

## TECHNICAL DATA

# Fluke i3000s Flex AC Current Clamp



The i3000s Flex is an ac current clamp utilizing the Rogowski principle. It can be used to measure currents up to 3000 A when used in conjunction with oscilloscopes, recorders or data loggers. The flexible and lightweight measuring head allows quick and easy installation in hard to reach areas.

### SAFETY RATING CAT III 600 V

### POWERFUL ADDITION TO YOUR PORTABLE OSCILLOSCOPE.

- Measure up to 3000 A ac rms
- Flexible probe works in cramped, hard-to-reach spaces
- Switch-selectable 30, 300 and 3000 A ranges

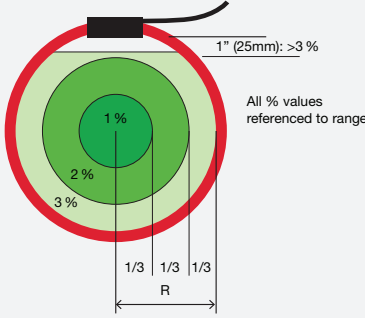


i3000s Flex connected to a Fluke 434 Power Quality Analyzer (The i430 FLEX-4PK can be used with the Fluke 434 and 435, without the need for the control box).



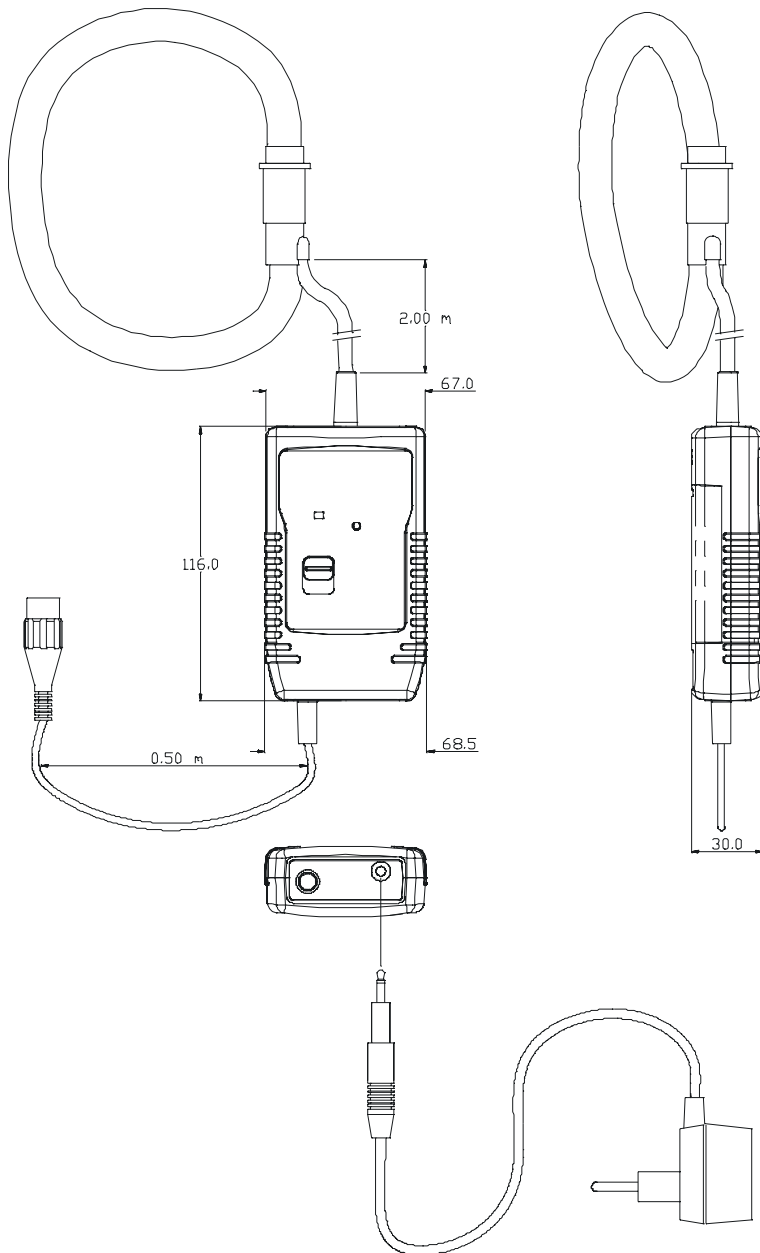
i3000s Flex connected to a Fluke 199C ScopeMeter.

# Specifications

Key features	i3000s
<b>Electrical specifications</b>	
Current ranges	30 A/300 A/3000 A ac rms
Output sensitivity (ac-coupled)	100 mV/10 mV/1 mV per A
Load impedance	100 kOhm minimum
Accuracy (at +25 °C)	± 1 % of range (45 Hz to 65 Hz)
Linearity (10 % to 100 % of range)	± 0.2 % of reading
Noise	8 mV ac rms (60 A), 2 mV ac rms (300 A/3000 A)
Frequency range	10 Hz to 50 kHz (- 3 dB)
Phase error	< ± 1° (45 Hz to 65 Hz), ± 10° (at 20 kHz)
Position sensitivity (with cable > 25 mm from the coupling)	 <p>Position sensitivity: From 1 % up to 3 % of range with cable, depending on distance from the center (see figure left). Measurements closer than 25 mm from the coupling are typically greater than 3 % of range.</p> <p>External wire influence: 1 % (-40 db) of external current &gt;200 mm from head.</p> <p>All % values referenced to range</p>
External field (with cable > 200 mm from the head)	± 1 % of range
Power supply	2 x AA MN 1500 LR6 alkaline, 400 hours, low battery indicator
Temperature coefficient	± 0.08 % of reading per °C
Working voltage (see safety standards section)	600 V ac rms or dc
<b>General specifications</b>	
Head cable length (double insulated)	610 mm (24 in) i3000s Flex-24 915 mm (36 in) i3000s Flex-36
Head cable diameter	14.3 mm (0.563 in)
Head bend radius	38.1 mm (1.5 in)
Cable length (head to electronics)	2 meters
Output connection	0.5 m cable terminated with safety BNC connector. Supplied with BNC to Banana safety plug adapter.
Operating temperature range	
Head	-20 °C to +90 °C (-4 °F to 190 °F)
Electronics	-20 °C to +85 °C (-4 °F to 185 °F)
Storage temperature range	
Head	-40 °C to +105 °C (-40 °F to 221 °F)
Electronics	-20 °C to +85 °C (-4 °F to 185 °F)
Operating humidity	15 % to 85 % (non-condensing)
Weight	
Head	180 g (0.397 lb)
Electronics	190 g (0.419 lb)
Safety standards	BS EN 61010-1: 2001 BS EN 61010-2-032: 2002 BS EN 61010-031: 2002 600 V rms, Category III, Pollution Degree 2*
EMC standards	BS EN 61326: 1998 +A1, A2, and A3

\* Use of the probe on uninsulated conductors is limited to 600 V ac rms or dc and frequencies below 1 kHz.

**Dimensions (in mm)**



**Ordering information**

- i3000s FLEX-24 AC Current Probe, 24-inch circumference
- i3000s FLEX-36 AC Current Probe, 36-inch circumference
- i3000 FLEX-4PK AC Current Probe, 4-pack of i3000s FLEX-24

**Optional accessories**

- FLEX PSU-EU Power supply unit for Europe
- FLEX PSU-UK Power supply unit for the United Kingdom

Note: Power supply units only available for Europe and the United Kingdom.

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