

Amprobe Clamp-On Probes

Allows a non-true RMS DMM to read true RMS current

- Accuracy: $\pm 2.0\%$ Rdg. + 1A or Better (40–65Hz)
- Manual Zero Adjust and DMM/Waveform Output Select Switch

The 22307E current transducer has been designed for use with digital multimeters, recorders, and other suitable equipment for accurate non-intrusive measurement of AC, DC, and complex waveform currents. This unit allows you to convert measured current to DC voltage using its true RMS to DC converter. This transducer can accurately measure currents up to 1000A RMS.

Specifications

AC and DC Current Ranges:	0–1000A
Resolution:	1 mV/A
Crest Factor:	>3:1
Maximum Jaw Opening:	2"
Size/Weight:	1.26 x 2.52 x 10.24" HWL/1.72 lbs

The 22307E is a powerful tool for use on inverters, switch mode power supplies, industrial controllers, and other applications requiring accurate isolated current measurements.

Each Unit Includes: 9V alkaline battery, shrouded test leads (DTL-1000), shrouded right angle to BNC test leads (DTL-ABNC), carrying case, and instructions.

Ordering Information

Order #	Mfg #	Description	Price
MP22307E	A-1000	AC/DC Current Clamp-On True RMS Transducer	

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

A-1000



Amprobe Clamp-On Probes

- 400 Amp AC True RMS Capability
- 1.9% Basic Accuracy
- Accommodates Conductors 1.14" Diameter

Specifications

Current Range:	0.1A to 400A AC RMS
Output Voltage:	1 mV AC per 1A AC
Size/Weight:	2.83 x 5.83 x 1.42" WLD/8.8 oz

Ordering Information

Order #	Mfg #	Description	Price
MP22314E	A-400	AC Current Clamp-On Transducer	

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

The 22314E current transducer is designed for use with true RMS multimeters that can read AC true RMS current. This transducer has a maximum jaw opening of 1.8" and a maximum conductor size of 1.14".

Each Unit Includes: Carrying case and instructions.

A-400



Amprobe Clamp-On Probes

- Measure Up To 600 Amps AC or DC
- Universal Leads for Compatibility with All Makes of DMMs
- Maximum Jaw Capacity 1.33"
- Frequency Response 40–400 Hz AC

Specifications

AC Current Range:	0–100A: 40–400 Hz; 0–600A: 40–400 Hz
DC Current Range:	0–100A; 0–600A
Output Voltage:	0–100A: 10 mV/A; 0–600A: 1 mV/A
Accuracy:	0–100A: $\pm 2\%$ of rdg $\pm 0.5A$; 100–600A: $\pm 2\%$ of rdg $\pm 2A$
Size/Weight:	8 1/2 x 2 1/8 x 1 1/16" / 14.08 oz

Ordering Information

Order #	Mfg #	Description	Price
MP22321E	CT-600 AC/DC	AC/DC Clamp-On Current Transducer	

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

Each Unit Includes: 9V alkaline battery, carrying case, and instructions.

**CT-600
AC/DC**



Fluke Flexible Current Probe

- Switchable Between 200A and 2000A AC
- Includes a 62 cm (24.4") Circumference Flexible Probe
- Includes BNC Connector, for Use with Any Oscilloscopes, Power Analyzers or ScopeMeter®
- Dual Banana to BNC Adapter Is Included for Use with DMMs
- The Output Signal Is 10 mV/A (200A) and 1 mV/A (2000A)
- 9V Alkaline Battery, Installed
- UL Approval Pending



I-2000 FLEX

The i-2000FLEX is a flexible, AC current probe for oscilloscopes and digital multimeters, recommended for current measurement on large and difficult to reach conductors.

Approvals: IEC 1010, CAT III, 600V.

