



Milli-Speed Sensor

Monitors Rotating Machinery

Approved for explosive atmospheres:
ATEX, IECEx, and CCCEX
Zones 20, 21 & 22 for dust
Zones 0, 1 & 2 for gas

Application:

The Milli-Speed Sensor with 4 - 20 mA output is designed to detect rotational speed on bucket elevators, conveyors, airlocks, mixers, fans, grinders and many other rotating machines. Totally sealed and simple to calibrate, the Milli-Speed works in the harshest of conditions.



METHOD OF OPERATION

An inductive sensing device located in the nose of the Milli-Speed enclosure will detect a metal target. This target can be an existing bolt head or device attached to a shaft, such as 4B's Whirligig® sensor mount. During installation, the Milli-Speed is set to the normal running RPM by simple magnetic calibration.

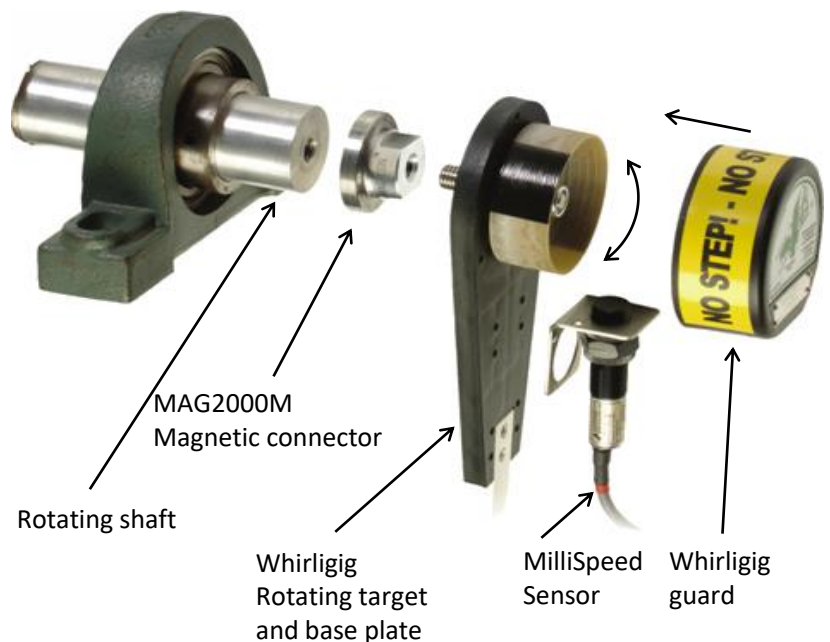


Features

- 4-20mA output
- Simple Magnetic Calibration
- Loop Powered (2 Wire)
- Totally Sealed Construction: Submersible
- Easy Installation with Whirligig® Sensor Mount
- SpeedMaster™ Compatible for Accurate Testing

Options:

- **WG4A-BR** – Shaft mounting assembly, 4 pulses per revolution
- **WG2A-BR** – Shaft mounting assembly, 2 pulses per revolution
- **MAG2000M** – Magnetic shaft connector



Please refer to instruction manual for correct installation. Information subject to change or correction. May 2021

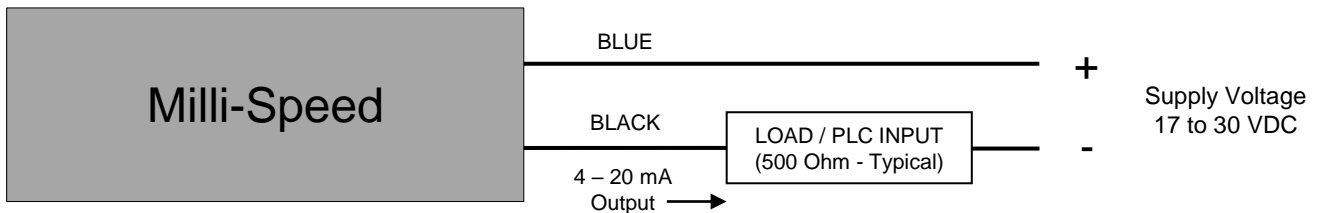
Detailed specification, wiring diagrams and installation/operating instructions available upon request.



