



i1010

Current clamps: AC/DC

26

AC/DC current clamp specifications

	i30	i30s	i50s	80i-110s	i310s	i410	i1010
DC range	30 mA to 30 A	30 mA to 30 A	30 mA to 30 A	0.1 A to 100 A	0.1 A to 450 A	1 A to 400 A	1 A to 1000 A
AC range	30 mA to 20 A rms	30 mA to 20 A rms	30 mA to 30 A rms	0.1 A to 70 A	0.1 A to 300 A	1 A to 400 A	1 A to 600 A
Accuracy	± 1 % of reading, ± 2 mA	± 1 % of reading, ± 2 mA	± 0.5 % at In typical, ± 1.5 % at I max	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 %	30 A range: 1 % + 50 mA 300 A range: 1 % + 300 mA	3.5 % + 0.5 A for dc or ac (45 Hz to 400 Hz)	2 % + 0.5 A for dc or ac (45 Hz to 400 Hz)
Bandwidth (-3 dB)	dc to 20 kHz (-0.5 dB)	dc to 100 kHz (-0.5 dB)	dc to 50 MHz (-3 dB)	100 kHz	dc to 20 kHz	3 kHz	10 kHz
Zero error adjustment	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Maximum conductor diameter	19 mm (0.75 in)	19 mm (0.75 in)	5 mm x 5 mm (0.20 in x 0.20 in)	11.8 mm (0.46 in)	19 mm (0.75 in)	30 mm (1.18 in)	30 mm (1.18 in)
Maximum conductor size	250 MCM	250 MCM	NA	1 AWG	250 MCM	750 MCM or 2-500 MCM	750 MCM or 2-500 MCM
Output levels	100 mV/A	100 mV/A	1 V/A, 100 mV/A	10 mV/A, 100 mV/A	10 mV/A, 100 mV/A	1 mV/A	1 mV/A
Output cable	1.5 meter with shrouded dual banana plug	2 meter with BNC termination	2 meter with BNC termination	1.6 meter with BNC termination	2 meters with BNC termination and a BNC to safety shrouded banana adapter	1.2 meter with shrouded banana plugs	1.2 meter with shrouded banana plugs
Battery life (hours)	30	30	± 12 V @ 550 mA (Power supply)	40	30	60	60
Warranty	One-year	One-year	One-year	One-year	One-year	One-year	One-year
Safety	CAT III 300 V	CAT III 300 V	CAT I 300 V, CAT II 150 V	CAT II 600 V; CAT III 300 V	CAT III 300 V	CAT III 600 V	CAT III 600 V

