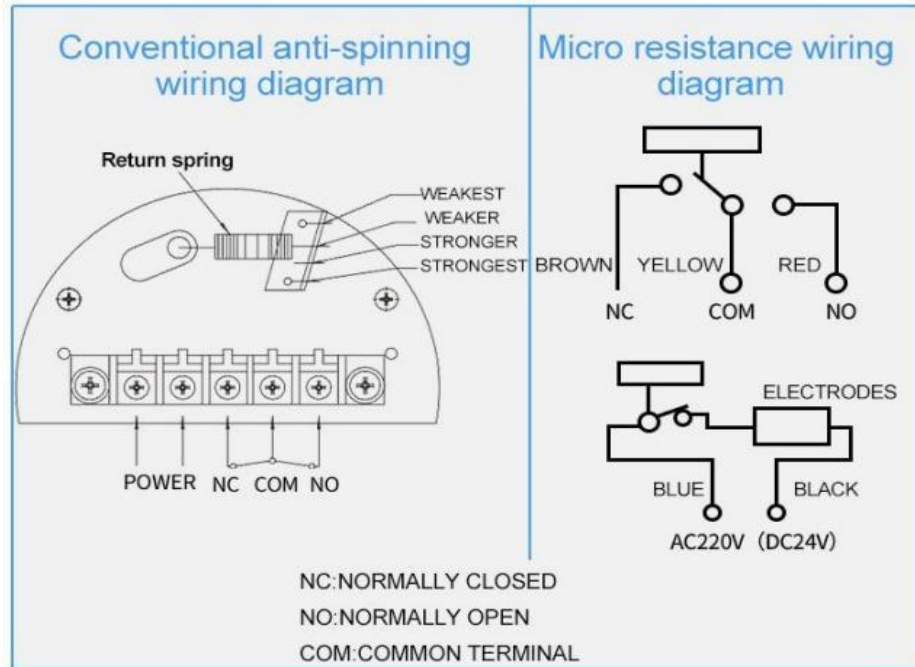


5. WIRING



6. TROUBLESHOOTING

No.	Fault Phenomenon	Cause Analysis	Troubleshooting
1	Paddle continues to rotate when material reaches it	Paddle size does not match material specific gravity	Re-select appropriate paddle size
2	Paddle or drive shaft becomes bent or deformed	Impact force of the material is too high	Implement proper protective measures
3	Paddle does not rotate	Power not connected properly	Check the wiring
		Motor burned out	Replace motor

Note: Do not modify the dimensions of the drive shaft or paddle yourself, as this will affect signal output.

Routine Maintenance

1. Check whether the drive shaft and paddle are bent, deformed, or damaged.
2. Check whether the connection between the drive shaft and paddle is secure.
3. Regularly remove material buildup and debris from the paddle and drive shaft.
4. Do not wash the junction box directly with water.

DWEL

Rotary Paddle Level Switch

Operation Manual



Chengdu Dwel Sensing Technology Co.,Ltd

1. PARAMETERS

- Power Supply: 110VAC/220VAC/240VAC/24VDC/24VAC , 60HZ/50HZ
- Power consumption: 4W, 1.5W(Compact type)
- Contact capacity: SPDT 5A/250VAC, 3A/250VAC(Compact type)
- Blade speed: 1R.P.M
- Withstand voltage: AC 1500V x 1minute
- Measuring torque: 0.05~0.1N·m, 0.003~0.01N·m(Compact type)
- Applicable gravity: >0.5g/cm³, >0.3g/cm³ (Compact type)
- Process connection: 1"PF, 1-1/2"PF, 1-1/4"PF, 3/4"PF(Compact type), Flange JIS 2-1/2"x5kg/cm² (Others on request)