Ordering Information

Order #	Mfg #	Description	Price
MPI-2000	I-2000FLEX	Flexible Current Probe	
Transcat Accredited Calibration with Data			CALL
Transcat Accredited Calibration without Data			CALL

Fluke AC Current Clamp

- 1 to 2400A RMS in Three Ranges
- Accuracy: $\pm 2\%$ of Reading
- Use with DMMs, Scopes, Power Meters
- Fits Bus Bars Up to 2.52" x 3.94"

I3000S



The i-3000S clamp boosts the performance of any oscilloscope or other voltage-input device with a millivolt range, including Fluke digital multimeters, PowerMeters, and ScopeMeter test tools. Make critical measurements for assessing power quality in commercial and industrial power-distribution systems.

The i-3000S is rated for 600 VAC circuits, overvoltage CAT III, and 300V AC circuits, overvoltage CAT IV.

Each Unit Includes:

Female BNC to-banana-plug, adapter (PM 9081/001), and instructions.

Approvals: IEC 1010, CAT III, 600V.

Ordering Information

Order #	Mfg #	Description	Price
MPI-3000S	I3000S	AC Current Clamp	
Transcat Accredited Calibration with Data			CALL
Transcat Accredited Calibration without Data			CALL

Specifications

Ranges:	1 to 2400A RMS, continuous, in three ranges—1 to 30A, 1 to 300A, 1 to 3000A; 4000A, 5 minutes max.
Accuracy:	$\pm 2\%$ of rdg. + 0.1A, 1 to 30A; $\pm 2\%$ of rdg. + 0.5A, 1 to 300A; $\pm 2\%$ of rdg. + 2A, 1 to 3000A
Frequency Range:	10 Hz to 50 kHz (with current derating)
mV Outputs:	10 mV/amp, 1 mV/amp, 0.1 mV/amp
Working Voltage:	600V AC RMS, clamp jaws to ground
Common Mode Voltage:	600V AC RMS at output cable and connector to ground
Jaw Capacity:	2.52" (64 mm) dia. conductors or 2.52" x 3.94" (64 x 100 mm) bus bars
Size:	12.2 x 4.7 x 1.89" HWD (310 x 120 x 48 mm)
Weight:	3.22 lbs (1.2 kg)

Extech AC Line Separator

- Allows Direct Measurement of AC Power Cords by Separating Hot/Live Conductor from Neutral

480172



This accessory allows you to measure current drawn by virtually anything with a plug!

Just plug our separator into the wall, and plug your appliance or load into the separator. This accessory separates the neutral (and ground). You can then clamp onto the line separator to measure current without the need to cut off the plug and separate the conductors. Two clamp positions: x1 for direct readings; x10 for actual reading multiplied by 10. Also features voltage check function. Openings 0.95" x 0.95" (24 x 24 mm).

Ordering Information

Order #	Mfg #	Description	Price
MP22579E	480172	AC Line Separator, 3-Prong Plug	
MP22580E	480292	AC Line Separator, 2-Prong Plug	

Isotek Voltmeter Shunts

- Add Range and Accuracy to Your DMM
- Gold-Plated Brass Binding Posts
- Rugged Epoxy-Filled, Thermoplastic Case



CS-30-1

Ordering Information

Mfg#	CS-10-1	CS-20-1	CS-30-1
Input Range:	0-10A	5A-20A	10A-30A
Max Current 1 Minute:	20A	30A	40A
Accuracy:	0.1% DC/0.5% AC	0.1% DC/0.5% AC	0.1% DC/0.5% AC
Sensitivity:	10 mV/A	5 mV/A	1 mV/A
Resistance:	0.01 Ω \pm 0.1%	0.005 Ω \pm 0.1%	0.001 Ω \pm 0.1%
Order #	MPCS-10-1	MPCS-20-1	MPCS-30-1
Price:			

AEMC Current Probe Selection Chart

- Current Ranges 50 μ A to 30,000A RMS
- Measures AC, DC, and AC/DC
- Used with DMMs, Oscilloscopes, Data Loggers, Hand-held Scopes, and Power Meters
- Voltage or Current Output
- Output Connections: Jacks, Leads, or BNC



B

Five Questions for Selecting the Proper Current Measurement Probe

- Do you want to measure AC, DC, or both?
- What current rating is needed?
- What is the conductor size?
- Is the required output mV or mA?
- Leads/BNC (scope) Jack (Accepts 4mm lead)
Lead (Integral banana plug)

