Vibrating Level Switch

Liquids | Vibration | SIL Certified





Ring-11 Liquid Level Switch

Overview

The Ring-11 liquid level switch is China's first SIL2/3-certified level product, also certified with CCC, CE, Gas & Dust explosion-proof, intrinsic safety, and flameproof standards. Its 40mm ultra-short fork, with precision tuning and anti-interference design, ensures accurate liquid level detection, prevents overflow and dry run, and supports pump protection. It remains reliable in turbulence, foam, vibration, and buildup conditions.

Principle

The Ring-11 tuning fork vibrates at its natural frequency. When submerged or exposed by changing liquid levels, its vibration frequency shifts, indicating the liquid level.

Benefits

- Unique Design: Measures ultra-low-density liquids (≥0.5g/cm³), withstands up to 400°C.
- Reliable in Harsh Conditions: Unaffected by installation, pressure, temperature, foam, viscosity; ideal for LNG.
- **Flexible Outputs:** Relay, two-wire, NAMUR, transistor.
- SIL Certified: SIL2/3, CE, explosion-proof.
- **Food-Grade:** Surface Ra < 0.5µm.
- Gas-tight Lead-Through: Prevents corrosion and leaks in high-temp, high-pressure environments.

	Standard	Corrosion-Resistant	High-Temp & Explosion-Proof
Applications	• Designed for industrial liquid level measurement in pipelines, tanks, and wastewater systems. Explosion-proof for safe use in hazardous areas, ideal for LNG and high-pressure gases. Handles acids, alkalis, and viscous media reliably. Suitable for food, petrochemical, pharmaceutical, and pipeline industries.		
Measurement Medium	Liquid	Corrosive liquid	High-temperature and high-pressure liquid
Process Temperature	-50 ~ 400°C		
Process Connection	Flange, thread, clamp, customizable		
Housing Material	Aluminum alloy, 316L stainless steel, customizable®		
Process Pressure	Atmospheric Pressure, -1~64 bar		
Signal Output	Relay, two-wire, NAMUR, transistor		
Fork Material	316L, 316L coated with Enamel, ECTFE, PFA, Hastelloy C-22, Tantalum, 318S13		
	• SIL Qualifications: SIL2 (HFT=0) / SIL3 (HFT=1)		
	• Explosion Protection: Explosion-Proof —— Ex d IIC T6~T1 Gb		
Qualifications	Intrins	ically Safe —— Ex ia IIC T6~T1 Ga	

& Certifications

• CE:

• Ingress Protection:

Note:

①Food-grade stainless steel, tantalum, Hastelloy, titanium alloy, and other materials support customized housings.

IP66/IP67

LVD Certificate, EMC Certificate

Flameproof for Gas and Dust — Ex db IIC T6...T1 Gb + Ex tb IIIC T440°C...T80°C Db