AUTOMATICALLY LEARNS LOAD AT INITIAL POWER-UP

5 Year Warranty

•**Hawkeye**® *TruStat™ 10F*

The self-calibrating, "smart" current switch

Current Switch: Auto Calibration, Standard Output

The **Hawkeye TruStat H10F** is a microprocessor based, self-learning, self-calibrating current switch. It provides calibration-free motor status, for both under-current (belt-loss/mechanical failure) and over-current (locked rotor. . .) conditions. At initial power-up, the H10F automatically learns the average current on the line with no action required by the installer. Once a current is learned, the switch monitors for changes in current greater than ±20% of the learned load.

APPLICATIONS

- Detecting belt loss, coupling shear, and mechanical failure
- Verifying lighting circuit and other electrical service run times
- Monitoring status of industrial process equipment
- Monitoring status of critical motors (compressor, fuel, etc.)

Automatic calibration...reduced errors and installation costs

- Microcontroller based learning technology... automatically learns load upon initial power-up... eliminates labor associated with calibration
- Monitors current for both under- and over-load in one package
- Small size fits easily inside small starter enclosures...saves space

Monitor status of fans, pumps & electrical loads

- Automatic adjustable trip point (3.5-100A)
- 100% solid state...no moving parts to fail
- Removable mounting bracket for installation flexibility
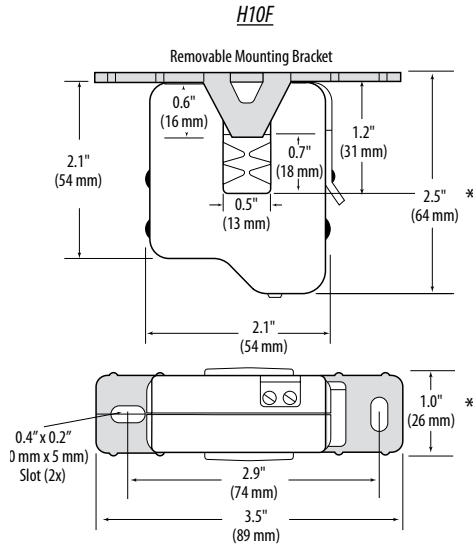- 5-year warranty

PRODUCT FUNCTIONS
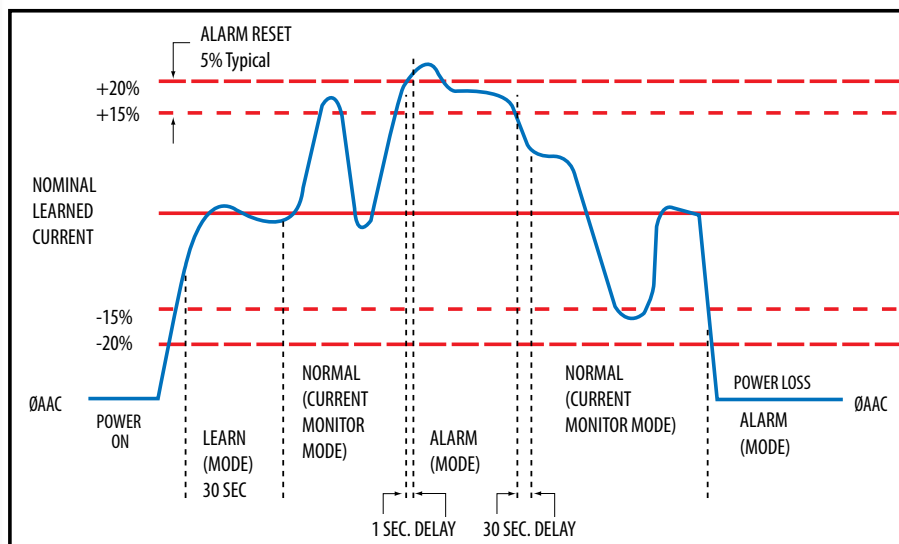
SPECIFICATIONS

Sensor Power	Induced from monitored conductor
Isolation	600VAC RMS (UL); 300VAC RMS (CE)
Temperature Range	-15° to 60° C (5° to 140°F)
Humidity Range	10-90% RH non-condensing
Frequency Range	50/60Hz
Trip Point Calibration Learn Period	30 sec. learn period
NORMAL-to-ALARM Status Output Delay	1 second max.
ALARM-to-NORMAL Status Output Delay	30 seconds nominal*
Agency Approvals	UL 508 open device listing
	CE: EN61010-1:2001-02, CAT III, deg. 2, basic insulation

