Installation Instructions

H921

Split-Core 4-20mA Current Transducer

H921

MOD-TRONIC INSTRUMENTS LIMITED

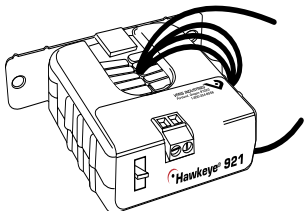
1 Delta Park Blvd, #12 Brampton, ON L6T 5G1
Tel 905-457-6322 or 1-800-794-5883
Fax 905-457-4716 or 1-800-830-7122
sales@mod-tronic.com www.mod-tronic.com

- ***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***

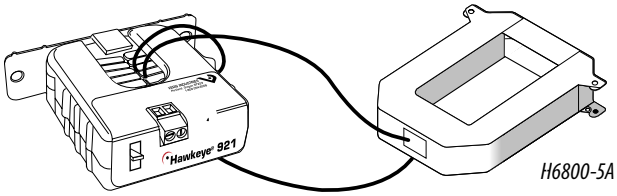
Severe injury or death can result from electrical shock during contact with high voltage conductors or related equipment. Disconnect and lock-out all power sources during installation and service. Applications shown are suggested means of installing sensors, but it is the responsibility of the installer 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 NOTES

1. For currents less than 2 Amp: To provide adequate current and ensure accuracy, wrap the conductor through the center hole and around the sensor body to produce multiple passes and increase flow. *• Measured current = Actual current x the number of passes. Controller must be programmed to account for the extra passes. ie., if four passes are run through the sensor (as shown above) the reading must be divided by 4.*



2. For currents greater than 120 Amps:
To monitor currents greater than 120 amps, a 5 amp current transformer may be used. Install the 5 amp CT (H6810 series) on the conductor being monitored and run the CT secondary wire through the current sensor two times. Then terminate the two secondary wires of the 5 amp CT to each other. Set the amp range selector switch to 0-10 amps and configure the control panel so that 4-20mA is equal to 0-(CT primary current rating). **CAUTION: CTs can contain hazardous voltages. Install CTs in accordance to manufacturers specifications and instructions. (Terminate the CT secondary before applying current through it).**



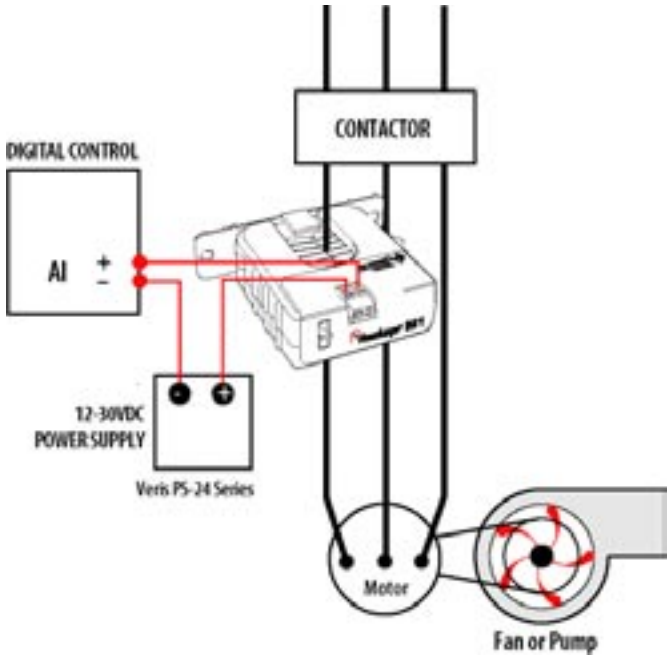
H6800-5A CT

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. Put the current sensor around the conductor and close untill the clip "snaps" shut.

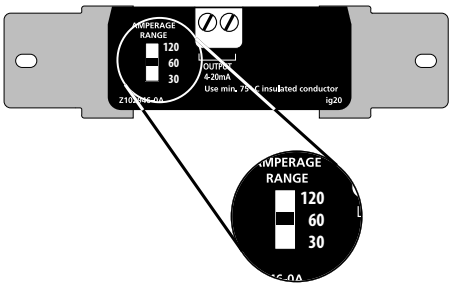
   NOTES:
   • To monitor current under 2 Amp please see installation note #1.
   • To monitor current above 120 Amps please see installation note #2.
4. Connect 4-20mA two wire loop-powered output (requires 12-30VDC and a maximum of 30mA) to analog input of control panel. (See page 2 for wiring examples)
5. Scale control panel for 4-20mA input (see page 2)

