

H930



Hawkeye® 930

Split-Core Current Switch with Command Relay

Installer's Specifications

Sensor Power	Induced from monitored conductor
Insulation Class	600VAC RMS
Temperature Range	-15° to 60°C (5° to 140°F)
Humidity Range	10 - 90% RH, non-condensing
Frequency	50/60 Hz
Terminal Block Maximum Wire Size	14 AWG
Terminal Block Torque (nominal)	4 in-lbs (0.45 N-m)
Agency Approvals	UL 508 open device listing I

The product design provides for basic insulation only.

QUICK INSTALL

1. Disconnect and lock out power to the conductor to be monitored.
2. Plan the installation:
Locate a mounting surface for the removable mounting bracket that will allow the monitored conductor to pass through the iris, or "window" when it is installed and keep the product at least 1/2" (13mm) from any uninsulated conductors (CE). Determine cable routing for the controller connection, allowing wiring to reach the mounting location.
3. Install mounting bracket
Drill holes to mount the bracket to the chosen surface using the included screws.
4. Wire the Current Switch/Command Relay as shown in Wiring Example section.
Note: Current switch contacts are solid state and work just like dry contacts. When the switch is closed 1 Ohm is present. When the switch is open, more than 1 Meg Ohm is present.
5. Snap the sensor over the wire to be monitored and clip the assembly to the mounting bracket.
6. Close up and power up.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

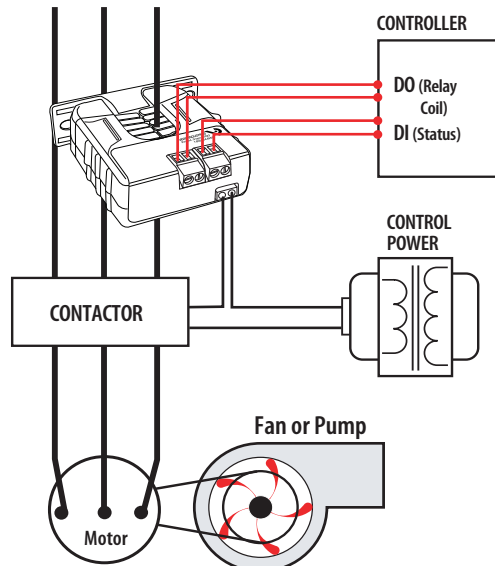
- Follow safe electrical work practices. See NFPA 70E in the USA, or applicable local codes.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Read, understand and follow the instructions before installing this product.
- Turn off all power supplying equipment before working on or inside the equipment.
- Use a properly rated voltage sensing device to confirm power is off.
DO NOT DEPEND ON THIS PRODUCT FOR VOLTAGE INDICATION
- Only install this product on insulated conductors.

Failure to follow these instructions will result in death or serious injury.

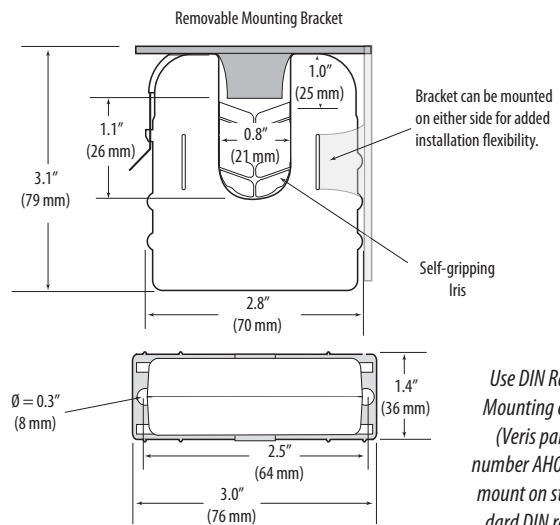
NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- The installer is responsible for conformance to all applicable codes.
- Mount this product inside a suitable fire and electrical enclosure.

WIRING EXAMPLE



DIMENSIONS



Use DIN Rail Mounting clip (Veris part number AH01) to mount on standard DIN rail.

