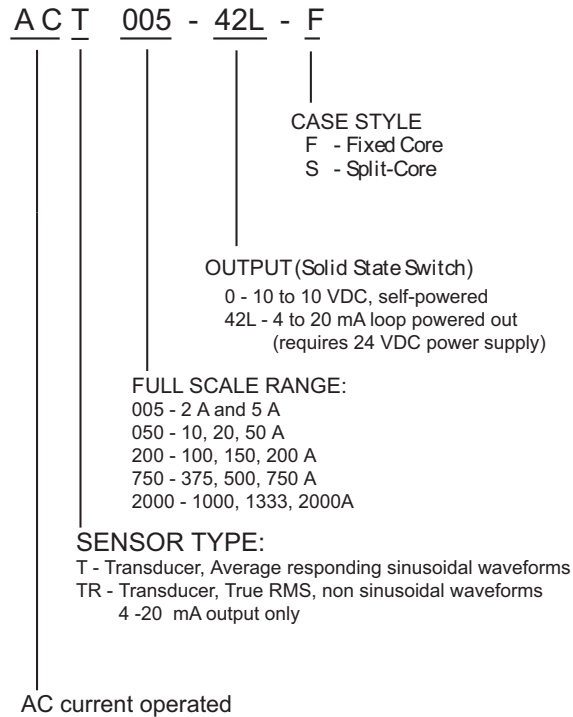


Specifications	
Output Signal	0-10 VDC or 4-20 mA (see Part Number Key)
Output Limit	
ACTx-010	15 VDC
ACTx-42L	Units up to 200 A: 32 mA Units from 200 A up to 2000 A: 23 mA
ACTRx-42L	23 mA
Frequency Range	
ACTx-010	50-60 Hz (Sinusoidal)
ACTx-42L	20-100 Hz (Sinusoidal)
ACTRx-42L	10-400 Hz (All Wave forms)
Response Time To 90% of Step Change	
ACTx-010	100 ms
ACTx-42L	Units up to 200 A: 300 ms Units from 200 A up to 2000 A: 500 ms
ACTRx-42L	600 ms
Accuracy	
ACTx-010	1% FS
ACTx-42L	1% FS
ACTRx-42L	1% FS
General	
Power Supply, -42L	24 VDC Nominal, 40 VDC Max.
Output Load, -010	1 M Ω recommended, 100 K Ω : add 1.3% error
Isolation Voltage	To 200 A: UL listed to 1270 VAC, Tested to 5kV Units 750 and 2000 A: 600 VAC
Case	UL 94V-0 Flammability rated thermoplastic
Environmental	-4 to 122°F (-20 to 50° C) operating temperature 0-95% RH, non-condensing humidity
Listings	UL 508 and cUL Listed, UL File E222847 CE Certified

Ranges & Maximum Amps - Input Maximums				
MAXIMUM INPUT AMPS				
MODEL	RANGE	CONTINUOUS	MAXIMUM 6 Seconds	MAXIMUM 1 Second
ACT005 and ACTR005	0 - 2 A	80 A	125 A	250 A
	0 - 5 A	100 A	125 A	250 A
ACT050 and ACTR050	0 - 10 A	80 A	125 A	250 A
	0 - 20 A	110 A	150 A	300 A
	0 - 50 A	175 A	215 A	400 A
ACT200 and ACTR200	0 - 100 A	200 A	300 A	600 A
	0 - 150 A	300 A	450 A	800 A
	0 - 200 A	400 A	500 A	1000 A
ACT750 and ACTR750	0 - 375 A	750 A	1500 A	3750 A
	0 - 500 A	750 A	1500 A	3750 A
	0 - 750 A	750 A	1500 A	3750 A
ACT2000 and ACTR2000	0 - 1000 A	2000A	4000 A	10000 A
	0 - 1333 A	2000A	4000 A	10000 A
	0 - 2000 A	2000A	4000 A	10000 A

Part Number Key



ACU AMPTM

ACT/ACTR SERIES INSTALLATION INSTRUCTIONS



Quick Start Guide

- Run the wire to be monitored through the aperture.
- Mount the sensor to a surface, if needed.
- Connect output wiring.
 - Use up to 14 AWG copper wires.
 - 10 VDC models: make sure output load is at least 1 M Ω .
 - 4-20 mA models: make sure loop voltage is correct
- Select Range. Choose correct range by positioning the Range Jumper (750/2000 series have a 3-position switch rather than a jumper).

 AUTOMATIONDIRECT.com

AutomationDirect.com (ADC)
3505 Hutchinson Road, Cumming, GA 30040
Phone: (800) 633-0405 or (770) 889-2858
Fax: (770) 889-7876

ACT/R-v-mu-Inst - Rev 3 0709 PN 291002129

Description

ACT Series transducers combine a current transformer and a signal conditioner into a single package. This provides higher accuracy, lower wiring costs, easier installation and saves valuable panel space.

