Installation Instructions

HAWKEYE 934
Current Status Sensor
Command Relay

Installation

1. Ensure power conductor to be monitored is disconnected and locked out from the power source!

2. Locate in a NEMA 1 enclosure or better, such as an approved starter enclosure. Install the mounting bracket to the back of the enclosure.

3. Attach sensor to conductor to be monitored. ON VARIOUS FREQUENCY DRIVES LOCATE THE SENSOR ON THE LOAD SIDE OF THE DRIVE.

4. Typically the sensor will not have to be reset as it comes from the factory in the learn mode, meaning that it will automatically learn the motor curve of the motor being monitored. The sensor will retain that motor curve information in its memory until it is reset. The sensor will need to be reset if any of the following instances occur:
   - The sensor is installed on a different motor
   - The motor is re-sheaved
   - After air balancing

To reset the sensor, ensure that the motor is running and press the reset switch until the LED flashes 5 times (~5 seconds)

5. Connect the sensor STATUS output to the digital input on the automation system or other device. (Note: Testing the solid-state output of this sensor with a digital ohm meter may yield inaccurate, but relative readings of switching (i.e., 6 Meg Ohms.) Use an analog VOM for readings similar to loop.

6. Wire as shown below. Use copper conductors only for command relay output. Terminal tightening 3.5lbs torque.

OPERATION

This self-calibrating microprocessor based current sensor is designed to learn motor curves and detect belt loss accordingly. The sensor averages the input signal for 15 seconds prior to going into an alarm condition to insure that belt loss has occurred.

The sensor assumes that belts are intact upon the first initialization, and requires a few minutes to learn the motor operating curve.

On variable frequency drives, the 934 will learn distinct operating amperages at given frequencies. Below 25 Hz, the sensor will not generate an alarm, as amperage changes due to belt loss are minimal in this range. However, as the drive ramps up to compensate for a loss of static pressure, the belt loss is typically detected.

During normal operation the LED will flash 1X per second. In alarm (output "Open") the LED will "double pulse" flash.

NOTE: The 934 requires a minimum of 3 amps from 38-60 Hz. and 5 amps, from 25-38 Hz, for full function operation.

Amperage/Frequency Range................................. 3 to 135A;
(On/off, Status only)........................................... 5-34 Hz.
(Belt loss indication) ............................................ 3 to 135A;
Hz.Sensor Supply Power........Induced from monitored conductor
Supply Current..............................................Induced from monitored conductor
Isolation..................................................600VAC rms
Trip set-point................................................Automatic setting
Sealing..........................................................N.E.M.A. 1
Temperature range..............................................-15 to 60º C
Humidity range................................................0-95% non-condensing
Status Output Rating..............................N.O.  .1A @ 30 VAC/DC
Relay Contact Rating: Resistive....N.O. 5 A (R), 1/8 HP @ 240 VAC
Relay Coil...........................................24 VAC/DC; 10 mA nom.

P/N Z101186