General Purpose Probes





	Order #	Ratio	Measurement Range		Output Signal		Max. Conductor Size		Output Connection	Price	
			AC	DC	Current	Voltage	θ Cable	Bus Bar			
	MP4485E	—	1 mA to 10A 1 A to 100A	—	—	1 mV AC/mA 1 mV AC/A			Lead		
	MP23251E-2	1000:1	2A to 150A		1 mA AC/A		0.47" (12 mm)	N/A	Lead		
	MP23251E-7	—	1 mA to 10A			100 mV AC/A			Lead		
	MP4484E	1000:1	50 mA to 150A		1 mA AC/A				Jack		
	MP23712E-2	1000:1	0.5A to 240A		1 mA AC/A				Jack		
	MP23712E-4	1000:1	0.5A to 240A		1 mA AC/A				Lead		
	MP23712E-6	1000:1	0.5A to 240A		1 mA AC/A*				Jack		
	MP23712E-8	1000:1	0.5A to 240A		1 mA AC/A*				Lead		
	MP23712E-10	—	0.1A to 240A			1 mV AC/A			Jack		
	MP23712E-12	—	0.1A to 240A			1 mV AC/A			Lead		
	MP23712E-14	—	0.1A to 240A			10 mV AC/A			Jack		
	MP23712E-16	—	0.1A to 240A			10 mV AC/A			Lead		
	MP23712E-18	—	0.1A to 24A	—	—	100 mV AC/A			Jack		
				0.1A to 240A		10mV AC/A					
		MP23712E-20	—	0.1A to 24A	—	—	100 mV AC/A	0.78" (19.8 mm)	N/A	Lead	
				0.1A to 240A			10mV AC/A				
		MP23712E-22	—	0.5A to 240A			100 mV DC/A			Jack	
		MP23712E-24	—	0.5A to 240A			100 mV DC/A			Lead	
	MP23712E-28	—	10 mA to 12A			100 mV/A			Jack		
	MP23712E-30	—	10 mA to 12A			100 mV/A			Lead		
	MP23712E-32	1000:1	0.1A to 240A		1 mA AC/A*				Jack		
	MP23712E-36	1000:1	0.1A to 240A		1 mA AC/A*				Lead		
	MP23712E-37	—	0.1A to 240A			10 mV/A			Jack		
	MP23712E-38	—	0.1A to 240A			10 mV/A			Lead		
	MP23712E-40	—	0.01A to 2.4A 0.1A to 240A			1000 mV/A 10 mV/A			Lead		
	MP23254E-1	—	5 mA to 1.5A 500 mA to 120A	50 mA to 2A		1 mV/mA AC/DC 1 mV/A AC/DC	0.46" (11.8 mm)	N/A	Lead		
	MP23254E-3	—	10 mA to 1.5A 50 mA to 60A	10 mA to 2A 50 mA to 80A		1 mV/mA AC/DC 10 mV/A AC/DC			Lead		
	MP4487E	—	2A to 500A			1 mV DC/A AC			Lead		
	MP4489E	1000:1	4A to 500A		1 mA AC/A		1.18" (30 mm)	2.48 x 0.20" (63 x 5 mm)	Lead		
	MP23257E-5	100:1	1A to 600A		10 mA AC/A				Lead		
	MP23257E-3	1000:1	1A to 600A		1 mA AC/A				Lead		
	MP23257E-9	—	4A to 500A			1 mV AC/A			Lead		

*Diode Protection for Open Secondary (Output)

Electrical Test Instruments

AEMC Current Probe Selection Chart (continued)

