

# AT/ATR-LS SERIES

## AC Current Transducers

AT/ATR-LS Series Current Transducers combine a current transformer and signal conditioner into a single package. The large, easy-to-install, split-core design allows for installation over existing conductors without the need to disconnect the load, even in applications where there are multiple conductors per phase. For new installations, the installation is just as easy. Just remove the top portion of the sensing ring, place the conductors inside, and snap the top back in place. The transducer uses two wires to connect to the power supply and the load, programmable logic controller, panel meter or data acquisition system.

### AC Current Transducer Applications

#### Monitor Large Machines

- Measure the current use to detect over or under current conditions before they cause break downs.

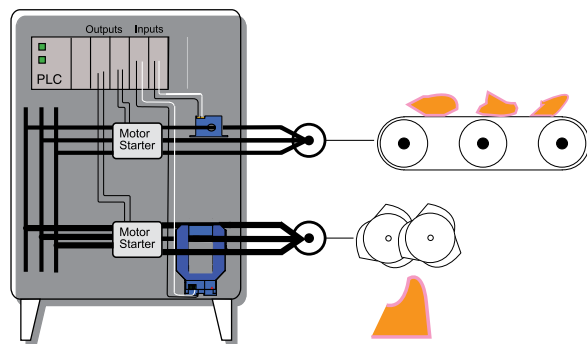
#### Water Delivery and Treatment

- Detect open discharge lines.
- See clogged filters or blocked intake to pumps.

#### Generators

- Keep the power system running by monitoring the output.

#### Grinder/Shredder Application



- For additional Application Examples, go to [www.nktechnologies.com/applications](http://www.nktechnologies.com/applications)



### AC Current Transducer Features

#### Industry Standard Output

- 4–20 mA signal proportional to the AC current.
- Compatible with most automation systems.

#### Loop-powered

- Use the “live zero” output to verify proper connections (sensor output with no current flowing confirms the system is ready to go).

#### Factory Calibrated

- Eliminates zero and span potentiometer adjustment.

#### Split-core Case

- Sensing window provides ample space for bus bar, single or multiple conductors.

#### DIN Rail Mount\*

- Simple snap onto DIN rail for secure mounting.

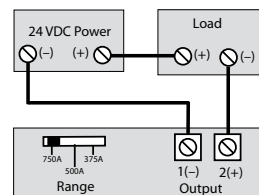
#### Designed for UL, CUL and CE Approval

- Accepted around the world.

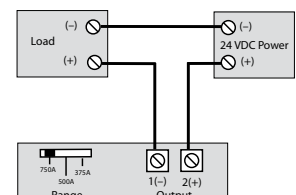
\*For information on the DIN rail accessories kit, see page 115.

### AC Current Transducer Connections

#### Standard Connection



#### Alternate Connection



OEMs

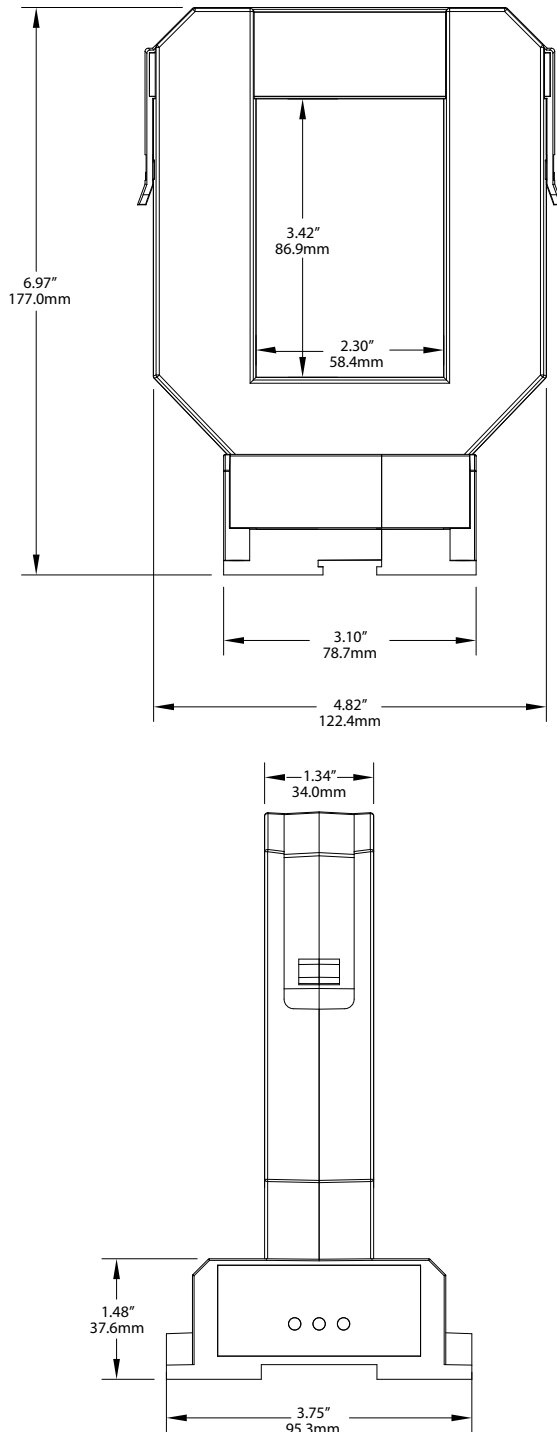
#### Test & Evaluation Units for OEMs

Free program expedites evaluation process. See page 1 for details.



## AC Current Transducer Dimensions

LS Case



Note: Drawings are not to scale

## AC Current Transducer Specifications

<b>Power Supply</b>		24 VDC nominal (12-32 VDC)
<b>Output</b>		4–20 mA loop-powered
<b>Output Limit</b>		23 mA
<b>Accuracy</b>		1% FS
<b>Response Time</b>		600 ms (90% step change)
<b>Ranges</b>	<b>8</b>	0–800 A
	<b>10</b>	0–1000 A
	<b>12</b>	0–1200 A
	<b>16</b>	0–1600 A
<b>Isolation Voltage</b>		Designed to meet UL 508
<b>Frequency Range</b>		• AT: 50/60 Hz (average responding) • ATR: 20–400 Hz (True RMS responding)
<b>Sensing Aperture</b>		2.30" (58.42 mm) X 3.42" (86.87 mm)
<b>Case</b>		UL94 V0 Flammability Rated DIN rail mounting
<b>Environmental</b>		–4 to 122°F (–20 to 50°C) 0–95% RH, non-condensing
<b>Listings</b>		UL 508 Industrial Control Equipment (USA & Canada)

## AC Current Transducer Ordering Information

Sample Model Number: ATR10-420-24L-LS

AC current transducer, 0–1000 A range, RMS output 4–20 mA, loop-powered, large split-core case, DIN rail mounting.

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### (1) Frequency

	Average responding (blank)
R	True RMS responding output for distorted current

### (2) Range

8	0–800 A
10	0–1000 A
12	0–1200 A
16	0–1600 A

### (3) Output Type

420	4–20 mA
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### (4) Power Supply

24L	24 VDC Loop-powered
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### (5) Case Style

LS	Split-core, base terminals, DIN rail mounting
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