin most data loggers or multimeters
- Log up to 450 hours of data using the extended battery pack
- Turn data into meaningful graphs and tables using FlukeView Forms software
- TPAK™ Magnetic Hanger allows you to securely hang your meter for monitoring or hands-free use
- Soft carrying case to protect your investment
- USB cable included with kit

Included accessories

Every 180 series meter comes packaged with TL71 Silicone Test Leads, probe holders, two AC72 Alligator Clips, four AA batteries (installed), CD-ROM (users manual and technical notes) and operator's guide.

Ordering information

Fluke-189/FVF2 Logging Multimeter and Software Combo Pack
Fluke-189 Logging Multimeter
Fluke-187 Digital Multimeter
FVF-SC2 FlukeView Forms Software w/cable

FLUKE®

Digital Multimeters

Fluke 179 Digital Multimeter

Versatile meters for maintenance and field service



True-rms

The 179 true-rms Multimeter has the features needed to find most electrical and HVAC problems. Simple to use with significant improvements over the original Fluke 70 Series like true-rms, the 179 has more measurement functions, conformance to the latest safety standards and a much larger display that's easier to view.

Features include:

- 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)
- Large, easy-to-read display
- Backlight for work in dimly lit areas (Fluke 177 and 179 only)
- Min/Max/Avg to record signal fluctuations
- Free your hands with the optional TPAK magnetic hanger (Fluke TPAK)

Electrical safety

All inputs are protected to measurement CAT III 1000 V and CAT IV 600 V. This meter can withstand transient impulses in excess of 8000 V to help protect you from arc blasts resulting from surges and spikes.



179/EDA Electronics Combo Kit, multimeter and deluxe accessories

Designed to meet the demands of the Electronic's Professional.

- Fluke 179 True-rms Digital Multimeter with backlight
- Fluke TL224 Silicone Test Leads
- Fluke TL910 Electronic Test Probes with Replacement Tips
- Fluke AC280 Heavy Duty Hook Clips
- Fluke 80BK Integrated Temperature Probe
- Fluke C800 Durable Carrying Case



Electrician's 179/1AC II Kit*

- Fluke 179 True-rms Digital Multimeter
- Fluke 1AC II Non-Contact Voltage Tester
- TL224 SureGrip™ Silicone Test Leads
- TP220 SureGrip™ Industrial Test Probes
- AC220 SureGrip™ Heavy Duty Alligator Clips
- 80BK Integrated Temperature Probe
- C800 Durable Carrying Case

*Kit contents may vary by country.

Features - 175, 177 and 179 DMMs

Feature	179/TPK	179	177	175
Max voltage	1000	1000	1000	1000
True-rms	•	•	•	•
Temperature	•	•	•	•
Basic dc accuracy	0.09 %	0.09 %	0.09 %	0.15 %
Backlight	•	•	•	•
Min/Max/Avg	•	•	•	•
ToolPak meter hanging kit with magnet	Included	Opt	Opt	Opt

Specifications - 175, 177 and 179 DMMs

Function	Range and resolution	Best accuracy
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, 600.0 mA, 6.000 A, 10.00 A ²	± 1.0 % of reading
AC current ²	60.00 mA, 600.0 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 kHz	± 0.1 % of reading
Temperature (Model 179)	-40 °C to +400 °C (-40 °F to +752 °F)	1.0 % of reading

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.

Battery life: 200 hours typical for alkaline. Size (HxWxD): 4.3 cm x 9.0 cm x 18.5 cm (1.7 in x 3.5 in x 7.3 in)

Recommended accessories - 179, 177 and 175 DMMs



For these and other Fluke accessories see pages 124-131.

Included accessories

Every Fluke 170 Series meter comes packaged with TL75 test leads, 9 V battery (installed) and manual. The Fluke 179 comes with an 80BK Temperature Probe.

Ordering information

Fluke-175	Digital Multimeter
Fluke-177	Digital Multimeter
Fluke-179	Digital Multimeter
Fluke-179/61	Combo Kit
Fluke-179/1AC	Electricians Combo Kit
Fluke-179/TPK	Combo Kit
Fluke-179/EDA	Electronics Combo Kit

Digital Multimeters

Fluke 110, 111, and 112 Digital Multimeters

Compact meters for electrical installers and contractors



True-rms

The Fluke 110, 111 and 112 true-rms multimeters have all the basic measurement features and functions needed for every day tasks. Their simplicity and compact design, make them perfect for quick verifications for field service and contractor use.

- 600 V measurement range
- True-rms for accurate measurements
- 10 amps continuous (Fluke 111 and 112 only)
- Resistance and continuity
- Frequency and capacitance
- Min/Max to record signal fluctuations
- Backlight for work in dim areas (Fluke 112 only)
- Meets measurement CAT III 600 V safety standards

Electrical safety

All inputs are protected to measurement CAT III 600 V.



Designed for simplicity

- Probe holders
- Bar graph
- Removable holster
- Simple rotary switch to set all functions



Features - 110, 111 and 112 DMMs

Feature	112	111	110
True-rms voltage	•	•	•
10 amp current	•	•	
Backlight	•		

Specifications - 110, 111 and 112 DMMs

Function	Range and resolution	Best accuracy
V dc	6000 mV, 6.000 V, 60.00 V, 600.0 V	± 0.7 % of reading
V ac ¹	6000 mV, 6.000 V, 60.00 V, 600.0 V	± 1.0 % of reading
A dc (Models 111 and 112 only)	6.000 A, 30.00 A ²	± 1.0 % of reading
A ac ² (Models 111 and 112 only)	10.00 A ²	± 1.5 % of reading
Resistance	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 40.00 MΩ	± 1.5 % of reading
Capacitance	1000 nF, 10.00 μF, 100.0 μF, 9999 μF	± 1.9 % of reading
Frequency ³	99.99 Hz, 999.9 Hz, 9.999 kHz, 50.00 kHz	± 0.1 % of reading

¹ Specified from 5 % of range to 100 % of range. For AAC, 5 % of range is relative to 60 A.

² 10 A continuous, 20 A for up to 30 seconds, and not specified below 3 amps.

³ Voltage frequency is specified from 5 Hz to 50 kHz. Current Frequency is specified from 50 Hz to 5 kHz.

Battery life: 300 hours typical for alkaline

Size [with holster] (H x W x L): 4.6 cm x 9.6 cm x 16 cm (1.8 in x 3.8 in x 6.3 in)

Three-year limited warranty

Recommended accessories - 110, 111 and 112 DMMs



For these and other Fluke accessories see pages 124-131.

Buy Combo Kit and Save



Electrician's

112/322 Combo Kit

- Includes Fluke 112 True-rms Digital Multimeter
- Fluke 322 Clamp Meter
- Fluke TL75 Hard Point Test Lead Set
- C800 Durable Carrying Case

Included accessories

Every Fluke 110 Series meter comes packaged with a H110 protective holster and TL75 test leads, 9 V battery (installed) and manual.

Ordering information

Fluke-110	Digital Multimeter
Fluke-111	Digital Multimeter
Fluke-112	Digital Multimeter
Fluke-112/322	Electrician's Combo Kit

FLUKE®

Digital Multimeters

Fluke 12 and 16 Digital Multimeters

Meters for HVAC and electrical troubleshooting



Their compact design and easy-to-use controls allow for one-handed operation. The Fluke 16 measures volts, ohms, capacitance and temperature to troubleshoot HVAC systems. It is a compact DMM and thermometer in one.

- 600 V ac and dc measurement range
- Resistance and continuity
- Capacitance to test components
- Built in thermometer (Fluke 16 only) for HVAC work
- Microamps to test flame sensors (Fluke 16 only)
- Min/Max with elapsed time to record signal fluctuations
- V-Check* helps the meter automatically switch to the proper measurement for ohms or continuity

Electrical safety

All inputs are protected to measurement CAT III 600 V.



