

## Installation Instructions

# H806

## Mini Solid-Core Adjustable Current Switch



H806

**VERIS INDUSTRIES**

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• *This product is not intended for life or safety applications. This product is not intended for installation in hazardous or classified locations.*

- *Potential electrocution hazard exists. Installing sensors in an energized motor control center or on any energized conductor can be hazardous.*
- *Read instructions thoroughly prior to installation.*

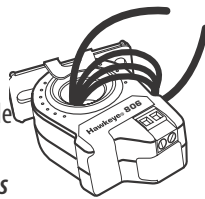
Severe injury or death can result from electrical shock during contact with high voltage conductors or related equipment. Disconnect and lock-out all power sources during installation and service. Applications shown are suggested means of installing sensors, but it is the responsibility of the installer to ensure that the installation is in compliance with all national and local codes. Installation should be attempted only by individuals familiar with codes, standards, and proper safety procedures for high-voltage installations.

### INSTALLATION

#### 1. For currents less than .75 Amp:

To provide adequate current, wrap the conductor through the center hole and around the sensor body to produce multiple passes and increase measured current.

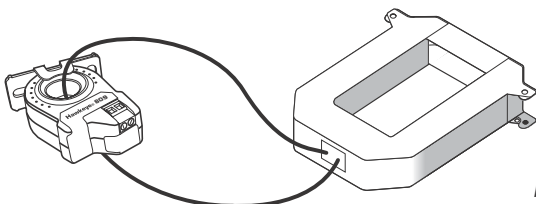
- *Measured current = Actual current times the number of passes.*



example: 4 passes

#### 2. For currents greater than 50 Amps:

In order to monitor currents greater than 50 Amps, a 5 Amp current transformer may be used. Run the CT secondary wire through the current sensor. Terminate the two secondary wires of the 5 Amp CT to each other. Then install the 5 Amp CT (H6800 Series) on the conductor being monitored. **CAUTION: CT's can contain hazardous voltages. Install CT's in accordance to manufacturers specifications and instructions. (Terminate the secondary CT before applying current through it.)**



H6800-5A CT

Z101762-0D

### INSTALLATION

1. Ensure power conductor to be monitored is disconnected and locked out from the power source!
2. Install the removable mounting bracket to the back of the electrical enclosure.
3. Thread the monitored conductor through the sensor opening and terminate.

#### Additional Information:

- **To monitor current under .75 Amp please see installation note #1.**
- **To monitor current above 50 Amps please see installation note #2.**

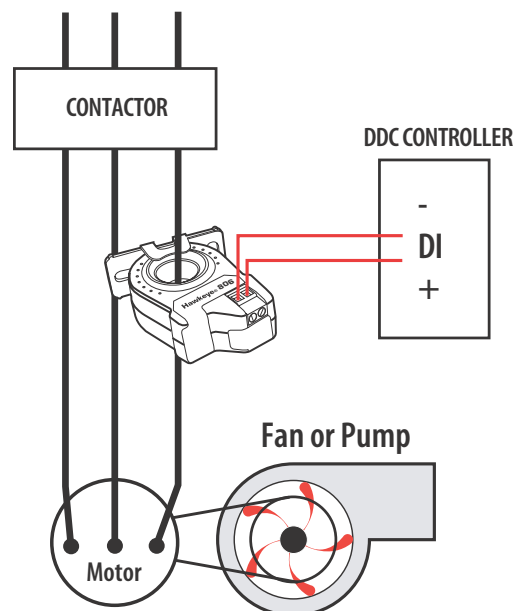
4. Connect current switch output to DDC controller or switched load.

#### Additional Information:

- A. **5 VDC or more are required for the contact to be in the Normally Closed position.**

5. Calibrate the sensor (see calibration section)

### WIRING EXAMPLE

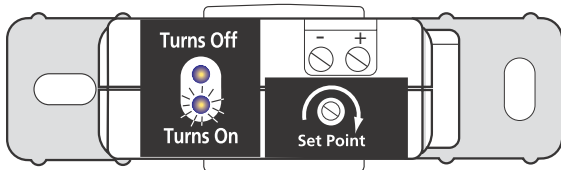


## CALIBRATION AFTER INSTALLATION

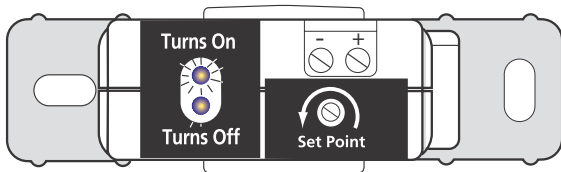
Orient the current switch so the status output terminal is facing you and follow method (A) (undercurrent) or (B) (over-current), below. The monitored motor must be running normally.