ACT Series are available in fixed or split core with 4-20 mA or 0-10 VDC outputs. Select ACT Series for constant speed loads, On/Off loads or sinusoidal waveform loads.

ACTR Series units are available in 4-20 mA output only. The ACTR Series provides a "True RMS" output. Select ACTR Series for variable speed, SCR controlled loads or non-sinusoidal waveform loads.

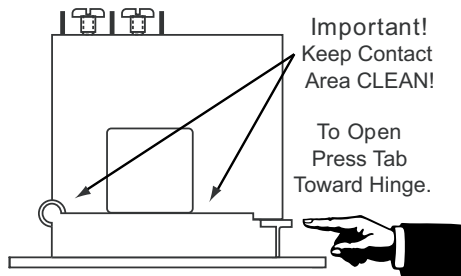
Installation

For All Versions

Run wire to be monitored through the opening in the sensor. ACT and ACTR Series transducers work in the same environment as motors, contactors, heaters, pull-boxes and other electrical enclosures. They can be mounted in any position. Leave at least one inch distance between the sensor and other magnetic devices.

Split-Core Versions (-S Suffix)

Press the tab in the direction as shown to open the sensor. After placing the wire in the opening, press the hinged portion firmly downward until a definite click is heard and the tab pops out fully.



KEEP SPLIT-CORE SENSORS CLEAN.

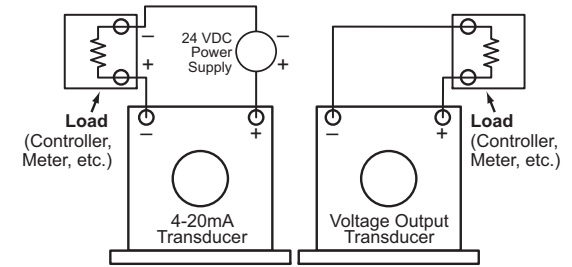
Silicone grease is factory applied on the mating surfaces to prevent rust and improve performance. Be careful not to allow grit or dirt onto the grease in the contact area. Operation can be impaired if the mating surfaces do not have good contact. Check visually before closing.

Output Wiring

Connect control or monitoring wires to the sensor. Use up to 12 AWG copper wire and tighten terminals to 5 inch-pounds torque. Be sure the output load or loop power requirements are met (see diagram at right).

Connection Notes:

- Captive screw terminals
- 12 - 22 AWG solid or stranded wire
- Observe polarity
- See label for ranges and jumper positions



Range Selection

ACT Series transducers feature field selectable ranges. The ranges are factory calibrated, eliminating time consuming and inaccurate field setting of zero or span.

1. Determine the normal operating amperage of the monitored circuit
2. Select the range that is equal to or slightly higher than the normal operating amperage.
3. Place the range jumper in the appropriate position (750/2000 series have a 3-position switch rather than a jumper).

Troubleshooting 0-10 VDC Models

1. Sensor has no output
 - A. Polarity is not properly matched.
Check and correct wiring polarity
 - B. Monitored load is not AC or is not on.
Check that the monitored load is AC and is actually on.
 - C. Split Core models: The core contact area may be dirty.
Open the sensor and clean the contact area.
2. Output signal too low
 - A. The jumper may be set in a range too high for current being monitored.
Move jumper to the correct range.
 - B. Output load too low
Check output load; be sure it is at least 100KΩ, and preferably 1MΩ.
 - C. Monitored current is below minimum required.
Loop the monitored wire through the aperture several times until the "sensed" current rises above minimum.
Sensed Amps = (Actual Amps) x (Number of Loops).
Count loops on the inside of the aperture.
3. Output signal is always at maximum
 - A. The jumper may be set in a range too low for current being monitored (750/2000 series have a 3-position switch rather than a jumper).
Move jumper to the correct range.

Troubleshooting 4-20 mA Models

1. Sensor has no output
 - A. Power supply is not properly sized.
Check power supply voltage and current rating.
 - B. Polarity is not properly matched.
Check and correct wiring polarity
 - C. Split Core models: The core contact area may be dirty.
Open the sensor and clean the contact area.
2. Output signal too low
 - A. The jumper may be set in a range too high for current being monitored.
Move jumper to the correct range.
 - B. The load current is not sinusoidal (ACT only).
Select an ACTR transducer that works on distorted wave forms.
 - C. Monitored current is below minimum required.
Loop the monitored wire through the aperture several times until the "sensed" current rises above minimum.
Sensed Amps = (Actual Amps) x (Number of Loops).
Count loops on the inside of the aperture.
3. Sensor is always at 4mA
 - A. Monitored load is not AC or is not on.
Check that the monitored load is AC and is actually on.
4. Output signal is always at 20mA
 - A. The jumper may be set in a range too low for current being monitored (750/2000 series have a 3-position switch rather than a jumper).
Move jumper to the correct range.