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**

- **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 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 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:** Min material density of 5 lb/ft³ (80 kg/m³), max 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) max for .5 micron or larger material.
- **Power Requirement:** Select by part number: 110 to 120 VAC, 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 (IP66); Explosion- proof (E, EH construction): NEMA 4X (IP66) 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:** cUL approved as an auxiliary device or as an auxiliary device for hazardous locations.