



## Features & Benefits



Milltronics XPP-5 Probe is Mounted to the Side of a Screw Conveyor



Milltronics MFA 4p Controller Must be Mounted Outside of the Hazardous Environment or Located in an Explosion Proof Enclosure



**Design  
Engineering  
Manufacturing**

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## Milltronics Zero Speed Switch (Explosion Proof Option)

Zero speed switches detect the lack of speed or zero speed in rotating equipment such as a screw conveyor. For explosion-proof environments a common solution is to use a Milltronics XPP-5 motion sensor probe wired to a MFA 4p motion failure alarm controller.

The XPP-5 motion sensor probe mounts to the conveyor and is positioned to sense a rotating carbon steel shaft or target. Since the probe is certified for explosion proof environments, it can be used where there is a constant presence of flammable liquids or combustible dust. Typical applications for the probe include shafted or shaftless screw conveyors for wastewater treatment plants as well as oil refineries, chemical plants, and grain plants. The MFA 4p failure alarm controller is the control box for the probe that houses the signal contacts, adjustable timer, and visual indicator lights for probe operation and relay status. The alarm controller is NOT rated for an explosion proof environment, so it must be mounted out of the explosion-proof environment or be housed in control enclosure that is rated as explosion-proof.

The zero speed switch warns of equipment malfunction through detection of speed change or zero speed and signals through contacts to shut down machinery in case of a slowdown or failure. The process may be halted to prevent damage or plugging of other conveying or processing equipment. The system's reliability makes it a cost-effective way to protect valuable conveying and process equipment.

### Features

**Fully Sealed Probe** – The XPP-5 motion sensor probe fits in a tight tolerance aluminum housing and is tested by Milltronics to ensure no sparking will occur on the outside of the sensor.

**Adjustable Time Delay and Speed** – The motion failure alarm controller has a manually adjustable 0 to 60 second time delay with an adjustable setpoint for 2 to 3,000 pulses per minute (PPM).

**Wide Variety of Mounting Options** – The XPP-5 motion sensor probe can be mounted to sense a rotating carbon steel target. The probe works ideally when mounted near the tail end of the conveyor on the outside of the housing for sensing the rotating screw flight. Locating the probe at the tail end ensures critical issues such as a jam or mechanical failure is immediately sensed.

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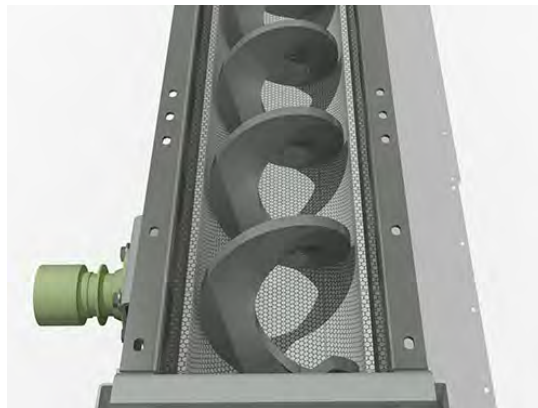
## Milltronics Zero Speed Switch (Explosion Proof Option)

### Benefits

**Explosion Proof Probe** – The XPP-5 motion sensor probe is certified for use in explosion proof environments rated as follows: Class I, Div. 1, Groups A, B, C & D; Class II, Div. 1, Groups E, F & G; Class III; CSA Hazardous Approval.

**Adjustable So Only Adverse Running Conditions Are Sensed** – The time delay adjustment allows the monitored device to accelerate to normal running speed before monitoring begins, limiting the chance of false faulting during equipment start up. The speed adjustment ensures the motion alarm trips only when the desired speed is not reached within the desired time delay.

**Used in Wide Variety of Applications** – If the area classification is not known, the XPP-5 motion sensor probe will meet the requirements of the application. The XPP-5 motion sensor probe can sense a target as far away as 4-inches.



Milltronics XPP-5 Probe Can Sense Shaftless Spiral Through 304 Stainless Steel Housing with Ceramic Liner



Mounting Bracket is Welded to Housing and Probe is Adjustable



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