

## Vibrating Rod Level Switch    Solids | Vibration | Pioneered in China



### Tube-11 Vibrating Rod Level Switch

#### Overview

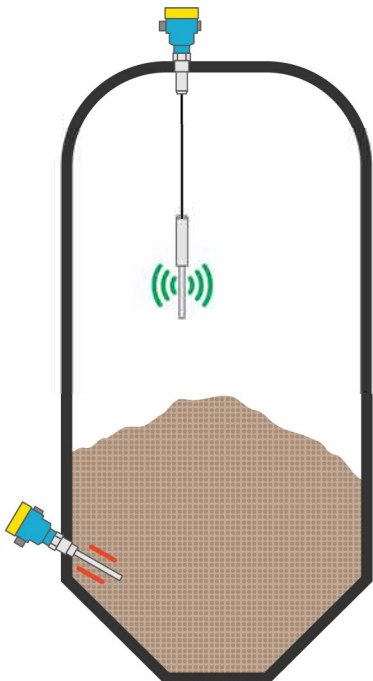
Tube-11 is China's first level switch with an innovative dual-tube probe, designed for measuring powders, granules, and sediment in water. Backed by 10+ core patents and dual gas/dust explosion-proof certification, it ensures reliable detection of various solids. Its strong adaptability and high accuracy make it ideal for demanding industrial environments.

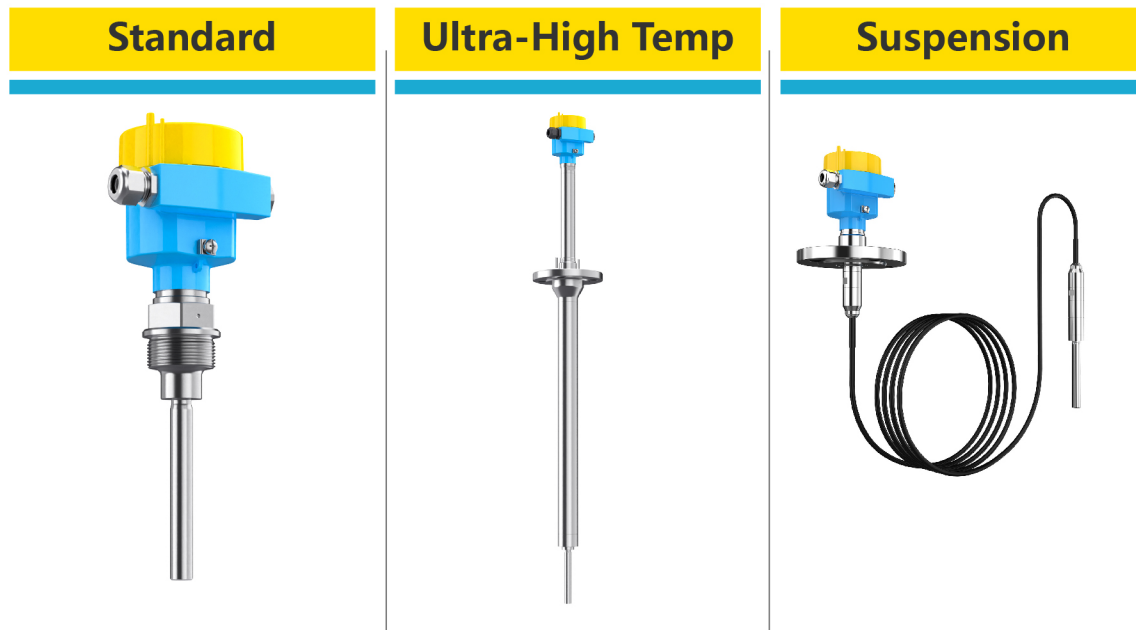
#### Principle

A piezoelectric driver excites the Tube-11's vibrating rod. When the rod contacts material, vibration amplitude decreases. The electronics detect this change and output a switch signal.

#### Benefits

- **Dual-tube probe design:** China's first, suitable for various solid materials and sediment measurement in water.
- **High sensitivity:** detects media density as low as 0.02g/cm<sup>3</sup>, covering most conditions.
- **High temperature resistance:** standard up to 250°C, ultra-high up to 400°C, industry-leading.
- **Anti-clogging design:** ideal for viscous or sticky media.
- **Intelligent self-diagnosis:** accurate fault detection, easy maintenance.
- **No calibration needed:** plug-and-play, simple operation.
- **Cable type:** flexible cable connection up to 20 meters, suitable for long-distance measurement.





