

AC and DC Current Measurements

50mA to 120A AC/150A DC

Unique Design for Probing in Crowded Wiring

Use With DI-710, DI-720, DI-730, or DI-722

The Model 100987 is designed for AC/DC current measurements using Hall effect technology. It measures from a few mA to over 100A.

The “screw driver” shape, with its narrow elongated prod, was chosen to permit probing in crowded cable bundles, or measuring in tight areas such as on circuit boards, motor controllers and automotive circuitry.

The electronics and batteries are self-contained in the handles. It is an excellent companion to a wide range of DATAQ Instruments’ data acquisition products. Low phase shift also insures reliable power and power quality measurements.

The Model 100987 offers flexibility with two mV ranges for both low-and high-level current measurements.



Features

- AC and DC current measurements.
- 50mA to 120A AC/150A DC.
- Unique design for probing in crowded wiring in industrial and automotive environments.
- Hall effect sensor technology.
- Use with many DATAQ Instruments’ products like the DI-710, the DI-720, the DI-730, or the DI-722.

Typical Measurement Applications

- AC/DC motor field currents.
- AC/DC motor armature currents.
- Battery current drain.
- In-vehicle currents of all kinds.
- Power supply currents.
- Inverter currents.
- Three-phase load balancing.
- And many more.

Specifications

Electrical

Nominal Range:	2A & 100A
Measurement Range:	50mA to 80A AC/DC
Transformation Ratio:	Voltage Output
Output Signal:	
	2A: 1mV/mA
	100A: 10mV/A
Accuracy (1mV/mA Range):	
10mA to 2A AC/DC:	2% of Reading ± 5mA
100mA to 1.5A/50mA AC:	2% of Reading ± 5mA
50 to 80A DC/50 to 60A AC:	±12% of Reading
Phase Shift (1mV/mA Range) DC:	to 65Hz 1°
Accuracy (10mV/A Range):	
50mA to 50A DC:	4% of Reading ± 20mA
50A to 40A AC:	±4% of Reading ± 20mA
50 to 80A DC:	±12% of Reading
40 to 60A AC:	±12% of Reading
Overload:	120A continuous
Frequency Range:	DC to 8kHz
Load Impedance:	100kΩ (1mV/mA); 100kΩ (1V/A)
Working/Common Mode Voltage:	600Vrms

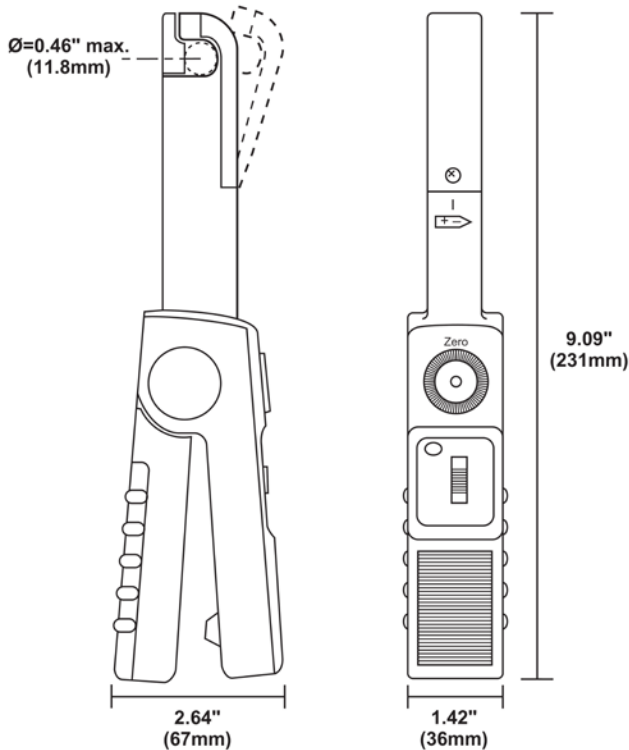
Mechanical

Operating Temperature:	32° to 122°F (0° to 50°C)
Storage Temperature:	-22° to 176°F (-30° to 80°C)
Operating Relative Humidity:	10° to 30°C: 85 ± 5% RH (without condensation) 40° to 50°C: 45 ± 5% RH (without condensation)
Maximum Conductor Size:	0.46" (11.8mm)
Dimensions:	9.09 x 1.42 x 2.64" (231 x 36 x 67mm)
Weight:	11.6 oz (330g) with battery
Polycarbonate Material:	Handle: Lexan® 920A, UL94 V2
Output Termination:	5 ft lead with safety banana plugs

Safety

Electrical:	EN 61010-2-32
CE Mark:	Yes

Note: Reference conditions:
23°C ± 5°K, 20 to 75% RH, 48 to 65Hz, external magnetic field <40A/m, no external current carrying conductor, test sample centered, load impedance 1MΩ.



Leads:

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

Data Acquisition Product Links

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[Data Acquisition](#)
[Data Logger](#)
[Chart Recorder](#)

Ordering Guide

Description	Order Number
AC/DC Current Probe (includes 9V battery, user manual, and integral 5 ft. signal leads)	100987



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