

# INSTRUCTION & MAINTENANCE MANUAL

## ROTARY PADDLE SWITCH "RPLS"

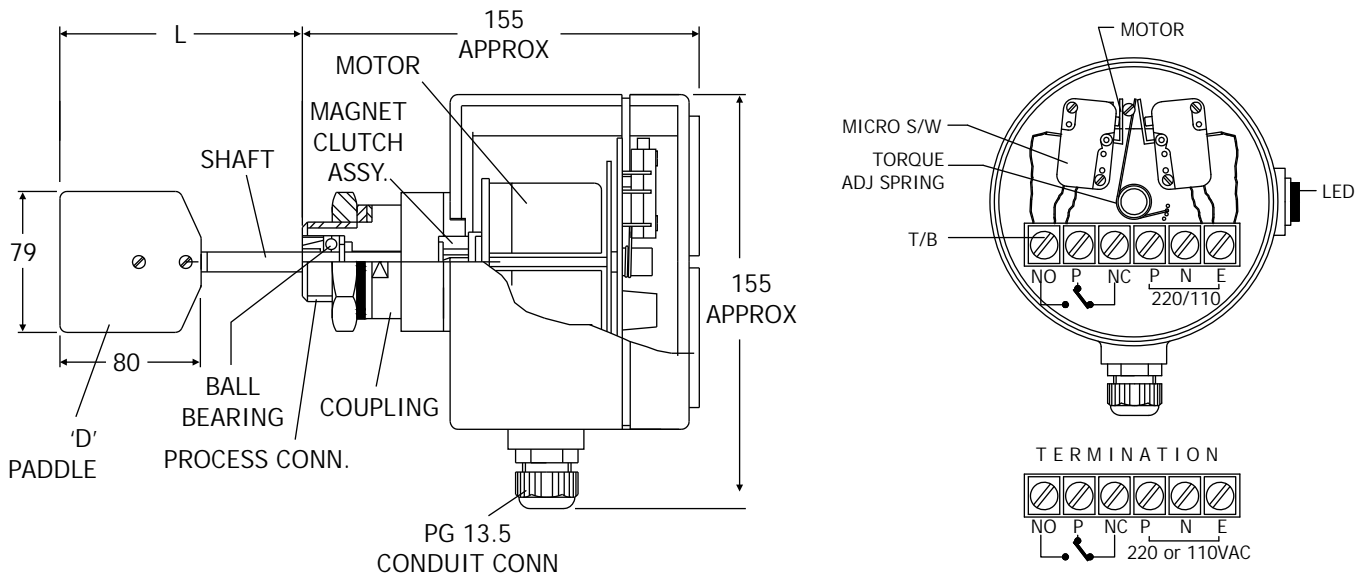


Innovating Level Controls since 1984

### Introduction & Working :

This is used for detecting the level of free flowing solids / bulk materials to signal a breakdown in their continuous flow. Typical application can be in floor, grain, herbs, plastic pellets / granules, foundry sand, pigment, cement, fly-ash, detergent etc.

### Product details :

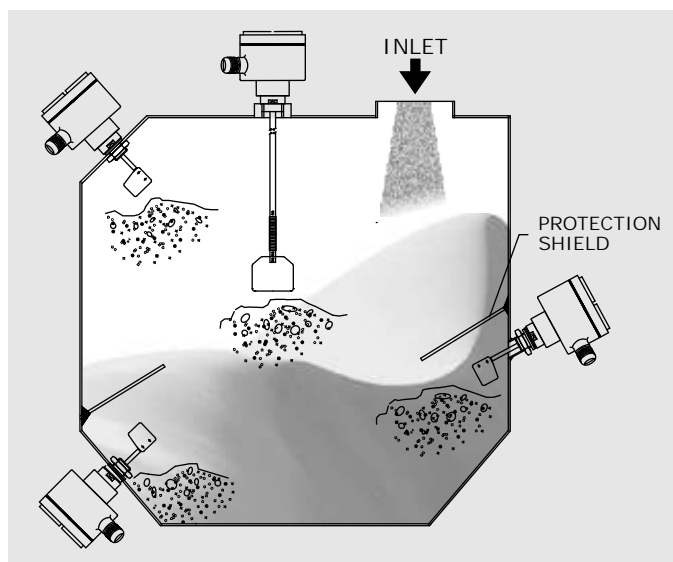


### Pre Installation check :

- 1) Ensure availability of supply voltage to match the 'Motor Voltage' as indicated on it's name plate.
- 2) Connect and switch the supply. Ensure that paddle rotates slowly.
- 3) Stop paddle switch by hand and ensure that both the micro-switch contacts 'Change over' and The magnetic clutch is not slipping.
- 4) Release the paddle and ensure that both micro-switches reverse their actions, and The paddle restarts it's rotation. The switch is now ready for installation.

