



NK Technologies



MADE IN USA

ATCR SERIES Current Transducers

Applications

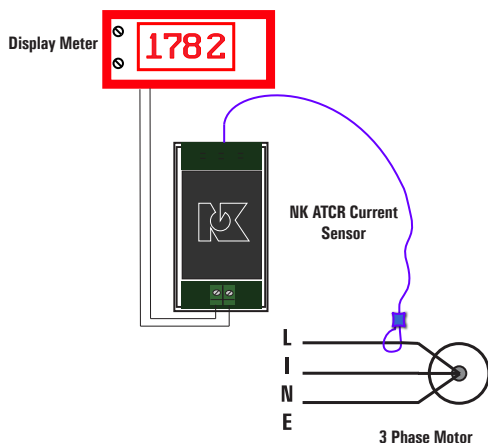
Monitor Large Machines

- Monitoring resistive or inductive load to detect current.
- Industry standard 4-20 mA output for connection to PLC or data loggers.

Flexible Coil Surrounds Conductors Without Disturbing Wiring

- Install over bus bars, single or multiple conductors easily.
- Fast response to changes in operating conditions.

Two-Wire Loop Powered Output



ATCR Series Current Transducers combine a sensing coil and a True RMS signal conditioner as a matched, factory calibrated set. The ATCR Series is designed to produce an analog 4-20 mA signal proportional to AC current up to 2000 amps. Coil opens to pass over the installed conductors. When connected to a controller or data logger, the sensor output is directly proportional to the primary current.

Features

True RMS Output

- True RMS technology is accurate on distorted waveforms like VFD or phase angle-fired SC outputs.

Single Range

- No chance of field range selection errors.
- Eliminates zero and span pots.

Isolation

- Output is magnetically isolated from the input for safety.
- Eliminates insertion loss (voltage drop).

Designed to Meet UL508 and CE Requirements

- Accepted worldwide.

Compact DIN-rail Mount Enclosure*

- Space saving 35mm wide enclosure mounts quickly.

AC current monitoring of large loads:

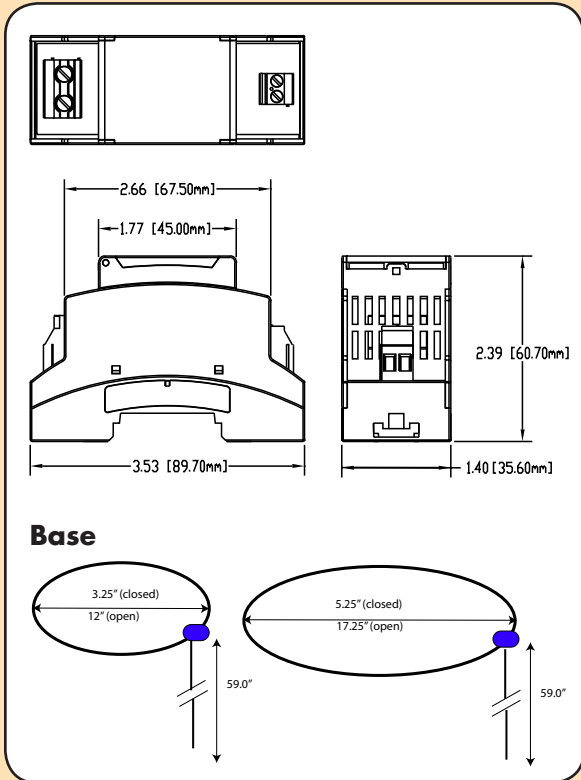
Loads drawing large amounts of power are connected to the supply using large wire or bus bar. Disconnecting the conductors and threading them through a solid sensing ring or current transformer is difficult and time consuming. With this new design, the sensing is accomplished using a coil without a magnetically permeable core. This allows the installer to pass the coil around the conductors after they are connected with a no need to disconnect. The coil is attached to a signal conditioning circuit, and the output signal is powered from the 24 VDC nominal loop voltage. Simple, easy to install, can monitor sinusoidal or distorted current wave forms at frequencies to 400 Hz, and designed for industrial uses.

*See DIN Rail accessories datasheet for information on the kit.

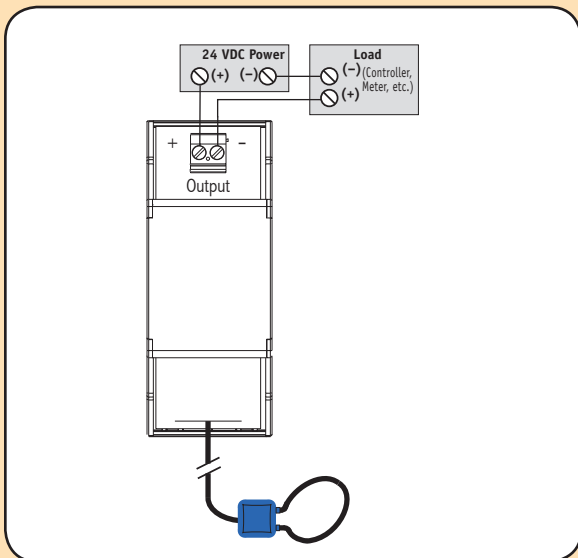


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Dimensions



Connections



Notes: Fingersafe captive screw terminals.
 14–22 AWG solid or stranded.
 Observe polarity.

Specifications

Output Signal	4–20mA, Loop-powered, True RMS
Output Limit	23mA
Accuracy	1.0% FS (10-100% of range)
Response Time	600 ms (to 90% step change)
Frequency Range	40–400Hz or higher
Power Supply	24VDC Nominal, 36VDC Maximum
Isolation Voltage	UL listed to 1,270VAC (tested to 5KV)
Input Ranges	Single range, custom ranges available; consult factory.
Sensing Aperture	<ul style="list-style-type: none"> 0–500 Amp approx. 12 inch long (3.5" OD) 0–1000 -2000 Amp approx. 17.25" (5.25" OD)
Case	UL94 V0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	Designed to meet the requirements of UL508 and CE compliance

Ordering Information

Sample Model Number: ATCR1-420-24L-DIN
 True RMS AC current transducer, 1000 A ranges, 4–20mA output, 24VDC loop-powered, coil sensor connected to DIN rail mounting enclosure.

ATCR ⁽¹⁾ - ⁽²⁾ - ⁽³⁾ - ⁽⁴⁾

(1) Full Scale Range

1	0–500 A
2	0–1000 A
3	0–1500 A
4	0–2000 A

(2) Output Signal

420	4–20mA
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(3) Power Supply

24L	24VDC Loop-powered (4-20mA output ONLY)
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(4) Case Style

D	Coil connected to DIN rail mounting enclosure
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