



MAGNETIC SENSORS CORPORATION



*Measuring the
Rate of Progress
Since 1983*

Incorporated in 1983 to manufacture simple variable reluctance sensors for the computer peripheral marketplace. MSC has expanded its line of variable reluctance sensors and added Hall Effect sensors, quadrature, temperature, vehicle speed, and rotary position sensors.

MSC sensing products are available in a broad selection of shapes and sizes and the company is consistently working to broaden the line.

AS9100C certified. CSA and ATEX certified as explosion and dust ignition proof for use in hazardous applications.

Production Flexibility

MSC operations procedures accommodate most run sizes while maintaining consistent quality control.

- Large quantity production runs
- Short runs and special orders
- Prototypes

Custom Sensing Solutions

On-site engineering and design staff are ready to assist with the execution of your application specific requirements.

Some typical requests have been: very high cycle rate, extreme temperatures, wide angle sensing, remote sensing, vehicle speed sensing, and flexible probe.

Custom Coil Assemblies

MSC has the capacity to produce coils and solenoids in sizes ranging from large, 16 gauge windings, to tiny 56 gauge. Some coils are so small they are difficult to see with the naked eye.

Flat wire and square wire technologies allow more powerful, more compact coils.

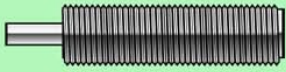
Design, engineering, tooling and manufacturing are all performed in-house by our staff who are ready to help develop a solution for your application.



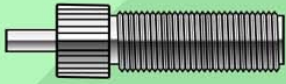
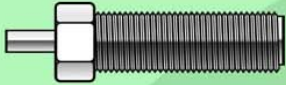
Standard Configurations



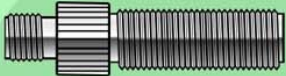
Most MSC sensors are available in all industry standard configurations.



- Tubular Case
- All Threaded Case
- Thread, Hex Head
- Thread, Knurl Head
- MS Connector
- Threaded, Hex Body



Also: Flange-type bolt on, machined, cast, and molded housings.



Terminations:

Twisted Wire, Cable, Shielded Cable.

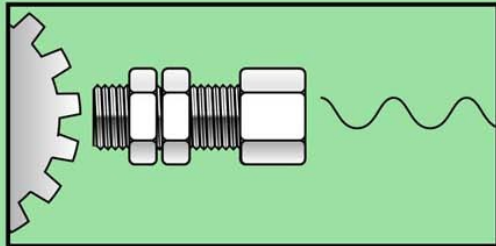


Crimped Terminals, Connectors.

Passive Speed Sensors

Analog Variable Reluctance (VR) Geartooth Sensors

Passive Sensors generate a sine wave output with no external power source. Voltage is determined by target speed and air gap.



- No external power supply required
- High reliability. Long life
- Simple 2-wire installation
- No moving parts or contacts
- Operating Temp -40°C to +185°C
- Wide variety of styles and sizes
- Pole piece from .040" to .125"
- Spade, conical, round or blind pole piece available.

Sizes Available:

Tubular - .150" dia. to .500"

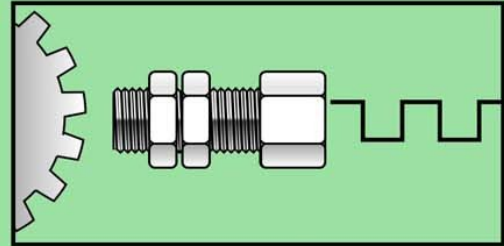
UNF Thread — 1/4-28 to 3/4-16

Metric Thread — M12x1.25 to M22x1.5

Active Speed Sensors

Hall Effect (HE) Geartooth Sensors

Measures target speed from zero to 20,000 pulses per second. Output frequency is proportional to target speed.



- True zero speed sensing
- Digital output
- No moving parts or contacts
- Supply voltage from 4.5 - 24 Vdc
- Operating temp -40°C to +150°C
- Wide size selection
- Wide variety of styles
- Rugged design
- Configurable for almost any environment

Sizes Available

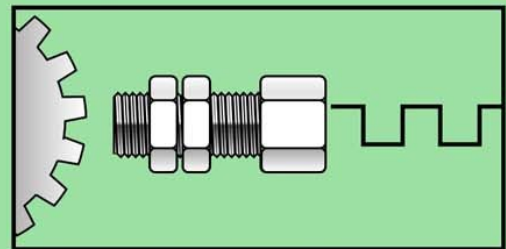
Tubular - .250" dia. to .500"

UNF Thread - 1/4-28 to 3/4-16

Metric Thread - M12x1.25 to M22x1.5

Digital Variable Reluctance (DVR) Geartooth Sensors

Internal circuitry converts analog output to digital pulses. 30 inches per second (IPS) to 1500 IPS, repetition rate (frequency) to 20,000 Hz.



