

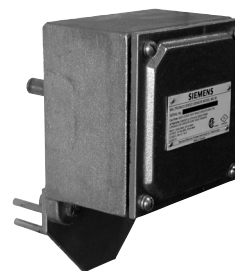
The Milltronics MD-36 speed sensor is a general purpose and hazardous rated shaft driven speed sensor. It operates in conjunction with a conveyor belt scale, providing a signal to an integrator which computes the rate of material being conveyed.

The sensor is directly coupled to the motor or pulley shaft to ensure accurate belt-travel readout, eliminating problems caused by belt slippage or material build-up.

The MD-36 converts shaft rotation into a pulse train of 36 pulses per revolution using high precision dual optocouplers. The digital signal is transmitted as speed input to any Siemens Milltronics integrator for calculation of belt speed, flow rate and totalized weight.

This high resolution speed sensor provides a frequency signal proportional to the shaft speed, enabling low or varying shaft speeds to be read accurately. The quadrature type circuitry in the MD-36 non-IS models prevents erroneous speed signals due to vibration or shaft oscillation.

The MD-36 is easily mounted and is bi-directional for either clockwise or anti-clockwise rotation.



Product Features

- Standard aluminium or optional stainless steel versions available for corrosive environments
- Hazardous area approved (MD-36 and MD-36 IS aluminium)
- Reading errors due to vibration are eliminated
- High resolution, suitable for low or varying shaft speeds
- Bi-directional for either clockwise or anti-clockwise belt travel
- Pulley shaft or motor shaft driven

Technical Specifications

Power

- MD-36/MD-36A/MD-36SS: +15 Vdc, 25 mA from integrator
- MD-36 IS: +5, -25 Vdc from IS switch isolator

Temperature

- -40 to 55 °C (-40 to 130 °F)

Input

- shaft rotation 0 to 2,000 rpm, bi-directional

Output

- open collector sinking output, max. 25 mA at 15 Vdc
- 36 pulses / revolution - 0 to 2,000 rpm = 0 to 1200 Hz
- MD-36 IS: load current 0 to 15 mA

Input : Output

- 1:1 (speed ratio)

Enclosure

- MD-36 and MD-36 IS: aluminum rating – Type 4/NEMA 4/ IP 65
- MD-36A: aluminum - general purpose
- MD-36SS: 304 stainless steel - corrosive applications

Cable (optional)

- Belden 8770, 3 wire shielded, 18 AWG or equivalent
- max. run 305 m (1000 ft)

Approvals

- MD-36:
 - CSA & FM : Class II, Gr. E, F & G, Class III
 - CE*
- MD-36 IS (with suitable IS switch isolator)¹:
 - ATEX: II 2 G, EEx ia IIC T6
 - CSA/FM: Class I, Div. 1, Groups A, B, C, and D, Class II, Div. 1, Groups E, F, and G (system approval)
 - CE*
- MD-36A, MD-36SS: CE*

Optional Switch Isolator (required for MD-36 IS)²

- Pepperl+Fuchs #KFA5-SOT2-Ex2 (115 Vac) and #KFA6-SOT2-Ex2 (230 Vac)
 - ATEX: II (1) G, [EEx ia] IIC
 - CSA/FM: Class 1, Div. 1, Groups A, B, C, and D, Class II, Div. 1, Groups E, F, and G (system approval)

¹Approvals for MD-36 IS are based on internally mounted NAMUR slotted proximity switch (Pepperl+Fuchs #SJ3.5N) and use of suitable IS Switch Isolator (Amplifier). Please see MD-36 instruction manual for more information.

* EMC performance available upon request.

²Approval ratings for the Proximity Switch and IS Switch Isolator are the property of Pepperl+Fuchs. Copies of these Approval Certificates may be obtained at www.siemens-milltronics.com

Specifications are subject to change without notice.

