

ROTARY PADDLE LEVEL SWITCH - RPLS

Used for detecting the level of free flowing solids / bulk materials to signal a breakdown in their continuous flow.

Salient Features :

- ☑ Appropriate operating torque to suit service material, can be set through adjustable spring inside the housing.
- ☑ Motor operating the paddle is protected from overload by means of magnetic clutch.
- ☑ Flexible spring shaft for absorbing material shocks.
- ☑ Protection shield for horizontal / inclined installation for protection of paddle from material flow / dumping.
- ☑ Two bearing shaft assembly for reduced wear and increased reliability.
- ☑ Ash seal assembly for dusty environment.
- ☑ DPDT Relay o/p.

Construction & Operation :

Consist of a synchronous motor, housed in an enclosure along with a pair of micro switches and a torque adjusting mechanism. The motor, when powered drives a paddle holding a shaft at a very low speed. Hence, the paddle rotates freely, when not in contact with material. However, the rising material level, on coming in contact holds the paddle resulting in stoppage of motion and generation of a reaction torque, which operates two micro switches. One disengages the motor from supply and the other provides an o/p signal for requisite control action. When solid level falls, the paddle is released causing the micro switches to reverse their action, which results in the re-starting of motor. Torque to suit material bulk density, can be set by proper paddle selection and torque adjusting mechanism.

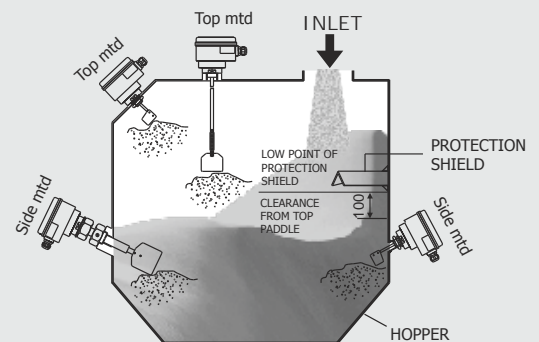
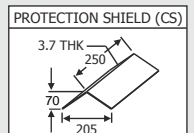
Specifications :

| | |
|--|---|
| Power Supply | : 110 or 220VAC ±10% (50~60Hz) or 24VDC |
| Power Consumption | : 3.5 VA |
| O/P Contact Rating | : 5A, 250VAC (1SPDT) / (2SPDT) |
| LED Indication | : Red/Green to indicate power ON-OFF/Level status |
| Rotary Speed | : 1RPM |
| Sensing Torque | : 3 Kg-cm |
| Optg. Temperature | : -10 to 80°C (Std) -10 to 150°C (High Temp) |
| Process Connections | : 1" BSP (M) Screwed or 3 1/2" NB, ANSI 150# Flange |
| Installation | : Side / Top / Angular |
| Paddle Type | : 'S' – Bulk Density more than 1kg. 'D' – Bulk Density 700 gm to 1 kg. 'F' – Bulk Density 700 gm to 1 kg. (can be folded down for insertion in small bore vessels) 'C' – Bulk Density 500 gm to 700 gm. |
| Insertion Length (standard shaft) | : L=73mm ('S' Paddle) 118mm ('D' & 'C' Paddles), 200mm ('F' Paddle) |
| Insertion Length (with protection pipe) | : L=200 to 1500mm |
| Pressure | : Atmospheric |
| Flexible Shaft (with SS spring) | : L=210mm ('D' & 'C' Paddles) L=170mm ('S' Paddle) |
| Enclosure | : Cast Al x IP-65 or ABS x IP 65 |
| Cable Gland | : PG 11, Polyamide |

