ASP-FD SERIES
Current Sensing Switches

ASP-FD Series Current Sensing Switches allow two separate trip points to detect overcurrent and undercurrent conditions. The sensor outputs are dual, single-pole, double-throw relays, so they can control either AC or DC circuits and provide an alarm if the monitored circuit draws too little or too much current. One sensor means less installation time and less panel space required. The Status LEDs indicate if the monitored circuit current is under or over each of the trip points.



Series Current Sensing Switch Applications

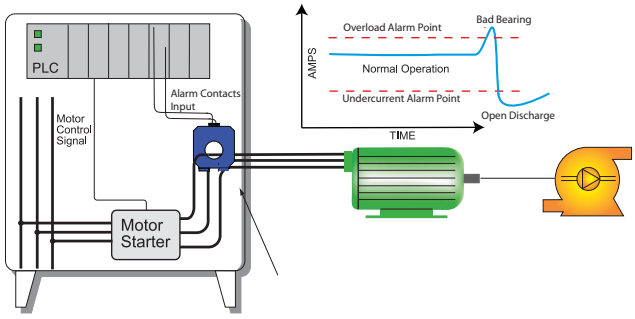
Electronic Proof of Operation
- Current operated switches eliminate the need for multiple pipe or duct penetrations and are more reliable than electromechanical pressure or flow switches.

Conveyors
- Detect jams and overloads.
- Interlocks with safety equipment.

Pump Control
- Output contact is adjusted so it is closed during normal operation, opening if the pump runs dry or there is a loss of head pressure for any reason.

Cooling Towers
- Monitor for overcurrent conditions caused by open duct access doors or undercurrent from a broken drive belt or coupling.

Pump Protection



Pumps draw more current when there are mechanical problems like seizing bearings or obstructed impellers, and draw less current when the intake suction is blocked or the discharge is not connected.

Series Current Sensing Switch Features

Two Electromechanical Relay Outputs
- Access to both the N.O. and N.C. contacts at independent setpoints.
- Because relay outputs are floating they can be wired in parallel or in series for a two-wire over/under switch.

Externally Powered
- Allows for higher accuracy.

Easily Adjustable and Precise Setpoint
- Single turn potentiometer: point the arrow at the current value where you need the output to change, and you are done.
- Improves the safety by allowing the trip point adjustment with no setpoint power through the sensing window.
- Easiest setpoint adjustment available.

Solid-core Case
- Sensing window provides ample space for bus bar, single or multiple conductors.

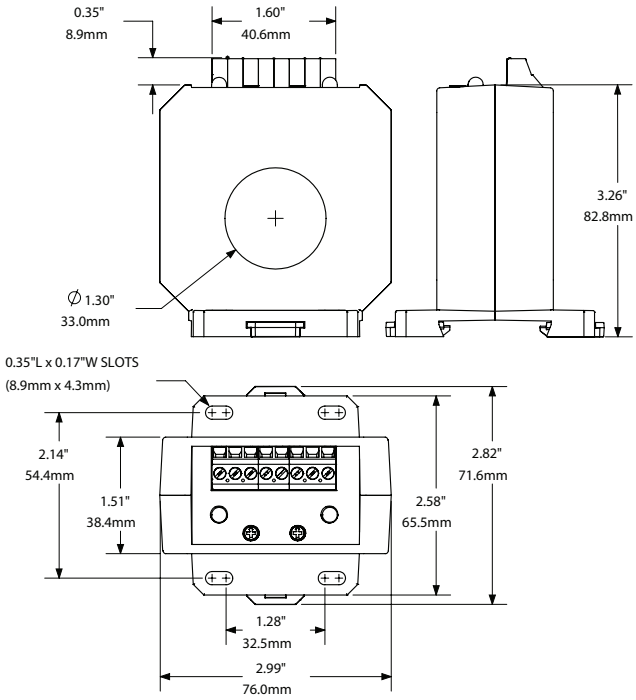
Mounting Options
- Sensor can snap onto a DIN rail* or be mounted to a back panel with screws.
- "Finger-safe" terminals are located on the sensor top.

UL/cUL and CE Approved
- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 147.

OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

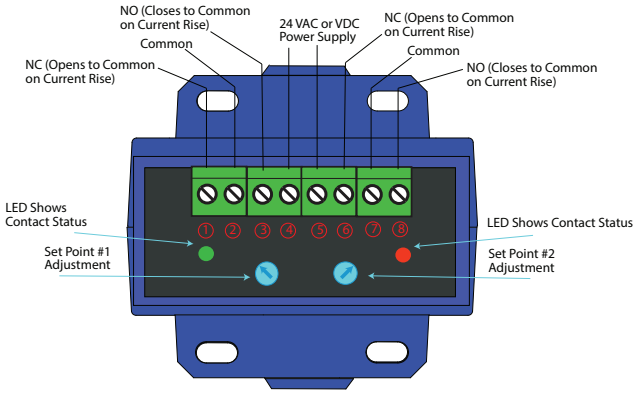
Current Sensing Switch Dimensions



Current Sensing Switch Specifications

Power Supply	24 VAC/VDC (22-26 V)
Power Consumption	<2 VA
Output Switch	Dual single pole, double throw relays
Output Rating	Maximums: 1.0 A up to 120 VAC 2A to 30 VDC (general use)
Off-State Leakage	None
Response Time	40–120 ms
Setpoint Ranges	ASP1: 1–20 A ASP2: 2–35 A ASP3: 4–65 A ASP4: 8–120 A ASP5: 15–220 A ASP6: 25–400 A
Hysteresis	4% of setpoint
Overload	6 sec: 3 x range 1 sec: 5 x range
Isolation Voltage	Tested to 1240 VAC
Frequency Range	40–65 Hz
Case	UL94 V-0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) Surrounding Air 0–95% RH, non-condensing
Listings	UL/cUL, CE

Current Sensing Switch Connections



Current Sensing Switch Ordering Information

Sample Model Number: ASP1-DPT-24U-FD

Dual adjustable AC current operated relay, 1–20 A range, 24 VAC or DC power supply, solid-core case.

	(1)		(2)			(3)			(4)	
ASP		-	D	P	T	-	2	4	U	-	F	D

(1) Range

1	1–20 A
2	2–35 A
3	4–65 A
4	8–120 A
5	15–220 A
6	25–400 A

(3) Output Contact

DPT	Two independent SPDT relays

(4) Power Supply

24U	24 VAC or VDC

(3) Case Style

FD	Solid-core, DIN rail or panel mounting