Left to right: i410, 80i-110s, i30

AC/DC clamp-on current probe compatibility

Model number	80i-110s	i410	i1010	i30	i30s	i310s	i50s
10/11/12/ 12B/16/18	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	5 A to 400 A dc/ 7 A to 400 A ac	5 A to 1000 A dc/ 7 A to 600 A ac	40 mA to 30 A dc/ 60 mA to 20 A ac	40 mA to 30 A dc/ 60 mA to 20 A ac	0.4 A to 450 A dc/ 0.6 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
110/111/112	0.14 A to 100 A dc/ 3 A to 70 A ac*	5 A to 400 A dc/ 300 A to 400 A ac	5 A to 1000 A dc/ 300 A to 600 A ac	40 mA to 30 A dc/ 3 A to 20 A ac	40 mA to 30 A dc/ 3 A to 20 A ac	0.4 A to 450 A dc/ 30 A to 300 A ac	30 mA to 30 A dc and 300 mA to 30 A ac*
114/115/116/117	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1.4 A to 400 A dc/ 6 A to 400 A ac	1.4 A to 1000 A dc/ 6 A to 600 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	30 mA to 30 A dc/ 60 mA to 20 A ac	0.1 A to 450 A dc/ 0.6 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
21/23/70/73/ 75/77 Series III	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 5 A to 400 A ac	1 A to 1000 A dc/ 5 A to 600 A ac	30 mA to 30 A dc/ 40 mA to 20 A ac	30 mA to 30 A dc/ 40 mA to 20 A ac	0.1 A to 450 A dc/ 0.4 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
26/79 Series III	0.1 A to 100 A dc/ 0.2 A to 70 A ac*	1 A to 400 A dc/ 20 A to 400 A ac	1 A to 1000 A dc/ 20 A to 600 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	0.1 A to 450 A dc/ 2 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
27	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
77-IV	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 5 A to 400 A ac	1 A to 1000 A dc/ 5 A to 600 A ac	30 mA to 30 A dc/ 40 mA to 20 A ac	30 mA to 30 A dc/ 40 mA to 20 A ac	0.1 A to 450 A dc/ 0.4 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
175/177/179	0.11 A to 100 A dc/ 0.3 A to 70 A ac*	1.6 A to 400 A dc/ 30 A to 400 A ac	1.6 A to 1000 A dc/ 30 A to 600 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	0.1 A to 450 A dc/ 3 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
1577/1587	0.1 A to 100 A dc/ 0.3 A to 70 A ac*	1.2 A to 400 A dc/ 30 A to 400 A ac	1.2 A to 1000 A dc/ 30 A to 600 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	0.1 A to 450 A dc/ 3 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
83-III/83-V/88-V	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
85-III/87-III/87-V	0.1 A to 100 A dc/ 0.2 A to 70 A ac*	1 A to 400 A dc/ 20 A to 400 A ac	1 A to 1000 A dc/ 20 A to 600 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	0.1 A to 450 A dc/ 2 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
87-IV/89-IV/ 187/189	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 2.5 A to 400 A ac	1 A to 1000 A dc/ 2.5 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.25 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
287/289	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
8060A/8062A	0.1 A to 100 A dc/ 0.2 A to 70 A ac*	1 A to 400 A dc/ 20 A to 400 A ac	1 A to 1000 A dc/ 20 A to 600 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	0.1 A to 450 A dc/ 2 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
860 Series	0.1 A to 100 A dc/ 0.3 A to 70 A ac*	1 A to 400 A dc/ 30 A to 400 A ac	1 A to 1000 A dc/ 30 A to 600 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	30 mA to 30 A dc/ 300 mA to 20 A ac	0.1 A to 450 A dc/ 3 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
39/41B	Usable but will read 10 or 100 times higher	1 A to 400 A ac** Not spec'd for dc	1 A to 600 A ac** Not spec'd for dc	Usable but will read 100 times higher**	Usable but will read 100 times higher	Not spec'd for dc 0.6 A to 300 A ac	Usable but will read 100 or 1000 times higher, ac only
9X Series	0.1 A to 100 A dc/ 0.1 A to 70 A ac	1 A to 400 A dc/ 5 A to 400 A ac**	1 A to 1000 A dc/ 5 A to 600 A ac**	30 mA to 30 A dc/ 50 mA to 20 A ac**	30 mA to 30 A dc/ 50 mA to 20 A ac	0.1 A to 450 A dc/ 0.5 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac
120 Series	0.1 A to 100 A dc/ 0.25 A to 70 A ac	1 A to 400 A dc/ 25 A to 400 A ac**	1 A to 1000 A dc/ 25 A to 600 A ac**	30 mA to 30 A dc/ 250 mA to 20 A ac**	30 mA to 30 A dc/ 250 mA to 20 A ac	0.1 A to 450 A dc/ 2.5 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac
190 Series	0.1 A to 100 A dc/ 0.1 A to 70 A ac	1 A to 400 A dc/ 5 A to 400 A ac**	1 A to 1000 A dc/ 5 A to 600 A ac**	30 mA to 30 A dc/ 50 mA to 20 A ac**	30 mA to 30 A dc/ 50 mA to 20 A ac	0.1 A to 450 A dc/ 0.5 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac
45 DMM	0.1 A to 100 A dc/ 0.15 A to 70 A ac*	1 A to 400 A dc/ 15 A to 400 A ac	1 A to 1000 A dc/ 15 A to 600 A ac	30 mA to 30 A dc/ 150 mA to 20 A ac	30 mA to 30 A dc/ 150 mA to 20 A ac	0.1 A to 450 A dc/ 1.5 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac *
8808A	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 2 A to 400 A ac	1 A to 1000 A dc/ 2 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.2 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
8845A/8846A	0.1 A to 100 A dc/ 0.1 A to 70 A ac*	1 A to 400 A dc/ 1 A to 400 A ac	1 A to 1000 A dc/ 1 A to 600 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	30 mA to 30 A dc/ 30 mA to 20 A ac	0.1 A to 450 A dc/ 0.1 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*
705/707	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	40 mA to 30 A dc, no ac	40 mA to 30 A dc, no ac	0.4 A to 450 A dc, no ac	30 mA to 30 A dc, no ac*
715	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	40 mA to 30 A dc, no ac	40 mA to 30 A dc, no ac	0.1 A to 450 A dc, no ac	30 mA to 30 A dc, no ac*
74X Series	0.1 A to 100 A dc/ 1.1 A to 70 A ac*	1 A to 400 A dc/ 110 A to 400 A ac	1 A to 1000 A dc/ 110 A to 600 A ac	30 mA to 30 A dc/ 1.1 A to 20 A ac	30 mA to 30 A dc/ 1.1 A to 20 A ac	0.1 A to 450 A dc/ 11 A to 300 A ac	30 mA to 30 A dc and 110 mA to 30 A ac*
787/789	0.1 A to 100 A dc/ 0.2 A to 70 A ac*	1 A to 400 A dc/ 20 A to 400 A ac	1 A to 1000 A dc/ 20 A to 600 A ac	30 mA to 30 A dc/ 200 mA to 20 A ac	3 mA to 30 A dc/ 200 mA to 20 A ac	0.1 A to 450 A dc/ 2 A to 300 A ac	30 mA to 30 A dc and 30 mA to 30 A ac*

*Requires PM9081/001 Adapters. **Requires PM9082/001 Adapter

AC/DC clamps

AC/DC current clamps are available for a range of applications and professions.

i410 AC/DC Current Clamp

This battery-powered Hall-effect probe measures 1 A to 400 A with large-claw clamp that gives access to difficult-to-reach areas. It is compatible with most multimeters and other device that measures ac and dc current and accepts shrouded 4 mm (0.16 in) banana plugs.