Unique push button interface

Features - 12 and 16 DMMs

	16	12
4000-count digital display	•	•
V-Check*	•	•
Capacitance	•	•
Temperature	•	
Microamps	•	
Min/Max Record with elapsed time clock	•	•
Continuity capture	•	•
Diode test	•	•
Fast continuity beeper	•	•

*V-Check: simplifies safe power source and supply measurement. When measuring ohms/continuity with more than 4.5 volts present across the input jacks (intentional or not), the meter automatically switches to measuring ac or dc volts, whichever is the greater. Input impedance is approximately 2 kΩ, helping determine if voltage is from leakage or a hard connection. Overload protection is provided if the circuit is checked in the ohms mode.

Specifications - 12 and 16 DMMs

Function	Ranges and resolution	Best accuracy	
		16	12
V dc	4000 mV, 4.000 V, 40.00 V, 400.0 V, 600 V	± (0.9 % + 1)	± (0.9 % + 1)
V ac	4000 mV, 4.000 V, 40.00 V, 400.0 V, 600 V	± (1.9 % + 3)	± (1.9 % + 3)
A dc	200.0 μA	± (1.0 % + 2)	
A ac	200.0 μA	± (2.0 % + 3)	
Resistance	400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ	± (0.9 % + 1)	± (0.9 % + 1)
Capacitance	1.000 μF, 10.00 μF, 100.0 μF, 1000 μF, 10.000 μF	± (1.9 % + 2)	± (1.9 % + 2)
		± 10 % + 90 counts	± 10 % + 90 counts

Battery life: Alkaline, 650 hours continuous. Carbon-zinc, 450 hours continuous.
Size (LxWxD): 142.3 mm x 70.5 mm x 34.6 mm (5.59 in x 2.75 in x 1.35 in)
Weight: 286 g (10 oz)
Warranty: Fluke 16: Three-year warranty, Fluke 12: Two-year warranty

Recommended accessories - 12 and 16 DMMs



For these and other Fluke accessories see pages 124-131.



HVAC 16/322 Combo Kit

- Includes Fluke 16 Multimeter with temperature
- Fluke 322 Compact Clamp Meter
- TL75 Hard Point Test Lead Set
- 80BK Integrated Temperature Probe
- C800 Durable Carrying Case

Included accessories

All meters come packaged with TL75 Test Leads, 9 V battery (installed). The Fluke 16 includes all the above plus C10 Holster and 80BK Temperature Probe.

Ordering information

Fluke-12 Digital Multimeter
Fluke-16 Digital Multimeter
Fluke-16/322 HVAC Combo Kit

Electrical Testers

Fluke T3 and T5 Electrical Testers

Check out the resources available to our customers



Fluke T5 Voltage, Continuity and Current Tester

- Excellent front-line troubleshooting and measurement tool
- Available in 600 V and 1000 V models
- Digital display
- OpenJaw™ current measurement
- Rotary switch selects volts, amps and ohms functions
- Heavy-duty test leads

Fluke T3 Voltage and Continuity Tester

- LED voltage indicators
- Seven key voltage levels
- Automatically switches to continuity beeper or ac/dc voltage
- Heavy-duty test leads



NEW! Fluke 9040 Rotary Field Indicator

The Fluke 9040 is a premium phase rotation tester with a CAT III, 600 V rating. The frequency range is from 15 Hz to 400 Hz for demanding applications. The clear liquid crystal display and the holster make it suitable for rough outdoor applications. This instrument is supplied with three unique, expandable, test probes which fit most sockets.



Fluke 1AC-II/1LAC-II VoltAlert

The pocket-sized voltage detector
The next generation VoltAlert™ ac non-contact voltage testers from Fluke are easy to use—just touch the tip to a terminal strip, outlet, or supply cord. When the tip glows red and the unit beeps, you know there is voltage present. Electricians, maintenance, service, safety personnel and homeowners can quickly test for energized circuits in the workplace or at home. Certified up to CAT IV 1000 V.

Two models to choose from:

- 1AC-II – detects voltage from 90 V ac to 1000 V ac
- 1LAC-II – detects voltage from 20 V ac to 90 V ac

Specifications - T3 and T5 Testers

	T5-1000	T5-600	T3
Measure dc voltage	1000 V	600 V	Presets 6 V, 12 V, 24 V, 36 V, 48 V, 110 V and 220 V*
Measure ac voltage	1000 V	600 V	Presets 24 V, 48 V, 120 V, 208 V, 240 V, 277 V and 480 V*
Measure ac current (average)	100 A	100 A	N/A
Measure continuity	< 25 Ω	< 25 Ω	< 20,000 Ω
Measure resistance	1000 Ω	1000 Ω	N/A
DC polarity indicator	Yes	Yes	Yes
Detachable probe tips with optional probe tip styles	Yes	Yes	N/A
Safety rating	1000 V Overvoltage CAT III	600 V Overvoltage CAT III	1000 V Overvoltage CAT III
Warranty	Two-years	Two-years	One-year

* Voltage levels will vary depending on country of intended use.

Buy Electrical Tester Kits and Save



T3 Tester Kit

- Combo kit includes:
- Fluke T3 Voltage and Continuity Tester
 - Fluke VoltAlert™



T5-1000 Tester Kit

- Combo kit includes:
- Fluke T5-1000 Voltage Electrical Tester
 - Fluke VoltAlert™
 - Fluke HS Holster



VoltAlert™ Multi Pack

Includes five Fluke VoltAlerts. The special kit pricing gets you the fifth VoltAlert™ free. Outfit your entire staff.

Recommended accessories – Electrical Testers



HS
Electrical Tester Holster



AC285 (T5)
SureGrip™ Alligator Clips



Meter Cleaner
Cleaning Wipes



T3 Kit
Starter Kit



CS20A
Leather Tool Case

For these and other Fluke accessories see pages 124-131.

Included accessories

The T5-1000 and T5-600 come with detachable probes and instruction sheet. The T3 has fixed test leads and probes.

Ordering information

T5-1000	1000 V Voltage, Continuity and Current Tester
T5-600	600 V Voltage, Continuity and Current Tester
T3	Voltage and Continuity Tester
T3-1AC Kit	Voltage and Continuity Tester Kit
T5-HS-1AC Kit	Voltage, Continuity and Current Tester Kit
1AC-II 5PK	VoltAlert 5 Pack
1AC-II	Voltage Detector
1LAC-II	Voltage Detector
9040	Rotary Field Indicator

FLUKE®

Clamp Meters

Fluke 337 and 322 Clamp Meters

Measure inrush motor starting current the way a circuit breaker sees it



- Inrush current feature (selected models)
- Small body and jaws fit perfectly in your hand and into tight places
- Controls positioned for one hand operation
- Accurate low current measurements
- Backlight available on most models
- Auto shut-off
- Display hold
- Safety rating: IEC 1010-2-031, CAT III 600 V
- Three-year warranty on 330 Series

Fluke 322 Clamp Meter

- Precise measurements with 1.8 % basic accuracy
- Resolution up to 0.01 A and 0.1 V
- Measures ac current 40.00 A/400.0 A
- Measures ac and dc volts to 600 V
- Resistance measurement to 400 Ω
- Continuity for quick checking of shorts



True-rms

Specifications - 320 & 330 Series

Fluke 320 and 330 Series Clamp Meters offer an impressive array of innovative features with current ranges up to 1000 A. Choose the model that matches the jobs you do.

