

Overview

The Rogowski Coil Current Transformers are designed to convert an AC operating current into a low voltage AC millivolt signal for use with microprocessor-based circuits that require the highest accuracy and precision. The Flexible Rogowski Coil is designed to use where regular solid or split core current transformers cannot fit and are ideal for power quality monitoring, such as harmonics. Advantages include high accuracy, wide measurement and frequency range, and no additional integrator or power supply is needed. Rogowski coils come standard unterminated stripped and tinned lead wires for easy connection to any of the Single or 3 Phase power meter. For best accuracy, the coils should be selected based upon the expected maximum and minimum currents for the targeted application. The acceptable Measurement Current Range and Window Size are referenced in the ordering grid table.

**Applications:** Tennant Billing, Energy and Demand Metering, Load Surveys, LEED/Green Projects, ROI / Project Justification

The Rogowski Coil mV Output Current Transformers are covered by Automated Logic®'s Five (5) Year Limited Warranty.



Part Numbers

|               |               |               |               |
|---------------|---------------|---------------|---------------|
| N2-RCT16-1000 | N2-RCT16-2500 | N2-RCT24-1000 | N2-RCT24-2500 |
| N2-RCT24-5000 | N2-RCT36-1000 | N2-RCT36-2500 | N2-RCT47-2500 |
| N2-RCT36-5000 | N2-RCT47-5000 |               |               |