General Purpose Probes

	Order #	Ratio	Measurement Range		Output Signal		Max. Conductor Size		Output Connection	Price
			AC	DC	Current	Voltage	Ø Cable	Bus Bar		
	MP3240E	—	1A to 400A	100A to 600A		1 mV/A AC/DC	1.18" (30 mm)		Lead	
	MP23260E-1	—	0.2A to 40A .05A to 400A	0.4A to 60A 0.5A to 600A		10 mV/A AC/DC 1 mV/A AC/DC	Two 0.95" (24 mm)	Two 1.2 x 0.4" (31.5 x 10 mm)	Lead Lead	
	MP23260E-5	—	1A to 1000A	1A to 1500A		1 mV/A AC/DC	One 1.5" (39 mm)	One 1.96 x 0.49" (50 x 12.5 mm)	Lead	
	MP23260E-3	—	0.2A to 100A 0.5A to 1000A	0.4A to 150A 0.5A to 1500A		10 mV/A AC/DC 1 mV AC/DC	Two 0.98" (25 mm)		Lead Lead	
 *Diode Protection for open secondary (Output)	MP23707E-1	1000:1	0.1A to 1000A		1 mA AC/A				Jack	
	MP23707E-3	1000:1	0.1A to 1000A		1 mA AC/A*				Jack	
	MP23707E-5	1000:1	0.1A to 1000A		1 mA AC/A*				Lead	
	MP23707E-7	1000:5	0.1A to 1000A		5 mA AC/A*				Jack	
	MP23707E-9	1000:5	0.1A to 1000A		5 mA AC/A*				Lead	
	MP23707E-11	250:5	1A to 250A		5 mA AC/A*				Lead	
		500:5	1A to 500A		10 mA AC/A*				Jack	
		1000:5	1A to 1000A		20 mA AC/A*					
	MP23707E-13	—	0.1A to 1000A			1 mV AC/A	2.05" (52 mm)	1.96 x 0.19" (50 x 5 mm)	Jack	
	MP23707E-15	—	0.1A to 1000A			1 mV AC/A			Lead	
	MP23707E-19	1000:1	1 mA to 1000A		1 mA AC/A*				Jack	
	MP23707E-21	1000:1	1 mA to 1000A		1 mA AC/A*				Lead	
	MP23707E-23	—	0.1A to 1000A			1 mV AC/A			Jack	
	MP23707E-25	—	0.1A to 1000A			1 mV AC/A			Lead	
MP23707E-27	—	1 mA to 1A 10 mA to 10A 0.1A to 100A 1A to 1000A			1 mV AC/mA 1 mV AC/A 1 mV AC/mA 1 mV AC/10 mA 1 mV AC/100 mA 1 mV AC/A			Lead		
	MP4492E-1	1000:1	1A to 1000A		1 mA AC/A				Lead	
	MP23266E-1	2000:2	1A to 2000A		1 mA AC/A				Lead	
	MP23266E-11	3000:3	1A to 3000A		1 mA AC/A				Jack	
	MP23266E-3	1000:5	1A to 1000A		5 mA AC/A				Lead	
	MP4493E-1	3000:1	1A to 3000A		.33 mA AC/A				Lead	
	MP23266E-7	3000:5	1A to 3000A		1.6 mA AC/A				Lead	
	MP4494E-1	500:1	1A to 500A		2 mA AC/A				Lead	
		1000:1	1A to 1000A		1 mA AC/A				Jack	
		1500:1	1A to 1500A		.66 mA AC/A					
	MP4495E-1	1000:1	1A to 1000A		1 mA AC/A		2.52" (64mm)	1.97 x 5.31" (50 x 135 mm)	Jack	
		2000:1	1A to 2000A		.5 mA AC/A					
		3000:1	1A to 3000A		.33 mA AC/A					
	MP4497E-1	1000:5	1 A to 1000A		5 mA AC/A				Jack	
		2000:5	1A to 2000A		2.5 mA AC/A					
	3000:5	1A to 5000A		1.67 mA AC/A						
MP23266E-9	—	100 mA to 30A 1A to 300A 1A to 2800A			100 mV AC/A 10 mV AC/A 1 mV AC/A			Jack		

