PS118 Self-Contained Adjustable Speed Sensor

Installation & Operation Manual

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MAN-PS118-000
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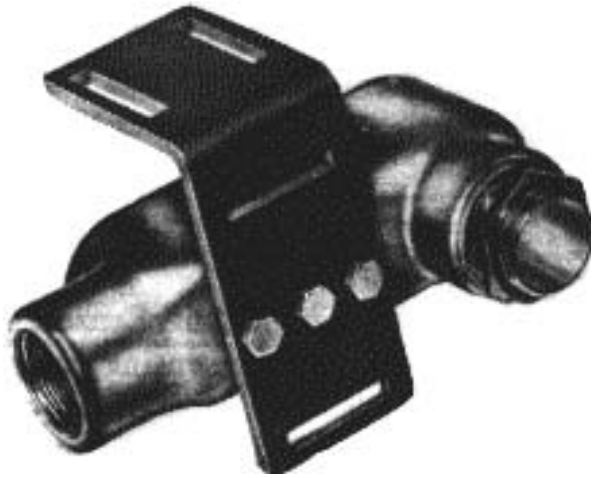
Self-Contained Adjustable Speed Sensors PS118 Series

- **Totally self-contained, no external sensor or control panel space required**
- **Adjustable speed range from 1pulse/second to 10 pulses/second**
- **Rugged, water-, oil-, and dust-tight construction meets NEMA4, NEMA12, JIC Standards**
- **Totally solid-state**
- **High noise immunity**
- **2% Repeatability**
- **3 Sensing ranges**



The PS118 Speed Sensor

The PS118 Series are totally self-contained, adjustable speed sensors. A high quality proximity sensor is built into the rugged cast housing that will sense steel, stainless stell, aluminum, copper, or brass. The PS118 operates from standard 120VAC control voltage and containes a single-pole, solid-state triac switch as its output. The PS118 is suitable for zero-speed, over-speed, and under-speed applications for severe environmental conditions.

Typical Applications
Typical Applications are as converyor chain or drive sprocket speed monitors in automtive plants, mines, cement plants, electrical power utilities or other industrial processes where zero-speed or correct speed monitoring is an important parameter.

Operating Logic
Upon application of power to the input terminals, the PS118 begins sending the repetition rate of the moving target(s). If the pulse rate is lower than the PS118's SWITCH POINT ADJUST control setting, the output remains de-energized. If the repetition rate of the detected target(s) is higher than the SWITCH POINT ADJUST control setting, the output energizes the load. An indicator LED illuminates when the output is energized.

Specifications

Sensing Speed Range: Adjustable from 1 to 10 pulses per second standard. Other ranges on special order.

Adjustment: Locking bushing potentiometer.

Response Time: Equal to time between two detectable targets at any given setpoint.

Input Voltage: 105 to 135 VAC, 50/60 Hz.

Output: Triac AC switch connected between OUT and L1 terminals. Switches 105-135 VAC, 50/60 Hz loads only, 2 Amperes continuous load maximu.

Operating Temperature: –10 to +130 °F (–23 to +55 °C)

How to Order

SMC-PS118-100	3 wire AC, 2 Amp speed switch, 60-60000 RPM, 0.3 inch sensing distance
SMC-PS118-200	Same as above, but with 15 inch sensing distance
SMC-PS118-300	Sameas as above, but with 0.06 inch sensing distance

