

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.

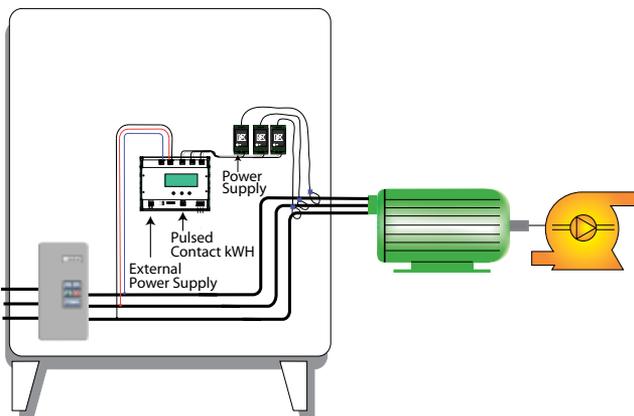
Individual Machines

- 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.

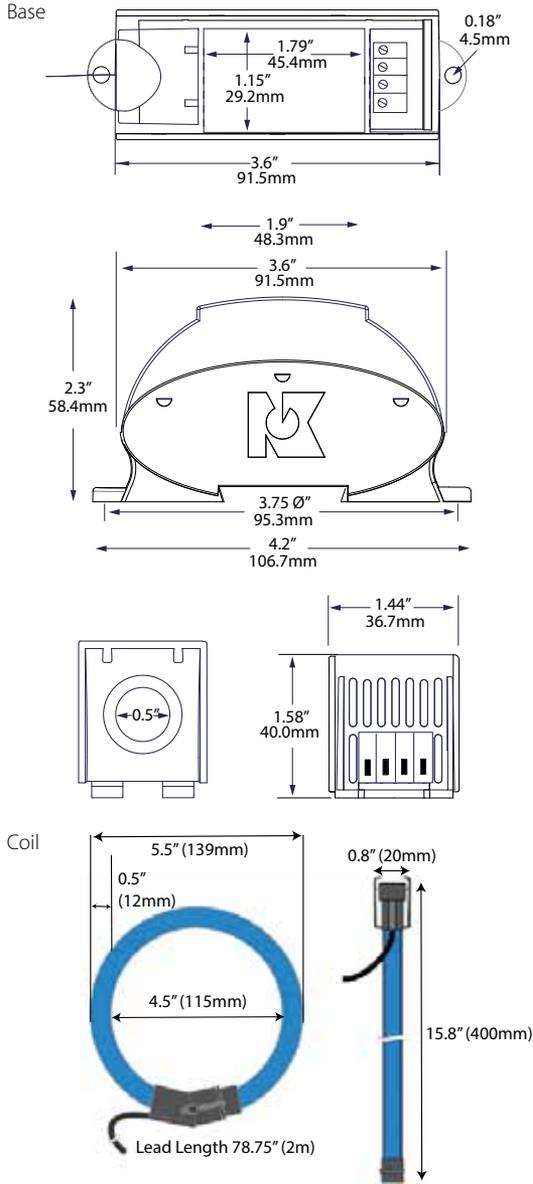
UL/cUL and CE Approved

- Accepted worldwide.

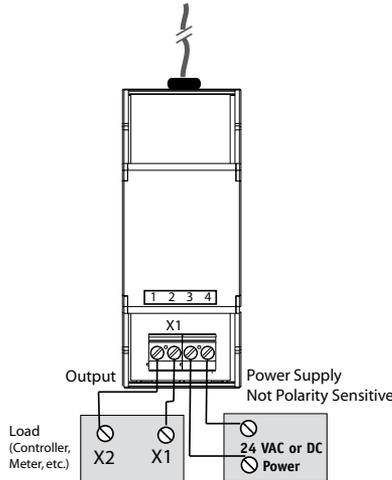
*For information on the DIN rail accessories kit, see page 140.

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

AC Current Transducer Dimensions



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 • 0–500 • 0–1000 • 0–1500 • 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) 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) 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

Current Transformers