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

**See pages B37-B38
for Engineers Notebook on
specifying current clamp-on probes**

B

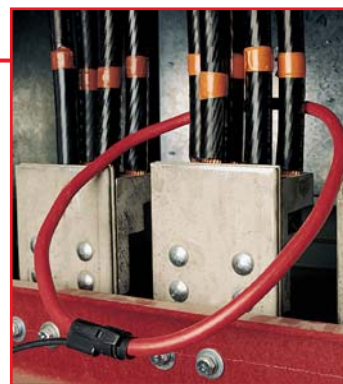
Electrical Test Instruments

AEMC Flexible Current Probes

- Clamps Around Any Shape up to 19 Inches
- Current Ranges from 30 to 10,000A AC
- Compatible with Any Meter or Scope
- Accuracy 1% of Reading
- 0–1 VAC Output Models (300/3000A)
- TRMS Measurements with TRMS Instruments
- Overrange LED for Measurement Circuitry
- Shape Memory™ for Custom Preshaping
- Low Phase Shift for Power Measurements
- No Core Saturation or Damage if Overloaded
- Insensitive to DC, Measures Only AC Component on DC + AC Signals



CE



▲ 2112

Ordering Information

Order #	Mfg #	Description	Price
MP22935E-13-24	2112.34	Flexible Current Probe, 500A/24"	
MP22935E-15-24	2112.39	Flexible Current Probe, 1000A/24"	
MP22935E-15-36	2112.41	Flexible Current Probe, 1000A/36"	
MP22935E-19-24	2112.46	Flexible Current Probe, 3000A/24"	
MP22935E-37-24	2112.88	Flexible Current Probe, 30/300A/24"	
MP22935E-39-24	2112.93	Flexible Current Probe, 50/500A/24"	
MP22935E-41-24	2112.98	Flexible Current Probe, 100/1000A/24"	
MP22935E-41-36	2113.00	Flexible Current Probe, 100/1000A/36"	
MP22935E-41-48	2113.01	Flexible Current Probe, 100/1000A/48"	
MP22935E-45-24	2113.05	Flexible Current Probe, 300/3000A/24"	
MP22935E-45-24-1V	2114.87	Flexible Current Probe, 300/3000A/24" (0–1V Output)	
MP22935E-45-36	2112.00	Flexible Current Probe, 300/3000A/36"	
MP22935E-45-36-1V	2114.88	Flexible Current Probe, 300/3000A/36" (0–1V Output)	
MP22935E-45-48	2112.01	Flexible Current Probe, 300/3000A/48"	
MP22935E-49-24	2113.19	Flexible Current Probe, 600/6000A/24"	
MP22935E-51-36	2112.02	Flexible Current Probe, 1000/10000A/36"	

NOTE: Other ranges and lengths are available, call Transcat.

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

Specifications

▲ Around Buss Bars

Accuracy:	±1% of reading
Frequency Range:	10–20,000 Hz
Working Voltage:	1000V IEC 1010 CAT III, 600V IEC 1010 CAT IV
Safety Standards:	Designed to IEC 1010, UL 3111, CSA, VDE, and GS
Water and Dustproofing:	Sensor IP65 (NEMA 4X), Module IP 40
Battery Life:	150 hours continuous use, green LED for low battery indication
Output and Cable Length:	¾ spaced banana jacks, 6 ft (2m) lead from sensor to module

Working Diameter

Length	Working Diameter
24"	7.7/196 mm
36"	11.5/292 mm
48"	15.3/389 mm
60"	19.1/485 mm

NEW AEMC FlexProbe® Flexible Current Probe

- 24" Flexible Sensor Fits around Conductors up to 7.6" in Diameter
- Dual Measurement Ranges of 300A and 3000 AAC
- 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 Hour Battery Life
- Dual Banana Plug Termination for Direct Input into DMMs (Model 24-3001)
- Electronic Module with 4mm Safety Banana Plugs with ¾" Spacing (Model 24-3002)
- EN 61010, 1000V, Cat. III, Pollution Degree 2
- Flashing LED Low Battery Indicator

Ordering Information

Order #	Mfg #	Description	Price
MP2120.81	24-3001	FlexProbe® (300/3000Aac, 24", 10mV/A/1mV/A, with lead)	
MP2120.82	24-3002	FlexProbe® (300/3000Aac, 24", 10mV/A/1mV/A)	
MP22938E	2118.46	Banana (Female) – BNC (Male) Adaptor (XM-BB)	



Transcat AC/DC mA Clamp-On Probe

Measure 4–20 mA without breaking the loop

- Works with Most DMMs: Measures DC, True RMS, and DC + AC; Measures Currents from 100 μ A
- Outputs 1 mV DC per mA AC or DC