(@23 °C $\pm$ 5 °C RH 0 to 90 %)		Fluke 321	Fluke 322	Fluke 333	Fluke 334	Fluke 335	Fluke 336	Fluke 337
AC current	Range	to 400.0 A	40.00 A/ 400.0 A	to 400.0 A		to 600.0 A		to 999.9 A
	Accuracy	1.8 % + 5 counts (50 to 60 Hz)		2 % + 5 counts (50 to 60 Hz)			2 % + 5 counts (10 to 100 Hz)	
	AC response	Averaging				True-rms		
Inrush	Integration time	—	—	—		100 ms		
DC current	Range	—	—	—	—	0 to 600.0 A	0 to 999.9 A	
	Accuracy	—	—	—	—	—	2 % + 3 counts	
	AC response	Averaging				True-rms		
AC volts	Range	400.0 V/600.0 V				to 600.0 V		
	Accuracy	1.2 % + 5 counts (50 to 60 Hz)		1 % + 5 counts (50/60 Hz)			1 % + 5 counts (20 to 100 Hz)	
	AC response	Averaging				True-rms		
DC volts	Range	—	400.0 V/ 600 V			to 600.0 V		
	Accuracy	—	—			1 % + 5 counts		
	AC response	Averaging				True-rms		
Ohms	Range	to 400.0 Ω		to 600.0 Ω		600.0 Ω to 6000 Ω		
	Accuracy	1 % + 5 counts		1.5 % + 5 counts				
	Continuity	—	—	—	—	—	—	—
Hz	Range	—	—	—	—	—	—	to 400 Hz
	Accuracy	—	—	—	—	—	—	0.5 % + 5 counts
	AC response	Averaging				True-rms		
MIN/MAX	—	—	—	—	—	—	—	Yes
Backlight	—	—	—	—	—	—	—	Yes
Display hold	—	—	—	—	—	—	—	Yes
Size	H x W x D	7.5 in x 2.5 in x 1.4 in		9.4 in x 3.1 in x 1.6 in		9.9 in x 3.1 in x 1.6 in		
	Max wire dia.	1 in		1.2 in		1.2 in		
	Weight	8 oz		11 oz		11 oz		

Recommended accessories - 320 & 330 Series



For these and other Fluke accessories see pages 124-131.

Application note, literature code 2041766:

Making accurate inrush current measurements

New high-efficiency motors require better tools to evaluate and fix the consequences of their high inrush current. The Fluke 335, 336 and 337 Clamp Meters are designed to capture inrush current accurately and, most importantly, synchronously and provide readings that accurately depict what the circuit protector experiences.

This application note covers practices to help you accurately and safely measure and interpret inrush current measurements.



Models 333, 334, 335, 336 and 337

Operating temperature: -10 °C to 50 °C (-14 °F to 122 °F)

Altitude: 2,500 meters

Battery life: (2) AA alkaline approximately 150 hours continuous, automatic low battery indicator

Safety rating: IEC 1010-2-031, CAT III 600 V

Temperature de-rating: Add 0.1 x specified accuracy for each °C above 28 °C or below 18 °C

Storage temperature: -40 °C to 60 °C (-40 °F to 140 °F)

Models 321 and 322

Operating temperature: -10 °C to 50 °C (-14 °F to 122 °F)

Altitude: 2,000 meters

Battery life: (2) AAA carbon zinc approximately 100 hours continuous, automatic low battery indicator

Safety rating: IEC 1010-2-031, CAT III 600 V

Temperature de-rating: < 18 °C, > 28 °C add 0.1 x specified accuracy /°C

Storage temperature: -30 °C to 60 °C (-22 °F to 140 °F)

Included accessories

Soft carrying case, test leads, (2) batteries, instruction card and safety information.

Ordering information

Fluke 321	Fluke 335
Fluke 322	Fluke 336
Fluke 333	Fluke 337
Fluke 334	

Accessories

Fluke Accessory Sets and Kits

Combines our most popular accessories into a convenient money saving package



New! TL225 SureGrip™ Stray Voltage Adapter Test Lead Kit

- Stray Voltage Adapter
- TL224 Suregrip Silicone Test Leads
- TP220 Suregrip Test Probes
- C75 Soft Accessory Case



TLK281 Automotive Test Lead Kit

- TP81 Insulation Piercing Probes
- TL224 Suregrip Silicone Test Leads
- TP220 Suregrip Test Probes
- AC220 Suregrip Plunger Style Alligator Clips
- AC285 Suregrip Alligator Clips
- Handy Fluke carrying case
- TP81 rated to 60 V dc; all others rated to CAT III 1000 V, CAT IV 600 V



TLK282 Deluxe Automotive Test Lead Kit

- TP81 Insulation Piercing Probes
- Set of five TP40 Automotive Back Probe Pins
- TL224 Suregrip Silicone Test Leads
- TP220 Suregrip Test Probes
- AC220 Suregrip Plunger Style Alligator Clips
- AC285 Suregrip Alligator Clips
- C280 Suregrip Hook Clips
- Handy Fluke carrying case
- TP81 and TP40 rated to 60 V dc; all others rated to CAT III 1000 V, CAT IV 600 V



TLK-220 SureGrip™ Accessory Kit with Meter Carry Case

- AC220 Plunger Style Alligator Clips
- AC285 Large Jaw Alligator Clips
- TP220 Sharp Test Probes
- TL224 Right to Straight Test Leads
- Zippered vinyl carry case with moveable divider
- Holds large DMMs

TLK-225 SureGrip™ Master Accessory Kit

- AC220 Plunger Style Alligator Clips
- AC280 Plunger Style Hook Clips
- AC283 Plunger Style Pincer Clips
- AC285 Large Jaw Alligator Clips
- TP220 Sharp Test Probes
- TL224 Right to Straight Test Leads
- 6-pocket storage pouch, keeps the entire set together



T5 Tester Starter Kit

Getting started kit for electricians who already own a Fluke T5 Tester.

- TP220 Test Probes
- AC285 Large Jaw Alligator Clips
- C33 Zippered Soft Case



TL238 SureGrip™ Test Lead Set for high energy environments

- Insulated tip probes help lessen risk of arc flash explosion
- Probe extenders keep hands away from live current
- Includes one pair each, insulated test tip probes, probe extenders and TL224 test leads
- Probes and leads CAT III 1000 V, CAT IV 600 V, 10 A, extenders CAT III 1000 V 10 A



TL220 Industrial Test Lead Set

- Starter kit for industrial applications
- TP220 has round, stainless steel tip
- Includes 1 pair: AC220, TP220, TL222
- CAT III 1000 V, CAT IV 600 V, 10 A



TL223 Electrical Test Lead Set

- Starter kit for electrical applications
- TP1 has flat blades for wall sockets
- Includes 1 pair: AC220, TP1, TL224
- CAT III 1000 V, CAT IV 600 V, 10 A

FLUKE®

Accessories

Fluke SureGrip™ Accessories

A complete set of probes, leads and clips

Modular test leads and test probes (use test probes with test leads)



- TL221 SureGrip™ Silicone Test Lead Extension Kit**
- Superior strain relief
 - Includes two adapters to extend leads 1.5 m
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A



- TL222 SureGrip™ Silicone Insulated Test Leads**
- Recommended for use with AC220, AC280, AC283 test clips
 - Superior strain relief
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A



- TL224 SureGrip™ Silicone Insulated Test Leads**
- 1.5 m silicone-insulated wire resists heat and cold
 - Superior strain relief
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A



- TL227 Heavy Duty Test Leads**
- Rugged EPDM insulation
 - 1.5 m long with shrouded, straight connectors and excellent strain reliefs on each end
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A



- TP1, TP2, TP4 and TP38 Slim Reach™ Test Probes**
- Slender probe bodies for probing closely spaced or recessed points
 - TP1 has a flat blade
 - TP2 has 2 mm diameter tip
 - TP4 has 4 mm diameter tip
 - TP38 has stainless steel insulated probe to help lessen the risk of arc flash explosion
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A



- TP220 SureGrip™ Industrial Test Probes**
- Sharp, 1/2 in. stainless steel tip provides reliable contact
 - Flexible finger barrier improves grip
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A



SureGrip accessories provide a reliable grip in slippery hands. Rubber-overmolded surfaces and finger-hugging curves give the user a comfortable, steady hold on the accessory so they can focus on making an accurate measurement.

