

# Milli-Speed Switch

BETTER BY DESIGN

## Milli-Speed Switch

### Monitors Rotating Machinery for Dangerous Underspeed Conditions

#### APPLICATION

The Milli-Speed Switch with 4 - 20 mA output is designed to detect belt slip, belt underspeed, stop motion, low speed or zero 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 - 20 mA Output
- ▶ Simple Magnetic Calibration
- ▶ Loop Powered (2 Wire)
- ▶ Totally Sealed Construction: Submersible
- ▶ Built In Conduit Adaptor (1/2" NPT)
- ▶ Easy Installation with Whirligig® Sensor Mount
- ▶ SpeedMaster™ Compatible for Accurate Testing

#### PART NUMBERS/ACCESSORIES

- ▶ MIL8001V4C Milli-Speed Switch
- ▶ WG1-4B-4 Whirligig® Shaft Sensor Mount
- ▶ MAG2000 Mag-Con™ Magnetic Connector
- ▶ SM2 SpeedMaster™ Sensor Testing Device



The SpeedMaster™ is the only device that accurately tests the calibration of a speed switch, and allows testing of the alarm and shutdown features of the sensor while installed on the machine shaft.

To see it in action, visit:  
[www.go4b.com/speedmaster](http://www.go4b.com/speedmaster)

Mag-Con™  
Magnetic Connector



Whirligig®  
Exploded View

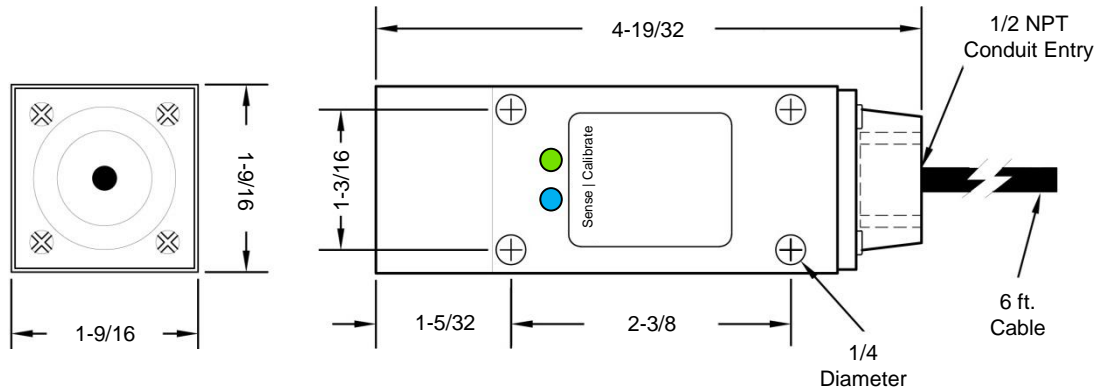


Milli-Speed  
Installed on Shaft  
with Whirligig®

# Milli-Speed Switch

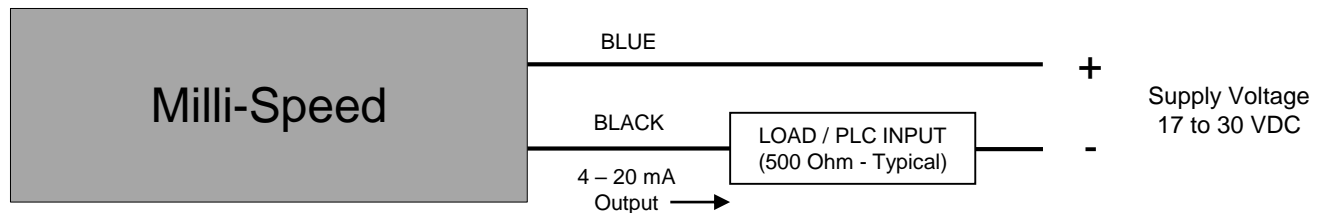
BETTER BY DESIGN

## DIMENSIONS



All Dimension In Inches

## CONNECTIONS



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

## TECHNICAL SPECIFICATIONS

### Milli-Speed Switch - Underspeed Sensor

MIL8001V4C	
<b>Power Supply:</b>	17 - 30 VDC
<b>Load:</b>	500 Ohm (Typical)
<b>Speed Range:</b>	20 - 3,600 PPM (Pulses Per Minute)
<b>Sensing Range:</b>	Ferrous Target - 11/32" (9 mm) Maximum Non-Ferrous Target - 7/32" (6 mm) Maximum
<b>Operating Temperature:</b>	-13°F (-25° C) to 158°F (70° C)
<b>Calibration:</b>	Magnetic
<b>Output: (Linear from 4 - 20 mA)</b>	1. Over Speed 20 mA (123% or More of Calibrated Speed) 2. Calibrated Speed 17 mA (100%) 3. Zero Speed 4 mA (0 - 10% of Calibrated Speed)
<b>Output Accuracy:</b>	+/- 0.2 mA
<b>Response Time:</b>	<1 Second (Typical)
<b>Overall Resolution:</b>	0.3% (22 Microamps)
<b>Cable:</b>	6 ft. (2 m) - 2 Conductor (Loop Powered)
<b>Protection:</b>	IP67 Dust and Water Tight (Fully Encapsulated)
<b>Approvals:</b>	CSA Class II Division 1 Groups E, F and G (USA & Canada) CE - Available (Europe)