

# H720



## **⚠ 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.

# Hawkeye™ 720

**Solid-Core Current Sensor, 4-20 mA Output,  
VFD Compatible**

### Installer's Specifications

|                               |  |
|-------------------------------|--|
| Sensor Power                  | 12-30 VDC, 30 mA max.                                    |
| Amperage Range                | 0 to 200 A continuous                                    |
| Insulation Class              | 600 VAC RMS  |
| Output                        | 4-20 mA  |
| Zero Adjustment               | 3.5 to 4.5 mA  |
| Span Adjustment               | 20 to 200 A, full scale                                  |
| Frequency Range               | 10 to 80 Hz  |
| Temperature Range             | -15° to 60°C (5° to 140°F)                               |
| Humidity Range                | 10-90% RH non-condensing                                 |
| Accuracy                      | 0.5% (combined linearity, hysteresis, and repeatability) |
| Response Time                 | 2 sec  |
| Terminal Block Max. Wire Size | 14 AWG   |
| Terminal Block Torque (nom.)  | 4 in-lbs (0.45 N-m)                                      |
| Agency Approvals              | UL 508, E150462  |

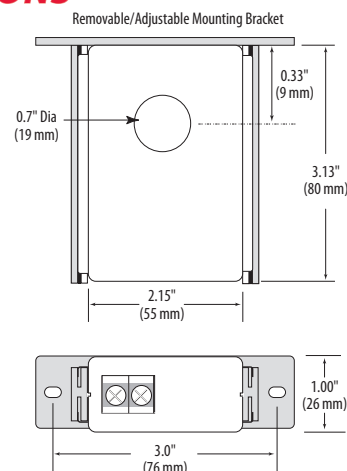
The product design provides for basic insulation only.

## INSTALLATION

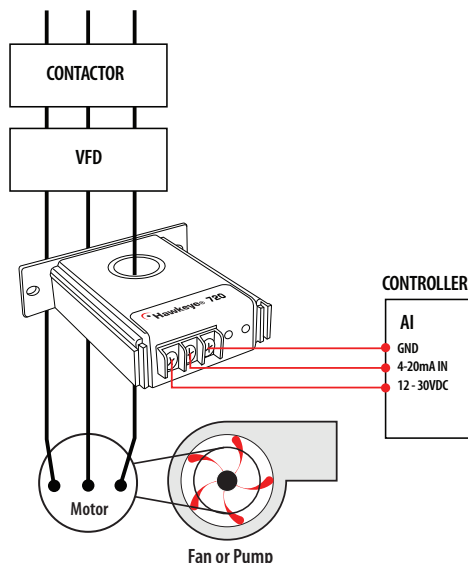
**Disconnect and lock out power to the enclosure containing the conductor to be monitored.**

1. Locate a mounting surface for the removable mounting bracket that will allow the monitored conductor to pass through the center window when it is installed and that will keep the device at least 1/2" from any uninsulated conductors. Determine cable routing for the controller connection, allowing wiring to reach the mounting location.
2. Drill holes to mount the bracket to the chosen surface using the included screws.
3. Wire the output connections between the sensor and the controller (solid-state contact).
4. Route the conductor through the sensor's center window and slip the assembly into the mounting bracket.
5. Adjust the Zero and Span settings. Span can be set at any point from 20A to 200A.
6. Secure enclosure and reconnect power.

## DIMENSIONS



## WIRING EXAMPLE



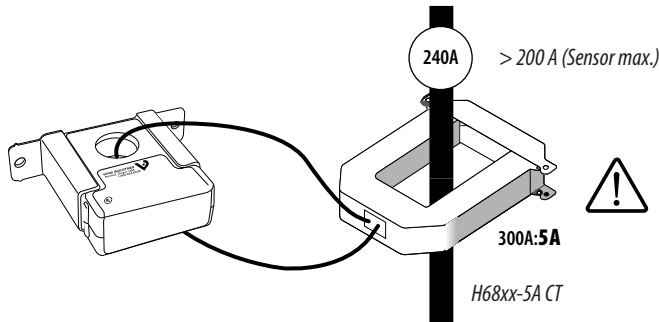
**OPERATION**

The H720 is a current-sensitive transducer that monitors current (amperage) in the conductor passing through it. The H720 has a 4-20 mA analog output that corresponds to 0-20 A to 0-200 A flowing through the conductor (adjustable Span setting). The status output is suitable for connection to building controllers or other appropriate data acquisition equipment operating at up to 30 volts. The H720 requires a 12-30 VDC power supply to generate its output.

**NOTES**

**For load currents greater than sensor maximum rating:**

Use a 5 Amp (H68xx series) Current Transformer (CT) as shown. This technique can be combined with wrapping (see below) to add range for a low current load on a high current source.



**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**

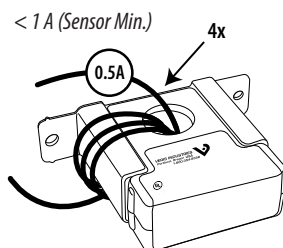
- Derate the product's maximum current for the number of turns through the sensing window using the following formula.  

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

**For load currents less than sensor minimum rating:**

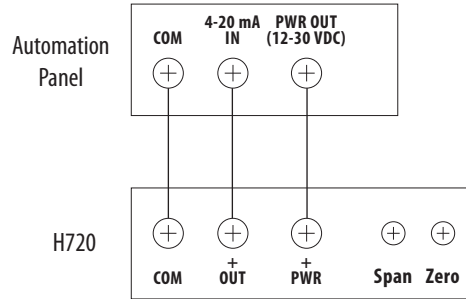
Wrap the monitored conductor through the center window and around the sensor body to produce multiple turns. This increases the current measured by the transducer.

Program controller to account for the extra turns, e.g., if four turns pass through the sensor (as shown), then divide the normal controller reading by 4.

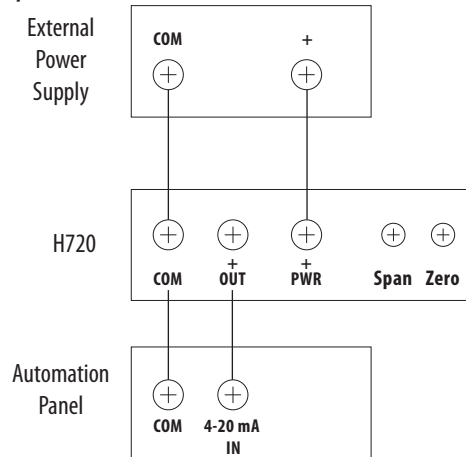


**WIRING OPTIONS**

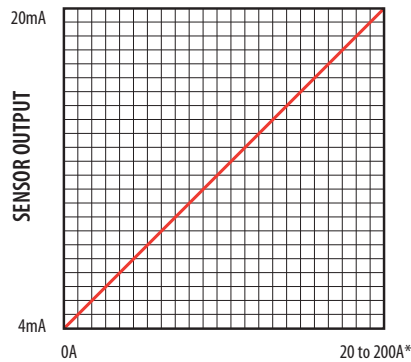
**Option 1:**



**Option 2:**



**ZERO AND SPAN SETTING**



\*Adjusted with Span Setting

**TROUBLESHOOTING**

| Problem                  | Solution   |
|--------------------------|--|
| No Reading at Controller | <ul style="list-style-type: none"> <li>• Check Zero and Span settings.</li> <li>• Check for control voltage at sensor (&lt; 30 V)</li> <li>• Check for amperage in monitored conductor (&gt; 1 A)</li> </ul> |