

M300M1V10AI 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

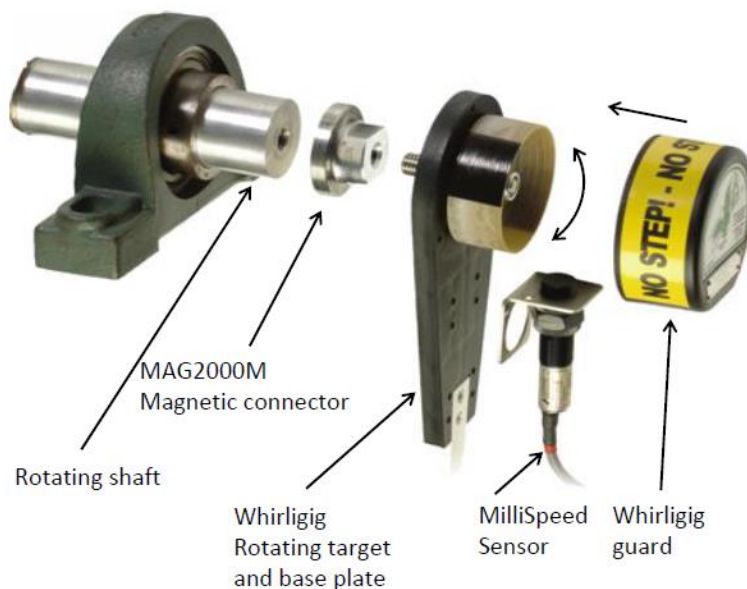
- 4 20mA output
- Simple Magnetic Calibration
- Loop Powered (2 Wire)
- Totally Sealed Construction: Submersible
- Easy Installation with Whirligig® Sensor Mount
- SpeedMaster™ Compatible for Accurate Testing

OPTIONS

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



IECEx

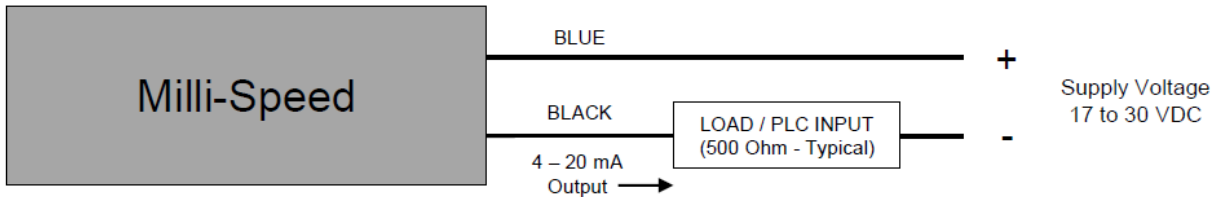


Rev. December 2023

TECHNICAL SPECIFICATIONS

Model	M300M1V10AI
Power supply	17 - 30 VDC
Load	500 Ohm (typical)
Speed Range	20 - 1000 PPM 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)
Operating temperature range	-15 C to +50 C
Overall Resolution	0.3% (22 Microamps)
Protection	IP66 Dust and Water Tight (Fully Encapsulated)
Certificates and approvals	ATEX: Ex II 1G Ex ma IIC T4 Ga - Ex 1D Ex ma IIIC T ₂₀₀ 110°C Da IP66 - Tamb da -15°C a +50°C IECEX: Ex ma IIC T4 Ga - Ex ma IIIC T ₂₀₀ 110°C Da IP66 - Tamb da -15°C a +50°C CCC: Ex maD 20 T110°C

CONNECTIONS



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

DIMENSIONS