WIRING EXAMPLE

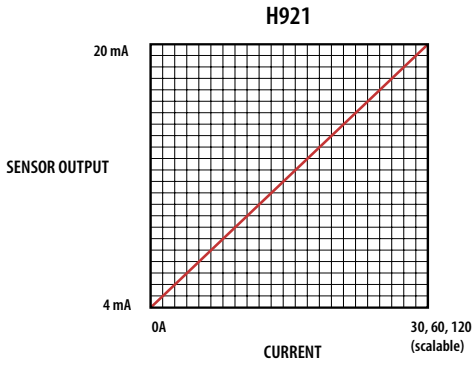


SCALING CONTROL PANEL

First set the amperage range selector switch to a level appropriate for your load. The H921 is available with three choices, 0-30, 60, or 120 Amps = 4-20mA.

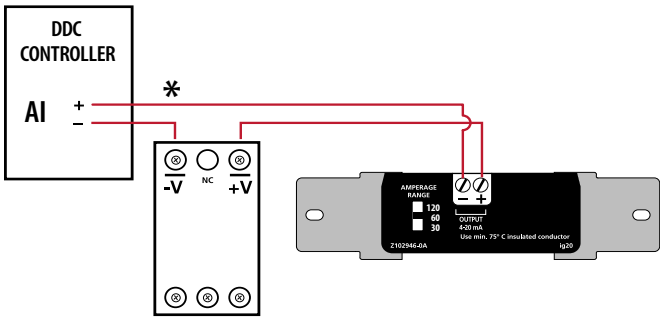


Amperage Range Selector Switch



H921 LINEAR OUTPUT
Scale software as shown

Wiring Example: External Power

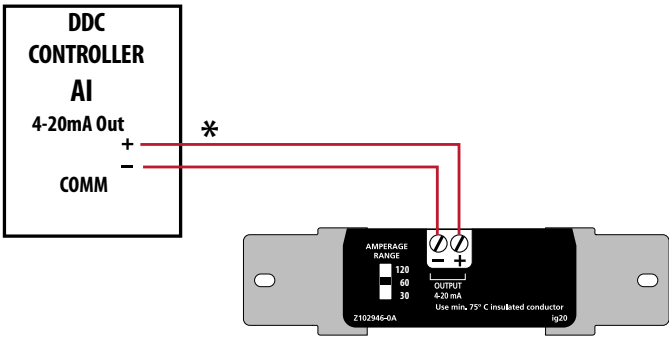


PS Series Power Supply

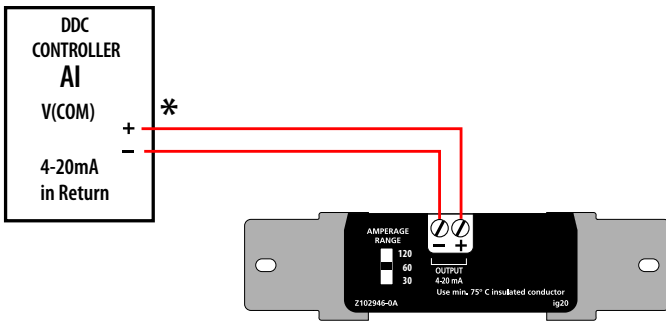
SPECIFICATIONS

Amperage Range	0-30, 60, 120 Amps (Slide switch selectable)
Accuracy	±2% F.S. from 10% to 100% of selected range
Sensor Supply Voltage	12-30VDC Loop Powered
Supply Current	30mA (max.)
Isolation	600VAC rms. (max. voltage when monitoring an uninsulated conductor)
Temperature Range	-15º to 60º C
Humidity Range	0-95% non-condensing
Output	4-20mADC
Agency Approval	UL508 E150462

Wiring Example: Sourcing Panel (-Common)



Wiring Example: Sinking Panel (+Common)



**A resistor can be added in parallel to convert the 4-20mA signal to a VDC signal 250 ohm= 1-5VDC 500 ohm = 2-10VDC*

TROUBLESHOOTING

1. **There is no reading at the control panel**
   A. Confirm that you have 12-30VDC in series with the sensor output terminals and the control panel analog input.
   B. Check the polarity of the circuit.
   C. Remove input from the control panel and turn off monitored load. Then insert a VOM on milliamp setting in series with the circuit containing the sensor output and 12-30VDC power source. The VOM should read 4mA. If not refer to the wiring examples above to ensure correct polarity.