Applications

- Industrial Process Control (4–20 mA)
- Electronic Circuit Design, Testing, and Repair
- Fault and Signal Location in Complex Networks
- Ground and Leakage Current Measurement
- Engine Wiring and Control Systems for Field Service Motor Pool
- Avionics Systems Maintenance and Repair

The Right Instrument

Whether you are designing electronic circuits or measuring 4–20 mA process loops, there is little room for error. Accurate, non-contact low current measurements are nearly impossible without the right instrument. That is exactly what the 22747E provides! Low DC and AC current measurements that can be read directly on your digital multimeter or oscilloscope.

Each Unit Includes:

9V battery and operation manual.



▲ 22747E

Specifications

Current Range:	0 to ± 4.5 A DC; 0 to 3A RMS
Output (V out):	1 mV/mA
Resolution:	DC: 50 μ A typical; AC: 100 μ A typical
Accuracy:	DC: 1% of reading ± 200 μ A; AC: 2% reading ± 200 μ A
Output Noise:	<100 μ V, DC to 5 kHz
Output Impedance:	200 Ω
Influence of Adjacent Conductor:	<50 μ A/A
Probe Inductance:	<1 μ H
Frequency Response:	DC to 2 kHz (@ -3 dB sine)
General	
Zero Adjust:	± 25 mA
Battery:	One 9V alkaline. NEDA 1604 or IEC 6LF22
Dimensions (Probe):	4.4 x 0.6 x 1.0" (111 x 15 x 25 mm)
Dimensions (Module):	4.9 x 2.5 x 1.1" (124 x 64 x 28 mm)
Working Voltage:	IEC1010-2-31, CAT III
Weight:	9 oz (250g)
Cable Length:	5 ft (1.5m)

Ordering Information

Order #	Description	Price
MP22747E	mA Clamp-On Probe	
Transcat Accredited Calibration with Data		CALL
Transcat Accredited Calibration without Data		CALL

Bell Technologies Clamp-On Milliammeter

Accurately measures very low current, functions as stand-alone meter or scope/recorder accessory

The 5915E is a dedicated mA-sensing device, measures DC or true RMS AC current without breaking the circuit or disturbing the insulation. Especially suitable for troubleshooting 4–20 mA control loops, measuring ground currents, isolating faults in electronic circuits, verifying data streams — just about any low-current application.

- Measures to 2000 mA AC or DC in Two Ranges with Accuracy to $\pm 1\%$ of Rdg. and Resolution to 0.1 mA; Frequency Range DC to 100 kHz
- 3½-Digit Display Lets You Use it as a Stand-Alone Meter, or Hook it to a Recorder or Scope Through its Analog Output
- Simple to Operate—Just Clamp Retractable Probe Opening Around Conductor and Read the Current
- Built to IEC1010 Safety Standards. CE Compliant Version Available

Each Unit Includes: Two 9V alkaline batteries, AC adapter (32856), hard carrying case, and instructions.

Ordering Information

Order #	Mfg#	Description	Price
MP5915E	MA-2000	Clamp-On Milliammeter	
Transcat Accredited Calibration with Data			CALL
Transcat Accredited Calibration without Data			CALL

Specifications

AC/DC Measuring Ranges:	0 to 200 mA, low range; 0 to 2000 mA, high range
AC Frequency Ranges:	DC to 200 Hz, AC low range; 200 Hz to 100 kHz, AC high range
Resolution:	0.1 mA, low range; 1 mA, high range
Accuracy:	1% of rdg. ± 3 counts, DC current; 2% of rdg ± 3 counts, AC current to 200 Hz
Analog Output:	1 mV/mA, BNC connector
Power Supply:	Two 9V alkaline batteries, NEDA 1604A
Aperture Opening:	0.21" (5.3 mm)
Dimensions	
Meter:	5.3 x 5.2 x 1.5" HWD (13.5 x 13.2 x 3.8 cm)
Probe:	6.25" (15.9 cm) length, 1.2" (3 cm) dia.



▲ MA-2000 CE