Push-on clips



- AC72 Alligator Clips**
- Slide-on style for test probes
 - Jaws open to 8 mm
 - For use with TL71 and TL75 test lead and probe sets
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A

Test lead and probe in one



- TL71 Premium DMM Test Lead Set**
- Flexible silicone insulated leads are heat and cold resistant
 - Distinctive comfort grip probes
 - Recommended for μ V measurements
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A

Modular clips (for use with test leads)



- AC220 SureGrip™ Alligator Clips**
- Insulated, nickel plated jaws grip objects up to 3/8 in.
 - Blunt tip grabs round screw heads
 - CAT III 1000 V, CAT IV 600 V, 10 A



- AC285 SureGrip™ Alligator Clips**
- Multi-purpose tooth pattern grips anything from fine gauge wire to a 3/4 in. nut
 - Nickel-plated steel jaws
 - CAT III 1000 V, CAT IV 600 V, 10 A



- AC280 SureGrip™ Hook Clips**
- Profile narrows to .22 in. at tip
 - Hook opening .20 in. at front, .08 in. at base
 - CAT III 1000 V, CAT IV 600 V, 3 A



- AC89 Heavy Duty Insulation Piercing Clip**
- Plunger style, safety grip operation with insulated jaws
 - Small pin pierces 30 to 14 AWG insulated wire
 - CAT III 1000 V, 5 A, CAT IV 600 V, 5 A



- AC283 SureGrip™ Pincer Clips**
- 4.5 in. flexible, insulated shaft
 - Nickel plated pincers open to .20 in.
 - CAT III 1000 V, CAT IV 600 V, 1 A



- AC87 Heavy Duty Bus Bar Clip Set**
- One pair (red, black) of flat, right angle design for connecting to bus bars
 - Adjustable collar provides two ranges of jaw openings up to 30 mm
 - CAT III 1000 V, 5 A rating



- TL28A Automotive Test Lead Set**
- Large, solid copper alligator clips with 0.5 in. opening
 - Flexible silicone insulated lead are heat and cold resistant
 - CAT I 30 V, 10 A



- TL76 2 mm/4 mm Test Lead Set**
- 2 mm threaded probes with removable 4 mm banana-style spring contacts
 - Flexible 1.5 m silicone leads
 - CAT III 1000 V, CAT IV 600 V, 10 A



- TL75 Hard Point Test Lead Set**
- Extremely hard alloy tips resist wear
 - Distinctive comfort grip probes
 - CAT III 1000 V, 10 A, CAT IV 600 V, 10 A
 - 1.5 m PVC leads

Accessories

Fluke Test Leads, Probes and Clips

Test leads for all your measurement needs

For electronic applications



- TL80A Basic Electronic Test Lead Set**
- 6 piece set with zippered case
 - Probes, alligator clips and tip extenders for electronic applications
 - CAT II 300 V



- TL910 Electronic Test Probes with Replacement Tips**
- Small profile provides accessibility
 - Comes with 5 sets of replaceable tips
 - Replacement tips: TP912
 - CAT III 1000 V, 3 A



- TL81A Deluxe Electronic Test Lead Set**
- 22 piece set with quadfold pouch
 - Includes mini alligator clips, hooks and pincers for virtually every electronic need
 - Slide-on IC probe tip adapter and test lead couplers
 - Both modular test leads and lead-probe combinations
 - CAT II 300 V



- TP80 Electronic Test Probes**
- Tapered tip ideal for probing electronic components or boards
 - Removable guard for IC probing
 - CAT III 1000 V, 10 A



- TP920 Test Probe Adapter Kit**
- IC test tip adapters, extended tips, medium alligator clips fit over TL71 and TL75 test lead sets
 - IC test tip Adapter, 3 A
 - Extended probe tip, 3 A
 - Med. alligator clip, 5 A
 - CAT II 300 V



- TL40 Retractable Probe Assembly**
- Retractable, insulated sharp probe tip
 - CAT II 300 V, 2 A

For automotive applications



New! TP81, TP82 and TP84

New piercing probes for Automotive applications. Control the depth as you pierce insulation.

- Stainless steel probe pierces insulation on 14, 16 and 18 gauge wire
- Design provides complete insulation while working on fuel injectors or sensors
- TP81 for use with modular test leads (Fluke TL224)
- TP82 slips over probe tips (Fluke TL71)
- TP84 is 12 inches long to reach farther into engine compartments
- Rated to 60 V dc

New! TP88 Rigid Backprobe Pin Set

- 2 inch long pins pass between the weather pack seal and wire
- Use with Fluke TL71 or TL75 test lead sets
- Rated to 60 V dc



New! TP40 Automotive Back Probe Pin Set

- Set of five 1.5 inch pins Rated to 60 V dc
- Provide an easy connection past weather pack seals to connector conductors
- Use with Fluke TL71 or TL75 test lead sets



New! TL82 Automotive Pin & Socket Adapter Set

- Collection of male and female adapters allows you to make firm connection to pin and socket connectors
- Adapters with flexible tips come in the following sizes: 22, 20, 16 and 12
- Rated to 60 V dc



- TL26A Telecom Test Lead Set**
- 5-way multipoint test clips for telecommunications applications
 - Flexible silicone insulated leads are heat and cold resistant
 - CAT I 30 V, 8 A

High-voltage probes

80K-6, 80K-15, 80K-40 High Voltage Probes

- Allows a digital multimeter to measure up to 6,000 volts peak, 15,000 volts peak and 40,000 volts peak respectively
- 1000:1 division ratio output when connected to 10 MΩ multimeter
- Ground clip included
- Intended for low energy applications that are referenced to ground
- 80K-15 (not available in Europe)

FLUKE®

Accessories

Fluke Current Clamps

For use with DMMs, ScopeMeters
and Power Quality Analyzers

AC current clamp specifications

	i200	i200s	i400	i400s	80i-600A	i1000s	i2000flex	i3000s
AC current range	1 A to 200 A	1 A to 200 A	1 A to 400 A	0.5 A to 400 A	1 A to 600 A	0.2 A to 1000 A	2 A to 2000 A	1 A to 3000 A
Accuracy	± 3 % + 0.5 A at 65 Hz	± 1 % + 0.5 A at 65 Hz	2 % + 0.06 A at 45 Hz to 400 Hz	2 % + 0.05 A at 45 Hz to 400 Hz	2 % + 0.5 A at 100 A to 1000 A; 1 % + 1 A at 48 to 65 Hz	± 1 % of full scale 1 to 100 A; 2 % + 0.5 A at 100 A to 1000 A; 1 % + 1 A at 48 to 65 Hz	± 1 % of full scale 1 to 300 A; 2 % + 0.5 A at 1 to 2000 A; 2 % + 2 A at 48 to 65 Hz	1 to 30 A: 2 % + 0.1 A; 1 to 300 A: 2 % + 0.5 A; 1 to 3000 A: 2 % + 2 A at 48 to 65 Hz
Bandwidth (±3dB)	40 Hz to 40 kHz	40 Hz to 40 kHz	5 kHz to 20 kHz	5 kHz to 10 kHz	10 Hz to 50 kHz	5 Hz to 100 kHz	1 Hz to 20 kHz	10 Hz to 100 kHz
Maximum conductor diameter	20 mm (0.8 in)	20 mm (0.8 in)	32 mm (1.25 in)	32 mm (1.25 in)	50 mm (1.98 in)	54 mm (2.13 in)	160 mm (6.3 in)	64 x 100 mm (2.52 x 3.94 in)
Maximum conductor size	300 MCM	300 MCM	750 MCM	750 MCM	2-500 MCM or 1-1000 MCM	2-500 MCM or 1-1000 MCM	24.4 in circumference	2-1000 MCM or 3-500 MCM
Output levels	1 mA/A 100 mV/A	10 mV/A 100 mV/A	1 mA/A 1 mV/A	10 mV/A 1 mV/A	1 mA/A 10 mV/A	1 mV/A 10 mV/A 100 mV/A	10 mV/A 1 mV/A	10 mV/A 1 mV/A 0.1 mV/A
Output cable	1.5 m shielded banana plugs	2 m to BNC termination	1.5 m shielded banana plugs	2.5 m to BNC termination	1.2 m shielded banana plugs	1.6 m to BNC termination	2.3 m to BNC termination	2.1 m to BNC termination
Warranty	One-year	One-year	One-year	One-year	One-year	One-year	One-year	One-year
Safety rating	CAT II 600 V	CAT III 600 V	CAT III 1000 V CAT IV 600 V	CAT III 1000 V CAT IV 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V
Meter compatibility								
AC range								
10V/11/12/12B/16/18	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
110/111/112	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
21/22/73/75/77 Series II	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
26/79 Series III	1 A to 40 A	1 A to 200 A	1 A to 40 A and 200 A to 400 A	1 A to 400 A	1 A to 40 A and 200 A to 600 A	0.2 A to 1000 A*	4 A to 2000 A	2 A to 3000 A
27	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
70 Series III	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
175/177/179	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.2 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
157/1587 Insulation Meter	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.3 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
83 Series III 83 Series V	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
85/87 Series III 87 Series V	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.2 A to 1000 A*	4 A to 2000 A	2 A to 3000 A
81/89 Series IV 181/189	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A*	4 A to 2000 A	1 A to 3000 A
800A/8062A DMMs	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.2 A to 1000 A*	4 A to 2000 A	2 A to 3000 A
860 Series Graphical Multimeter	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.3 A to 1000 A*	4 A to 2000 A	2 A to 3000 A
438 Power Meter	1 A to 200 A ¹	1 A to 200 A	1 A to 400 A	0.35 A to 400 A	1 A to 600 A	0.1 A to 1000 A ¹	4 A to 2000 A ¹	1 A to 3000 A ¹
433/434 Power Quality	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.3 A to 1000 A	4 A to 2000 A	1.2 A to 3000 A
9X ScopeMeter	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A	4 A to 2000 A	1 A to 3000 A
123/124 ScopeMeter	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.25 A to 1000 A	4.5 A to 2000 A	2.5 A to 3000 A
190 Series ScopeMeter	1 A to 200 A	1 A to 200 A	1 A to 400 A	1 A to 400 A	1 A to 600 A	0.1 A to 1000 A	4 A to 2000 A	1 A to 3000 A
45 DMM	1.5 A to 100 A	1 A to 200 A	1.5 A to 100 A	1 A to 400 A	1.5 A to 100 A and 500 A to 600 A	0.15 A to 1000 A*	4 A to 2000 A	1.5 A to 3000 A
74X Series Process Calibrators	1 A to 200 A	1.1 A to 200 A	1 A to 400 A	1.1 A to 400 A	1 A to 600 A	1.1 A to 1000 A*	11 A to 2000 A	11 A to 3000 A
787/789 ProcessMeter	50 A to 200 A	1 A to 200 A	50 A to 400 A	1 A to 400 A	50 A to 440 A	0.2 A to 1000 A*	4 A to 2000 A	2 A to 3000 A