- On/Off LED indicator
- AC and dc current range: 1 A to 400 A
- Frequency range: 3 kHz
- Safety rating: CAT III 600 V

i410-KIT AC/DC Current Clamp and Carry Case Kit

This special-value kit for electrical professionals adds ac and dc current measurement capabilities to a digital multimeter. A roomy carrying case holds a meter and the current clamp plus test leads, probes and manuals. Kit includes:

- i410 AC/DC Current Clamp
- C116 Soft Carrying Case

i1010 AC/DC Current Clamp

This clamp measures both ac and dc currents with a large-jaw, battery-powered Hall-effect probe that gives access to difficult-to-reach areas. It is compatible with most Fluke multimeters and any other devices that measure ac and dc current and accept shrouded 4 mm (0.16 in) banana plugs.

- On/Off LED indicator
- AC current range: 1 A to 600 A ac
- DC current range: 0.5 A to 1000 A dc
- Frequency range: dc to 10 kHz
- Safety rating: CAT III 600 V rms

i1010-Kit AC/DC Current Clamp and Carry Case Kit

This special-value kit for electrical professional adds ac and dc current measurement capabilities to a digital multimeter. A roomy carrying case holds a meter and the current clamp plus test leads, probes and manuals. Kit includes:

- i1010 AC/DC Current Clamp
- C116 Soft Carrying Case

80i-110s AC/DC Current Clamp

This clamp is compatible with ScopeMeter, power harmonics analyzer, multimeter, or other voltage measurement device that has BNC input connectors.

- AC current range: 0.1 A to 70 A
- DC current range: 0.1 A to 100 A
- Frequency range: 1 Hz to 100 kHz
- Optional PM9081/001 Dual Banana Plug (male) to Female BNC Adapter is available for digital multimeters
- Safety rating: CAT II 600 V

i30 AC/DC Current Clamp

Based on Hall-effect technology, this battery-powered clamp measures both ac and dc current. It may be used in conjunction with multimeters, recorders and other suitable recording instruments for accurate non-intrusive current measurement.

- AC current range: 30 mA to 20 A rms
- DC current range: 30 mA to 30 A
- Frequency range: dc to 20 kHz (-0.5 dB)
- Safety rating: CAT III 300 V

i30s AC/DC Current Clamp

Based on Hall effect technology, this battery-powered clamp measures both ac and dc current. It may be used with ScopeMeter and other suitable recording instruments for accurate non-intrusive current measurement.

- AC current range: 30 mA to 20 A rms
- DC current range: 30 mA to 30 A
- Frequency range: dc to 100 kHz (-0.5 dB)
- Safety rating: CAT III 300 V



i410



i1010



i410-KIT



i1010-Kit

i310s AC/DC Current Clamp

Based on Hall-effect technology, this battery-powered clamp measures both ac and dc current. It may be used with ScopeMeter and other suitable recording instruments for accurate non-intrusive current measurement. This clamp is especially useful for current measurements on inverters, switching power supplies, industrial controllers, automotive diagnostics, and other applications requiring current measurements and/or waveform analysis.

- AC current range: 0.1 A to 300 A
- DC current range: 0.1 A to 450 A
- Frequency range: dc to 20 kHz
- Safety rating: CAT III 300 V



i30



i30s



80i-110s



i310s

i50s AC/DC Scope Current Clamp

Designed for use with all types of oscilloscopes, this clamp is designed for accurate, non-intrusive measurement of ac, dc, and complex waveform currents. Using Hall-effect technology, and with exceptional immunity to high common mode voltages, it is ideal for use by electronic design engineers in development and diagnosis of switch mode power supplies, UPS systems, and motor control systems.

- AC and dc current range: nominal 30 A dc or A rmmms, up to 50 A rms for 10s
- Frequency range: dc to 50 MHz (-3 dB)
- Requires 12 V power supply



i50s

PSi50s Bench Power Supply Module

Bench power supply with dual output to supply two Fluke i50s AC/DC Scope Current Clamps.

- Output voltage: ± 12 V dc; ± 0.5 V dc at 550 mA



PSi50s

Did you know?

Does your current probe read zero current when you clamp it around a power cord? That's because the power cord has both the hot and neutral current carrying wire in it. If both wires are in the jaws of the clamp meter, the fields cancel each other out, and the current clamp will read nothing. You need to put just one current-carrying conductor in the jaw of the current clamp. If you don't have access to the separate wires within the cord, use a line splitter tool to avoid breaking the circuit.