

# Fluke i310s

## Current Probe



The i310s current probe is based on Hall Effect technology for use in measurement of both DC and AC current. The i310s may be used in conjunction with oscilloscopes and other suitable recording instruments for accurate non-intrusive current measurement.

- Current Ranges: 30 A and 300 A  $AC_{RMS}$  or  $\pm 45$  A and 450 A DC
- Measuring Ranges:  $\pm 45$  A and 450 A
- Output Sensitivity: 10 mV/A (40 A) to 1 mV/A (400 A)
- Resolution:  $\pm 50$  mA (40 A) to  $\pm 100$  mA (400 A)
- Load Impedance:  $> 10$  k Ohms and  $\leq 100$  pF
- Frequency Range (small signal): DC to 20 kHz (-3 dB)
- Phase Shift below 1 kHz,  $< 2$  degrees
- Temperature Coefficient:  $\pm 0.1\%$  of reading /  $\pm C$
- Power Supply: 9 V Alkaline

### Electrical Characteristics

Current Ranges	30 A and 300 A $AC_{RMS}$ or $\pm 45$ A and 450 A DC
$AC_{RMS}$ or DC	$\pm 45$ A and 450 A
Inrush Current	600A $AC_{RMS}$ MAX
Output Sensitivity	10 mV/A (30 A) 1 mV/A (300 A)
Accuracy (at +25°C)	(30A range) $\pm 1\%$ of reading $\pm 50$ mA (300A range) $\pm 1\%$ of reading $\pm 300$ mA
Bandwidth to meet accuracy specification	1 kHz
Phase Shift below 1 kHz	$< 2$ degrees
Resolution	$\pm 50$ mA (30 A) $\pm 100$ mA (300 A)
Load Impedance	$> 10$ k Ohms and $\leq 100$ pF
Conductor Position Sensitivity	$\pm 1.5\%$ relative to centre reading
Frequency Range	(small signal) DC to 20 kHz (-3 dB)
Temperature Coefficient	$\pm 0.1\%$ of reading / °C
Power Supply	9 V Alkaline, MN1604/PP3
Battery Life	30 Hours, low battery indicator
Working Voltage (see Safety Standards section)	300 V $AC_{RMS}$ or DC

### General Characteristics

Maximum Conductor Size	19 mm diameter
Output Connection	Safety BNC connector Supplied with safety 4mm adaptor
Output Zero	Manual adjust via thumbwheel
Cable Length	2 metres
Operating Temperature Range	-10 to +50 °C
Storage Temperature Range (with battery removed)	-20 to +85 °C
Operating Humidity	15% to 85% (non-condensing)
Weight	250 g

### Safety Standards

BS EN 61010-1	2001
BS EN 61010-2-032	2002
BS EN 61010-031	2002
300 V $_{RMS}$ , Category III, Pollution Degree 2	
Note	Use of the probe on un-insulated conductors is limited to 300 V $AC_{RMS}$ or DC and frequencies below 1 kHz.
EMC Standards	BS EN 61236 1998 +A1, A2, & A3