<b>Applications</b>	<ul style="list-style-type: none"> <li>Widely used in silos, dust bins, hoppers, and packaging lines. Ideal for extreme temperature level measurement in metallurgy, chemical, cement, and waste incineration industries.</li> </ul>						
<b>Measurement Medium</b>	Powders, granular solids, and sediments <sup>①</sup>						
<b>Structure</b>	Rod	Cooling protective sleeve design	With suspension-type flexible cable, up to 20 meters				
<b>Process Temp</b>	-50 ~ 150°C	-50 ~ 400°C	-50 ~ 250°C				
<b>Process Connection</b>	Flange, thread, clamp, customizable						
<b>Signal Output</b>	Relay, two-wire						
<b>Process Pressure</b>	-1 ~ 16bar						
<b>Probe Material</b>	316L, 316L coated with Enamel, ECTFE, PFA, 318S13, Hastelloy C-22						
<b>Housing Material</b>	Aluminum alloy, stainless steel <sup>②</sup>						
<b>Qualifications &amp; Certifications</b>	<ul style="list-style-type: none"> <li>Gas &amp; Dust Explosion-Proof<sup>③</sup>:               <table border="0" style="width: 100%; margin-top: 5px;"> <tr> <td style="padding-right: 20px;">Explosion-Proof — Ex db IIC T1...T6 Gb</td> <td>Ex tb IIIC T80°C...T440°C Db</td> </tr> <tr> <td>Intrinsically Safe — Ex ia II CT1...T6 Ga</td> <td>Ex ia IIIC T<sub>200</sub>100°C...T<sub>200</sub>450°C Da</td> </tr> </table> </li> <li>CE: LVD certificate, EMC certificate</li> <li>Ingress Protection: IP66/IP67</li> </ul>			Explosion-Proof — Ex db IIC T1...T6 Gb	Ex tb IIIC T80°C...T440°C Db	Intrinsically Safe — Ex ia II CT1...T6 Ga	Ex ia IIIC T <sub>200</sub> 100°C...T <sub>200</sub> 450°C Da
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Note:

① Maximum particle size: 20mm (requires medium density < 0.05g/cm<sup>3</sup>)

② Customizable with special materials such as food-grade stainless steel, tantalum, Hastelloy, and titanium alloy

③ Explosion-proof versions available upon request

# Tuning Fork Level Switch Solids| Vibration| Ultra-Low Density



## Fork-11 Tuning Fork Level Switch

### Overview

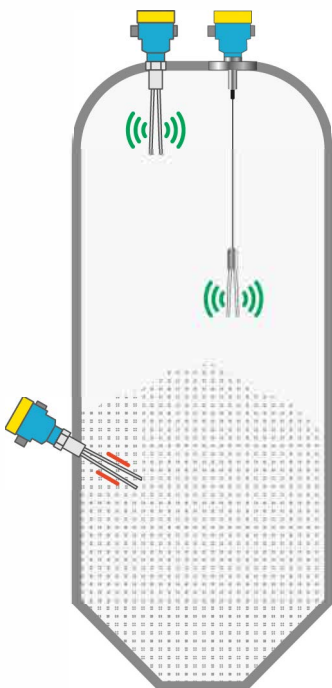
The Fork-11 tuning fork level switch is a high-performance level measurement device specially designed for ultra-low-density powders and fine granular materials. It is used for measuring powdered solids in silos and storage bins. Suitable for silos containing powdery materials such as flour, cement, or sand, as well as containers holding fine granular solids like plastic pellets, small pebbles, or foam plastics. Certified with CE gas and dust explosion-proof safety approval, it ensures enhanced safety during the measurement process.

