

Shaft End Mount Pulser Discs

Features

- Non-contact sensing
- Up to 0.5" gap distance
- End-of-shaft mounting
- Nylon, PVC, aluminum, or stainless steel
- Custom sizes
- Customized number of pulses
- Impervious to water, grease, dust, oil, dirt, etc.



Operating Principle and Description

Electro-Sensors has designed shaft end pulser discs (made of nylon, PVC, aluminum, or stainless steel) with magnets of alternating polarity (N-S-N-S) embedded on the outside face or the circumference. Simply center-drill and tap the end of the shaft to be monitored and secure the Pulser Disc onto the shaft.

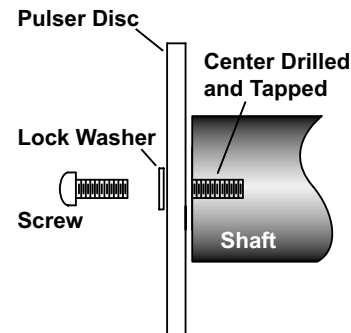
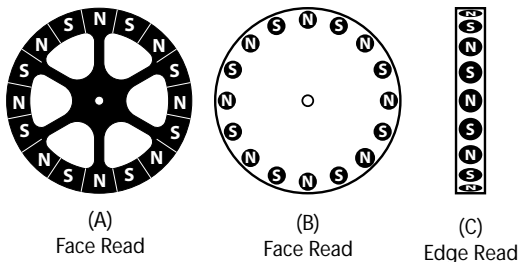
Pulser Discs are available in three standard configurations (see table, below).

Half-inch Magnets: 0.25" thickness with 0.5" diameter magnets mounted on the face (for large gap distance).

Quarter-inch Magnets: 0.25" thickness with 0.25" diameter magnets mounted on the face of the disc.

Edge Read: 0.625" thickness with either 0.25" or 0.5" diameter magnets mounted around the circumference.

Pulser Discs are compatible with all ESI sensors. The standard gap distance when using a disc with one of our sensors is 0.5". This large gap allows maximum flexibility in mounting the sensor, making them ideal for environments where there is vibration, dirt, dust, grease, or water. The number of pulses per revolution generated by the Pulser Disc and sensor depends on the sensor used. Generally, a Hall Effect Sensor will produce one pulse for every two magnets, since the sensor switches between high and low in the presence of both a north and a south pole magnet. Electro-Sensors also produces a Magnetoresistive Sensor that will generate one square wave pulse per magnet. Special discs can be custom manufactured to meet specific needs. Steel targets can be substituted for magnets on aluminum or PVC discs. These targets work well with proximity or mag pick-up sensors.



Description and Drawing	Outside Diameter	Number of Magnets*	Part #
Magnetic Pulser Disc (B)	2.5"	8	256
Magnetic Pulser Disc - Alum (B)	2.5"	8	256-A
Magnetic Pulser Disc - Nylon (A)	4"	16	255
Magnetic Pulser Disc - PVC (B)	4"	16	255-PVC
Magnetic Pulser Disc - Alum (B)	4"	16	255-A
Magnetic Pulser Disc - PVC (B)	4"	32 (0.25")	232
Magnetic Pulser Disc - Alum (B)	4"	32 (0.25")	232-A
Magnetic Pulser Disc - PVC (B)	8"	32	257
Magnetic Pulser Disc - Alum (B)	8"	32	257-A
Magnetic Pulser Disc - PVC (B)	4.75"	20	PD455
Magnetic Pulser Disc - PVC (B)	2.75"	20 (0.25")	PD225
Magnetic Pulser Disc - Alum (B)	7.5"	60 (0.25")	PD725
**Magnetic Pulser Disc - PVC Edge Read (C) ..	4"	20	PDE450

* Magnets are 0.5" in diameter unless otherwise specified.

** 3,000 RPM maximum speed.

Mounting Standard Discs

Center-drill the shaft to a depth of 0.5" with a No. 21 drill, then tap for a 10/32 UNF screw. Apply Loctite® or a similar adhesive to the screw threads and secure onto the end of the shaft with the provided 10-32 mounting screw. Torque the mounting screw to a maximum of 8-10 foot pounds.

Note: If required, the center hole of a pulser disc may be bored to a larger size. Drill and tap the appropriate shaft accordingly. The maximum bore for the #255 nylon disc is 0.5".

Specifications

Material	Nylon 12, Aluminum, PVC, Stainless Steel
Maximum Speed	10,000 RPM at ambient temperature
Operating Temperature	-40°C to 60°C (PVC & Nylon)
	-40°C to 150°C (Stainless & Aluminum)

Specifications subject to change without notice.

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