

# HX39, HX49 & HX59 SERIES

Status and Control in One Package



Hawkeye Relay Combination Series high voltage output current switches are the ideal solution for the automation installer. These units combine a current switch and relay into a single package, reducing the space required for total control of fans and pumps. The integrated current switch and relay operate independently of one another. All relay connections are externally available for maximum flexibility.

These products perform the functions of start/stop and status monitoring with one device instead of two.

## SPECIFICATIONS

Sensor Power	Induced from monitored conductor
Insulation Class	600 Vac RMS
Frequency Range	50/60 Hz
Temperature Range	-15 to 60 °C (5 to 140 °F)
Humidity Range	10 to 90% RH non-condensing
Hysteresis	10% Typical
Terminal Block Wire Size	24 to 14 AWG (0.2 to 2.1 mm <sup>2</sup> )
Terminal Block Torque	3.5 to 4.4 in-lbs (0.4 to 0.5 N-m)

## WARRANTY

Agency Approvals	UL 508 open device listing, CAT III, Pollution Degree 2, basic insulation
------------------	---

## AGENCY APPROVALS

Limited Warranty	5 years
------------------	---------



Do not use the LED status indicators as evidence of applied voltage.

## Combined relay & status

Combines command relay and fan/pump status sensor in a single, easy-to-install unit

## No tubing

Easier to install than differential pressure switches...no tubing needed

## Polarity insensitive

Polarity insensitive status outputs...fast and easy installation

## Detect belt loss

Detect belt loss & motor failure... ideal for fan and pump status

## Easy setup

Relay and status LEDs

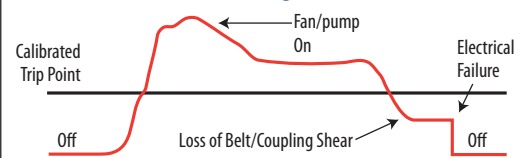
## Added flexibility

Bracket on H939, H949, and H959 can be installed in three different configurations

## APPLICATIONS

- Starting/stopping and monitoring positive status of motors
- Detecting belt loss and coupling shear

### DETECTS BELT LOSS/COUPLING SHEAR!



Now you can easily detect when drive belts slip, break, or pump couplings shear. In fact, a typical HVAC motor that loses its load has a reduction of current draw of up to 50%. That's why our sensors are the industry standard for status.

### Relay Contact Ratings

Hx39, Hx59 (SPST, N.O.)	
Resistive	10 A @ 250 Vac, 30 Vdc
Inductive	5 A @ 250 Vac, 30 Vdc
Hx38, Hx58 (SPDT)	
Resistive	8 A @ 250 Vac, 30 Vdc
Inductive	3.5 A @ 250 Vac, 30 Vdc

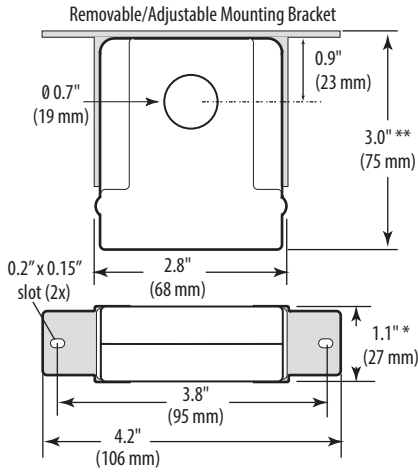
### Typical Coil Performance

Voltage	AC	DC
24V	10 mA	10 mA
12V (Hx58)		20 mA
Pull-in Voltage		
Hx39		20.1 Vdc
Hx49		20.1 Vdc
Hx59		8.4 Vdc
Drop-out Voltage		
Hx39		5.2 Vdc
Hx49		5.2 Vdc
Hx59		3.0 Vdc



**H739/H749**

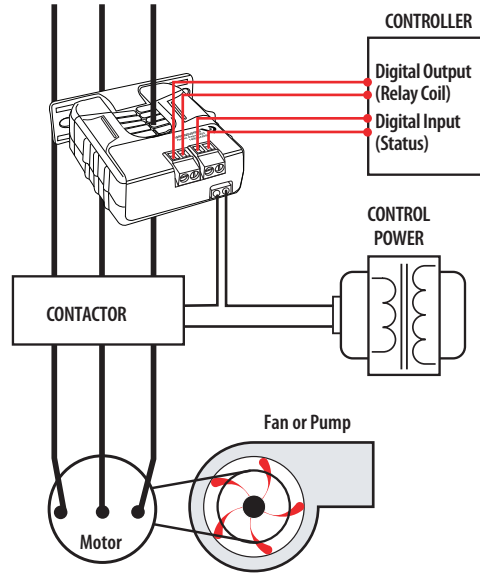
Dimensional Drawing



\* Terminal block may extend up to 1/8" over the height dimensions shown.  
 \*\* Slide switch may extend up to 1/4" over the height dimensions shown.

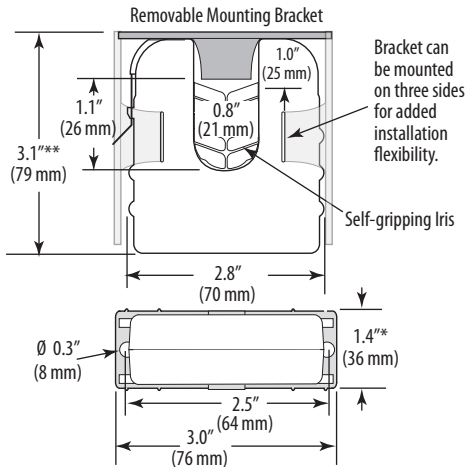
**START/STOP MONITORING OF FAN /PUMP MOTORS**

Wiring Diagram



**H939/H949/H959**

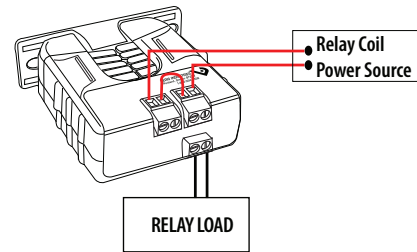
Dimensional Drawing



\* Terminal block may extend up to 1/8" over the height dimensions shown.  
 \*\* Slide switch may extend up to 1/4" over the height dimensions shown.

**RELAY CONTROLLED DIRECTLY BY STATUS CONTACTS**

Wiring Diagram



**ORDERING INFORMATION**

MODEL	AMPERAGE RANGE	STATUS OUTPUT (MAX.)	MIN. TRIP POINT	RELAY TYPE	RELAY COIL	HOUSING	STATUS LED	RELAY POWER LED	UL
H739	1 to 135 A	N.O. 0.2 A @ 120 Vac/dc	1 A or less	SPST, N.O.	24 Vac/dc	Solid-core	•	•	•
H749	1 to 135 A		1 A or less	SPDT	24 Vac/dc	Solid-core	•	•	•
H939	2.5 to 135 A		2.5 A or less	SPST, N.O.	24 Vac/dc	Split-core	•	•	•
H949	2.5 to 135 A		2.5 A or less	SPDT	24 Vac/dc	Split-core	•	•	•
H959	2.5 to 135 A		2.5 A or less	SPST, N.O.	12 Vdc nom.	Split-core	•	•	•

