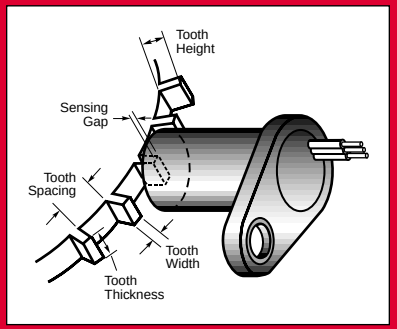
Operating a Speed Sensor

Although commonly called a geartooth sensor, a solid-state speed sensor can detect the motion of various ferrous objects with some type of discontinuous surface.

Solid-State Speed Sensor



Examples of appropriate targets include:

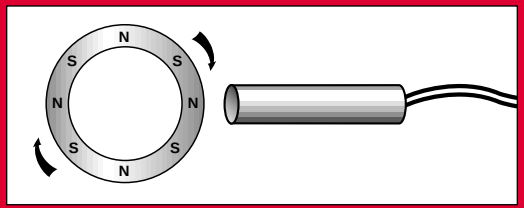
- Sprockets
- Bolt Heads
- Roller Chains
- Cavities in a Smooth Surface

For best results, we recommend targets made from low carbon cold rolled steel. Other factors that influence sensor performance include geartooth height and width, space between teeth, shape of the teeth and thickness of the target. As a general guideline, consider a target with the following minimum parameters:

Tooth Height	Tooth Width	Distance Between Teeth	Target Thickness
.200”	.100”	.400”	.250”

Cherry’s solid-state magnetic proximity sensors also make excellent speed sensors when coupled with a rotating ring magnet. Advantages of this approach include: lower sensor cost, larger airgaps and absolute zero-speed sensing.

Proximity Sensor with Ring Magnet



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