

## Micro Split Core Current Switch Adjustable Setpoint



### Features

- Micro size
- Switches up to 1A @ 30Vac/dc
- Self powered, no supply required
- Status LED's for easy setup
- 100% Solid state, no moving parts to fail

### Specification

Current	0.15 - 50A
Sensor power	Induced from monitored conductor
Frequency range	50 - 60Hz
Switch output:	
Max. current	1A
Max. voltage	30Vac/dc
Hysteresis	10% typical
Switching	Normally open (zero through current)
Ambient:	
Temp.	-15°C to +60°C
RH	10-90% RH non-condensing
Sensing aperture	8 mm
Dimensions	45 x 40 x 30 mm
Insulation class	300Vac RMS
Compliant	CE Marked
Country of origin	U.S.A

### Product Codes

#### PM-H308

Adjustable setpoint current switch split core 0.15A to 50A



Suitable for switching 30Vac/dc ONLY.

### Technical Overview

The PM-H308 micro current switch can be used to monitor motors, pumps or other electrical loads where a switched output is required. Its small size make it ideal for monitoring small to medium motor loads.

The output can be used for simple run/fail detection, a normally open solid state switch operates when the current level sensed by the internal transformer exceeds the threshold value.

### Installation

1. The PM-H308 current switch should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages. (>50Vac & <1000Vac or >75Vdc & 1500Vdc)
2. Ensure that all power is disconnected before carrying out any work on the PM-H308. Never rely on status indicating devices only to determine if power is present in a conductor.
3. When installing the split-core current switch, you must ensure that there are no dirt particles that will prevent good contact between the core pieces when the device is closed.
4. Mount the sensor in a suitable location using the two mounting holes in the base of the unit or use the self-gripping iris which eliminates the need for drill mounting.
5. Care must be taken not to over tighten the screw terminals. The connections are polarity independent.

#### Low conductor current:

If the load is less than the required switching point you can loop the conductor through the sensor to multiply the load. Example, load is 0.1A, pass the cable through the aperture 4 times and you will have a total load of 0.4A. This is now a sufficient load to operate the switch. See fig 1.

#### High conductor current and large diameter cables:

If the load is greater than 60A or the cable diameter is greater than the aperture of the current switch, you must use a suitable current transformer. Pass a cable connected to the secondary winding of the current transformer through the aperture. See fig 2.

### Installation (continued)

Fig 1.

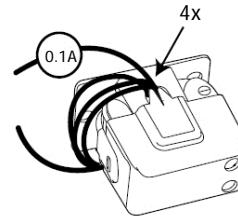
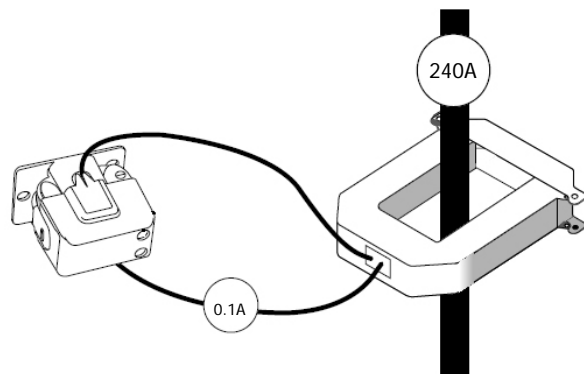
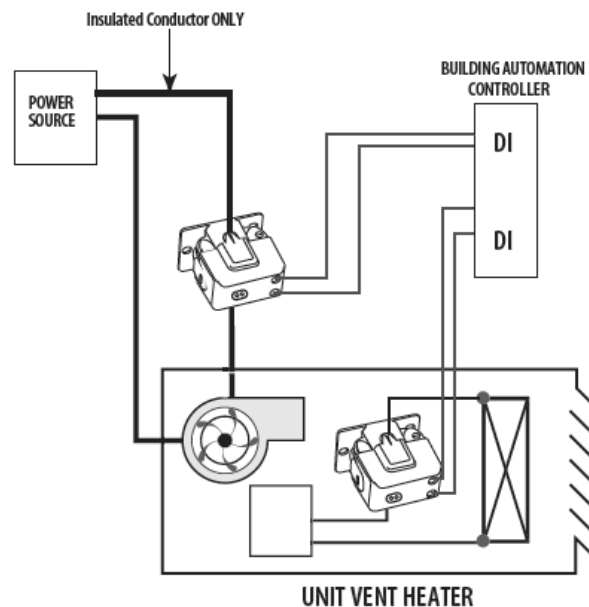


Fig 2.

