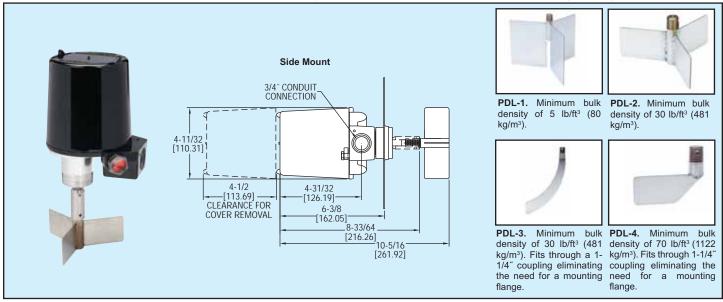


Paddle Level Switch



Economical Rotary Paddle Level Control, Top or Side Mounting for Dry Bulk Materials



Incorporated in the design of the PLS is a magnetic drive that is time proven by decades of use in our Mark Series valve position indicator product line. A 1 rpm synchronous motor rotates the paddle utilizing a magnetic drive. As product builds up the paddle is impeded from moving and the resulting motor torque activates the output switches and stops the motor. A spring mechanism reactivates the motor and returns the switches to normal state when the product no longer impedes the paddle rotation.

Standard construction is weatherproof with explosion-proof optional, and the unit can be side or top mounted. The PLS is designed with the industry standard 1-1/4" male NPT connection and mounting flanges.

FEATURES

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

| Control | | |
|---------------------|---|--|
| Assemblies | Description | |
| PLS-W-S-1-0-0-0 | Weatherproof construction, SPDT switch, | |
| | 120 VAC power supply. Order paddles and | |
| | flanges separately. | |
| PLS-W-S-1-3-0-0-0 | Weatherproof construction, SPDT switch, 120 | |
| | VAC power supply, includes PDL-3 paddle. | |
| PLS-W-S-1-1-CSH-0-0 | Weatherproof construction, SPDT switch, 120 | |
| | VAC power supply, includes PDL-1 paddle and | |
| | FLG-CSH flange. | |

| Paddles | | |
|-------------------|---------|----------------------------------|
| (See top of page) | Flanges | Description |
| PDL-1 | FLG-CSH | Carbon Steel with Half Coupling. |
| PDL-2 | FLG-CSF | Carbon Steel with Full Coupling. |
| PDL-3 | FLG-SSH | 316 SS with Half Coupling. |
| PDL-4 | FLG-SSF | 316 SS with Full Coupling. |
| | | , , |

Contact the factory for pricing of shaft extensions, protective shields, and other options. More detailed information available in our Measurement & Control for Powder, Dust, and Bulk Materials Catalog.

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: 316 SS. Exposed Shaft: 316 SS. Shaft Seal: PTFE. Mounting Boss: Aluminum. Flexible Coupling: 316 SS.

Mounting Flanges: Carbon Steel or 316 SS

Shaft Extension and Shaft Guards: Galvanized Steel or 316 SS.

Temperature Limits:

Standard Construction: Process: -40 to 300°F (-40 to 148.9°C),

Ambient: -40 to 185°F (-40 to 85°C).

High Temperature Option: Process: -40 to 500°F (-40 to 260°C),

Ambient: -40 to 185°F (-40 to 85°C).

Pressure Limit: 30 psig (2.07 bar) maximum for .5 micron or larger material. Power Requirement: Select by part number: 110-120 VAC, 230 VAC, 24 VAC, 48

VAC, 12 VDC, or 24 VDC.

Power Consumption: Weatherproof models: 5 watts, Explosion-proof models: 3

Enclosure: Aluminum, powder coated.

Enclosure Rating: Weatherproof (W, WH construction): NEMA 4X, Explosionproof (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: 15A @ 120/230 VAC, 5A @ 24 VDC.

Electric Connections: Screw terminals Conduit Connection: 3/4" female NPT.

Process Connection: 1-1/4" male NPT. Optional flange.

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 on Explosion-proof models).

Options: Time delay relay, high temperature construction, top mount, shaft extensions, shaft shields, flexible couplings, other power voltages, reversed light. Agency Approvals: UL approved as an auxiliary device or as an auxiliary device

for hazardous locations