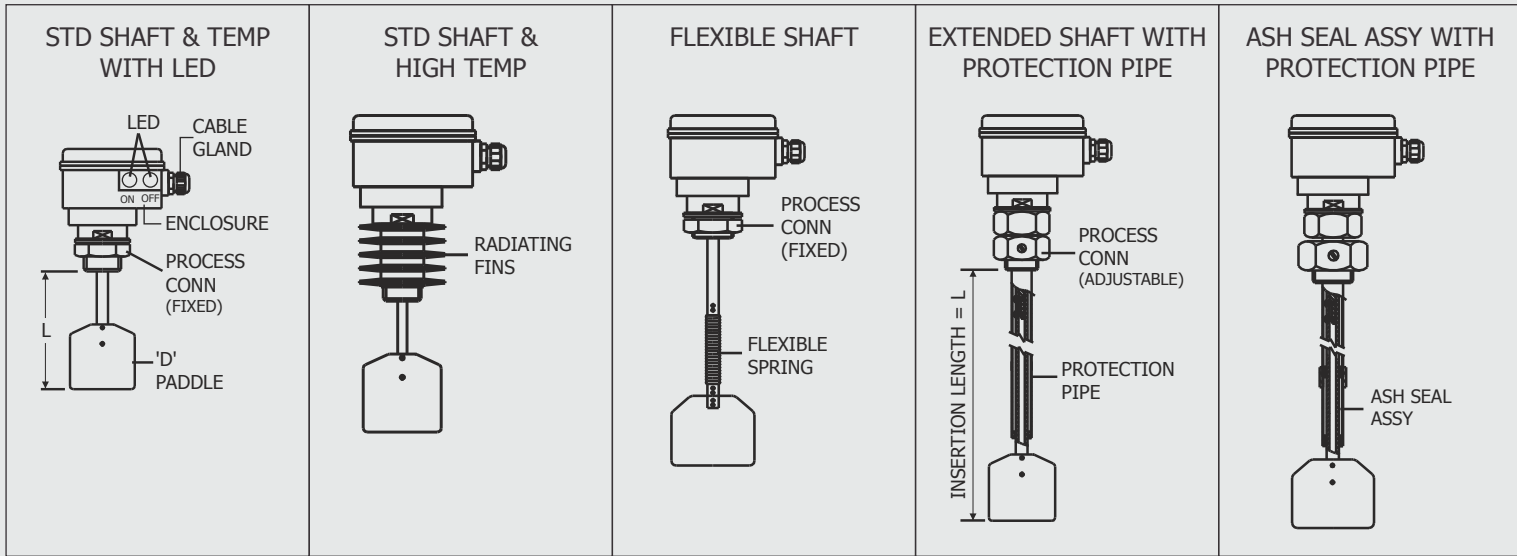


Installation :

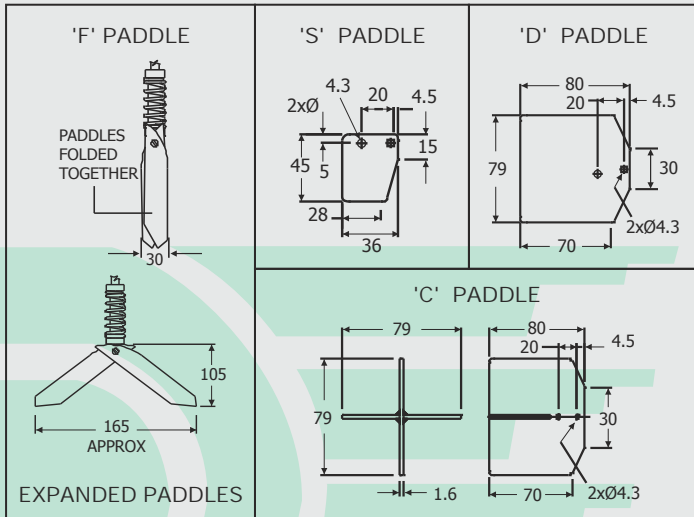
CAUTION: Provide Protection Shield for Side Installation



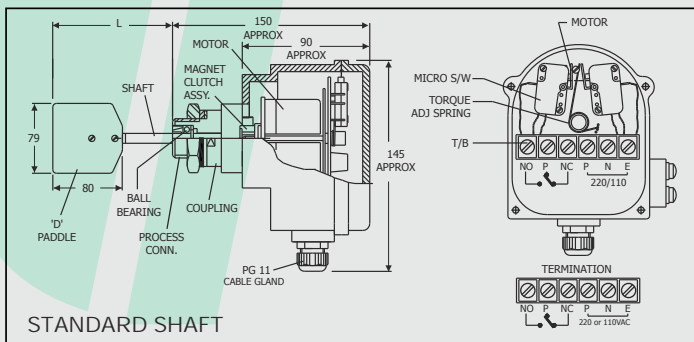
- ☑ Suitable for indoor & outdoor installation.
- ☑ High level Switching : Mounted from top, either vertical, horizontal or inclined ensuring that paddle is in full contact with material, to detect the switching point.
- ☑ Low level Switching : Mounted from side, either horizontal or inclined so that residual material (Dead Stock) sticking to tank wall does not give spurious signal.



Paddle Types :



Construction :



Services :

Flour, Grain, Plastic Pellet & Granule, Foundry Sand, Pigment, Cement, Fly-ash and Detergent.

Ordering information :

Model No x Service Material and its Bulk Density x Optg. Temp & Pressure x Supply

Model Identification :

| | | | | | | | | | | |
|--------|-------------------------|------------------------|--|----------|------------------------------------|--------------------------------|--------------------|---------------------|-------|-----------|
| RPLS - | ENCLOSURE x Cable Gland | Cast Al, IP-66 x PG 11 | ABS, IP-65 x PG 11 | Others | LED INDICATION | TEMPERATURE | PROCESS CONNECTION | PADDLE TYPE (SS304) | SHAFT | ACCESSORY |
| A | W/O LED | STD. Temp. (80°C) | Screwed (SS304) x 1" BSP (M) | Single | Standard | Not provided | | | | |
| B | With LED | High Temp. (150°C) | Screwed (SS304) x 1 1/2" BSP (M) (Ash Seal Assy) | Double | Flexible | Carbon steel Protection shield | | | | |
| O | | | Flanged (MS) x 3 1/2", ANSI 150# | Cross | Extended with Protection Pipe | | | | | |
| A | | | Flanged (SS304) x 3 1/2", ANSI 150# | Foldable | Ash Seal Assy with Protection Pipe | | | | | |
| B | | | Adjustable (SS304) x 1" BSP (M) | Others | | | | | | |
| S | | | Others | | | | | | | |
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x L (mm) (INSERTION LENGTH)

*All dimensions in mm, except specified.

Applications :

Plastic moulding machine, Sand hopper, Blending devices, Tube conveyor devices, Crusher, Rice cleaning machine, Grain Treatment machine, Spray drier, Milling machine.

