

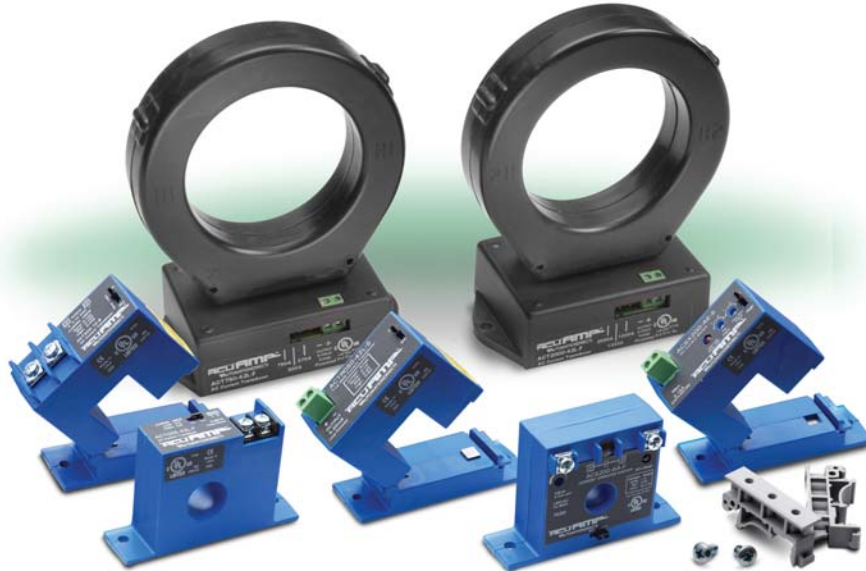
ACUAMP™ Switches and Transducers

Overview

The ACUAMP series is a family of high performance current sensors offering outstanding features, flexibility and durability at an incredible price. Choose from a wide selection of Current Transducer and Current Switch models, all designed in a rugged industry standard feed-through package, consisting of both fixed core and split core models. Each model

has multiple input ranges (set by movable jumpers) for maximum flexibility across many current ratings. The current transducer output choices include 4 to 20mA, 24 VDC loop-powered and 0 to 10 volt self-powered analog outputs. The Current Switch outputs are isolated solid state switches and are available in Normally Open configurations. A unit featuring field adjustable time delay is

also offered in the Current Switch series. All models are panel-mountable as standard, and convenient DIN-rail adapter accessories are available. Use the selection guide to find the best sensor module for your requirements.



ACUAMP Specifications by Model Type					
Specifications	Transducer	Transducer with True RMS	Switch	Switch	Switch
Model	ACT	ACTR	ACS150	ACS200	ACSX
Input Range	Jumper selectable: ACT005: 0 to 2 A 0 to 5 A ACT050: 0 to 10 A 0 to 20 A 0 to 50 A ACT200: 0 to 100 A 0 to 150 A 0 to 200 A ACT750: 0 to 375 A 0 to 500 A 0 to 750 A ACT2000: 0 to 1000 A 0 to 1333 A 0 to 2000 A	Jumper selectable: ACTR005: 0 to 2 A 0 to 5 A ACTR050: 0 to 10 A 0 to 20 A 0 to 50 A ACTR200: 0 to 100 A 0 to 150 A 0 to 200 A ACTR750: 0 to 375 A 0 to 500 A 0 to 750 A ACTR2000: 0 to 1000 A 0 to 1333 A 0 to 2000 A	Normally Open: -F core: 1 to 150 A -S core: 1.75 to 150 A Normally Closed: -F core: 1 to 150 A -S core: 1.75 to 150 A	Jumper Selectable: Normally Open: -F core: 1 to 6 A 6 to 40 A 40 to 175 A -S core: 1.75 to 6 A 6 to 40 A 40 to 200 A Normally Closed: -F core: 1 to 6 A 6 to 40 A 40 to 175 A -S core: 1.75 to 6 A 6 to 40 A 40 to 200 A	Jumper Selectable: Normally Open: -F core: 1.5 to 12 A 12 to 55 A 55 to 175 A -S core: 2 to 12 A 12 to 55 A 50 to 200 A Normally Closed: -F core: 1.5 to 12 A 12 to 55 A 55 to 175 A -S core: 1.5 to 12 A 12 to 55 A 50 to 200 A
Output Range	-10 models: 0 - 10 VDC -42L models: 4 - 20 mA, loop-powered	4 - 20 mA, loop-powered true RMS	Normally Open: 0.15 A @ 240 VAC or VDC Normally Closed: 0.2 A @ 135 VAC or VDC	Normally Open/Normally Closed AC model: 1A @ 240 VAC Normally Open/Normally Closed DC model: 0.15A @ 30 VDC	Normally Open/Normally Closed AC model: 1A @ 240 VAC Normally Open/Normally Closed DC model: 0.2 A @ 135 VAC/VDC
Frequency Range	-10 models: 50 to 60 Hz sinusoidal waveforms only -42L models: 20 - 100 Hz	10 to 400 Hz non-sinusoidal waveforms	6 to 100 Hz	6 to 100 Hz	50 to 100 Hz
Response Time	-10 models: 100 ms -42L models: 300 ms	600 ms	120 ms	40 to 120 ms	Field adjustable time delay: 0.12 to 15 seconds
Sensing Aperture	ACT005, ACT050, ACT200: -F core: 0.75" (19mm) dia. -S core: 0.85" (21.6mm) sq. ACT750, ACT2000: 3.0" (76.2 mm) dia	ACTR005, ACTR050, ACTR200: -F core: 0.75" (19mm) dia. -S core: 0.85" (21.6mm) sq. ACTR750, ACTR2000: 3.0" (76.2 mm) dia	-F core: 0.75" (19mm) dia. -S core: 0.85" (21.7mm) sq.	-F core: 0.55" (13.97mm) dia. -S core: 0.85" (21.7mm) sq..	-F core: 0.75" (19mm) dia. -S core: 0.85" (21.7mm) sq.