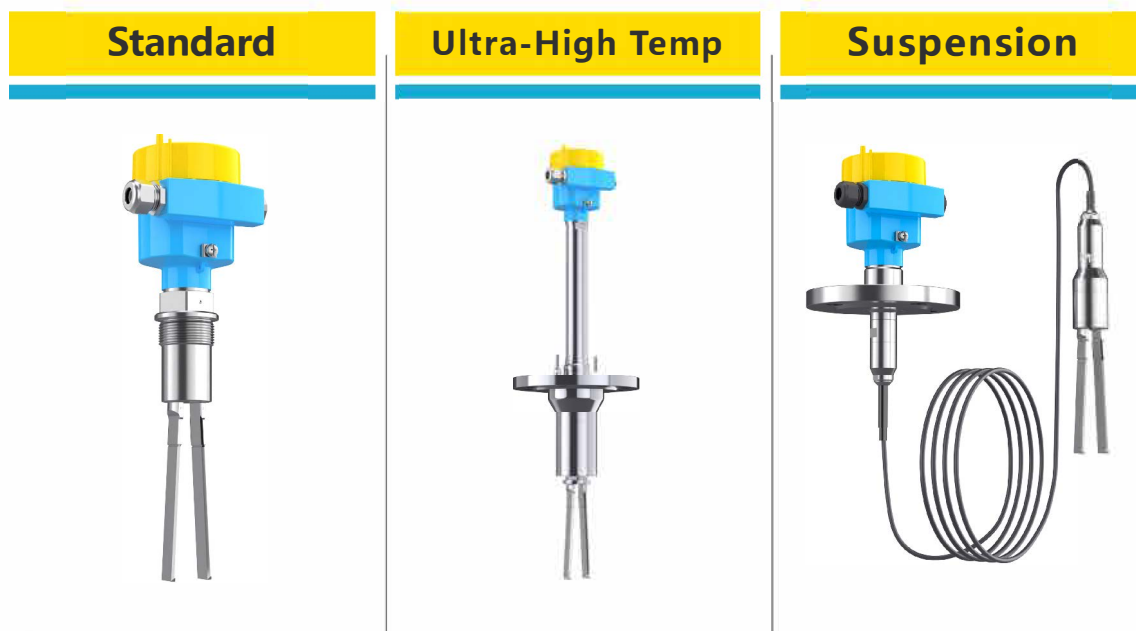
### Principle

The Fork-11 tuning fork level switch uses a piezoelectric device to make the fork vibrate and detect changes in vibration. When the fork is not touching material, it vibrates freely; when it touches material, the vibration slows down. The device senses this change and sends a switch signal.

### Benefits

- China's first 0.008 g/cm<sup>3</sup> ultra-low density detection for accurate sediment and solids measurement.
- Optimized for powders and granules, anti-clog, dust-resistant, and works up to 400°C.
- 20m flexible cable probe for complex setups.
- Built-in self-diagnosis, maintenance-free, easy installation, lowers operating costs.





<b>Applications</b>	<ul style="list-style-type: none"> <li>• Suitable for low-density materials like fumed silica, EPP/EPS pellets, zircon sand, and petroleum coke, with a max temperature of 400°C.</li> <li>• Reliable for powders in pharma, food, chemicals, and mining. Handles high temperature and dust for stable industrial use.</li> </ul>		
<b>Measurement Medium</b>	Powders, granules, sediments, and floating materials		
<b>Structure</b>	Fork	Cooling protective sleeve design	With suspension-type flexible cable, up to 20 meters
<b>Process Temp</b>	-50 ~ 150°C	-50 ~ 400°C	-50 ~ 250°C
<b>Process Connection</b>	Flange, thread, clamp, customizable		
<b>Housing Material</b>	Aluminum alloy, 316L stainless steel, customizable <sup>®</sup>		
<b>Process Pressure</b>	-1 ~ 25 bar		
<b>Signal Output</b>	Relay, two-wire		
<b>Fork Material</b>	316L, 316L coated with PTFE		
<b>Qualifications &amp; Certifications</b>	<ul style="list-style-type: none"> <li>• <b>Explosion Protection:</b> Explosion-Proof Ex db IIC T1...T6 Gb Ex tb IIIC T80°C...T440°C Db Intrinsically Safe Ex ia II CT1...T6 Ga Ex ia IIIC T<sub>200</sub>100°C...T<sub>200</sub>450°C Da</li> <li>• <b>CE:</b> LVD certificate, EMC certificate</li> <li>• <b>Ingress Protection:</b> IP66/IP67</li> </ul>		

### ООО “РусАвтоматизация”

454010 г. Челябинск, ул. Гагарина 5, оф. 507  
 тел. 8-800-775-09-57 (звонок бесплатный), +7(351)799-54-26, тел./факс +7(351)211-64-57  
[info@rusautomation.ru](mailto:info@rusautomation.ru); [русавтоматизация.рф](http://rusавтоматизация.рф); [www.rusautomation.ru](http://www.rusautomation.ru)