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## Magneto-resistive Sensors

Models 1102, 932 and 933 Explosionproof

- Large gap non-contact sensing
- NPN open collector output
- Compatible with PLC digital I/Os
- Easy to install — no maintenance
- Rugged and reliable
- 5-Year Limited warranty on speed switches, sensors & ratemeters\*

\* Contact factory for more information



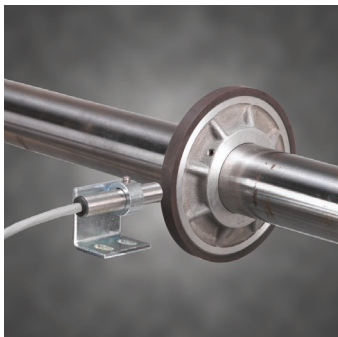
## Product Information

### Description

Electro-Sensors' model 1102, 932, and 933XP magneto-resistive sensors are designed for use with pulse generators that provide magnetic targets, such as Electro-Sensors' Pulser Discs, Split Collar Pulser Wraps, 60-Pole Pair Magnet Wheels, or NEMA C Flange Ring Kits. The 1102 Magneto-resistive Sensor has a non-threaded stainless steel body, is supplied with a mounting bracket, collar and set screw, and is recommended for use with 60-Pole Pair Magnet Wheels and NEMA C Flange Ring Kits. The 932 sensor has a 3/4" threaded aluminum body, is supplied with a mounting bracket and jam nuts, and is compatible with all Electro-Sensors' pulse generators. The 933XP sensor is mounted in a rugged cast aluminum enclosure which is CSA approved and UL rated for Class I, Groups C and D; Class II, Groups E, F, and G, and Class III environments. The 933XP sensor is also supplied with a mounting bracket and is compatible with Pulser Discs and Split Collar Pulser Wraps. The 1102, 932 and 933XP magneto-resistive sensors all come with 10 feet of 3-wire shielded cable as standard and can be mounted up to 1,500 feet from the control unit (i.e. speed switch or tachometer).

The 1102, 932, and 933XP sensors are powered by 8-24 Vdc, and provide an NPN open collector output. Magneto-resistive sensors switch low when the sensing surface is in the presence of a magnetic field and high when it is not (i.e. the null spaces between the magnets). This generates a square wave (digital) signal with a 50/50 duty cycle when used with Electro-Sensors' pulse generators. The gap distance between the sensing surface and the pulse generator is dependent on the strength of the target magnets (see the *Sensor Compatibility Table* on the following page for gap distances). The signal produced by the 1102, 932, and 933XP sensors is compatible with all Electro-Sensors' products, most PLC digital I/O cards, and other products requiring an NPN type digital pulse input signal. These sensors are also frequently used with single target magnets in counting, function start/stop, or orientation alignment of mechanical and electronic indexing equipment applications. Electro-Sensors' products bring efficiency and safety to your operations by preventing machine damage, product waste, and costly downtime.

### Sensors and Pulse Generators



1102 Sensor and 60 PPM



1102 Sensor in NEMA C Ring Kit



932 Sensor and Pulser Disc



933XP Sensor and Pulser Wrap