*If current switch experiences a momentary loss of power, 30 second delay may or may not apply.
Do not use LED status indicators as evidence of applied voltage.
For reinforced insulation contact the factory.*

CURRENT SENSING
THE ULTIMATE PROOF OF FLOW

*Maximize Reliability
Minimize Installed Cost*

DIMENSIONAL DRAWING

H10F

Removable Mounting Bracket

0.6" (16 mm)
0.7" (18 mm)
1.2" (31 mm)
2.1" (54 mm)
0.5" (13 mm)
2.5" (64 mm) *
2.1" (54 mm)

0.4" x 0.2" (10 mm x 5 mm) Slot (2x)
1.0" (26 mm) *
2.9" (74 mm)
3.5" (89 mm)

Terminal block may extend up to 1/8" over the height dimensions shown.

APPLICATION/WIRING EXAMPLE

Monitoring Fan /Pump Motors for Positive Proof of Flow

CONTACTOR

Insulated conductor only

DDC CONTROLLER

DI

Pump or Fan

Motor
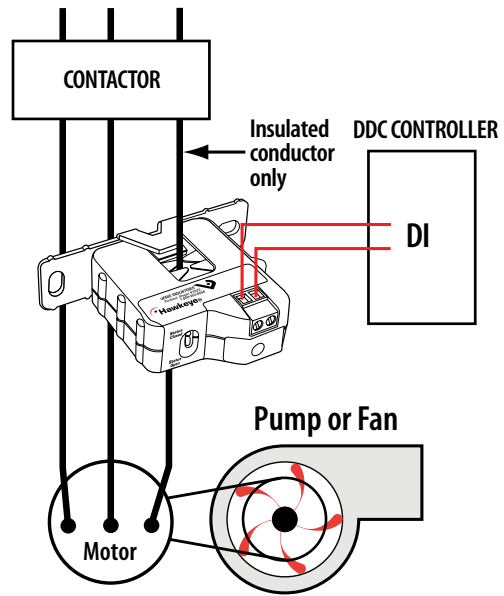
HOW IT WORKS

The compact split-core H10F current switch monitors a learned load current to detect belt loss/coupling shear, or mechanical failure, as well as power loss and electrical overload of fans, blowers, pumps, chillers, or any other critical motor functions. The push-button initiated LEARN MODE allows resetting of the monitored current when the load changes due to system alterations.

LEARN MODE

- Unit automatically enters LEARN MODE upon initial power-up
- Auto-calibration is achieved by averaging the load current for 30 seconds
- During this stage, green and red LEDs blink on/off
- STATUS OUTPUT contacts are closed
- LEARN MODE may be initiated manually

NORMAL MODE

- Initiated after the 30-second learning period, or immediately upon power-up if sensor has already learned a load
- The red LED is off, and the green LED is blinking
- STATUS OUTPUT contacts are closed

ALARM MODE

- The ALARM state signals low current, high current, or power loss conditions
- Initiated within 1 second when any load current excursion exceeds a nominal ±20%
- ALARM will persist until the load current returns to within a nominal ±15% of the learned current value, or when power is restored to normal
- The 5% ALARM-to-NORMAL MODE reentry margin prevents alarm signal oscillations. This feature is enhanced by a 30 second delay, to insure true nominal load current conditions when returning to NORMAL MODE from an ALARM state
- The green LED shuts off, and the red LED blinks
- STATUS OUTPUT contacts are open

OPERATING MODES	STATUS LEDS		STATUS OUTPUT
	GREEN	RED	
LEARN (30 secs)	Alternating Blink On/Off		Contacts Closed
NORMAL	Blink	Off	Contacts Closed
ALARM	Off	Blink	Contacts Open

ORDERING INFORMATION

RoHS Compliant
LISTED 3T60 UL 508
c UL us E150462
CE

MODEL	AMPERAGE RANGE	STATUS OUTPUT	NOMINAL TRIP POINT TARGET RANGE*	NOMINAL ALARM RESET RANGE*	HOUSING	STATUS LED	UL	CE
H10F	3.5 - 100A	N.O. 1.0A@30VAC/DC	±20%	±15%	Split-core	●	●[1]	●

For best performance, monitor 5A or more current. At currents less than 5A, these ranges are approximate.

[1] *Listed for use on 75°C insulated conductors.*

ACCESSORIES

DIN Rail Clip Set, DIN Rail, and DIN Stop Clip...see page 219.