MODEL BPMS-1, 2, 4 &12 UNDER SPEED SWITCH

Model BPMS-1, 2, 4 & 12

The **Model BPMS-1, 2, 4 & 12 Speed Switches** are used for accurate sensing of Under Speed, Over Speed and Zero Speed conditions on rotating shafts, pulleys or other rotating equipment within your plant. It has one of the most innovative designs for installation today. It utilizes a magnet for attachment to a rotating shaft. Drilling and tapping the pulley shaft to attached the speed sensor is no longer required. Simply "click" the speed sensor to the shaft and a strong magnet holds it in place, wire it to the PLC, DCS, PL70 Control or BPWD-1 Timer and you are ready to go.

Unique Features:

- "Click" in place installation
- "Break-free" design, allows it to detach from the shaft if a large object strikes it
- Universal power supply, 20-250 VAC or 10-300 VDC
- 2-Wire proximity switch
- Can be retrofitted with other proximity switches such as PNP or NPN outputs
- High visible LED to confirm proper installation and operation
- Multiple pulse ranges 1, 2, 4, 12 pulse units
- Relay type version which operates like a NC relay contact.
- 140lb holding force rare earth magnet

The **Model BPMS-1, 2, 4 & 12 Speed Switch** are unmatched in ease of installation and durability. Simply "click" the BPMS speed sensor onto the shaft that is to be monitored and complete the wiring. The cost to install other types of speed monitoring products usually surpasses the cost of the BPMS to the user. The BPMS is not permanently attached to the conveyor shaft it is considered to be "break-free" in design. In other words, safety concerns are minimal. If an object strikes the BPMS, no damage will occur. The BPMS simply detaches from the shaft and can be clicked back into place.

The proximity switch in the BPMS is a standard two-wire 12mm tubular switch that is capable of handling voltages from 20-250 VAC or 10-300 VDC. If your specification requires NPN or PNP or Relay outputs, there are BPMS Speed Switch models that suit these applications.

The housing that protects the proximity switch is opaque in color so the operational LED can be monitored. In proper operation, the highly visible LED will illuminate to determine if the BPMS is sending pulses. The BPMS is equipped with a 36 inch plastic cable guard with 1/4"NPT threaded connector to assist in wiring. The shaft size of the conveyor or rotating piece of equipment that is to be monitored needs to be larger than 1" inch to ensure proper holding strength for the magnet.

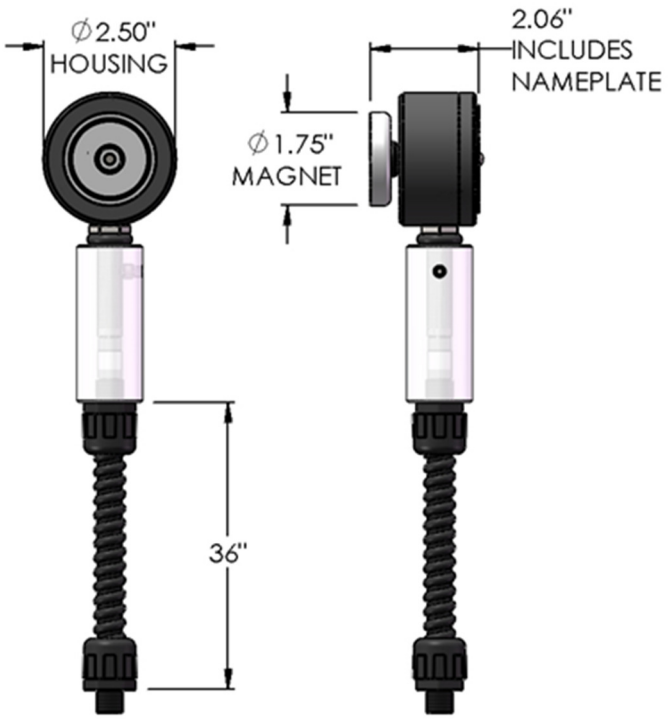
Bulk Pro Systems has tens of thousands of the BPMS Speed Sensors installed worldwide in the harshest bulk material handling environments.

SPECIFICATIONS

Model BPMS-1, 2, 4 & 12 Specifications:

- Operating Voltage: 20-250 VAC or 10-300 VDC
- Max Current Load: ≤ 100mA, VAC & VDC
- Switching Frequency: ≥ 50Hz…≤ 60Hz., .02 kHz
- Leakage Current: 1.7mA max leakage @ 120 VAC, ≤2.0mA VDC
- Voltage Drop: ≤ 6 V
- Holding Current: 5mA max
- Smallest Operating Current: ≥ 3mA
- Short0circuit Protection: Yes/Latching
- Protection: Resettable short circuit overload protection
- Switching Hysteresis: 3...15% of rated sensing distance
- Repeat Accuracy: ≤ 2% of full scale
- Output Indicator LED: 360° viewable LED
- Operating Temperature: -13° to 158°F (-25° to 70°C)
- Enclosure Rating: NEMA-4, 4X, 6, 6P, 12 and 13 (IP-67)
- Shock: 30g sine wave, 11 mS per IEC68-2-76
- Vibration: 55 Hz, 1mm amplitude
- Prox Housing: Metal, CuZn, Chrome-plated
- Cable: AWM style 2038 (PVC)

Dimensional Information All Sensors



Models Available:

BPMS-1	**1-pulse per revolution, standard sensor**
BPMS-2	**2-pulse per revolution, standard sensor**
BPMS-4	**4-pulse per revolution, standard sensor**
BPMS-12	**12-pulse per revolution, standard sensor**
BPMS-1NPN	**1-pulse per revolution, NPN sensor**
BPMS-1PNP	**1-pulse per revolution, PNP sensor**
BPMS-2NPN	**2-pulse per revolution, NPN sensor**
BPMS-2PNP	**2-pulse per revolution, PNP sensor**
BPMS-4PNP	**4-pulse per revolution, PNP sensor**
BPMS-4NPN	**4-pulse per revolution, NPN sensor**
BPMS-12PNP	**12-pulse per revolution, PNP sensor**
BPMS-12NPN	**12-pulse per revolution, NPN sensor**
BPMS-1SS	**1-pulse stop switch version, stop switch**
BPMS-2SS	**2-pulse stop switch version, stop switch**
BPMS-4SS	**4-pulse stop switch version, stop switch**

Options Controllers:

- BPWD-1 controller, monitors the signal from the BPMS-1 switch and provides a relay when the unit drops out, DIN rail mount. Eliminates the need for a PLC or DCS.
- PL70-115 Speed Monitor, monitors one BPMS-1 switch, provides user programming, i.e. start-up delays, alarm set-points, one DPDT contact and one (1) 4-20mA output. Eliminates the need for a PLC or DCS.

BPWD-1

PL70-115

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