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMI's

Other HMI

AC Drives

Motors

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

Appendix

Part Index

ACT Series Current Transducers



ACT current transducers combine a current transformer and signal conditioner into a single package. The ACT series has jumper-selected current input ranges and industry standard 4-20 mA or 0-10 VDC outputs. The ACT series is designed for application on 'linear' or sinusoidal AC loads and is compatible with most PLCs, data loggers and SCADA systems. Full-scale input ranges are user-selectable from 2A to 2000 A. This series is available in split-core or fixed-core models.

Applications

Automation Systems

- Analog current reading for remote monitoring and software alarms

Data Loggers

- Self-powered transducer helps conserve data logger batteries
- Split-core enclosures make using portable data loggers easy

Panel Meters

- Simple connection displays power consumption or other motor status

Features

- Five-year Warranty
- 4-20 mA or 0-10 VDC outputs
- Use up to 14 AWG copper wires
- Factory matched and calibrated single piece transducer is more accurate than traditional two-piece field installed products
- Average responding algorithm gives an RMS output on pure sine waves. Perfect for constant speed (linear) loads or ON/OFF loads
- Selectable input ranges allow end-users to tailor sensing ranges and improves the odds of having the right range for the job
- Output is magnetically isolated from the input for safety and to eliminate voltage drop

Agency Approvals

UL, cUL, CE approvals accepted worldwide

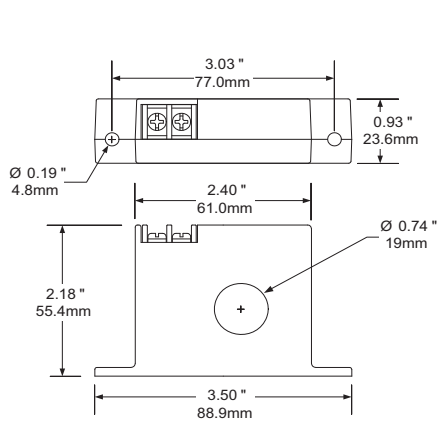
ACT Series Current Transducers				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
ACT050-10-F	AC current transducer, 0-10 VDC output, fixed core	1	0.30	<--->
ACT050-10-S	AC current transducer, 0-10 VDC output, split core	1	0.38	<--->
ACT200-10-F	AC current transducer, 0-10 VDC output, fixed core	1	0.30	<--->
ACT200-10-S	AC current transducer, 0-10 VDC output, split core	1	0.38	<--->
ACT005-42L-F	AC current transducer, 4-20mA output, fixed core	1	0.30	<--->
ACT005-42L-S	AC current transducer, 4-20mA output, split core	1	0.35	<--->
ACT050-42L-F	AC current transducer, 4-20mA output, fixed core	1	0.30	<--->
ACT050-42L-S	AC current transducer, 4-20mA output, split core	1	0.35	<--->
ACT200-42L-F	AC current transducer, 4-20mA output, fixed core	1	0.30	<--->
ACT200-42L-S	AC current transducer, 4-20mA output, split core	1	0.35	<--->
ACT750-42L-F	AC current transducer, 4-20mA output, fixed core	1	2.0	<--->
ACT2000-42L-F	AC current transducer, 4-20mA output, fixed core	1	2.0	<--->
Accessories				
DRA-2	DIN rail adapters, 1.69"x0.39"x0.75" (43x10x19 mm)	2	0.40	<--->

