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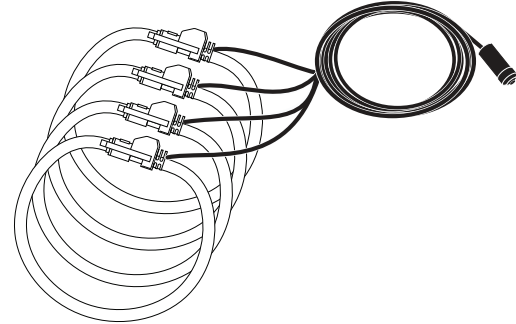
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11/99

# FLUKE®

## 3000A/6000A Flex 4 AC Current Probes

### Instruction Sheet



### Introduction

The 3000A/6000A current probe sets (the Probe) have been designed for applications with Fluke 1735 and Fluke 1740 series products for accurate non-intrusive measurement of ac currents. Using the latest technologies (integrated memory for calibration data) provides current ranges from 0.8 A up to 6000 A in a frequency range of 40 Hz to 5 kHz.

### Contacting Fluke

To contact Fluke, call one of the following telephone numbers:

USA: 1-888-44-FLUKE (1-888-443-5853)

Canada: 1-800-36-FLUKE (1-800-363-5853)

Europe: +31 402-675-200

Japan: +81-3-3434-0181

Singapore: +65-738-5655

Anywhere in the world: +1-425-446-5500

USA Service: 1-888-99-FLUKE (1-888-993-5853)

Or, visit Fluke's Web site at [www.fluke.com](http://www.fluke.com).

To register your product, visit <http://register.fluke.com>

### Safety Instructions

Please read this section carefully. It will familiarize you with the most important safety instructions for handling the Probe. In this instruction sheet, a Warning identifies conditions and actions that pose hazard(s) to the user. A Caution identifies conditions and actions that may damage the calibrator or the test instruments.

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## Warning

The Probe may only be used and handled by qualified personnel. To avoid electric shock or personal injury, follow these precautions:

- Do not apply to or remove from hazardous live conductors without taking additional protective measures.
- High voltages and currents may be present in adjacent circuits under test.
- Do not use the Probe if damaged. Always connect to display device before it is installed around the conductor.
- Use the Probe only as specified in the operating instructions; otherwise the safety features may not protect you.
- Adhere to local and national safety codes. Individual protective equipment must be used to prevent the shock and arc blast injury where hazardous live conductors are exposed.
- Before each use, inspect the Probe. Look for cracks or missing portions of the housing or output cable insulation. Also look for loose or weakened components.
- Use caution when working with voltages above 60 V dc, 30 V ac rms or 42 V ac peak. Such voltages pose a shock hazard.
- Equipment is considered to be used in 600 V CAT IV and 1000 V CAT III environment. CAT IV equipment is designed to be used at the source of distribution system up to the energy-meter within the installation. CAT III equipment is designed to be used in distribution panels, feeders and short branch circuits, and the lighting system in large buildings.
- Do not use Probe in damp or wet environments or in locations that hazardous gases exist.








## Operating Instructions

1. Connect the Probe to the product current input jack.
2. Wear protective gloves or de-energize the circuit and place the Probe around the conductor under test. Re-energize the circuit.
3. Observe and take measurements as required. Positive output indicates that the current flow is in the direction shown by the arrow on the Probe.
4. Wear protective gloves or de-energize the circuit before removal of the Probe.

## Cleaning

Clean the Probe periodically by wiping it with a damp cloth and detergent. Do not use abrasive cleaners or solvents. Do not immerse the Probe in liquids.

## Symbols

	Do not dispose of this product as unsorted municipal waste. Go to Fluke's website for recycling information.
	Do not apply around or remove from HAZARDOUS LIVE conductors, without using protective gloves.
	Product is protected by double insulation.
	Risk of Danger. Important information. See Instruction Sheet.
	Hazardous voltage.
	Conforms to relevant Canadian Standards Association directives.
	Conforms to relevant European Union directives.

## Electrical Characteristics

Input ranges I<sub>1</sub> L1, L2, L3, N: 30 / 300 / 3000 / 6000 A AC

Measuring range: 0.8 A to 6000 A AC

Intrinsic error: <2 % of I<sub>1</sub>

Position influence: max. ±2 % of m.v. for distance conductor to measuring head >30 mm (1.18 in)

Stray field influence: <±2 A for I<sub>ext</sub>= 500 A AC and distance to measuring head >200 mm (7.87 in)

Temperature coefficient: <0.05 % / K

Current transformer: ratio : ≤999 kA / ≤I<sub>1</sub>

Ratio selection: by job programming for 174x series; by setup menu for 1735

Connection: 3-phase, 3-phase + N; 2-phase L1 and L3 (2W-meter-method); 7 pole connector

## Specifications

### General Specifications

Cable length: 4 m (0.15 in)

Length of measuring head: 122 cm (48 in)

Operating temperature range: -10 °C to +70 °C (14 °F to 158 °F)

Storage temperature range: -20 °C to +90 °C (-4 °F to 198 °F)

Operating humidity (non-condensing): 10 % to 80 %

Weight: 1.5 kg (3.3 lb)

### Reference Conditions

Environment temperature range: +18 °C to +26 °C (64.4 °F to 78.8 °F)

Humidity: 20 to 75 % rh

Altitude: max. 2000 m (1.24 mi)

Current: nominal value I<sub>n</sub>, sinusoidal waveform, 48 Hz to 65 Hz, distortion factor: <1 %, no DC component, stray field <40 A/m, conductor centered within the Probe.

### Safety Standards

IEC/EN61010-1:2001

IEC/EN61010-2-032:2002

IEC/EN61010-031:2002

### Safety Specifications

Category Rating: 1000 V CAT III, 600 V CAT IV, pollution degree 2. The application of the Probe on **uninsulated conductors** is limited to 1000 V ac rms or dc to ground and frequencies below 1 kHz.

EMC Standards: IEC/EN 61326-1:2006