

SE190/ 191 ROTARY PADDLE LEVEL SWITCH

(Economy type) Operation Manual

PRINCIPLE

The SE 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 50/60Hz,
(B)220Vac 50/60Hz

Contact rating : SPDT 5A/250Vac
Power consumption : 4W(Max.)
Ambient temperature : -20°C~+60°C
Operating temperature : -20°C~+70°C

Max. pressure : 2Kg/cm²(Max.)
Rotary paddle speed : 1RPM
Applicable density : 0.4g/cm³
Connection type : 1"PF (screw)
Housing protection : IP65

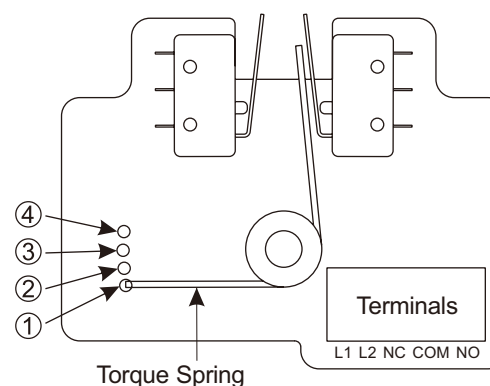
TORQUE ADJUSTING MECHANISM

1. User may adjust torque depending on the S.G of measured item. Adjust torque to high when the S.G of measured item is high. The sensitivity of paddle will be relatively low. Vice versa.
 2. The torque spring is set as weak by default. To increase the strength of torque spring, please adjust spring up to next aperture.
- ★ Please don't adjust the torque during the usage of torque spring to prevent false alarm.

MAINTAIN

1. Please check if shaft and paddle are bended or damaged.
2. Please check if shaft and paddle are connected well.
3. Please clean up and dust down the shaft and paddle regularly.

WIRING



Aperture	Paddle Status	Spring Torque
①	Pause	1.13kg ± 0.2
	Re-start	0.97kg ± 0.2
②	Pause	1.29kg ± 0.2
	Re-start	1.16kg ± 0.2
③	Pause	1.41kg ± 0.2
	Re-start	1.3kg ± 0.2
④	Pause	1.62kg ± 0.2
	Re-start	1.52kg ± 0.2

INSTALLATION

1. For horizontal installation by the side mounting, please take 15 ~ 20 degrees downward to avoid material impact the shaft & paddle directly.
2. The conduit opening should be place on downward position, tight the wire connection.
3. On-site installation and maintenance should comply with warning "Open after power off ".
4. Etching air against Aluminum Alloy shouldn't be present during installation.
5. The max. operating temperature should not be over specification.

TROUBLE SHOOTING

Situation	Possible Cause	Solution
Paddle keeps rotating but no signal output	Paddle size doesn't match with the specific gravity of material	Change to correct paddle type
Paddle or shaft is deformed	The impact from the material is huge	Proper protection for paddle and shaft.
Paddle doesn't function	Power is not connected	Check the wire connection
	Motor damaged	Contact us for replacement

Shall there still be any queries, please contact us.



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