¹ Current and watt readings will be multiples of 10 higher or lower than actual.
* Requires PM8081/001 or 8P1880 Adapters

AC only models



Accessories

Fluke Current Clamps

For use with DMMs, ScopeMeters
and Power Quality Analyzers

AC/DC current clamp specifications

	80i-110s	i410	i1010
DC range	0.1 A to 100 A	1 to 400 A	1 to 1000 A
AC range	0.1 A to 70 A	1 A to 400 A	1 A to 600 A
Accuracy	0.1 A to 10 A, DC to 1 kHz: ± 3 % + 50 mA; up to 100 A add 15 % up to 20 kHz add 12 %	3.5 % + 0.5 A for dc or ac (45 to 400 Hz)	2 % + 0.5 A for dc or ac (45 to 400 Hz)
Bandwidth (-3dB)	100 kHz	3 kHz	10 kHz
Zero error adjustment	Yes	Yes	Yes
Maximum conductor diameter	11.8 mm (0.46 in)	30 mm (1.18 in)	30 mm (1.18 in)
Maximum conductor size	1 AWG	750 MCM or 2-500 MCM	750 MCM or 2-500 MCM
Output levels	10 mV/A, 100 mV/A	1 mV/A	1 mV/A
Output cable	1.6 meter with BNC termination	1.2 meter with shielded banana plugs	1.2 meter with shielded banana plugs
Battery life	40 hours	60 hours	60 hours
Warranty	One-year	One-year	One-year
Safety	CAT II 600 V; CAT III 300 V	CAT III 600 V	CAT III 600 V
Meter compatibility			
Range limitations			
10/11/12/12B/16/18	0.1 A to 100 A dc and 0.1 A to 70 A ac*	5 A to 400 A dc and 7 A to 400 A ac	5 A to 1000 A dc and 7 A to 600 A ac
110/111/112	0.14 A to 100 A dc and 3 A to 70 A ac*	5 A to 400 A dc and 300 A to 400 A ac	5 A to 1000 A dc and 300 A to 600 A ac
21/23/70/73/75/77 Series III	0.1 A to 100 A dc and 0.1 A to 70 A ac*	1 A to 400 A dc and 5 A to 400 A ac	1 A to 1000 A dc and 5 A to 600 A ac
26/79 Series III	0.1 A to 100 A dc and 0.2 A to 70 A ac*	1 A to 400 A dc and 20 A to 400 A ac	1 A to 1000 A dc and 20 A to 600 A ac
179/177/179	0.11 A to 100 A dc and 0.3 A to 70 A ac*	1.6 A to 400 A dc and 30 A to 400 A ac	1.6 A to 1000 A dc and 30 A to 600 A ac
1577/1587	0.11 A to 100 A dc and 0.3 A to 70 A ac*	1.6 A to 400 A dc and 30 A to 400 A ac	1.6 A to 1000 A dc and 30 A to 600 A ac
27	0.1 A to 100 A dc and 0.1 A to 70 A ac*	1 A to 400 A dc and 1 A to 400 A ac	1 A to 1000 A dc and 1 A to 600 A ac
83B/83V	0.1 A to 100 A dc and 0.1 A to 70 A ac*	1 A to 400 A dc and 1 A to 400 A ac	1 A to 1000 A dc and 1 A to 600 A ac
85B/87B/87V	0.1 A to 100 A dc and 0.2 A to 70 A ac*	1 A to 400 A dc and 20 A to 400 A ac	1 A to 1000 A dc and 20 A to 600 A ac
87/89 Series IV	0.1 A to 100 A dc and 0.1 A to 70 A ac*	1 A to 400 A dc and 2.5 A to 400 A ac	1 A to 1000 A dc and 2.5 A to 600 A ac
8060A/8062A DMMs	0.1 A to 100 A dc and 0.2 A to 70 A ac*	1 A to 400 A dc and 20 A to 400 A ac	1 A to 1000 A dc and 20 A to 600 A ac
860 Series Graphical Multimeter	0.1 A to 100 A dc and 0.3 A to 70 A ac*	1 A to 400 A dc and 30 A to 400 A ac	1 A to 1000 A dc and 30 A to 600 A ac
39/41B Power Meter	Useable but will read 10 or 100 times higher	1 A to 400 A ac**	1 A to 600 A ac**
9X Series II ScopeMeter	0.1 A to 100 A dc and 0.1 A to 70 A ac	1 A to 400 A dc and 5 A to 400 A ac**	1 A to 1000 A dc and 5 A to 600 A ac**
123/124 ScopeMeter	0.1 A to 100 A dc and 0.25 A to 70 A ac	1 A to 400 A dc and 25 A to 400 A ac**	1 A to 1000 A dc and 25 A to 600 A ac**
190 Series ScopeMeter Test Tools	0.1 A to 100 A dc and 0.1 A to 70 A ac	1 A to 400 A dc and 5 A to 400 A ac**	1 A to 1000 A dc and 5 A to 600 A ac**
45 DMM	0.1 A to 100 A dc and 0.15 A to 70 A ac*	1 A to 400 A dc and 15 A to 400 A ac	1 A to 1000 A dc and 15 A to 600 A ac
705/707 Process Calibrators	0.1 A to 100 A dc, No ac	4 A to 400 A dc, No ac	4 A to 1000 A dc, No ac
715/724/725 Process Calibrators	0.1 A to 100 A dc, No ac	4 A to 400 A dc, No ac	4 A to 1000 A dc, No ac
74X Series ProcessMeter	0.1 A to 100 A dc and 1.1 A to 70 A ac*	1 A to 400 A dc and 110 A to 400 A ac	1 A to 1000 A dc and 110 A to 600 A ac
787/789 ProcessMeter	0.1 A to 100 A dc and 0.2 A to 70 A ac*	1 A to 400 A dc and 20 A to 400 A ac	1 A to 1000 A dc and 20 A to 600 A ac

