

## MODEL PSAH - HALL EFFECT SPEED SENSOR



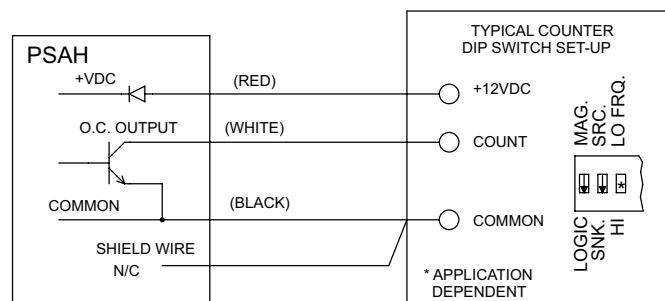
- DETECTS STEEL SENSING GEARS OR OTHER FERROUS TARGETS
- NPN OPEN COLLECTOR OUTPUT
- OPERATES FROM 0 TO 10 KHz
- IDEAL FOR RATE APPLICATIONS

### DESCRIPTION

The Hall Effect speed sensor (PSAH) is ideal for sensing steel gears or other ferrous targets from 0 to 10 KHz. This sensor does not have a minimum threshold speed as does a magnetic pickup sensor. However, when the sensor is first powered up, the output state is indeterminate (*Hi or Lo*) when the sensor is not detecting metal. The unit operates from a +8 to +30 VDC power supply and is reverse polarity protected. The sensor face can be mounted flush into metal panels. The case is stainless steel and is supplied with 10 feet (3 M) of cable. The stranded shield wire is not connected to the sensor circuit or case.

### SPECIFICATIONS

1. **POWER SUPPLY:** +8 to +30 VDC @ 30 mA max.; reverse polarity protected.
2. **MAXIMUM SENSING DISTANCE:** 0.040" (1 mm).
3. **OUTPUT:** NPN O.C. transistor;  $V_{MAX} = 30$  VDC;  $V_{SAT} = 1 V_{MAX}$  @ 30 mA max. load.
4. **OPERATING FREQUENCY:** 0 to 10 KHz.
5. **OPERATING TEMPERATURE RANGE:** -25°C to 70°C (-14 °F to 158 °F).
6. **OUTPUT CABLE:** Integrally potted 10 ft PVC jacketed, 3 wire, 22 AWG conductors, with stranded shield wire and 100% foil coverage; grey PVC jacket.  
**Color Code:** Red (+VDC), Black (Comm.), White (NPN OC Output).
7. **CONSTRUCTION:** Epoxy encapsulated 0.297 sensor in 0.75" ±0.005" dia. #304 stainless steel case.

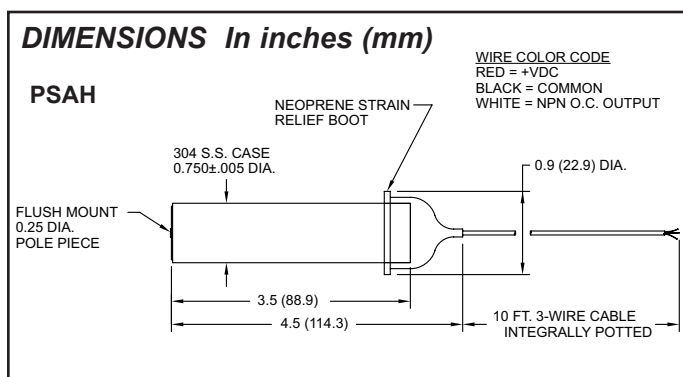
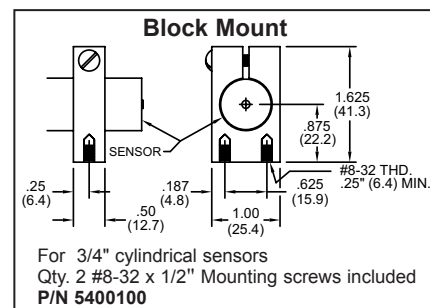


### TARGET SIZE

The PSAH can detect gears as small as 24 D.P. or other ferrous targets with equal or greater dimensions. The sensor is compatible with all Red Lion Controls Sensing Gears.

### 3/4" DIAMETER CYLINDRICAL SENSOR MOUNTING

The PSAH and other Red Lion Controls 3/4" dia. cylindrical pickups may be easily mounted using Model 5400100 **Block Mount** (see diagram below). This machined block of solid aluminum provides for rigid mounting using the two included #8-32 x 1/2" screws. The single screw split-clamp design allows for easy adjustment of the airgap and locks the unit securely without deforming the case.



### ORDERING INFORMATION

| MODEL NO. | DESCRIPTION                 | PART NUMBER |
|-----------|-----------------------------|-------------|
| PSAH      | NPN O.C. Hall Effect Sensor | PSAH0000    |
| BM        | Block Mount                 | 5400100     |



Do not dispose of unit in trash - Recycle