

ROTARY PADDLE LEVEL SWITCH

Operation Manual

PRINCIPLE

The SE(RP) series operating principle is simple. A unit is usually located through a bin wall at the top, middle or low level of a bin. During normal operation (no material present) a synchronous motor rotates the paddle at 1 RPM. When this paddle rotation is impeded by material, the motor will stall and cause the micro switch to change state. (Indicating an alarm or control).

SPECIFICATION

Power Source: (A)110VAC, (B)220VAC,
(C)240VAC, (D)24VAC,
(E)24VDC, 50/60Hz

Power Consumption: 3W, 1.5W ---for SE18□(RP8□) series
11W, ---DC24V

Contact Capacity: SPDT 5A/250VAC,
3A/250VAC---for SE18□(RP8□) series

Rotary Paddle Speed "1 RPM"

Insulation Voltage: AC 2500V / 1minute

Torque: 0.5~1.0kg-cm,
30~100g-cm---for SE18□(RP8□) series

Specific Gravity: 0.5 g/cm³
0.3 g/cm³ ---for SE18□(RP8□) series

Connection Type: Screw : 1"PF, 3/4"PF---for SE18□(RP8□) series
Flange: JIS 2-1/2" x 5 kg/cm²

TORQUE ADJUSTING MECHANISM

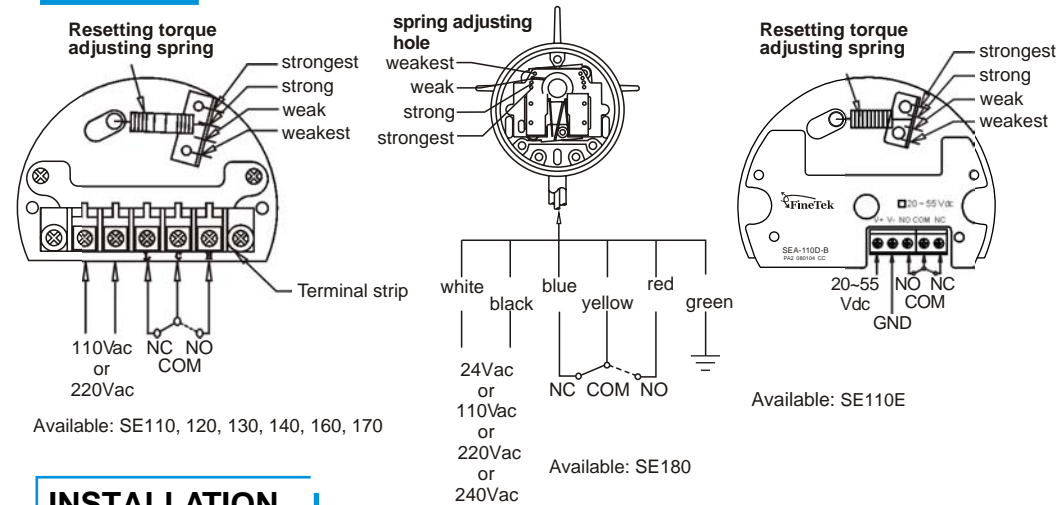
1. The torque spring is applied to adjust the shaft output torque force, which is set at "weak" position at factory side, it is adjustable as per customer side target measuring material S.G. (Specific Gravity), if the measured material with higher S.G., please try to release it to more.
2. To find the proper orientation : The paddle sensitivity will be interacted by more weaker, otherwise the small S.G. material will release torque spring to the weakest position, which will cause the paddle performance to be more sensitive.

***Please take attention for the torque force during detecting process, and please don't adjust the torque force in anytime which avoid the mistake detecting occur.

MAINTAIN

1. Please check "Shaft" & "Paddle" for bending or damage.
2. Please check the connection between "Shaft" & "Paddle"
3. Please clean out the "Shaft" & "Paddle" regularly.

WIRING



INSTALLATION

1. For horizontal installation by the side mounting, please take 15° ~ 20° angle downward to avoid material impact the shaft & paddle directly.
2. The conduit opening should be place on downward position, tight the wire connection.
3. If the hopper (bin) already installed the Air Vibrator or Vibrator Motor, please use our SE140(ME40) Capacitance Level Switch.
4. Please take note that SE110(RP10), SE111(RP11), SE120(RP20), SE140(RP40), SE170(RP70), SE171(RP71), SE174(RP74), SE180(RP80) are for side mounting (Horizontal Installation) only.
5. SE130(RP30), SE146(RP46), SE160(RP60), SE173(RP73), SE176(RP76) are for vertical installation only.
6. When install or maintain in the field, to comply with the caution "Open after power off"
7. Corrosive Gas application isn't available for Aluminum & Stainless (SUS) material.
8. The operating temperature in the tank/bin shouldn't over anti temperature of products.

TROUBLE SHOOTING

PROBLEM	ANALYZING CAUSE	SOLUTION
Paddle keeps rotating around but no signal output	Paddle size isn't suitable for use in existing material due to being of Specific Gravity	To change the correct paddle type.
Paddle out of shape or shaft bending	The impacting force of material is too large	To do protection for paddle and shaft.
No rotation for paddle	1) No connect with power 2) Motor damaged	1) Check the wire connecting. 2) Replacement of Motor.



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