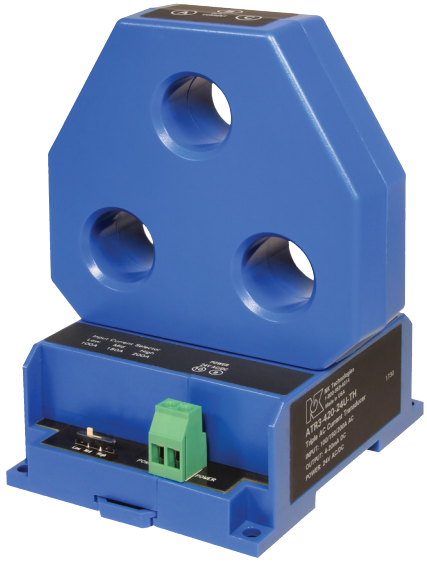
AT/ATR-TH SERIES
AC Current Transducers

AT/ATR-TH Series AC Current Transducers are the latest innovation for monitoring three-phase loads, motors, machines or buildings. The large triple-aperture solid-core design allows for a quick and easy installation. Just thread the conductors through the sensing windows (apertures) and reconnect on the other side. The transducer outputs should be powered by either a 24 VAC/VDC or a 120 VAC power supply that is isolated from the monitored circuit. Three outputs are proportional to the AC current in each phase and a fourth represents the average of the three. Each are available at any time. The sensor mounts on a back panel or a DIN rail and is designed to accommodate wire sizes for loads up to 200 amps.



Current Transducer Applications

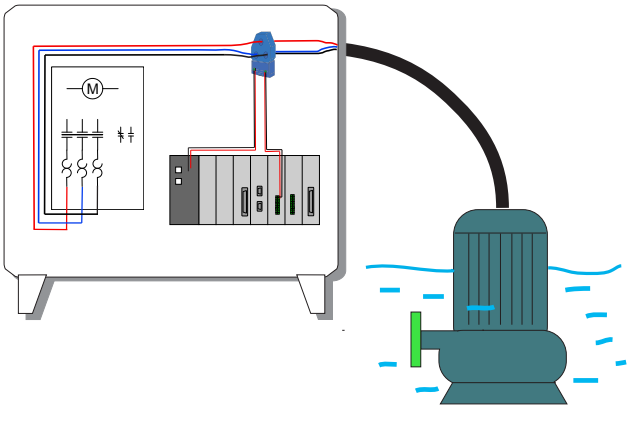
Monitor Large Machines
- Detect over or undercurrent conditions before they cause break downs or interlock one process with another.

Water Delivery and Treatment
- Detect open discharge lines.
- Sense clogged filters or blocked intake to pumps.
- Measure increased current to show failing bearings or pump impeller cavitation.

Generators
- Shed noncritical loads when demand reaches a set level.

Load Imbalance
- Monitor motor current draw which should be nearly equal in all three phases. A difference of 10% signifies trouble.

Submersible Pump Application



Current Transducer Features

Analog Signal Proportional to AC Current
- Both average responding and True RMS models available.
- Compatible with most automation and control systems.
- One output represents the current in each phase. A fourth produces a signal proportional to the average of the current in all three phases.

Externally Powered
- Simple and reliable connection.

Factory Calibrated and Warranted For Five Years
- Choice of ranges : 0–10 to 0–200 amps.
- Designed for longest life and reliability.

Solid-core Case
- Sensing windows provide ample space for single or multiple conductors per phase.

DIN Rail or Panel Mount
- Snap onto DIN rail or attach with screws to a panel for secure mounting.*