### Installation Procedure :

- 1) Switch is suitable for In door / Out door installation.
- 2) Operating conditions : Ensure that the tank pressure and temperature are within permissible limits / rating.
- 3) Pre set switching point : Ascertain whether 'High Level' or 'Low Level' is required.
- 4) Location of Tank: Determine the area, giving due weightage to flowing and arching properties of the material. ( Angle of Repose ).
- 5) High Level Switching : Mounted from the Top, either Vertically, Horizontally or at an Angle; ensuring that the paddle comes in full contact with the material, so as to sense the switching point.
- 6) Low Level Switching : Mounted from Side, either Horizontally or at an Angle; ensuring that the residual material ( Dead Stock ) sticking to the tank walls does not give spurious signal.
- 7) Tank Opening : If small for switch insertion, remove paddle and mount the switch. Reassemble the paddle after mounting.

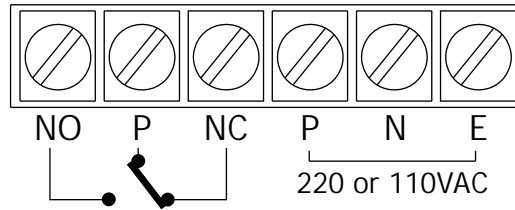


CAUTION: Provide Protection Shield For Side Installation

## Electrical wiring :

Wire the switch as per the wiring diagram. Ensure that the supply voltage corresponds with switch voltage. i.e. 110 V or 220 V AC as selected.

Termination :



## Precautions:

- Tank nozzle should have matching counter threadsto, so that the switch can be screwed to the tank. Ensure that nozzle length is shorter than Insertion length of the switch, so that paddle does not touch the nozzle or tank wall.
- Hole opening : Ensure that hole size is appropriate. Insert the switch and lock it with mounting nut.
- Protection shield : Recommended with side mounting. Here paddle may come in the path of falling material, the shield avoids damage to paddle and spurious tripping.
- Sunlight Protector : This is recommended where the enclosure comes under direct sunlight.
- Do not use Paddle Switch for materials that stick to the paddle.
- Do not rotate the paddle with hand when the power supply to the motor is OFF.

## Trouble shooting :

With supply 'ON' and Paddle not rotating.

- Ensure that wiring is done as per Wiring Diagram and is not loose at termination.
- Ensure that cable is not damaged and none of it's core wires are open.
- Ensure that no foreign material is interfering with paddle motion.
- Ensure that motor shaft is straight and not damaged to inhibit paddle motion.
- Ensure that bearing is working smoothly and is not impaired with any material.
- If "Supply Micro Switch" is faulty – repair or replace micro switch.
- After ensuring above if the paddle still does not rotate, motor requires repairs / replacement.

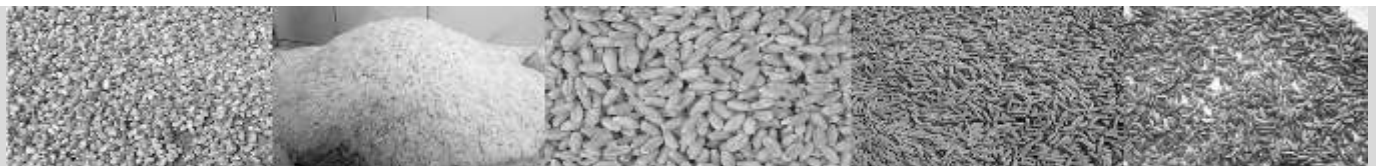
'Paddle Rotating' at preset level, i.e. in contact with material.

- Reset / increase the Torque through adjusting the Torque setting mechanism.
- Change paddle size to generate sufficient torque.
- Extend shaft length to reach the material level.
- After ensure above, if the paddle still rotates; contact us.

Output micro switch does not operate at the pre set level, although the paddle is not rotating.

- Ensure that 'Switch body' is not loose.
- Ensure that 'Hinge Levers' of the Micro Switch are not bent / damaged.
- Ensure that Micro Switch contacts are not damaged / burnt.
- Ensure that 'No Slippage' of magnetic clutch.

After ensuring above, if the micro switch still does not operate, magnet or micro switch may need replacement.



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