

Liquid Level Sensor CTLS1-03L

The CTLS1-03L sensor adopts the principle of capacitive sensing, offering excellent anti-interference capability and long service life. It is resistant to common adhesives and silicones, and effectively distinguishes foam interference. It is widely applicable in liquid or solid detection scenarios where $DC > 1.5$.

Parameters

Electrical Specifications

- Supply Voltage: $24 \pm 2\text{VDC}$
- Current Consumption: $\leq 35\text{mA}$
- Output Type: Relay
- Contact Rating: $2\text{A } 30\text{VDC} / 0.5\text{A } 125\text{VAC}$
- Maximum Contact Power: $60\text{W(DC)} / 62.5\text{VA(AC)}$
- Maximum Switching Voltage: $220\text{VDC} / 125\text{VAC}$
- Maximum Contact Current: 2A
- Electrical Contact Life: $> 100,000$ cycles
- Contact Resistance: $< 75\text{m}\Omega$
- Switching Behavior: Activated when no target is detected
- Sampling Time: $0 \sim 30\text{s}$
- Response Time: $\leq 30\text{s}$
- Power-On Delay: $< 2\text{s}$
- Hysteresis: $\pm 3\text{mm}$
- Repeatability: $\pm 3\text{mm}$

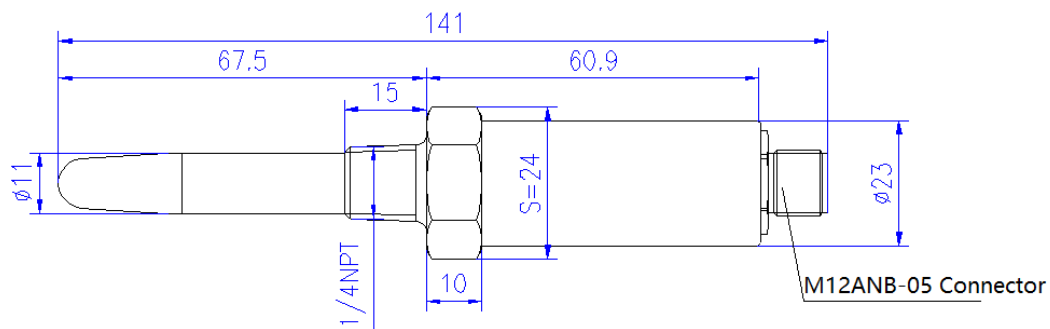
Insulation & Dielectric Strength

- Dielectric Strength: $500\text{V}/50\text{HZ}/1\text{min}$ (between output wires excluding shield and housing)

General Data

- Operating Temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Relative Humidity: $\leq 98\% @ 25^{\circ}\text{C}$
- Ambient Pressure: $\leq 100 \text{ bar}$
- Protection Rating: IP67
- Sensor Head Material: PEEK
- Housing Material: Stainless Steel 304
- Power Polarity Protection: Supported
- EMC Compliance: GB/T24338 National standard for rail transit equipment

Outline & Interface



- Mounting Interface: NPT-1/4
- Electrical Connection: 5-pin M12 connector
- Wiring Configuration:

Pin 1: +24VDC

Pin 2: GND

Pin 3: NO (Normally Open)

Pin 4: NO (Normally Open)

Pin 5: COM (Common)

