

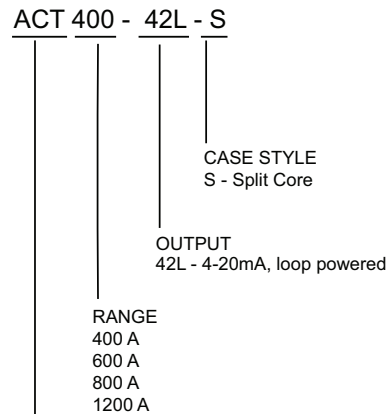
Specifications	
Power Supply	24VDC nominal, (12-32VDC) <i>Intended for use with a Class 2 source with the secondary fused to limit power to a maximum of 100 VA</i>
Output Signal	4-20 mA, Loop Powered
Output Limit	23mA
Output Impedance	< 600Ω @ 24VDC
Accuracy	1.0% FS, 10 to 100% of range
Frequency Range	ACT: 50/60Hz, Average Responding ACTR: 20-400Hz, True RMS
Isolation Voltage	UL tested to 2200VAC
Response Time	600ms (90% step change)
Case	UL 94V-0 Flammability rated thermoplastic
Sensing Aperture	2.22 X 1.19 in (56.3 X 30.2 mm) ACT1200: 3.44 x 2.31 in (87.3 x 58.8 mm)
Environmental	-Temp -4 to 122°F (-20 to 50°C) -Humidity 0-95% RH, Non-condensing -Pollution degree 2 -Altitude 2000 meters
Certifications	UL/cUL File E197592 CE

Sensed Current Limit			
Range	Continuous	6 Seconds	1 Second
All	1600A	1920A	6400A

For products intended for the EU market, the following is applicable to the CE compliance of the product:

The ACT/ACTR Series may comply with EN 61010-1 CAT III 300V max line-to-neutral measurement category. If insulated cable is used for the primary circuit, the voltage rating of the measurement category can be improved according to the characteristics given by the cable manufacturer.

Part Number Key



Warning! Risk of hazardous voltage

When operating the transducer, certain parts may carry hazardous live voltage (e.g., primary conductor, secondary terminals). The transducer should not be put into service if the installation is not complete.



Warning! Risk of electric shock or personal injury

Safe operation can only be guaranteed if the transducer is used for the purpose for which it was designed and within the limits of the technical specifications. When this symbol is used, it means you should consult all documentation to understand the nature of potential hazards and the action required to avoid them.



ACT/ACTR SERIES INSTALLATION INSTRUCTIONS



Quick Start Guide

1. Remove top section of sensing ring off by carefully prying clips away and lifting the section vertically.
2. Mount the sensor to a DIN rail or surface using screws in corners, if needed.
3. Place conductor inside ring and replace top section until the clips snap firmly closed.
4. Connect output wiring.
 - a. Use No. 22 to 14 AWG copper wires rated min. 75C and tighten terminals to 5-7 in-lbs.
 - b. Ensure output load does not exceed product specifications.
 - c. Connect 24 VDC power supply and load in series. Observe polarity.
5. Verify that the display or controller is reading the output correctly (4mA).
6. Energize the monitored circuit.



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

Description

The ACT/ACTR 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. Both the ACT and ACTR are available in a split core housing with a 4-20mA output proportional to the primary AC current. ACTR series feature a True RMS output. They are designed for application on distorted current wave forms such as VFD outputs.

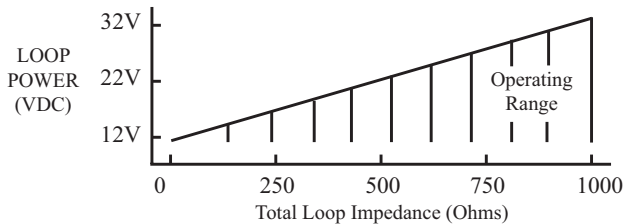
Installation

Place wire or bus bar to be monitored through the sensing aperture.

The ACT/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 or hung directly on wires with a wire tie or snapped directly to a 35mm DIN rail. Just leave at least one inch distance between sensor and other magnetic devices.

Power Supply

Minimum Power Supply = 12 VDC + Total Loop Voltage Drop



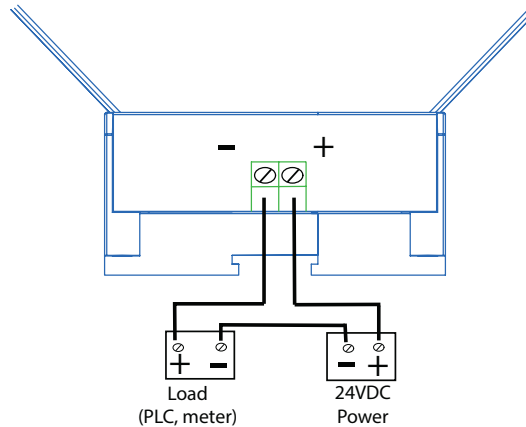
Intended for use with a Class 2 source with the secondary fused to limit power to a maximum of 100 VA.

Output Wiring

Connect control or monitoring wires to the sensor. Use up to 22 to 14 AWG rated minimum 75°C copper wire and tighten terminals to 5-7 in-lbs torque. Be sure the output load does not exceed 600 ohms with 24VDC power supply.

Connection Notes:

- Captive screw terminals
- 14-22 AWG solid or stranded
- Observe polarity



Model Range Select

The ACT/ACTR Series transducers feature factory-calibrated ranges. This eliminates time-consuming and inaccurate field setting of zero or span.

1. Determine the normal operating amperage of your monitored circuit using load specifications or a test ammeter.
2. Select the model with a range that is equal to or slightly higher than the normal operating amperage.

Troubleshooting

1. Sensor has no output.
 - A. Power supply is not properly sized.
Check power supply voltage and current rating.
 - B. Polarity is reversed.
Check and correct output wiring polarity.
2. Output signal too low.
 - A. The range may be too high for current being monitored..
Exercise care when selecting the model range.
 - B. The load current is not sinusoidal.
Select an ACTR transducer for use with distorted waveforms.
 - C. Monitored current is below minimum required.
Loop the monitored wire several times through the aperture 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.

Monitored load is not AC or is not on.

Check that the monitored load is AC and that it is actually on.
4. Output signal is always at 20mA.

The range is too low for current being monitored.

Select a model with a higher range.