### A. For under current status indication: (Belt loss, coupling shear, fan & pump status)

STEP 1: Turn the setpoint screw clockwise until the Status Open LED turns off and the Status Closed LED turns on.



STEP 2: Slowly turn the setpoint screw counter-clockwise until the Status Closed LED turns off and the Status Open LED turns on.



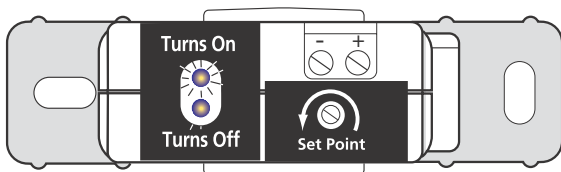
STEP 3: Turn the setpoint screw counter-clockwise 1/4 turn more to create a grace margin.

The sensor is now calibrated to provide indication of current flows below normal full load amps.

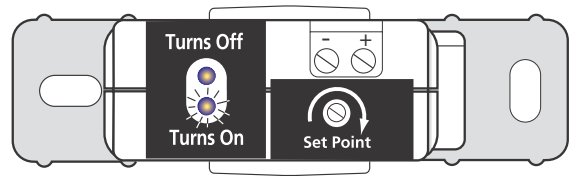
Output Status:

Normal: Output Open  
Alarm: Output Closed

### B. For over current status indication: (Locked rotor, seized impeller)



STEP 1: Turn the setpoint screw counter-clockwise until the Status Closed LED turns off and the Status Open LED turns on.



STEP 2: Turn the setpoint screw clockwise until the Status Open LED turns off and the Status Closed LED turns on.

STEP 3: Turn the setpoint screw clockwise 1/4 turn more to create a grace margin.

The sensor is now calibrated to provide indication of current flows above normal full load amps

Output Status:

Normal: Output Closed  
Alarm: Output Open

## SPECIFICATIONS

Amperage Range .....	.75-50A Continuous
Sensor Supply Voltage.....	Induced from monitored conductor
Isolation.....	600VAC rms. (max. voltage when monitoring an uninsulated conductor)
Temperature Range.....	-15° to 50°C
Humidity Range .....	0-95% non-condensing
Status Output Ratings .....	N.C. 0.1A@5-30VDC polarity sensitive
Off-state Leakage (max.).....	24ua@5VDC, 143ua@30VDC
Onstate Voltage Drop .....	1.7VDC (max.)@0.1A
Listings.....	UL508 E150462



## TROUBLESHOOTING

### 1. The unit will not come on at all.

- A. Check to be sure that no more than 30VDC or 0.2A has passed through the contact. Voltages or currents above these levels will damage the unit.
- B. Verify that the conductor you are monitoring is carrying at least 1.0 Amps. If the sensor is monitoring less than .75 Amp, employ installation note #1 (pg. 1)
- C. Verify that the setpoint is not above operating amps by turning screw counter-clockwise (up to 20 full turns) until the contacts close (status closed LED turns on).
- D. Verify that at least 5VDC are across the contacts. The device will be Normally Closed only if at least 5VDC are present.
- E. Verify that polarity is correct.

### 2. Set-point screw has no stops. Keeps turning.

- A. The 20 turn set-point screw has a slip clutch which prevents damage at either end. To start the calibration process over again turn the screw 20 full turns counter-clockwise. This sets the device in its original and most sensitive position. Resume calibration from the beginning.

### 3. Both LED's are lit.

- A. If the setpoint screw has been turned too far to the right the user will be notified that the current switch is out of calibration by seeing both LED's lit. To correct this, turn the set-point screw 20 full turns counter-clockwise and resume calibration from the beginning.