

MODEL PL PADDLE LEVEL SWITCH



Economical Paddle Switch for Top or Side Mounting in Dry Bulk Materials.



PD-1. Minimum Bulk Density of 5 lb/ft³ (80 kg/m³)



PD-2. Minimum Bulk Density of 30 lb/ft³ (481 kg/m³)



PD-3. Minimum Bulk Density of 30 lb/ft³ (481 kg/m³), fits through a 1-1/4" coupling.



PD-4. Minimum Bulk Density of 70 lb/ft³ (1122 kg/m³), fits through a 1-1/4" coupling.

Bulk Pro Systems Model PL Paddle Level Switch

is an economical paddle level switch designed for point level detection in dry bulk materials. Incorporated into the design of the PL is a magnetic drive that has been proven by decades of use. A 1 rpm synchronous motor rotates the paddle which utilizes a magnetic drive. As the product in your application builds up to the paddle its movement becomes impeded and the resulting motor torque activates the output switches which stops the motor and gives you an alarm. A spring mechanism reactivates the motor and returns the switches to their normal state when the product moves away from the paddle and no longer impedes its movement.

Standard construction is weatherproof and explosion proof construction is available as an option. The PL can be side or top mounted and is designed with the industry standard 1-1/4" male NPT connection. Mounting flanges are available upon request.

Features:

- **Magnetic drive** that isolates and completely seals the control head from the process and environment preventing material or dust from entering the control head.
- **Motor shuts-off** when the paddle stalls increasing the motor life, preventing motor burnout and decreasing power usage.
- **Slip clutch design** enabled by the magnetic drive that prevents damage to the motor and drive mechanism from sudden or excessive loading on the paddle.
- **Status indication light** on the enclosure provides visual indication of the switch.
- **Screw cover** on the enclosure allows for easy access to the electrical with no worries about losing bolts or screws.
- **Modular design** to allow field installation of any paddle, flanges, shaft extensions or shaft guards.

SPECIFICATIONS

- **Service:** Dry powder or Bulk Materials compatible with wetted materials
- **Sensitivity:** Minimum material density of 5 lb/ft³ (80 kg/m³), maximum of 200 lb/ft³ (3200 kg/m³)
- **Wetted Materials:** Paddles: 316SS, Exposed Shaft: 316SS, Shaft Seal: PTFE
Mounting Boss: Aluminum, Flexible Coupling: 316 SS
Mounting Flanges: Carbon Steel or 316 SS
Shaft Extensions and Shaft Guards: Galvanized Steel or 316 SS
- **Temperature Limits:** **Standard Construction:** Process: -40 to 300°F (-40 to 148.9°C), Control Head: -40 to 200°F (-40 to 93.3°C)
High Temp Option: Process: -40 to 500°F (-40 to 260°C), Control Head: -40 to 200°F (-40 to 93.3°C)
- **Pressure Limit:** 30 PSIG (2.07 bar) maximum for .5 micron or larger material.
- **Power Requirements:** Select by part number: 110-220VAC, 230 VAC, 24 VAC, 48 VAC, 12 VDC or 24 VDC
- **Power Consumption:** Weatherproof models: 5 watts, Explosion proof models: 3 watts
- **Enclosure:** Aluminum, powder coated
- **Enclosure Rating:** Weatherproof (W, WH construction): NEMA-4X, explosion proof (E, EH construction): NEMA-4X and rated for Class I, Div. 1 & 2, Groups C & D, Div. 1 & 2, Groups E, F & G
- **Switch Type:** SPDT or optional DPDT snap switch
- **Electrical Rating:** 15 Amps @ 120/230 VAC, 5 Amps @ 24 VDC
- **Electrical Connection:** Screw terminals
- **Conduit Entry:** 3/4" female NPT
- **Process Connection:** 1-1/4" male NPT, optional mounting flange available
- **Weight:** Control head only: 4 lb (1.81 kg)
- **Indication Light:** Red LED that activates when switch is made or when switch is not made with RL option (Not available in explosion proof models)
- **Options:** Time delay relay, high temp construction, top mount, shaft extensions, shaft guards, flexible couplings, other power voltages and reversed light
- **Agency Approvals:** UL approved as an auxiliary device or as an auxiliary device for hazardous locations

APPLICATIONS:

- Plug chute detection
- High, medium and low level detection
- Redundant high level detection