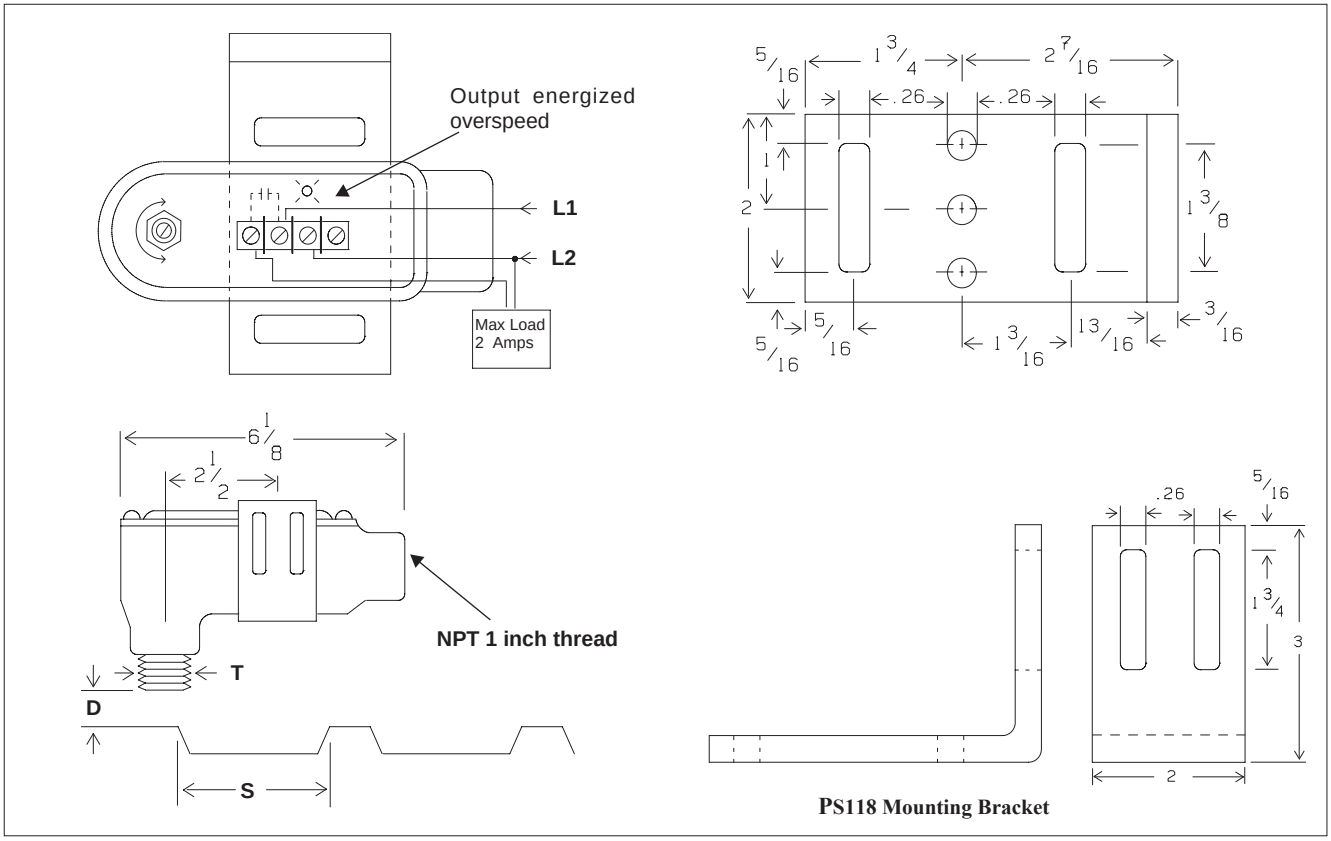
Application Data

The PS118 is available in three standard sensing ranges. The minimum spacing detectable between targets will increase with the maximum sensing range of the unit. The table below will serve as an application guide. Ranges listed are for mild steel targets. Use the following multiplication factors for other target materials:

Aluminum	0.45
Brass	0.55
Copper	0.4
Stainless Steel	varies from0.5 to 0.0

Model	Typical Operating Distance	Maximum Sensing Range —D	Minimum Spacing Between Targets —S	Sensing Tip Thread Size —T
PS118-100	0.2″ - 0.3″	0.4″	1.2″	30 x 1.5 MM
PS118-200	0.1″ - 0.15″	0.2″	0.7″	18 x1 MM
PS118-300	0.04″ - 0.06″	0.075″	0.50″	12 x 1 MM

Dimensions



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