Maximum Input Ranges				
Model	Range	Maximum Input Amps		
		Continuous	6 Sec	1 Sec
ACT005	0 to 2A	80	125	250
	0 to 5A	100	125	250
ACT050	0 to 10A	80	125	250
	0 to 20A	110	150	300
ACT200	0 to 50A	175	215	400
	0 to 100A	200	300	600
	0 to 150A	300	450	800
ACT750	0 to 200A	400	500	1000
	0 to 375A	750	1500	3750
	0 to 500A	750	1500	3750
ACT2000	0 to 750A	750	1500	3750
	0 to 1000A	2000	4000	10k
	0 to 1333A	2000	4000	10k
	0 to 2000A	2000	4000	10k

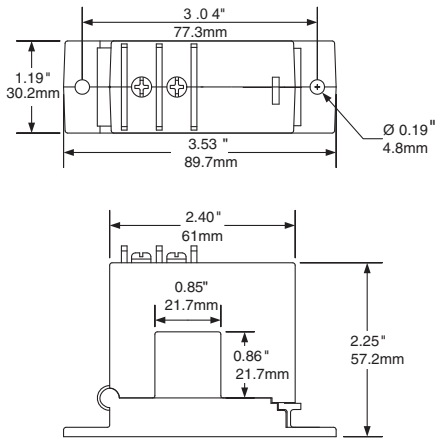
ACT Series Specifications			
	-10 Models	-42L Models up to 200A	-42L Models 200 to 2000A
Power Supply	Self-powered	24 VDC loop nominal, 40 VDC max	24 VDC nominal; 40 VDC maximum
Output Signal	0 to 10 VDC	4 - 20 mA, Loop-powered	4 - 20 mA, Loop-powered
Output Limit	15 VDC	32 mA	23 mA
Accuracy	1% full scale	1% full scale	1% full scale
Response Time (10-90% step change)	100 ms	300 ms	600 ms
Input Ranges	Field selectable from 0 to 200 A		Field selectable from 200 to 2000 A
Sensing Aperture	-F core: 0.74" (19 mm) diameter; -S core: 0.85" (21.6 mm) sq.		3.0" (76.2mm) diameter
Isolation Voltage	UL listed to 1,270VAC. Tested to 5,000 VAC (1 minute max)		600 VAC
Frequency Range (for sinusoidal waveforms)	50 to 60 Hz	20 to 100 Hz	50 to 60 Hz
Case	UL 94V-0 flammability rated		
Environmental	Temperature	-4 to 122°F (-20 to 50°C)	
	Humidity	0 to 95% RH, non-condensing	
Agency Listings	UL listed 508, UL file E222847, CE approved		

ACUAMP™ ACT Series Current Transducers

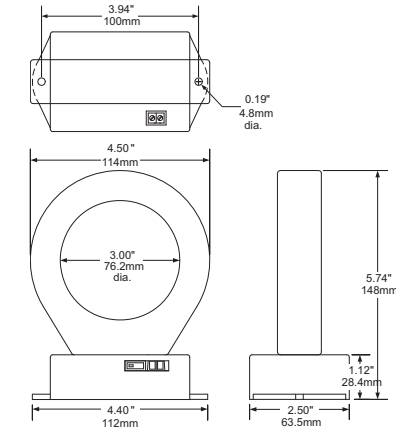
Dimensions (in/mm)