- Near zero speed sensing
- Digital output
- Reliable VR technology
- Supply voltage from 4.5 - 24 Vdc
- Operating temp -40°C to +150°C

Sizes Available

Tubular - .250 to .750

UNF Thread - 1/4-28 to 3/4-16

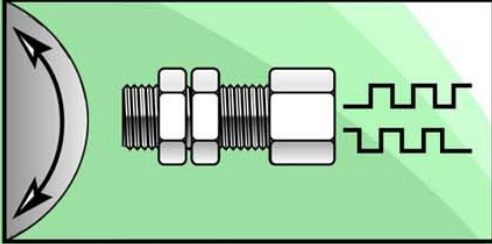
Metric Thread - M12x1.25 to M22x1.5

Speed & Direction Sensors

True Quadrature Hall Effect (HE)

Speed and Direction Sensors

Two 90° out-of-phase outputs measure speed and the direction of travel of gear teeth or other ferrous targets.



- Direction of travel sensing
- True zero speed sensing
- Digital output
- Supply voltage from 4.5 -24 Vdc
- Operating temp -40°C to +150°C
- No moving parts or contacts
- Easy orientation

Sizes Available

Tubular - .500", .625", .750"

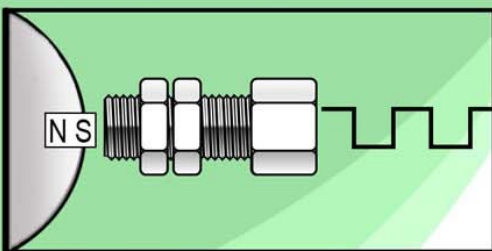
UNF Thread - 1/2-2010 to 3/4-16

Metric - M12x1.25 to M22x1 .5

Proximity Switches

Zero Speed, Non-contact HE Proximity Switch

Measures rotary or linear motion. Registers the transition of target magnet past the face of the sensor. Frequency to 100,000 Hz.



- Digital output
- Supply voltage from 4.5 - 24 Vdc
- Operating temp -40°C to +150°C
- Normally open mode standard
- Designed for easy orientation

Sizes Available

Tubular — .500" to .750"

UNF Thread — 1/2-20 to 3/4-16

Metric — M12x1.25 to M22x1.5

Miniature Sensors

MSC offers full function gear tooth sensors as small as 1/4" dia. for limited space applications. Variable Reluctance, Digital Variable Reluctance, and Hall Effect true-zero speed sensing. Tubular and threaded styles with choice of terminations.

Explosion Proof Sensors

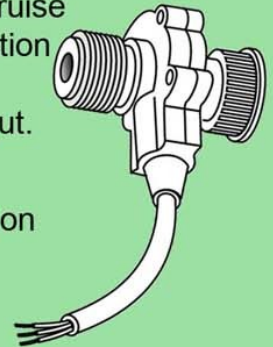
ATEX and CSA certified safe for hazardous environments, such as methane gas, flammable liquids, airborne dust or other explosive available.



Vehicle Speed Sensors

Heavy-duty road speed sensors for electronic speedometers, cruise control, or electronic fuel injection conversions. Connects to transmissions cable drive output. Hall Effect or Reed Relay.

2,4,8,16,20 Pulses per revolution available.



Other Sensing Products

- Digital Switches
- Proximity Sensors
- Position Sensors
- Position Switches
- Vane Sensors
- Temperature
- Dual Output
- Home Positioning

MSC sensors are found in a diversity of industrial, commercial, military, and research applications.

**Agriculture/
Construction**

- Diesel Engines
- Engine Powered Compressors
- Engine Powered Generators
- Hydraulic Motors

Aerospace

- Steering Mirror Actuator
- Valve Actuator

Automotive

- Anti-Lock Brakes
- Vehicle Speed Sensor
- Cruise Control (after market)
- Diesel Engines
- Dynamometers
- EFI (retro-fit)
- Electronic Speedometer
- Electromotive Valve Actuator
- Engine Governor Actuator
- Engine Speed
- Engine Mgmt.
- Fan Clutch (Diesel)
- Flywheel Speed
- Ignition Timing
- Traction Control

Aviation

- Brake Controls
- Jet Engines
- Fuel Pump Monitor
- APU
- Turbochargers

Graphic Arts

- Printing Presses
- Digital Printers

**Electric Power
Generation**

- Engine Powered Generators
- Power Generation Turbines
- Turbine Flow Meters
- Wind Powered Generators

Industrial

- Engine Powered Compressors
- Engine Powered Generators
- Hydraulic Motors

Marine

- Engine Speed
- Docking Clutch Control
- Throttle Control
- Transmission

Military

- Bradley Fighting Machine
- F8 Crusader
- AAV7 Amphibious Assault Vehicle
- Unmanned Aerial Vehicles

Motorsports

- CART Indy Cars
- Drag Racing
- Street Rods & Customs
- SCCA
- Off-Road
- Pro-Rally

Railroad

- Engine Controls
- Turbines
- Valve Position

Our Mission Statement

Magnetic Sensors Corporation is committed to meeting customer requirements and increasing customer satisfaction through continual improvement of its products, services, and quality management system.



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CORPORATION**

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