

90i-610s

AC/DC Current Probe

Users Manual

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ELECTRICAL SPECIFICATIONS

All Electrical Specifications are valid at a temperature of 23°C ±5°C (73°F ±9°F)

Current Ranges:

0 to 100A dc or ac peak

0 to 600A dc or ac peak

Output Signals:

100A range: 10 mV/A

600A range: 1 mV/A



Working Voltage (Clamps Jaws to Ground):

600V ac rms on Installation Category II per IEC 1010-1 circuits.

300V ac rms on Installation Category III per IEC 1010-1 circuits.



Floating Voltage (Output Cable and Connector to Ground):

30V ac rms (42V pk max)

Accuracy:

Input Current (DC or AC peak)	Error (after zero check)	
	10 mV/A	1 mV/A
0 to 100A	±2% of reading ±1A	±3.5% of reading ±3A
100 to 400A	-	±2.0% of reading ±2A
400 to 600A	-	±3.0% of reading ±2A

Maximum Nondestructive Current:

800A peak

Input Load Impedance (of host instrument):

>1 MΩ in parallel with up to 100 pF.

Useful Bandwidth:

DC and 40 to 400 Hz.

Distortion Factor:

Position error conductor in the window: ±1.0% of reading from one extreme of the enclosure to the other.

Temperature Coefficient:

0.2 * accuracy/ °C max. for temperature T<18 °C and T>28 °C (T<64 °F and T>82 °F)

GENERAL SPECIFICATIONS

Dimensions:

73 x 215 x 27 mm (2.9 x 8.4 x 1.1 inches)

Weight:

400g (14 oz.), battery included

Output Cable:

1.6 meters (63 inches), heat resistant silicone insulated

Maximum Conductor Size:

34 mm (1.34 inch) diameter or 20*40 mm (.78 * 1.57 inches)

Maximum Jaw Opening:

38 mm (1.5 inch) diameter

Temperature:

operating: 0 to 50°C (32 to 122°F), max humidity 75%

nonoperating: -20 to 60°C (-4 to 140°F), max. humidity 80%

Altitude:

operating: 0 to 2000 meters (0 to 6500 feet)

nonoperating: 0 to 12000 meters (0 to 40000 feet)

SAFETY SPECIFICATIONS



Meets the requirements of IEC 1010:

Installation Category II, Working Voltage 600V, Pollution Degree 2,
Installation Category III, Working Voltage 300V, Pollution Degree 2.

Installation (Overvoltage) Category II refers to local level appliances, and portable equipment. Installation (Overvoltage) Category III refers to distribution level and fixed installation circuits inside a building electrical service entrance.



Meets the requirements of UL1244, Protection Class II Double Insulation .

BATTERY INFORMATION

Battery:

9 volt, IEC 6LR61

Service Life:

60 hours typical, when Alkaline IEC 6LR61 is used

40 hours minimum, when Alkaline IEC 6LR61 is used

Battery Indicator:

Red LED burns when battery voltage is low

Power Indicator:

Green LED flashes when power is on

Auto Power Off:

after 30 minutes

To Demagnetize Probe:

Open and close the probe jaws several times

INSTRUMENT COMPATIBILITY

The 90i-610s is compatible with any Fluke Automotive ScopeMeter test tool, or other automotive voltage measurement device that has the following features:

- BNC or banana input connector. (Use the BNC-to-Banana Adapter with standard inputs on an Automotive Meter.)
- Input impedance of greater than or equal to 1 M Ω in parallel with a maximum of 100 pF.