* Requires PM9061/001 Adapter
** Requires PM9062/001 Adapter

AC/DC models



Buy a combo kit and save



i1010-Kit

- i1010 1-600 A ac rms,
1 to 1000 A dc current clamp
- Zippered vinyl carry case with
moveable divider

i410-Kit

- i410 1-400 A ac rms,
1 to 400 A dc current clamp
- Zippered vinyl carry case with
moveable divider

Power quality ac combo packs for 4-phase current measurements



i2000PQ4



i5sPQ3

Buy
Combo Pack
and Save

FLUKE®

Accessories

Fluke Temperature Accessories

Turn your digital multimeter into a thermometer

Other temperature accessories

80TK Thermocouple Module

- Converts K-Type thermocouple signals into mV output
- Connects to DMM via standard banana plugs
- Switch selectable °C or °F
- Range: -50 °C to 1000 °C (-58 °F to 1832 °F)
- Includes 80PK-1 probe



80T-150U Universal Solid State Temperature Probe

- For measurement of air, surface and non-corrosive materials
- Measurement range: -50 °C to 150 °C (-58 °F to 302 °F)
- Output: 1 mV/°C or 1 mV/°F (switch selectable)
- Connects to DMM via standard banana plugs



80AK DMM Adapter

- Adapts Type-K thermocouple mini-connector to dual banana plug inputs
- Compatible with all Fluke DMMs with temperature measurement functions
- Measurement range and accuracy is not affected by the 80AK adapter



80BK Integrated DMM Temperature Probe

- Compatible with all Fluke DMMs with temperature measurement functions
- K-Type thermocouple with standard banana jack
- Convenient one-piece construction
- Measurement range: -40 °C to 260 °C (-40 °F to 500 °F)



80CK-M and 80CJ-M Type K and J Male Mini-Connectors

- Isothermal screw terminal for K or J wire
- Suitable for up to 20 gauge thermocouple wire
- Color coded to industry standards (K-yellow, J-black)
- Two per package



80PJ-EXT, 80PK-EXT, 80PT-EXT Thermocouple Wire Extension Kits

- For extending and repairing J, K or T-type thermocouple wires.
- Kit includes 3 m (approx. 9 ft.) of thermocouple wire and 1 pair of male/female mini-connectors
- Maximum continuous exposure temperature: 260 °C (500 °F)
- 80PK-EXT is compatible with K-type thermometers; 80PJ-EXT is designed for J-type thermometers, and 80PT-EXT is designed for T-type thermometers



Thermocouple Plug Kits

700TC1

- A kit of 10 mini-plug connectors. One each of the following: Type J (black), Type K (yellow), Type T (blue), Type E (purple), Type R/S (green), Type B or Cu (white), Type L (J-DIN) (blue), Type U (T-DIN) (brown), Type C (red), Type N (orange)



700TC2

- A kit of 7 mini-plug connectors. Type J (black), two Type K (yellow), two Type E (purple), one Type T (blue), one Type R/S (green), one



New! 80PR-60 RTD Temperature Probe

- Resistance temperature detector probe designed to add contact measurements to your Fluke 66 and 68 Non-Contact Infrared Thermometers
- Measurement range: -40 °C to 260 °C (-40 °F to 500 °F)
- 3.5 mm phono type jack is only appropriate for Fluke 66 and 68 Thermometers



Process tools accessories

BP7217

- NiCd rechargeable battery; nominal 7.2 volt, 1700 mA hr
- Use in 867B meters or 700 and 740 Series Calibrators



BP7235

- NiMH rechargeable battery; nominal 7.2 Volt, 3500 mA hr
- Use in 700 and 740 Series Calibrators



700LTP Low Pressure Test Pump

The Fluke 700LTP is designed to generate either vacuum to -12 psi/-85 bar or pressures to 30 psi/2000 mbar. The Fluke 700 LTP is primarily intended for low pressure applications.



700ILF In-line Filter

The Fluke 700ILF can be used to isolate the calibrator from incidental contact with fluids. Particularly useful with the 718 calibrator to help keep moisture or oils from contaminating the on-board pump.



700PTP Pneumatic Test Pump

The 700PTP is a handheld pressure pump designed to generate either vacuum to -11.6 psi/-0.8 bar or pressure to 600 psi/25 bar.



700HTP Hydraulic Test Pump

The 700HTP is designed to generate pressures up to 10,000 psi/700 bar. Use the Fluke-700PRV adjustable relief valves to limit pressures to 1360 psi and 5450 psi.



700HTH Hydraulic Test Hose

The 700HTH is a 10,000 psi, 700 bar test hose that connects to a calibration unit under test from a Fluke 700HTP hydraulic test pump.



700PMP Pressure Pump

The 700PMP is a hand-operated pressure pump to provide pressures up to 150 psi/1000 kPa. Output fitting is 1/8 FNPT.



Fluke 700-IV Current Shunt

Conversion factor: 10 mV = 1 mA
Accuracy (% of input, 1 year): 0.025 %
Input current: 0 to 55 mA
Input resistance: 250 Ω nominal
Output resistance: 10 Ω nominal
Accuracy specification applies from +18 °C and 28 °C to 50 °C
Maximum input voltage: 30 V dc



Accessories

Fluke Cases and Holsters

A premium meter deserves a premium case

	Premium cases				Soft cases				Hard cases		
											
	C520A	C510	C25	C50	C90	C12A	C12S	C63	C789	C20	C101
	Genuine top grade leather cowhide.				Zippered carrying cases protect your meter; most cases come with belt loops so your meter is stored conveniently on your tool belt.				Tough polypropylene cases hold and protect meters and accessories.		
Dimensions	22.5 cm x 7.0 cm x 4.8 cm (10 in x 3.125 in x 2.125 in)	20.3 cm x 11.3 cm x 5.1 cm (9 in x 5 in x 2.25 in)	19.2 cm x 11 cm x 5.6 cm (8.5 in x 4.9 in x 2.5 in)	16.9 cm x 8.5 cm x 3.4 cm (7.5 in x 3.75 in x 1.5 in)	19.2 cm x 7.9 cm x 5.6 cm (8 in x 3.5 in x 2.5 in)	15.1 cm x 11.3 cm x 3.4 cm (6.7 in x 5 in x 1.5 in)	23.7 cm x 13.5 cm x 5.6 cm (10.5 in x 6 in x 2.5 in)	30.4 cm x 19.7 cm x 6.7 cm (13.5 in x 8.75 in x 3 in)	27.0 cm x 22.5 cm x 6.7 cm (12 in x 10 in x 3 in)	22.5 cm x 13.5 cm x 9.0 cm (10 in x 6 in x 4 in)	30.5 cm x 36 cm x 10.5 cm (12 in x 14.2 in x 4.1 in)
DMMs											
10/11/12/128		*				*					*
190/111/112		*		*	*	*	*				*
16		*		*	*	*	*				*
31/23/26/75/77/79		*			*		*				*
27			*							*	
70/73 III		*	*		*		*				*
175/177		*	*		*		*				*
179		*	*		*		*				*
83/85/87 Series III		*	*		*		*	*			*
87/89 IV		*	*		*		*	*			*
83/87 Series V		*	*		*		*	*			*
187/189		*	*		*		*	*			*
867B								*			
Clamp meters											
321/322			*								
Insulation testers											
1503/1507 1577/1587			*								*
Thermometers											
508/509		*	*	*	*						*
51/52/53/54 Series II		*	*	*	*						*
61		*	*		*						
65		*	*	*	*						
Electrical testers											
T3/T5	*										
7-600/7-300				*		*					*
ScopeMeters											
123/124							*	*	*		*
Power quality											
35/41B								*	*		
Process tools											
706/707											*
712/713							*				*
714/715/716/717			*								*
725			*				*			*	*
741/743/744								*	*		*
787	*	*	*				*	*	*	*	*
789		*	*				*	*	*	*	*

C1600 Meter and Accessories Gear Box

This rugged, molded plastic case will carry Fluke digital multimeters, process calibrators and most Fluke accessories used for these meters.