TECHNICAL SPECIFICATIONS

Model	M300M1V10AI		
Power supply:	17 - 30 VDC		
Load:	500 Ohm (Typical)		
Speed Range:	20 - 1,000 PPM (Pulses Per Minute)		
Sensing Range:	Ferrous Target - (8 mm) Maximum		
Detection range:	Ferrous Target = ≤ 8 mm, Non-ferrous ≤ 5 mm		
Calibration:	Magnet		
Output:	Linear from 4-20mA 1. Over Speed = 20mA (123% or more of calibrated speed) 2. Calibrated Speed = 17 mA (100%) 3. Zero Speed = 4mA (0-10% of Calibrated Speed)		
Output Accuracy:	+/- 0.2 mA		
Response Time:	<1 Second (Typical)		
Overall Resolution:	0.3% (22 Microamps)		
Protection:	IP66 Dust and Water Tight (Fully Encapsulated)		
Operating temperature range:	-15°C to +50°C		
Certificates and approvals:	II 1G Ex ma IIC T4 Ga IECEX Ex ma IIC T4 Ga Ex maD 20 T110°C	1D Ex ma IIIC T200110°C Da IP66 IECEX Ex ma IIIC T200110°C Da IP66	Tamb -15°C to +50°C Tamb -15°C to +50°C

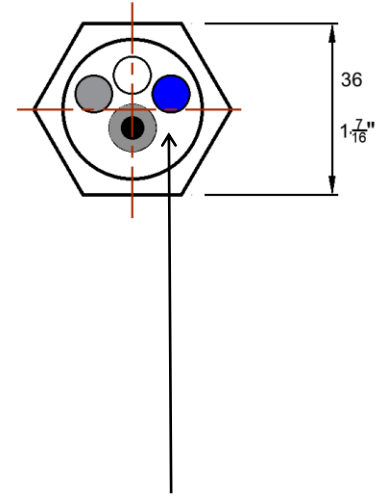
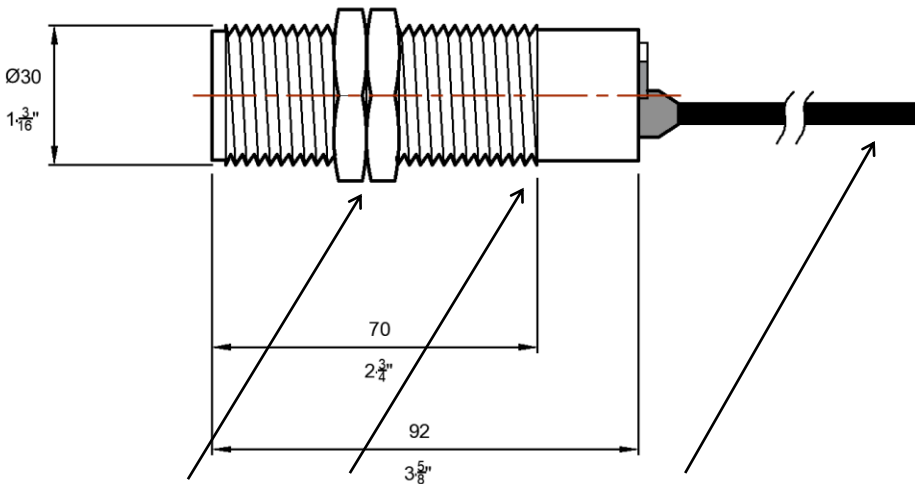
CONNECTIONS



NOTE: Supply polarity to the Milli-Speed is not important and the load can be connected to either wire.



DIMENSIONS



2 off - Lock nuts

Thread: ISO M30 x 1.5mm pitch

3m Cable
2 or 4 x 20 AWG conductors
6.2mm overall cable diameter

Blue LED

Note: All dimensions are given in mm and inches