

# AC Current Probe Model MN312



The Model MN312 is the latest in compact AC current probes. It is designed to meet the most stringent demands in industry and electrical contracting. Model MN312 meets EN 61010, 600V, Cat. III safety standards and is CE Marked and UL approved for Canada and United States.

The Model MN312 has a 0.78" (20mm) jaw opening and accommodate conductors up to 250MCM. The unique hooked jaw design facilitates clamping and hooking onto conductors. Polycarbonate materials and ultrasonic welding are used throughout to ensure ruggedness and overall lasting reliability.

The Model MN312 is a high performance model and uses a custom nickel core to improve accuracy and phase shift on the low end of the measurement range. The Model MN312 is an excellent probe to be used in power and low level current measurement applications.

## Features

- Small, compact size
- Measurement range of 0.1 to 240AAC
- Large jaw opening accommodates conductors up to 250MCM
- Designed for DMMs, loggers, recorders and oscilloscopes
- 40Hz to 10kHz response
- 1mA<sub>AC</sub>/AAC output signals
- Designed to EN 61010, 600V Cat. III safety standard
- UL approved for Canada and United States
- Double Insulation
- CE Mark

## Applications

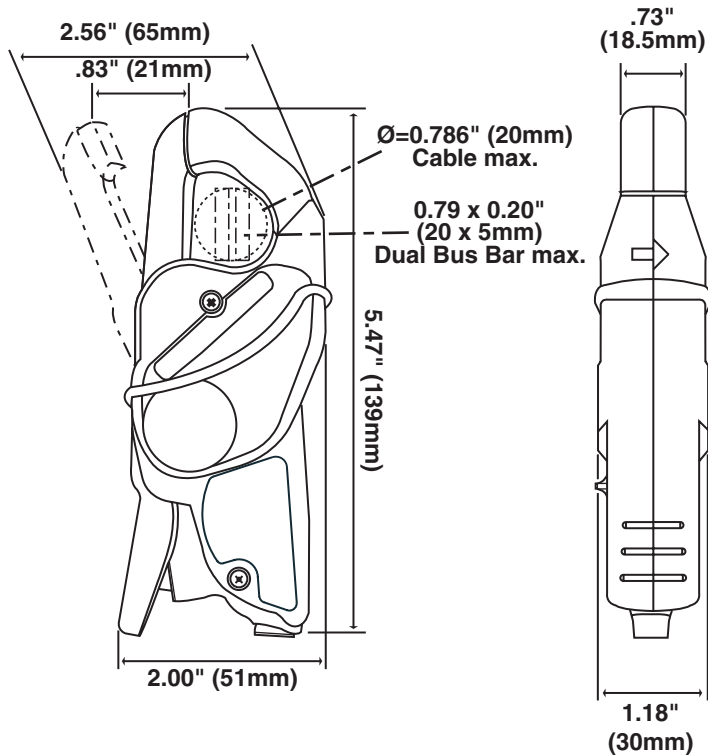
- Measuring in breaker panels
- Industrial loads
- HVAC
- Residential and commercial sites
- Data logging/recording

# Specifications

| MODEL                                      | MN312*  |
|--|---|
| <b>ELECTRICAL</b>                          |   |
| Nominal Range                              | 200A  |
| Measurement Range                          | 0.1 to 240A   |
| Transformation Ratio                       | 1000:1  |
| Output Signal                              | 1mA/A (100mA @ 100A <sub>AC</sub> )   |
| Accuracy (200A Range)                      |   |
| 0.1 to 1A                                  | 2% of Reading ± 0.02mA  |
| 1 to 80A                                   | 1% of Reading ± 0.02mA  |
| 80 to 100A                                 | 2% of Reading ± 0.1mA   |
| 100 to 150A                                | 2.5% of Reading ± 0.5mA   |
| 150 to 200A                                | Not Specified   |
| Phase Shift (200A Range)                   |   |
| 0.1 to 1A                                  | Not Specified   |
| 1 to 20A                                   | ≤3.0°   |
| 20 to 80A                                  | ≤2.0°   |
| 80 to 150A                                 | ≤2.5°   |
| Overload                                   | -   |
| Frequency Range                            | 40 to 10kHz   |
| Limit Operating Conditions                 | 200A permanently to 3kHz;<br>Derating above 3kHz: 200A x (1/0.333F), F in kHz |
| Crest Factor                               | 5 @ 280A Peak with an error (due to CF) of 5%                                 |
| Working/Common Mode Voltage                | 600Vrms   |
| Output Termination                         | Jack  |
| <b>MECHANICAL</b>                          |   |
| Operating Temperature                      | 14° to 131°F (-10° to 55°C)   |
| Storage Temperature                        | -40° to 158°F (-40° to 70°C)  |
| Operating Relative Humidity                | 10 to 35°C 85% RH (without roll-off above 35°C)                               |
| Jaw Opening                                | 0.83" (21mm)  |
| Maximum Conductor Size                     | 0.78" (20mm)  |
| Dimensions                                 | 5.47 x 2.00 x 1.18" (139 x 51 x 30mm)   |
| Weight                                     | 6.5 oz (180g)   |
| Polycarbonate Material                     | Polycarbonate with fiberglass charge, UL94 V0                                 |
| <b>SAFETY</b>                              |   |
| Electrical                                 | EN 61010-2-32   |
| UL Approval                                | Yes – Canada and United States  |
| Double Insulation <input type="checkbox"/> | Yes   |
| CE Mark                                    | Yes   |

Note: Reference conditions: 20 to 26°C, 20 to 75% RH, external magnetic field <40A/m, 48 to 65Hz sine wave, distortion factor less than 1%, no DC component, no external current carrying conductor, test sample centered. Load impedance > 1Ω

\*Diode protection for open secondary (output)



**Jacks:**  
Two standard safety banana jacks (4mm)

**ORDERING INFORMATION**

**CATALOG NO.**

|   |                      |
|---|----------------------|
| <b>AC Current Probe Model MN312</b> (Jack – 1mA/A – 150A max) ..... | <b>Cat. #2116.24</b> |
| Includes a user manual  |                      |
| <b>Accessories (Optional)</b>                                       |                      |
| Leads, set of two, 5 ft safety (1000V) .....                        | Cat. #2111.29        |
| Banana plug adaptor (Safety Leads to nonrecessed plug) .....        | Cat. #1017.45        |
| Banana (Female) – BNC (Male) Adaptor .....                          | Cat. #2118.46        |

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