

PADDLE TYPE HOPPER LEVEL CONTROLS



Principle of Operation

The operation of DK's paddle type hopper level control products is quite simple. The unit is installed through the wall of the vessel, so that the paddle protrudes inside the vessel. A small electric motor drives a paddle which rotates freely in the absence of material. When the paddle is impeded by material, the motor rotates within the housing which triggers two switches. The first switch is a "dry" electrical contact closure that is available to control a process function or alarm circuit. The second switch cuts the power to the motor, preventing a locked rotor condition, thus extending the motor life. This also activates the signaling device which is wired through that same motor switch. When the material level drops, the loaded stretched tension spring returns the motor to its original running position and the unit is activated.

Motor shut-off feature:

- o Economical, versatile point level indicator Simple.
- o Electromechanical operation.
- o Built-in slip clutch protects internal components from external forces rugged cast aluminum construction.
- o Dust tight and watertight cast aluminum housing.
- o Unit sealed, including bearings, against maximum pressure: 3 bar.

Applications:

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

Specification:

Model No.	: PLS-100
Service	: Dry powder or Bulk Materials compatible with wetted materials
Sensitivity	: Minimum material density of 80 kg/m ³ , maximum of 3200 kg/m ³
Wetted Materials	: Paddles: 304 SS / 316 SS, Exposed Shaft: 304SS/316SS, Shaft Seal: PTFE, Mounting Flanges: Carbon Steel, 304 SS or 316 SS Shaft Extensions and Shaft Guards: Galvanized Steel, 304 SS or 316 SS
Temperature Limits	: Standard Construction: Process: -40° to 150°C, Control Head: -40° to 90°C, High Temp Option: Available on Request
Pressure Limit	: 3 bar maximum for 0.5 micron or larger material.
Power Supply	: 110 - 220V AC, 230V AC, 24V AC, 48V AC, 12V DC or 24V DC
Power Consumption	: 5 watts
Enclosure	: Cast Aluminum
Switch Type	: SPDT or optional DPDT snap switch
Electrical Rating	: 10 Amps @ 110/230 VAC, 5 Amps @ 24 VDC
Electrical Connection	: Screw terminals
Conduit Entry	: ½" Female NPT
Process Connection	: 1" Male NPT, optional mounting flange available



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