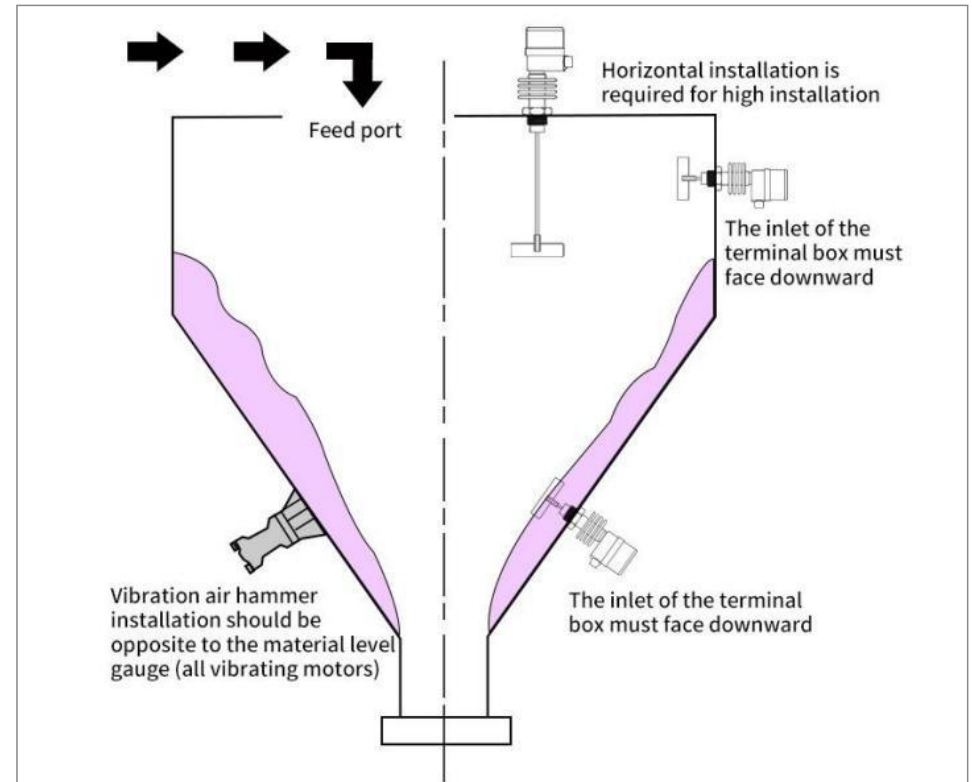
2. WORKING PRINCIPLE

The paddle of the rotary paddle level switch is connected to the drive shaft and clutch. When it is not in contact with material, the motor runs normally. When the paddle comes into contact with material, the motor power is cut off and the rotation stops. At the same time, the mechanism outputs a contact signal to detect the material level.

3. INSTALLATION PRECAUTIONS

- For horizontal installation, mount the switch at a downward angle of 15°–20° to reduce material impact.
- The cable entry of the junction box must face downward, and the cable gland nut must be tightened.
- Ensure that the correct operating voltage is used before powering on.
- The load of the controlled circuit must match the switch's contact capacity.
- Avoid installing the product near bridging breakers or vibration motors.
- Do not install the switch too close to the feed inlet to prevent paddle damage or malfunction. If installation near the inlet is necessary, install a 2" wide protective baffle 200 mm above the switch.
- Choose horizontal or vertical installation according to the product model.
- For adjustable shaft-type switches, when assembling on site, apply anaerobic adhesive to the locking nut when connecting the universal joint and drive shaft, then tighten it with a wrench.
- Follow the warning "Open the cover only after power is disconnected" during on-site installation and maintenance.

- The installation site must not contain toxic gases that can corrode aluminum alloy.
- The maximum temperature of the measured medium must not exceed the temperature indicated on the product label.
- Do not strike the paddle or drive shaft directly during installation.



4. TORQUE ADJUSTMENT

1. Users can adjust the torque according to the specific gravity of the measured material. When the material has a high specific gravity, set the spring torque to the strongest position—this makes the paddle less sensitive. When the material has a lower specific gravity, adjust the spring to a weaker position—this increases paddle sensitivity.
2. Adjustment method: Open the junction box, remove the torque spring from the perforated end, and insert it into the corresponding hole as needed (the hole closest to the terminal block provides the weakest torque).

Note: Do not change the torque setting of the spring arbitrarily during use to avoid false operation.