ACT Series 2 to 200 Amp Fixed Core



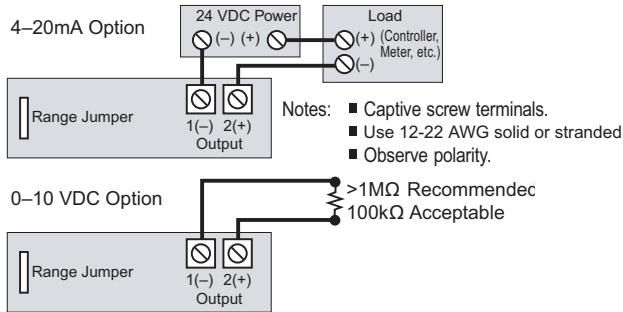
ACT Series 2 to 200 Amp Split Core



ACT Series 200 to 2000 Amp Fixed Core

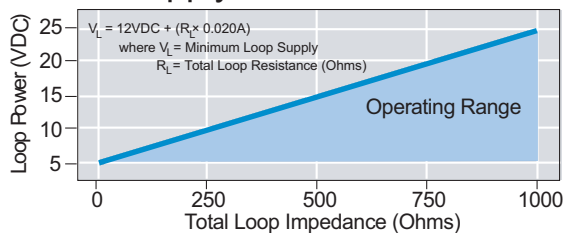
Connections ACT Series 0 to 200 Amp

Connections

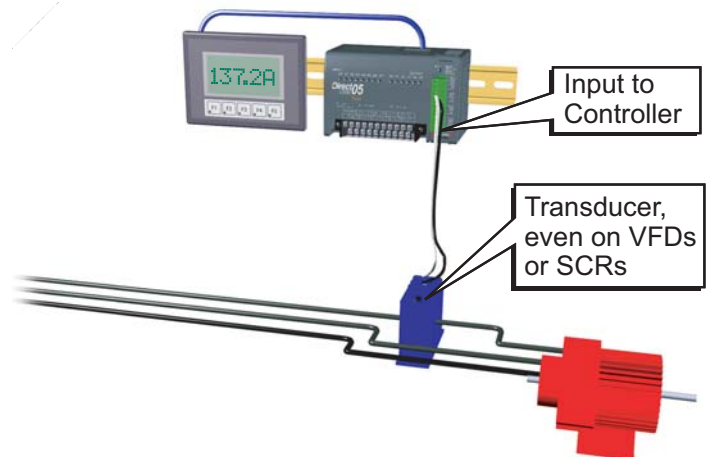
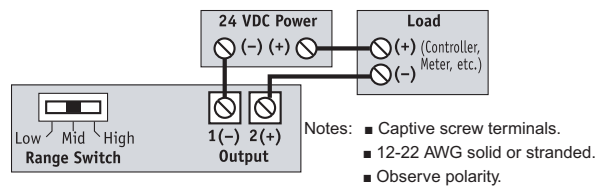


Terminals are #6 screws.

Power Supply (4-20mA output only)



Connections ACT Series from 200 to 2000 Amp



Switches and Transducers Application Guide

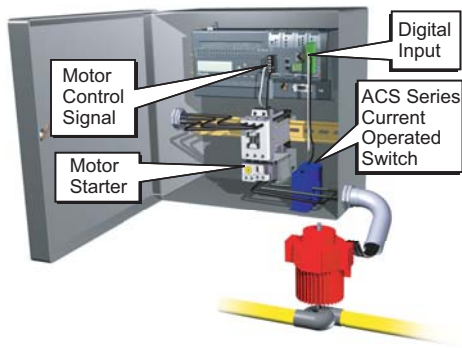
Application Guide

ACUAMP Current Sensors are a great fit for many applications, including material handling, fan and pump applications, and heating systems. With two basic models, Current Transducers and Current

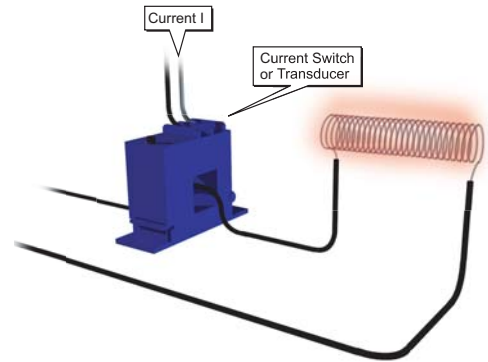
Switches, this sensor family is a great fit for almost any current sensor need, ranging from monitoring loads to preventive maintenance. Models with the ability to read True RMS non-sinusoidal waveforms

make it easy to monitor applications containing variable frequency drives. Use the application examples to help choose the best sensor model for your application.

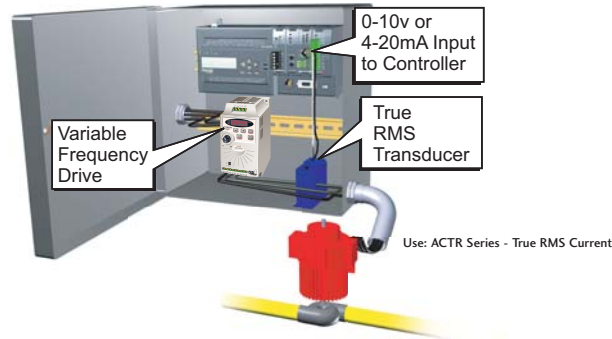
Pump Jam & Suction Loss Protection



Heater Life Prediction



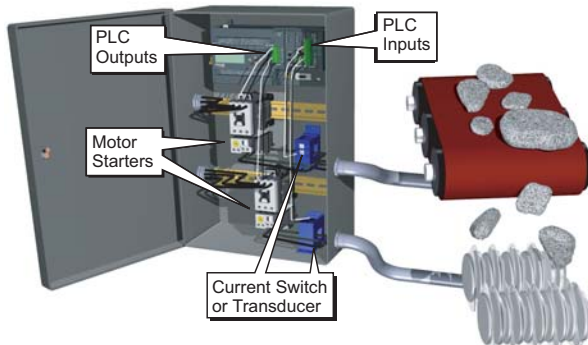
Pump Load Monitoring



Crusher/Grinder/Shredder Motor Interlocks

The performance of size reduction equipment like crushers or grinders can be optimized by controlling the in-feed in order to

- Help prevent jamming
- improve the uniformity of the resultant product
- Enhance overall production efficiency



Lamp Failure Detection

