# CTRC SERIES

## AC Current Transformer
## ProteCT™ Type 333 mVAC Output



CTRC AC Current Transformers monitor circuits up to 2000 A and produce a safe, low voltage output proportional to the RMS current value. This output is designed as an input to a power monitor or transducer, replicating the AC wave shape with phase angle resolution better than 2 degrees. The flexible coil design allows the sensor to be installed over multiple conductors or bus assemblies easily. The cable requires very little space to fit between adjacent phase conductors. The design eliminates the magnetically permeable core of standard current transformers while providing excellent isolation, sensing only the magnetic field of the phase inside the loop.

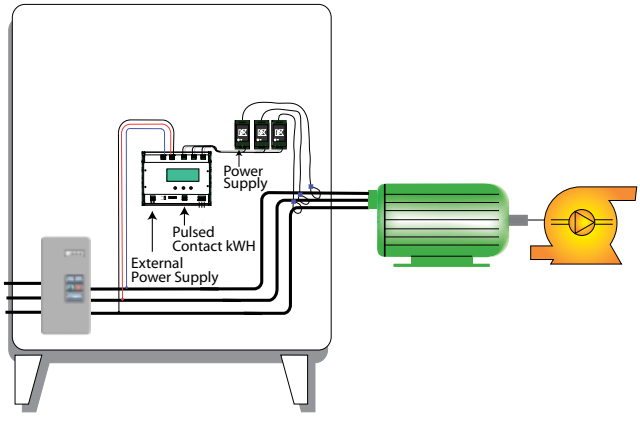
### Current Transformer Applications

**Power Monitoring**
- Accurate representation of current without the weight or hazards created by 5 A secondary current transformers.

**Individual Machines**
- Measure power use for cost allocation.
- Detect voltage sags and spikes.

**Monitor Entire Building Power Usage**
- Locate unneeded power consumption.

Monitoring Power Usage of a Motor Driven Pump




### Current Transformer Features

**333 mVAC Output**
- Specifically designed for connection to power monitors and transducers.
- Safe, with no need for shorting blocks.

**24 VAC or DC Powered**
- Supply and Output are optically isolated.

**Factory Calibrated**
- Reduces field calibration errors.
- Coils matched with signal conditioning.

**DIN Rail Mounted Case***
- Compact size requiring very little panel space.
- Simple snap fit to standard rails.

**UL/cUL and CE Approved**
- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 140.

For additional Application Examples, go to www.nktechnologies.com/applications

OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.



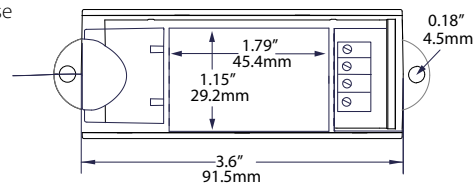


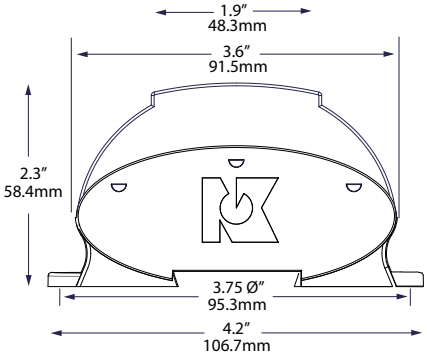
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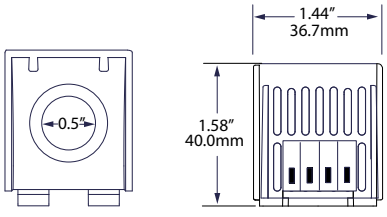
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## AC Current Transducer Dimensions

Base



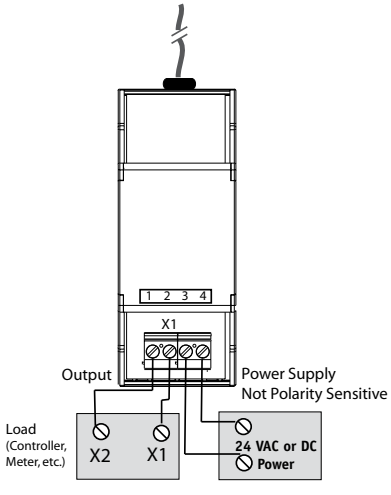




Coil




## Current Transformer Connections




## Current Transformer Specifications

| | |
|---|---|
| **Power Supply** | 24 VAC/DC (12–36 V) |
| **Power Consumption** | <2 VA |
| **Output** | 333 mVAC |
| **Response Time** | 2 ms |
| **Range** | • 0–300<br>• 0–500<br>• 0–1000<br>• 0–1500<br>• 0–2000 |
| **Accuracy** | ±1% FS |
| **Isolation Voltage** | Designed for UL 508 1270 VAC, tested to 5000 VAC |
| **Frequency Range** | 40–400 Hz |
| **Sensing Aperture** | 4.25″ (115 mm) ID |
| **Case** | UL94 V-0 Flammability Rated |
| **Environmental** | -4 to 122°F (-20 to 50°C)<br>0–95% RH, non-condensing |
| **Listings** | UL/cUL, CE |

## Current Transformer Ordering Information

Sample Model Number: CTRC-333-500-24U-D

Flexible loop current sensor, 0–500 A AC produces 0–333 mVAC, DIN rail mounting case.

| | (1) | | | | (2) | | | | (3) | | | (4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CTRC –** | **3** | **3** | **3** | **–** | | | | **–** | **2** | **4** | **U** | **–** **D** |

(1) Output Type

| | |
|---|---|
| 333 | 333 mVAC |

(2) Full Scale Range

| | |
|---|---|
| 300 | 300 A AC |
| 500 | 500 A AC |
| 1000 | 1000 A AC |
| 1500 | 1500 A AC |
| 2000 | 2000 A AC |

(3) Power Supply

| | |
|---|---|
| 24U | 24 VAC or DC |

(4) Case Style

| | |
|---|---|
| D | DIN rail mounting |





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