OPERATION

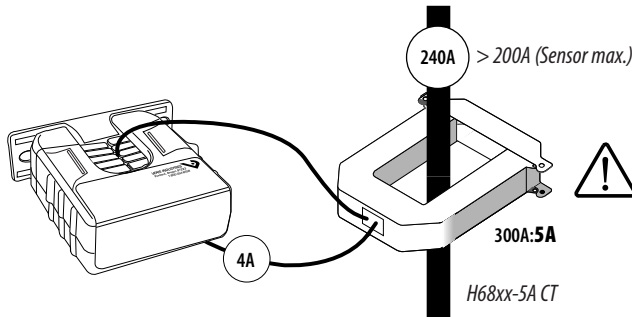
The H930 is a current-sensitive switching device that monitors current (amperage) in the conductor passing through it. A change in amperage in the monitored conductor that crosses the switch (setpoint) threshold plus the hysteresis value will cause the resistance of the FET status output to change state, similar to the action of a mechanical switch. This model is equipped with a command relay. The status output is suitable for connection to building controllers or other appropriate data acquisition equipment operating at up to 30 volts. The H930 requires no external power supply to generate its output.

The H930 housing offers unprecedented mounting flexibility. The mounting bracket can be attached in three different places. Additionally, the bracket is compatible with the Veris AH01 DIN Rail clip, allowing DIN mounting.

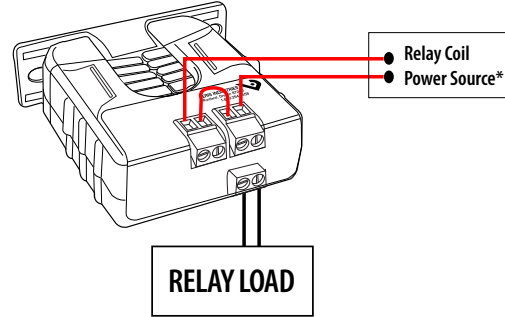
NOTES

For load currents greater than sensor maximum rating:

Use a 5 Amp (H68xx series) Current Transformer (CT) as shown.



RELAY INFORMATION



RELAY CONTACT RATINGS		
Hx3x, Hx5x (SPST, N.O.)		
Resistive.....	10A@250VAC, 30VDC	
Inductive.....	5A@250VAC, 30VDC	
Hx4x (SPDT)		
Resistive.....	8A@250VAC, 30VDC	
Inductive.....	3.5A@250VAC, 30VDC	
TYPICAL COIL PERFORMANCE		
Voltage	AC	DC
24V.....	10mA	10mA
12V.....		20mA



DANGER: 5A CTs can present hazardous voltages. Install CTs in accordance with manufacturer's instructions. Terminate the CT secondary before applying current.

CAUTION

RISK OF EQUIPMENT DAMAGE

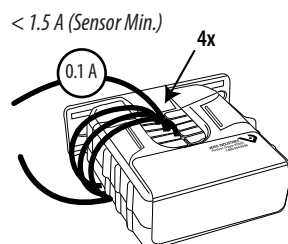
- Derate the product's maximum current for the number of turns through the sensing window using the following formula.

$$\text{Rated Max. Amps} \div \text{Number of Turns} = \text{Max. monitored Amps}$$
 e.g. : $100A \div 4 \text{ Turns} = 25 \text{ Amps max. in monitored conductor}$
- Failure to follow these instructions can result in overheating and permanent equipment damage.

For load currents less than sensor minimum rating:

Wrap the monitored conductor through the center hole and around the sensor body to produce multiple turns through the "window." This increases the current measured by the transducer.

Controller must be programmed to account for the extra turns. e.g., if four turns pass through the sensor (as shown) the normal controller reading must be divided by 4.



TROUBLESHOOTING

Problem	Solution
No Reading at Controller	<ul style="list-style-type: none"> • Check that no more than 30VAC/DC or 1.0A has passed through the contact. • Check for amperage in monitored conductor (>1.5A) • Assure that sensor core mating surfaces are clean and that the core clamp is completely closed
Relay chatters or will not change state	<ul style="list-style-type: none"> • Check that not more than 24VAC/DC has been applied to the relay coil. • Parallel applications with AC transformers can damage the relay. Use an appropriate snubbing device (see www.veris.com/apps/snub.htm for more information)