

Installation Tutorials

RPM Magnet Installation

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1. Intro

Measuring accurate RPM is important for variable speed applications along with vibration data to determine the health of a machine.

This document will demonstrate how to correctly install an RPM sensor onto a rotating machine.

2. What you need to have during the installation:

- 1- RotationLF Sensor.



Figure 1 RotationLF Sensor

- 2- Strong Neodymium Bar/Disc Magnet



Figure 2 Neodymium Bar Magnet 60x10x3mm weight 14g



Figure 3 Disc Magnet Diameter 32mm x Thick 3mm weight 20g

- 3- A strong adhesive that sticks metal parts together such as Epoxy or Glue
- 4- A stirrer stick to mix the epoxy/glue
- 5- Gloves



3. Safety:

- 1- Installation should not be done on a shaft with speed that exceeds 3000 RPM.
- 2- Machine must be accessed during shutdown and when the machine is not running.
- 3- After installing the sensor and the magnet make sure there is sufficient spacing between stationary and rotating parts.

4. Choosing the right location to install the sensor and the magnet:

After following the safety procedures and having the required components:

- 1- Clean the shaft from any dirt or oil.
- 2- Using the stirrer stick, mix the epoxy components together and spread the epoxy on one side of the magnet.
- 3- Install the magnet on the shaft within 5 minutes after putting the epoxy on the magnet (refer to fig. 5 for location of application).
- 4- The magnet should be within 10 cm from the center of the sensor. The closer the better.

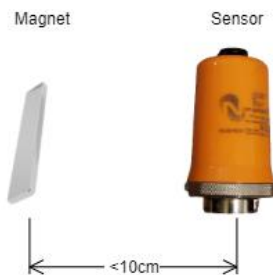


Figure 4 Magnet and sensor



5- Figure 5 Sensor and shaft



6- install the sensor using the magnet attached to the base of the sensor and for extra stability please put epoxy on the magnet of the sensor.

Note: If the shaft length is shorter than the length of the magnet, one or more bar magnets can be broken into smaller pieces and stacked in top of each other with layers of epoxy between each layer as shown in the picture below.



Figure 6 bar magnet broken into 5 pieces



Figure 7 RPM magnet installed with Sensor

Installation is now complete. Take pictures of the location of the magnet and sensor so that our