**ACT/ACTR SERIES INSTALLATION INSTRUCTIONS**

Quick Start Guide

1. Run the wire to be monitored through the aperture.
2. Mount the sensor to a surface, if needed.
3. Connect output wiring.
   - A. Use up to 14 AWG copper wires.
   - B. 10 VDC models: make sure output load is at least 1 Mq.
   - C. 4-20 mA models: make sure loop voltage is correct
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.

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

ACTR Series for variable speed, SCR controlled loads or constant speed loads, On/Off loads or sinusoidal waveform loads.

Troubleshooting
For All Versions
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.

4. Output signal 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.

5. 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.