



MODEL PSAC - 3-WIRE INDUCTIVE PROXIMITY SENSOR WITH CURRENT SINK OUTPUT



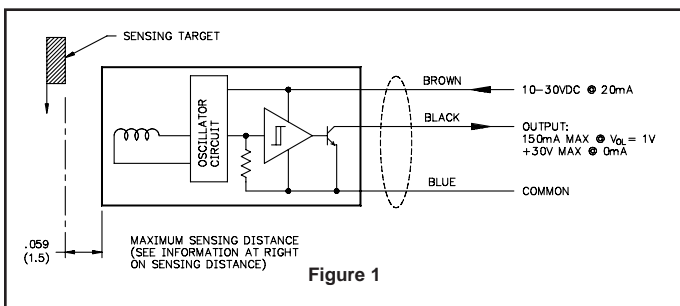
DESCRIPTION

The PSAC offers a NPN Open Collector output that is compatible with most Red Lion Controls' Motion Monitors, Counters, and Controls. This sensor has a maximum sensing distance of 0.059" (1.5 mm) and can detect ferrous and non-ferrous metal targets from zero speed to 5 KHz.

The 0.25" diameter pole piece is epoxy encapsulated in a stainless steel case measuring 0.75" Dia. x 3.5" L and is supplied with a 10, 25 or 50 ft., 3-wire, cable. Overall dimensions, including the neoprene strain-relief boot are 0.90" Dia. x 4.5" L. Operating temperature range is -25° to +70°C.

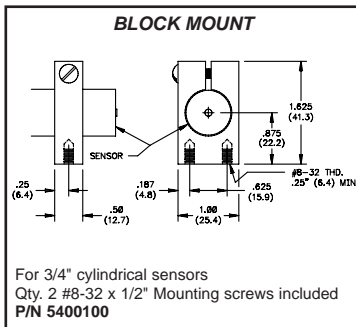
SPECIFICATIONS

- SUPPLY VOLTAGE:** +10 - 30 VDC @ 20 mA max.; **Unit is not Reverse Polarity Protected.**
- MAXIMUM SWITCHING FREQUENCY:** 5 KHz
- OUTPUT:** NPN Open Collector Transistor;
 $V_{OH} = 30 \text{ VDC max.}; V_{OL} = 1 \text{ V max @ } 150 \text{ mA.}$
- MAXIMUM SENSING DISTANCE:** 0.059" (1.5 mm)
- OUTPUT CABLE:** Integrally potted 10, 25, or 50 ft. PUR jacketed 3-wire 24 AWG conductors.
BROWN = +VDC, BLUE = Common, BLACK = NPN O.C. Output
- OPERATING TEMPERATURE RANGE:** -25°C to +70°C (13°F to +158°F)
- CONSTRUCTION:** Epoxy Encapsulated 0.25" dia. sensor in 0.750" ±0.005" dia. #304 stainless steel case.



3/4" DIAMETER CYLINDRICAL SENSOR MOUNTING

The PSAC and other Red Lion Controls 3/4" dia. cylindrical pickups may be easily mounted using Model 5400100 **BLOCK MOUNT** (see diagram at right). This machined block of solid aluminum provides for rigid mounting using the 2 included #8-32 x 1/2" screws. The one screw split-clamp design allows for easy adjustment of airgap and locks the unit securely without deforming the case. Alternative plug mounts available. See Model LMP for details.



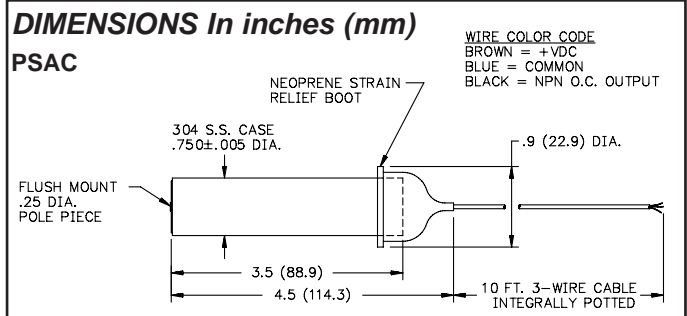
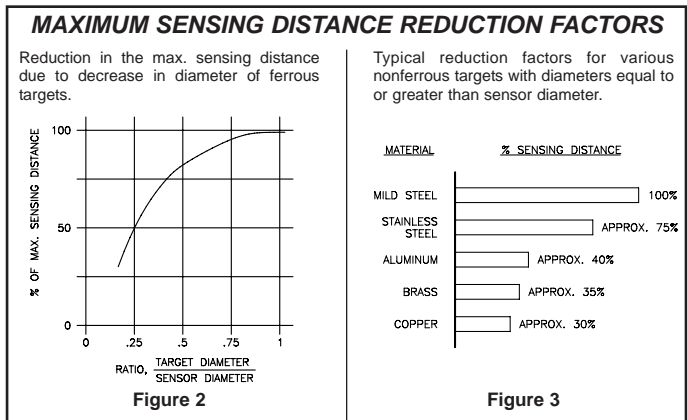
- SENSE FERROUS AND NON-FERROUS METAL OBJECTS
- OPERATES FROM ZERO TO 5 KHZ PULSE OUTPUT RATE
- SENSES TARGETS AS SMALL AS 12 D.P. GEAR TEETH
- IDEAL FOR TACHOMETER, COUNTER AND CONTROL INPUT

PSAC APPLICATION

PSAC application depends on the size, material, and spacing of the targets being sensed and the sensing distance that can be maintained. The maximum sensing distance is defined as that distance where the sensor is just close enough to detect a ferrous target whose diameter is equal to or greater than the sensor diameter. For the PSAC, the internally potted sensor diameter is 0.25". In an actual application the sensing distance should be between 50-70% of the maximum to assure reliable detection. For target sizes smaller than the 0.25" sensor diameter, the maximum sensing distance can be estimated from the curve in Fig. 2. A further reduction factor must also be applied if the target material is a non-ferrous metal as shown in Fig. 3.

Ideally, spacing between adjacent targets should be at least 0.25" so that the first target completely leaves the sensors' viewing field before the next target appears. Individual targets can still be resolved as separate objects if this spacing is reduced to 70 or 75% of the sensor diameter, however this can introduce a minimum limit on sensing distance that makes adjustment a bit more critical.

The PSAC is internally shielded which allows the sensor face to be flush mounted in metal applications without reducing sensing distance.



ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
PSAC	NPN O.C. Proximity Sensor, 10 ft. Cable	PSAC0000
PSAC	NPN O.C. Proximity Sensor, 25 ft. Cable	PSAC0025
PSAC	NPN O.C. Proximity Sensor, 50 ft. Cable	PSAC0050
	Block Mount	5400100