

# FlexProbe® Flexible Current Probe Models 24-3001 & 24-3002



Model 24-3001

The FlexProbe® Models 24-3001 and 24-3002 are low cost AC current measurement probes designed to plug into digital multimeters, oscilloscopes, and power recorders. The Model 24-3001 is composed of a

flexible sensor and an electronic module with a 14" double insulated cable, while the Model 24-3002 has a flexible sensor and an electronic module with 4mm safety banana plugs with 3/4" spacing. The flexible sensors

are designed to fit around large or small conductors and are capable of getting into tight or difficult places. They are ideal for measuring AC current in a group of conductors.

## Features

- 24" flexible sensor fits around conductors up to 7.6" in diameter
- Dual measurement ranges of 300A and 3000AAC
- Read amperage directly on DMM display
- mV output directly proportional to the AC current measured
- Output is 10mV/A on 300A range and 1mV/A on 3000A range
- Accuracy of 1% of Reading  $\pm$  500mA
- 4% influence of conductor position in jaw
- Up to 150 hour battery life
- Dual banana plug termination for direct input into DMMs (Model 24-3001)
- Electronic module with 4mm safety banana plugs with 3/4" spacing (Model 24-3002)
- EN 61010, 1000V Cat. III, Pollution Degree: 2
- Flashing LED low battery indicator

## Applications

- Motor testing and troubleshooting
- Load monitoring
- HVAC troubleshooting
- Power analysis
- Transformer testing
- Substation testing



*FlexProbe® conveniently plugs into the standard DMM voltage input for direct read-out of the measured current.*

# Specifications

MODELS	24-3001	24-3002
<b>ELECTRICAL</b>		
Current Range	300/3000A <sub>AC</sub>	
Output Signal	mV output (4000mV peak max)	
Three Position Slide Switch	5A to 300Arms 50A to 3000Arms	
10mV/A		
1mV/A		
ON/OFF		
AC Current Accuracy	1% of Reading ± 500mA	
Crest Factor	4.5	
Phase Shift*	<0.7° at 50 or 60Hz	
Frequency Range	40 to 5kHz	
Working Voltage	1000V <sub>rms</sub> max (Cat. III)	
Common Mode Voltage	600V <sub>rms</sub> max	
Power Source	9V Alkaline (NEDA 1604A, IEC 6LR61)	
Battery Life	150 hours typical (continuous use) 300 hours with Lithium battery	
<b>MECHANICAL</b>		
Dimensions	4.9 x 2.5 x 1.1" (124 x 64 x 28mm)	
Weight (with battery)	1.1 lb (0.5kg)	
Maximum Conductor Size	7.6" (193mm)	
Sensor Length	24" ± 1" (610mm ± 25.4mm)	
Cable Length	6.5 ft (2m)	
Output	Double insulated 14" (36cm) lead with safety banana plugs	4mm safety banana plugs (red and black)
<b>ENVIRONMENTAL</b>		
Operating Temperature	14° to 131°F (-10° to +55°C)	
Storage Temperature	40° to 70°F (-40° to +158°C)	
Operating Relative Humidity	50° to 86°F (10° to 30°C) 85 to ±5% RH (non-condensing) 104° to 122°F (40° to 50°C) 45 to ±5% RH (non-condensing)	
<b>SAFETY</b>		
Rating	EN 61010, 1000V, Cat. III, Pollution Degree: 2	
CE Mark	Yes	

\*Reference Conditions: 23°C ± 3K, 20 to 70% RH, 50Hz, 1 minute warm-up, battery at 9V ± 0.1V, external magnetic field <40A/m, no DC component, no external current carrying conductor, 10MΩ load, conductor center.

# Construction



**Model 24-3001**

- 1. Flexible Sensor
- 2. Electronic Module
- 3. Range Selection Switch
- 4. Positive: Red Banana Plug (+)
- 5. Common: Black Banana Plug (-)
- 6. Lead

**Model 24-3002**

- 1. Flexible Sensor
- 2. Electronic Module
- 3. Range Selection Switch
- 4. Common: Black Banana Plug (-)
- 5. Positive: Red Banana Plug (+)
- 6. Lead



Banana (female) - BNC (male) Adaptor  
Catalog #2118.46 (optional)

ORDERING INFORMATION	CATALOG NO.
FlexProbe® Model 24-3001 (300/3000A <sub>AC</sub> , 24", 10mV/A/1mV/A, with lead) .....	Cat. #2120.81
FlexProbe® Model 24-3002 (300/3000A <sub>AC</sub> , 24", 10mV/A/1mV/A) .....	Cat. #2120.82
<b>Accessories</b>	
Banana (Female) – BNC (Male) Adapter .....	Cat. #2118.46