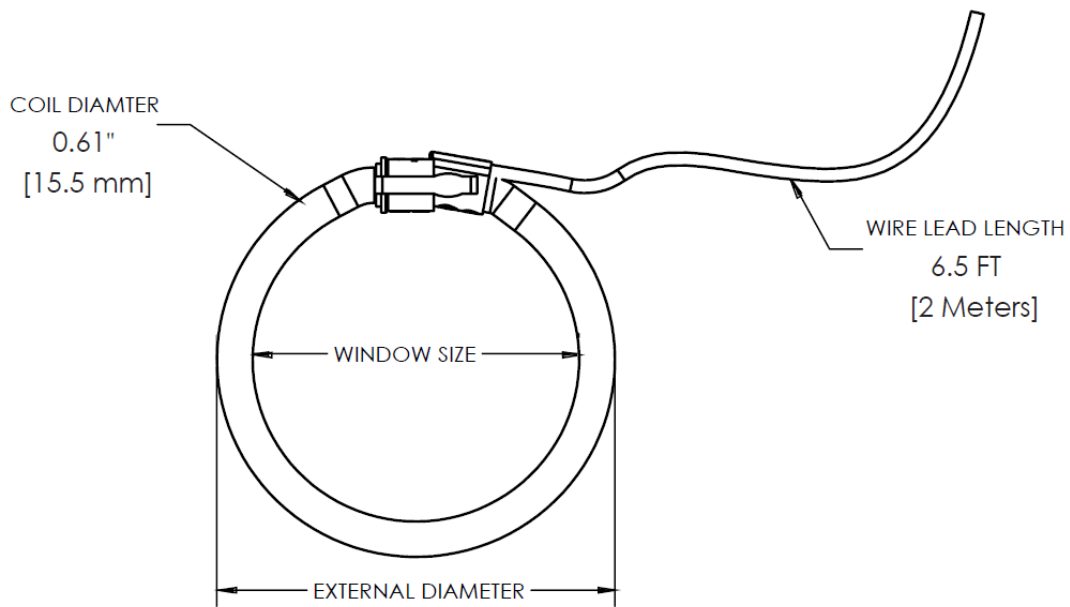
Product Specifications

|   |  |
|---|--|
| <b>Monitored Current Type:</b>            | AC Current   |
| <b>Input Range:</b>                       | 5 to 5000A   |
| <b>Core Style:</b>                        | Flexible Rope Styles Form Factor                             |
| <b>Dielectric Strength:</b>               | 7400Vac @ 50/60Hz for 1 minute                               |
| <b>Operating Frequency Range:</b>         | 20 Hz to 5 kHz   |
| <b>Withstand Voltage:</b>                 | 5,000VAC   |
| <b>Sensor Amperage Range:</b>             | See Ordering Grid  |
| <b>Accuracy:</b>                          | 0.5% From 10 to 120% of Rated Current                        |
| <b>Polarity:</b>                          | Arrow towards load (current flow direction)                  |
| <b>Temperature Drift:</b>                 | +/- 0.07%  |
| <b>Operating Temperature Range:</b>       | -4 to 158oF (-20 to 70oC)                                    |
| <b>Storage Temperature Range:</b>         | -40 to 185°F (-40 to 85°C)                                   |
| <b>Operating/Storage Humidity Range:</b>  | 5 to 95%, non-condensing                                     |
| <b>Maximum Elevation:</b>                 | 9,842 ft (3 Kilometers)                                      |
| <b>Case Material/Flammability Rating:</b> | Orange thermoplastic rubber, flame retardant UL 94 V-0 rated |
| <b>Over Voltage Category:</b>             | 1000V CAT III, 600V CATIV                                    |
| <b>Wiring Connections:</b>                | Stripped and Tinned Lead Wires                               |

N2-RCT Series- 8/14/2023

|                          |  |
|--------------------------|--|
| <b>Lead Wire Colors:</b> | White: Positive (+)<br>Brown: Negative (-)<br>Bare-Shield  |
| <b>Lead Wire Size:</b>   | 26AWG  |
| <b>Cable Size:</b>       | 1000V UL STYLE 20940; External diameter 5mm; Wires 2x 26AWG  |
| <b>Lead Length:</b>      | 6.5 ft (15.5mm)  |
| <b>Coil Diameter:</b>    | 0.61" (15.5mm)   |
| <b>Agency Approvals:</b> | URL, CE and RoSH2 Compliant  |
| <b>Product Weight:</b>   | N2-RCT16 - 0.2lbs (0.09kg) N2-RCT24 - 0.4lbs (0.18kg) N2-RCT36 - 0.6lbs (0.27kg)<br>N2-RCT47 - 1.0lbs (0.45kg) |

Product Drawing






| Dimensions        | N2-RCT16          | N2-RCT24        | N2-RCT36        | N2-RCT47         |
|-------------------|-------------------|-----------------|-----------------|------------------|
| Window Size       | 4.17" (106 mm)    | 7.01" (178 mm)  | 10.67" (271 mm) | 14.53" (369 mm)  |
| Coil Length       | 15.75" (400 mm)   | 23.62" (600 mm) | 35.43" (900 mm) | 47.24" (1200 mm) |
| External Diameter | 5.63" (143 mm)    | 8.13" (207 mm)  | 11.89" (302 mm) | 15.66" (398 mm)  |
| Coil Diameter     | 0.61" (15.5 mm)   |                 |                 |                  |
| Wire Lead Length  | 6.5 FT (2 Meters) |                 |                 |                  |

**Ordering Information**

| Part #        | Output/1000A @ 50Hz | Output/1000A @ 60Hz | Range Calibrated To* |
|---------------|---------------------|---------------------|----------------------|
| N2-RCT16-1000 | 100mV               | 120mV               | 5 to 1200A           |
| N2-RCT16-2500 | 40mV                | 48mV                | 12.5 to 3000A        |
| N2-RCT24-1000 | 100mV               | 120mV               | 5 to 1200A           |
| N2-RCT24-2500 | 40mV                | 48mV                | 12.5 to 3000A        |
| N2-RCT24-5000 | 20mV                | 24mV                | 25 to 6000A          |
| N2-RCT36-1000 | 100mV               | 120mV               | 5 to 1200A           |
| N2-RCT36-2500 | 40mV                | 48mV                | 12.5 to 3000A        |
| N2-RCT36-5000 | 20mV                | 24mV                | 25 to 6000A          |
| N2-RCT47-2500 | 40mV                | 48mV                | 12.5 to 3000A        |
| N2-RCT47-5000 | 20mV                | 24mV                | 25 to 6000A          |

\*NOTE The range is when connecting to KW320, KW350 and KW1850.

**Appendix – Symbols Key**

|   |   |
|---|---|
| <br><b>Warning</b> | Potential for death, serious injury, or permanent damage to a system. |
| <br><b>Caution</b> | Potential for injury, damage to a system, or system failure.          |
| <br><b>Tip</b>     | Useful information not related to injury or system damage.            |