Key Features

- Square-wave pulse frequency output, NPN open-collector
- Zero speed operation with no signal loss
- Non-contact, large gap distance sensing
- Simple to install and set up
- 5-24 VDC powered; Bidirectional (quadrature) options
- Works with Electro-Sensors magnetic pulser discs / wraps
- Optional Mounting Bracket Assembly and Mounting Magnet



Description

Model 906 Hall Effect sensors are water resistant and suitable for industrial applications, including environments where dirt, dust, grease, or moisture are present.

The quadrature (bidirectional) option has two sensors and is designed for applications requiring both speed and direction information.

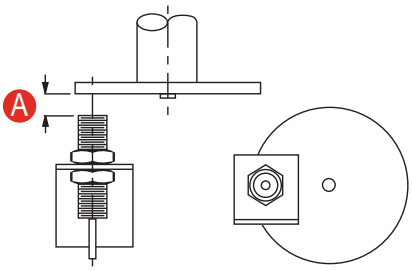
The recommended gap distance between the sensor and pulse generator is 1/4 inch +/- 1/8 inch (Represented by A in the figures below). The gap flexibility makes the sensors tolerant of vibration, shaft run-out, misalignment, and industrial environments.

Principle of Operation

These speed sensors use magnet-sensing Hall Effect IC's to produce a digital pulse signal to interface with speed switches, tachometers, counters, signal conditioners, or PLC's. Hall Effect sensors provide true zero speed operation with square-wave output and immunity to electrical noise.

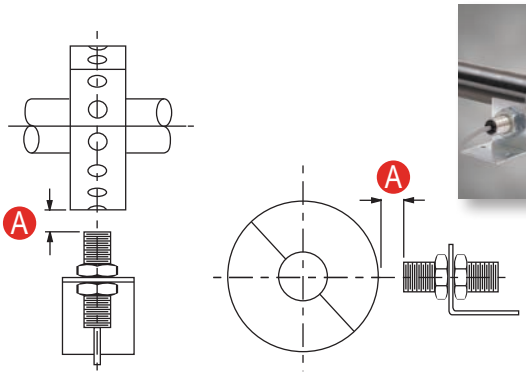
A pulser disc or split collar pulser wrap with embedded magnets is mounted on the monitored shaft. As the shaft rotates, the magnets pass in front of the sensor causing the sensor to switch high and low, thus producing a digital pulse output. The sensors provide a digital square wave signal with a 50/50 duty cycle when used with pulse generators that have evenly spaced magnets of alternating polarity, such as the Electro-Sensors Model 255 Pulser Disc.

906 with Pulser Disc





906 with Pulser Wrap





906 Hall Effect

Product	
Supply	5-24 VDC @ 10 mA
Output Type	NPN Open Collector
Operating Frequency	0 Hz to 20 KHz
Current Sink	25 mA maximum
Operating Temperature	-40° F to +140° F -40° C to +60° C
Gap Distance	1/4" ± 1/8"
Distance to Input Device	1,500 feet maximum
Cable (22AWG)	906: 3-conductor shielded 906 Quadrature: 4-conductor shielded
Wiring Code	906: Red = Supply, White = Common, Black = Signal 906 Quadrature: Red = Supply, White = Common, Black = Signal A, Green = Signal B
Threads	3/4"–16 UNF threads

Specifications subject to change without notice.

Ordering

906 sensors come with a standard bracket for mounting

Model	Part Number
906 AL[1] Body, 10' PVC Cable - Standard	775-000500
906 SS[2] Body, 10' PVC Cable	775-000400
906 Quadrature, AL Body, 10' PVC Cable	775-000504
906 AL Body, 10' Teflon[3] Cable	775-000502
906 SS Body, 50' PVC Cable	775-000405
906 AL Body, 50' PVC Cable	775-000511
906 Quadrature, SS Body, 10' PVC Cable	775-000404
906 Quadrature, AL Body, 50' PVC Cable	775-000509
906 AL Body, 50' Teflon Cable	775-000514
906 Quadrature, SS Body, 50' PVC Cable	775-000409
906 SS Body, 100' PVC Cable	775-000410
906 Quadrature, SS Body, 100' PVC Cable	775-000414
906 SS Body, 10' Teflon Cable	775-000503
906 AL Body, 100' PVC Cable	775-000505
906 PVC Body, 10' PVC Cable	775-000506
906 Quadrature, AL Body, 10' Teflon Cable	775-000507
906 Quadrature, AL Body, 50' Teflon Cable	775-000508
906 Quadrature, AL Body, 100' PVC Cable	775-000510
906 SS Body, 50' Teflon Cable	775-000515
906 Quadrature, AL Body, 100' Teflon Cable	775-000516
906 AL Body, 100' Teflon Cable	775-000518
906 SS Body, 100' Teflon Cable	775-000519

(continued into next column)

1 Aluminum
2 Stainless Steel
3 Teflon is a High Temperature Cable

906 Hall Effect Standard System

• Shaft Speed Pulse Generator

These are the most popular system components. Many other options are available.

System Options	Part Number
Standard 255 Nylon Pulser Disc, 4" Diameter, 16 Magnets	700-000200
Split Collar Pulser Wrap (PVC, Aluminum, Stainless Steel)	Custom (See Website)

Easy Mounting Options	Part Number
EZ-3/4in Bracket Assembly	810-000040
MM-1.5 Mounting Magnet (must use with EZ-3/4in Bracket Assembly)	810-000070



EZ-3/4in Option (includes 8 PPR Pulser Disc in housing)



MM-1.5 Mounting Magnet Option (must be used with EZ-3/4in)

Customization

If one of our standard products does not meet your specifications, please call one of our applications specialists. Many of our products can be customized to fit specific needs.

Additional Information

See the 906 / 907 XP Hall Effect Sensors Installation and Operating Manual for complete details, specifications, and programming instructions.

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5 YEAR WARRANTY