

Vibrating Level Switch

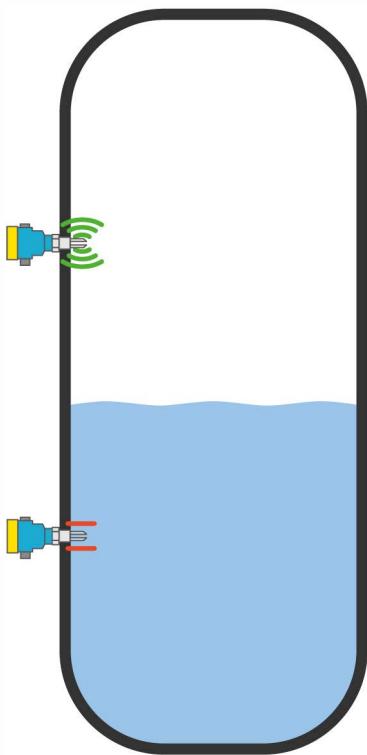
Liquids | Vibration | SIL Certified



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 ($\geq 0.5\text{g/cm}^3$), 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 $< 0.5\mu\text{m}$.
- Gas-tight Lead-Through:** Prevents corrosion and leaks in high-temp, high-pressure environments.

Standard	Corrosion-Resistant	High-Temp & Explosion-Proof
		
Applications <ul style="list-style-type: none"> 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 ^①	
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	
Qualifications & Certifications		
<ul style="list-style-type: none"> SIL Qualifications: SIL2 (HFT=0) / SIL3 (HFT=1) Explosion Protection: Explosion-Proof — Ex d IIC T6~T1 Gb Intrinsically Safe: Ex ia IIC T6~T1 Ga Flameproof for Gas and Dust: Ex db IIC T6...T1 Gb + Ex tb IIIC T440°C...T80°C Db CE: LVD Certificate, EMC Certificate Ingress Protection: IP66/IP67 		

Note:

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

Compact Level Switch Liquids | Vibration | Economical



Ring-21 Compact Liquid Level Switch

Overview

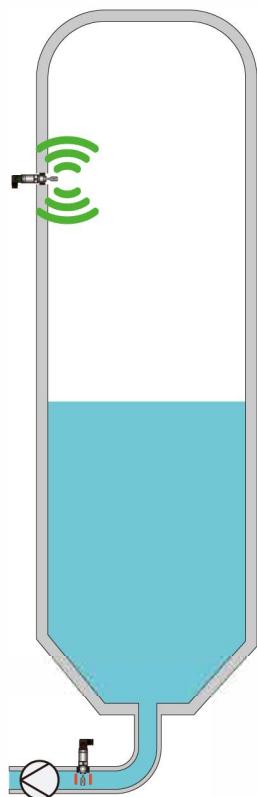
The Ring-21 compact tuning fork level switch is a cost-effective limit switch with a small and lightweight design. It measures only 160.5 mm in length and 31.5 mm in diameter, with a fork length of 38 mm. Suitable for liquids with densities as low as 0.7 g/cm³, it is ideal for low-cost, non-explosion-proof applications in pipelines or narrow spaces.

Principle

Based on the principle that the vibration frequency decreases when the fork is immersed in liquid, the detection circuit identifies the frequency change and outputs a switching signal.

Benefits

- **Cost-effective:** Practical and budget-friendly.
- **Export-ready:** CE certified.
- **High reliability:** Designed based on frequency variation detection.
- **Easy operation:** Safe, reliable, and widely applicable.
- **Compact measurement:** Ideal for pipelines and small tanks.



Standard



High-Temp



Applications

- The standard model suits small tanks, sumps, cooling tanks, pipelines, labs, water treatment, and HVAC systems.
- The high-temperature model is for non-explosion-proof high-temp environments like heat pump hot water, boiler feed tanks, chemical and food industry cleaning fluids, and cooling system pipelines.

Measurement Medium

Liquid $\geq 0.7\text{g/cm}^3$

High-Temp Liquid $\geq 0.7\text{g/cm}^3$

Process Temp

-50 ~ 100°C

-50 ~ 150°C

Process Pressure

-1 ~ 40 bar

Housing Material

316L

Process Connection

thread, clamp, customizable

Signal Output

Relay, PNP, NPN

Probe Material

316L

Qualifications & Certifications

- **Ingress Protection:** Pg11 — IP65 M12×1 — IP66/IP67
- **CE certificate:** LVD certificate, EMC certificate

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