- Deep interior large enough to hold and protect your gear
- Rubber gasket in lid seals out dust and keeps contents dry
- Lift out tray keeps everything organized



C550 Tool Bag

- Steel reinforced frame
- Rugged ballistic cloth with heavy duty hardware
- Large zippered storage compartment with 25 pockets
- Weather resistant
- Carry all your tools to the job



C75 Accessory Case

- Zippered carrying case with two inside pockets
- Carry test lead sets or probes



H6 Infrared Thermometer Holster

- Durable nylon construction protects your thermometer while keeping it within reach
- For Fluke 63, 66 and 68 Infrared Thermometers



H5 Electrical Tester Holster

- Rugged fabric holster includes flap for lead storage and built-in belt loop
- Fits Fluke T3 and T5 testers



H3 Clamp Meter Holster

- Rugged fabric holster includes flap for lead storage and built-in belt loop
- For Fluke 320 and 330 Series Clamp Meters



FLUKE®

Accessories

Fluke Holsters and Fuses

Take care of your test tools—
inside and out

Protective meter holsters



- C10 Meter Holster**
- Snap on yellow holster absorbs shocks and protects meter from rough handling
 - Fits Fluke 10 Series DMMs



- C70Y Meter Holster**
- Snap on yellow holster absorbs shocks and protects meter from rough handling
 - Flex-Stand™ allows meter to hang, lean or stand for convenience and best viewing
 - For Fluke 70 and 73 Meters



- H80M Protective Holster with magnetic strap**
- Snap on holster absorbs shocks and protects meter from rough handling
 - Magnetic strap solution makes it easy to hang your meter for hands free work
 - For Fluke 80 Series DMMs, 710 Series and 787 calibration tools

ToolPak™ Magnetic Meter Hanging Solution

- Free both hands to make measurements
- Hang your meter from metallic surfaces like panels and pipes
- Kit includes universal hanger clips (two), hook and loop straps (two lengths), adapter and strong magnet
- Attaches to back of many Fluke meters, including 110, 170, 180 Series, 87V and 83V DMMs, 724, 725 and 789 Process Calibrators, 70 Series III DMMs, 1503, 1507, 1577 and 1587 Insulation Multimeters and 50 Series II Digital Thermometers



Fuse selection guide

Replacement fuses for Fluke DMMs are available from your distributor in 440 mA, 500 mA, 630 mA, 1 A, 2 A, 3 A, 11 A, and 15 A values. To order direct from Fluke call 1-888-99-FLUKE (U.S.) or contact your distributor.

Model	Fuse requirements
21/23/75/77-II	P/N 871173; 630 mA 250V fuse P/N 892583; 15 A 600 V fuse
21-III/75-III 73-III	P/N 871173; 630 mA 250 V fuse P/N 803293 11 A 1000 V fuse
76/29/79-II 83/85/87/88 (S/N < 65650001)	P/N 871207; 1 A 600 V fuse P/N 892583; 15 A 600 V fuse
25/27 (S/N < 7247001)	P/N 871173; 630 mA 250 V fuse P/N 871202; 3A 600 V fuse P/N 892583; 15A 600 V fuse
27 (S/N > 7247001)	P/N 943121; 440 mA 1000 V fuse P/N 803293; 11A 1000 V fuse
45 (S/N < 7211001)	P/N 871181; 500 mA 250 V fuse P/N 892583; 15 A 600 V fuse
45 (S/N > 7211001)	P/N 871181; 500 mA 250 V fuse P/N 943121; 440 mA 1000 V fuse P/N 803293; 11 A 1000 V fuse
73 and 73-II 863/865/867/867B 83/85/87 (S/N > 65650001) 87-IV/89-IV/187/189/ 83-III/85-III/87-III/87E-III/83V/87V 23-III/77-III/26-III/79-III/175/177/179	P/N 892583; 15 A 600 V fuse P/N 943121; 440 mA 1000 V fuse P/N 803293; 11 A 1000 V fuse
111/112	P/N 803293; 11 A 1000 V fuse
712/713/714/715/716/717/718	P/N 686527; 125 mA 250 V fuse
724/725	P/N 2002234 (qty. 1); 50 mA 250 V fuse
1577/1587	P/N 943121; 440 mA 1000 V fuse
1503/1507	P/N 2279339; 315 mA, 1000 V fuse

New! MeterCleaner Wipes

- Industrial strength cleaning formula removes surface dirt, oil and grease
- Safe on rubber
- Safe to the environment
- Comes in two sizes: 6-pack (MC6) and 50-pack (MC50)



Verification tools

Test the integrity of UTP, Coax, phone and security cabling using known standards.



MicroScanner Pro

- The essential cable verification tester
- Measures length and distance to fault via true TDR (Time Domain Reflectometry)
- Pinpoints opens, shorts, reversed, crossed and split pairs
- Tests UTP, STP and coax cables
- Flashes hub and switch port lights
- Identifies active networking hubs and detects speed/duplex settings
- Analog tone generator with four song selections

MicroMapper

- The fast, comprehensive LAN wiremap checker
- Tests twisted-pair cables for opens, shorts, crossed pairs, split pairs, or any miswires
- Verifies correct pin outs, wiremap



IntelliTone 200 Kit

- Finds the cables the others can't
- IntelliTone smart digital signal processing rejects noise and false signals
- Audible, visual signal indication simplifies cable location in noisy environments
- Tones safely and clearly on active networks
- Identifies and diagnoses 10/100/1 GB Ethernet link connectivity with NIC/hub indication
- Identifies and diagnoses POTS with Line 2 POTS service and polarity



Test Instruments

AC/DC CURRENT CLAMP-ON TESTERS

CL120 Clamp-On Tester

- Exclusive model for AC current measurement with current ranges up to 200A
- Light weight & compact design
- Mean value display
- 24mm in diameter of measurable conductor
- Data hold function
- Approved for conformity to safety standards EN61010-1, EN61010-2-032 (CAT. III 300 V)



CL220 Clamp-On Tester

- AC/DC current measurements with current ranges up to 300A
- Light weight and compact design
- 24mm in diameter of measurable conductor
- Mean value display
- Sleep function
- Approved for conformity to safety standards EN61010-1, EN61010-2-032 (CAT. III 300 V)



CL235 Clamp-On Tester

- AC/DC current measurements with current ranges up to 600A for AC and 1000A for DC; True RMS display
- 10-Year Limited Warranty
- 33mm in diameter of measurable conductor
- AC/DC voltage, resistance and frequency measurements
- Sleep function, data hold function
- Approved for conformity to safety standards EN61010-1, EN61010-2-031, EN61010-2-032 (CAT. III 600 V)



CL255 Clamp-On Tester

- AC/DC current measurements with current ranges up to 2000A. True RMS display
- AC/DC voltage and resistance measurements
- 10-Year Limited Warranty
- DC output
- 55mm in diameter of measurable conductor
- Sleep function, data hold function
- Approved for conformity to safety standards EN61010-1, EN61010-2-031, EN61010-2-032 (CAT. III 600 V, CAT. II 1000 V) /Hz



AC/DC CURRENT CLAMP-ON TESTERS

■ For AC Current

Model		CL120	CL130	CL135	CL150	CL155
Diameter of measurable conductor		ø24mm	ø30mm	ø30mm	ø54mm	ø54mm
Display		1999	1999	1999	3999	3999
DC current	Range	—	—	—	—	—
	Resolution	—	—	—	—	—
AC current	Range	20/200A	200/600A	200/600A	400/2000A	400/2000A
	Resolution	0.01A	0.1A	0.1A	0.1A	0.1A
	Frequency characteristics	40~1kHz	40~1kHz	40~1kHz	40~1kHz	40~1kHz
	Method of detection	Mean value	Mean value	True RMS	Mean value	True RMS
Other measurement	AC voltage	—	○	○	○	○
	DC voltage	—	—	—	○	○
	Continuity check	—	○	○	○	○
	Frequency	—	—	—	—	—
Other functions	Temperature	—	—	—	—	—
	Recorder output	—	—	—	○	○
	Waveform monitor output	—	—	—	—	—
	Data hold	○	○	○	○	○
	Auto hold . .	—	—	—	—	—
	Peak hold . .	—	—	—	○	○
	maximum value memory . .	—	—	—	—	—
	Mean value display	—	—	—	—	—
	Filter	—	—	—	—	—
	Range hold (current range)	○	○	○	○(current range)	○(current range)
	Auto ZERO adjust . .	—	—	—	—	—
	Auto power-off	○	—	—		
Page		1	1	2	2	3