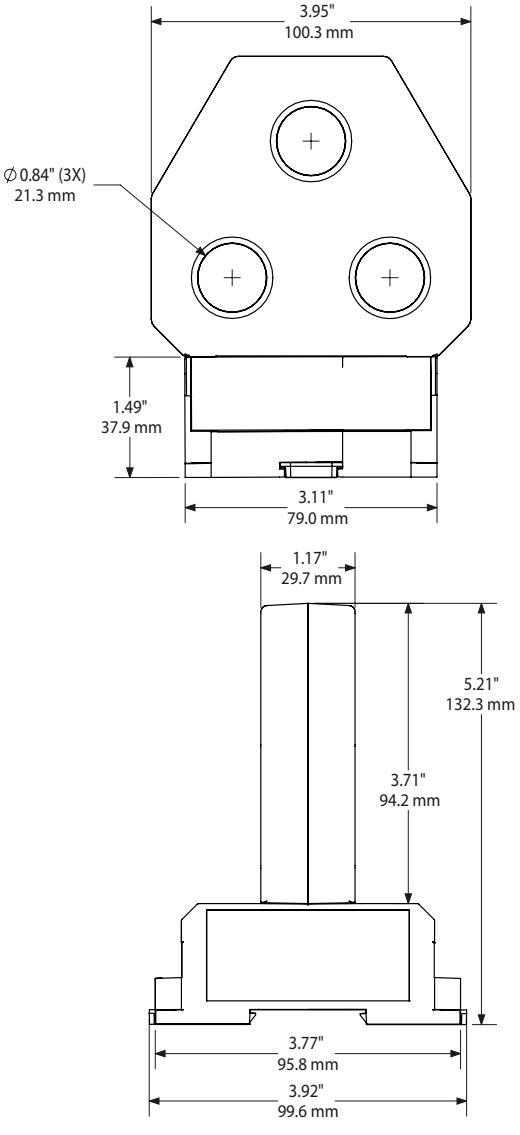
UL/cUL Listed and CE Certified
- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 154.

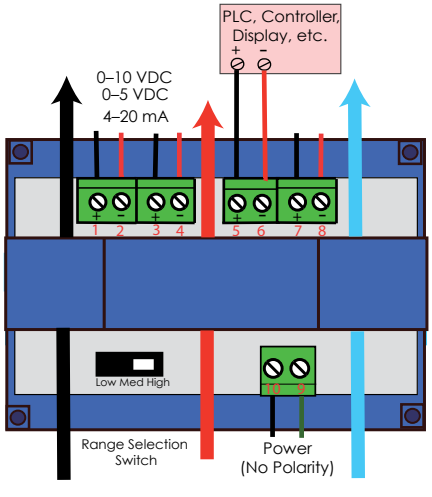
NK Technologies

FIVE YEAR 5 WARRANTY RoHS Compliant

Current Transducer Dimensions



Current Transducer Connections



Current Transducer Specifications

Power Supply		• 24 VAC/VDC (+/-10%) (output not isolated) • 120 VAC (+/-10%) (output isolated)
Power Consumption		<6 VA
Output Signal		Three Individual analogs proportional to current in each phase, one analog proportional to the average of the three current levels.
Output Loading		• 4–20 mA: <500 Ω • 0–5/10 VDC >2K Ω
Response Time		220 ms (90% step change)
Range	1	0–10, 15, 30 A (selectable by slide switch)
	2	0–30, 50, 100 A (selectable by slide switch)
	3	0–100, 150, 200 A (selectable by slide switch)
Isolation Voltage		2200 VAC
Frequency Range		50–60 Hz. (Avg.), 30–100 Hz (RMS)
Sensed Current Limit		1.1x range continuous 3x range for 6 seconds 6x range for 1 second
Case		UL94 V-0 Flammability Rated
Environmental		-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings		UL Listed to UL 508 (E342812), CE

Ordering Information

Sample Model Number: ATR2-420-24U-TH, AC RMS current transducer, 0–100 A range, 4–20 mA output, 24 VAC/VDC, 3 hole solid–core case, DIN rail mount.

(1)	(2)		(3)				(4)				(5)	
AT			-				-				-	T	H

(1) Output Type

	Average responding (blank)
R	True RMS

(2) Range

1	0-10, 15, 30 A
2	0–30, 50, 100 A
3	0–100, 150, 200 A

(3) Output Type

420	4–20 mA
005	0–5 VDC
010	0–10 VDC

(4) Power Supply

24U	24 VAC/VDC externally powered
120	120 VAC externally powered

(5) Case

TH	Three-hole, solid-core, base terminals, DIN rail or panel mount