

Fluke i3000s Flex AC Current Clamp

Technical Data



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.

Electrical specifications

Current ranges: 30 A, 300 A, 3000 A ac rms Output sensitivity (ac-coupled): 100 mV,

10 mV, 1 mV per A

Load impedance: $100 \text{ k}\Omega$ minimum Accuracy (at +25 °C): \pm 1 % of range

(45 Hz to 65 Hz)

Linearity (10 % to 100 % of range):

 \pm 0.2 % of reading

Noise: 8 mV ac rms (30 A), 2 mV ac rms

(300 A, 3000 A)

Frequency range: 10 Hz to 50 kHz (-3 dB) Phase error: $< \pm 1^{\circ}$ (45 Hz to 65 Hz), $\pm 10^{\circ}$

(at 20 kHz)

Position sensitivity (with cable > 25 mm from the coupling): \pm 2 % of range

External field (with cable > 200 mm from

the head): $\pm 1 \%$ of range

Power supply: 2 x AA MN 1500 LR6 alkaline,

400 hours, low battery indicator

Temperature coefficient: \pm 0.08 % of reading per °C Working voltage (see Safety Standards section):

600 V ac rms or dc

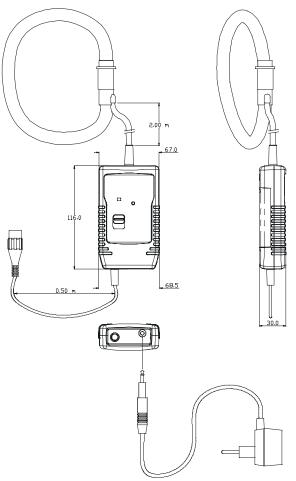
General specifications

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 **Head bend radius:** 38.1 mm

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:

-20 °C to +90 °C (-4 °F to 190 °F) (head), -20 °C to +85 °C (-4 °F to 185 °F) (electronics)

Storage temperature range:

-40 °C to +105 °C (-40 °F to 221 °F) (head), -20 °C to +85 °C (-4 °F to 185 °F) (electronics)

Operating humidity: 15% to 85%

(non-condensing)

Weight: 180 g (0.396 lb) (head), 190 g (0.419 lb) (electronics)

Safety standards

BS EN 61010-1: 2001 BS EN 61010-2-032: 2002 BS EN 61010-031: 2002

600 Vrms, Category III, Pollution Degree 2

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

EMC Standards

EN 61326: 1998 +A1, A2, & A3

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.



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.

Fluke. Keeping your world up and running.™

Fluke Corporation

PO Box 9090, Everett, WA USA 98206

Fluke Europe B.V.

PO Box 1186, 5602 BD

Eindhoven, The Netherlands

For more information call:

In the U.S.A. (800) 443-5853 or Fax (425) 446-5116

In Europe/M-East/Africa +31 (0) 40 2675 200 or

Fax +31 (0) 40 2675 222 In Canada (800) 36-FLUKE or

Fax (905) 890-6866

From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116

Web access: http://www.fluke.com

©2006 Fluke Corporation. All rights reserved. Specifications subject to change without notice. Printed in U.S.A. 12/2006 2747103 D-EN-N Rev C