. . . . = Sleep Function (Power-Down)

■ For AC/DC Currents

Model		CL220	CL235	CL250	CL255
Diameter of measurable conductor		ø24mm	ø33mm	ø55mm	ø55mm
Display		3999	3999	3999	3999
DC current	Range	40/300A	400/1000A	400/2000A	400/2000A
	Resolution	0.01A	0.1A	0.1A	0.1A
AC current	Range	40/300A	400/600A	400/2000A	400/2000A
	Resolution	0.01A	0.1A	0.1A	0.1A
	Frequency characteristics	20~1kHz	40~1kHz	40~1kHz	30~1kHz
	Method of detection	Mean value	True RMS	Mean value	True RMS
Other measurement	AC voltage	—	○	○	○
	DC voltage	—	○	○	○
	Continuity check	—	○	○	○
	Frequency	—	○	—	○
Other functions	Temperature	—	—	—	—
	Recorder output	—	—	○	○
	Waveform monitor output	—	—	—	—
	Data hold	○	○	○	○
	Auto hold . .	—	—	—	—
	Peak hold . .	—	○	—	○
	maximum value memory . .	—	—	○	—
	Mean value display	—	○	—	○
	Filter	—	—	—	—
	Range hold (current range)	—	—	○(current range)	—
	Auto ZERO adjust . .	○	○	○	○
	Auto power-off	. .	. .	. .	
Page		4	4	5	5

. . . . = Sleep Function (Power-Down)

Digital Multimeters

DIGITAL MULTIMETERS

73303 Digital Multimeter

- Accuracy 0.3% at DC voltage and 4000 count / 40-segments bar graph display
- AC voltage measurement selectable: RMS value or mean value measurement
- User calibration function
- Shockproof elastomer casing
- Safety shutters prevent erroneous insertion of test leads into current measurement terminals



73402 Digital Multimeter

Model 73402 Features:

- High Accuracy: .02%
- High Resolution: 50,000 Count with 51 segment bar graph (Backlit display)
- High Speed: 3.3 times a second sampling (50/60 Hz)
- Measures: AC/DC Voltage 1kV, AC/DC Amps 10A, Resistance 50k MΩ, Continuity 500Ω, Diode, Temperature & Capacitance 50.00mF
- Auto Data Logging & User Memory, Real Time Data Transfer, Direct Output to Printer
- Includes one set of test leads, two AA dry cell batteries
- Compact, Light weight with "Elastomer" Protection
- Auto Hold, Peak Hold
- True RMS AC + DC
- 100 kHz Frequency Response
- 120 Hour Battery Life
- Auto Safety Shutter
- Ten Year Limited Warranty



Optional Accessories:

- B9646HH: Carrying Case
- Temperature Probe (3.2 mm, 200 mm length): 90050 –For Liquids: -50~600 C
- Temperature Probe (1.6 mm, 150 mm length): 90051 –For Liquids: -50~600 C
- Temperature Probe: 90055 –For Surfaces: -20~250 C
- Temperature Probe: 90056 –For Surfaces: -20~500 C
- 92010-E/P: RS-232 Cable + Software + 97010 Printer Cable
- 97010: Printer
- 94007: AC adapter for printer
- 97080: Thermal printing paper for printer

YOKOGAWA ◆

Digital Multimeters

DIGITAL MULTIMETERS

Model		Display					Measurement Items														Additional Functions							
		Max. Value	Dual	Bar Graph	Back-lit	AC RMS	Voltage	AC + DC	Current	AC + DC A	Resistance	Continuity Check	Diode Test	Frequency	Temperature	Capacitance	Communication	Data Memory	Max./Min. Value Memory	Relative Value Memory	Logarithm Computation	Data Hold	Auto Hold	Peak Hold	Overvoltage	Input Warning	Comparator	Auto Power Off
73401	50000	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
73402		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
73301	4000		●			●	●	●	●	●	●	●	●					●		●	●		●	●	●	●	●	
73302		●				●	●	●	●	●	●	●	●	●				●		●	●		●	●	●	●	●	
73303		●		●	●	●	●	●	●	●	●	●	●	●				●		●	●		●	●	●	●	●	
73201	4300					●	●	●	●	●	●										●			○		●	●	
73202						●	●	●	●	●	●			●							●			○		●	●	
73203						●	●	●	●	●	●			●							●			○		●	●	
73204						●			●	●	●										●			○		●	●	
73101	4300					●				●	●	●								●					●	●	●	

○ Also functions as excessive current input warning

Multimeters

UEI Digital Multimeters

UEI DIGITAL MULTIMETERS

Why TRUE-RMS?

If you work with industrial and commercial systems, non-linear power loads, or want to know it's RIGHT EVERY TIME!

You Need True-RMS!

Waveform Type	WAVEFORM			
	Sinusoidal	Non-Sinusoidal	Non-Sinusoidal	Non-Sinusoidal
Response to Sine Wave	Response to Sine Wave	Response to Square Wave	Response to 1 Distorted Sine Wave	Response to 5 Distorted Sine Wave
Waveform Shape				
Average Responding DMM	Correct	10% High	40% Low	5% - 30% Low
True-RMS DMM	Correct	Correct	Correct	Correct

Functions	DM397	DM393	DM391
True-RMS	X	X	-
DC Volts	1000V	1000V	1000V
AC Volts	1000V	1000V	1000V
AC+DC Volts	1000V	-	-
AC Amps	10A	10A	10A
DC Amps	10A	10A	10A
AC+DC Amps	10A	-	-
dB & dBV	1999C/5.9999V	-	-
Pulse Width	0.5Hz - 300kHz	-	-
Temperature °F	-58° - 2,498°	-40° - 2,372°	-
Temperature °C	-50° - 1,370°	-40° - 1,300°	-
Capacitance	5nF - 5000µF	40nF - 100µF	40nF - 100µF
Frequency	500.00Hz - 5.0000MHz	5Hz - 40MHz	5Hz - 10MHz
Resistance	50Ω - 50MΩ	400Ω - 10MΩ	400Ω - 10MΩ
Diode Test	X	X	X
Continuity	X	X	X

Features	DM397	DM393	DM391
RS232 Data Port	X	-	-
Analog Bar Graph	X	-	-
Data Storage & Recall	X	-	-
1m Second Peak Capture	X	-	-
Average	X	-	-
Display Count	50,000	4,000	4,000
Backlit Display	X	X	X
Relative Mode	X	X	X
MIN/MAX	X	X	-
Data Hold	X	X	X
Auto Power Off	X	X	X
Low Battery Indicator	X	X	X
Closed Case Calibration	X	X	X
Five year limited warranty	X	X	X
Safety ratings	CAT III 1000V	CAT III 1000V	CAT III 1000V

Standard Accessories	DM397	DM393	DM391
Test Leads	ATL55	ATL55	ATL55
Alligator Clips	AAC	AAC	AAC
Battery	9V	9V	9V
Fuse	AF38, AF39	AF38, AF39	AF38, AF39
Temperature Probe	ATT29A	ATT29A	-
Temperature Plug Adpt	ATT70	ATT70	-
Software	X	-	-
Computer Cables	X	-	-

DM397

AN ADVANCED METER FOR INDUSTRIAL AND COMMERCIAL TROUBLESHOOTING

One of the most advanced and safest DMM's designed for HVAC/R, Electrical and Industrial process diagnostics. Finally a meter that combines high end precision with a simplistic user interface.



DM393

FULLY LOADED & BUILT FOR SAFETY!

The most popular DMM for HVAC/R and Electrical technicians. Includes True-RMS precision and meticulous resolution for demanding applications.



DM391

DON'T SACRIFICE SAFETY FOR AFFORDABLE ALTERNATIVES

Packed with more features than most everyday multimeters, the DM391 is ideal for primary troubleshooting and includes the safety and protection found in advanced DMMs.



All 3 UEI DMM's support high safety standards with all inputs, ranges and functions protected to 1000 Volts CAT III and have convenient access to battery and fuses without breaking calibration seals.