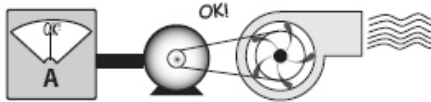


### Wiring Example

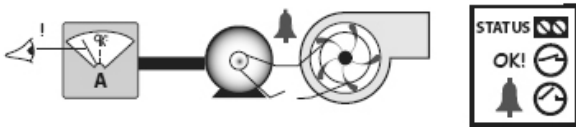


### Setpoint Adjustment

Establish normal load conditions.



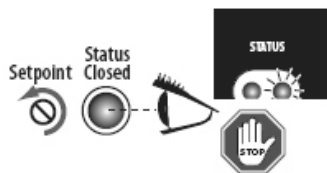
#### Monitoring under-current (belt loss, coupling shear, status)



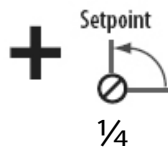
1. Turn the setpoint screw clockwise until status OPEN LED turns ON.



2. Slowly turn the screw counter-clockwise until the status CLOSED LED just turns ON.

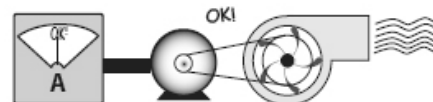


3. Turn the screw an additional 1/4 turn counter-clockwise for operational margin.

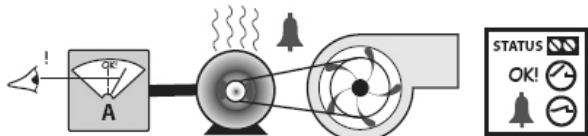


### Setpoint Adjustment (continued)

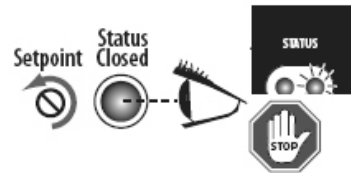
Establish normal load conditions.



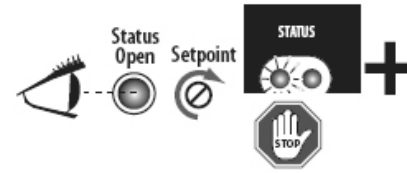
#### Monitoring over-current (mechanical problems, sized impeller)



1. Turn the setpoint screw counter-clockwise until status CLOSED LED turns ON.



2. Slowly turn the screw clockwise until the status OPEN LED just turns ON.



3. Turn the setpoint screw an additional 1/4 turn clockwise for operational margin.



### Trouble shooting

#### 1/ No reading at controller.

- a/ Check for control voltage at sensor (<30V).
- b/ Check for amperage in monitored conductor (>0.75A).
- c/ Assure that sensor core mating surfaces are clean and that the core clamp is completely closed.
- d/ Verify that the setpoint is not above operating amps by turning screw counter clockwise (up to 20 turns) until the contacts close (Status Closed LED turns on).

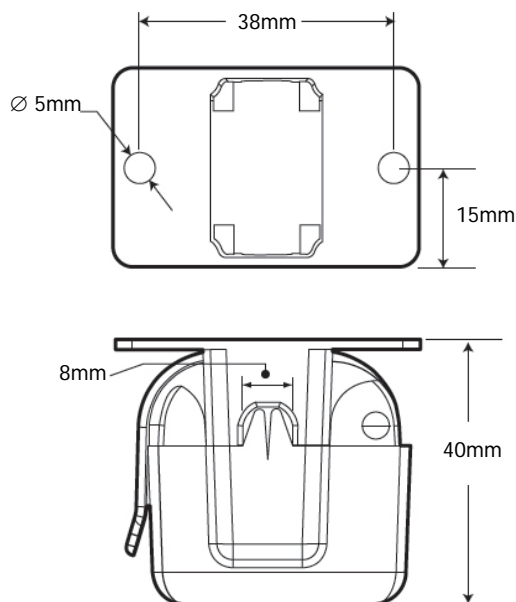
#### Setpoint screw has no stops.

- a/ The 20 turn setpoint screw has a slip clutch to prevent damage at either end. To re-start the calibration process, turn the screw 20 full turns counter clockwise. This sets the device in its original and most sensitive position. Resume calibration from the beginning.

#### Both LED's are lit.

- a/ The screw has been turned too far to the right (out of calibration). Turn the screw 20 full turns counter clockwise and resume calibration from the beginning.

### Dimensions



### Dimensions (continued)

