

Liquid Level Sensor CTLS1-01

The CTLS1-01 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: 12–30VDC
- Current Consumption: $\leq 35\text{mA}$
- Output Type: NPN, open collector
- Output Current: 20mA, with short-circuit & overcurrent protection
- Output Polarity: NO (Normally Open) & NC (Normally Closed)
- Open-Circuit Voltage Drop: $(-V_s + 1.5\text{V}) \pm 0.5\text{V}@R_L=10\text{k}\Omega$
- Switching Current: $\leq 100\mu\text{A}$
- Sampling Time: 0–10s
- Power-On Delay: $< 2\text{s}$
- Hysteresis: $\pm 2\text{mm}$
- Repeatability: $\pm 2\text{mm}$

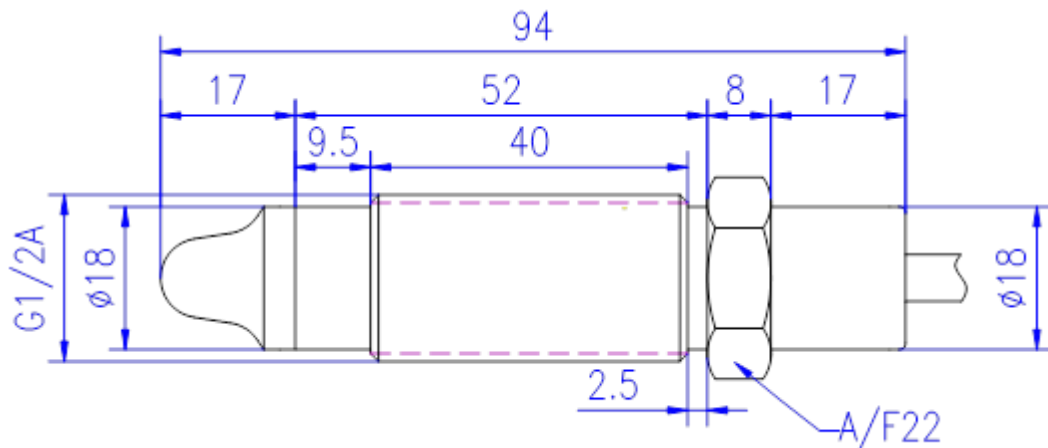
Insulation & Dielectric Strength

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

General Data

- Operating Temperature: -40°C~+85°C
- Relative Humidity: ≤98%@25°C
- Ambient Pressure: ≤100 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: G1/2A (ISO 228/1)
- Electrical Connection: Rail-special cable 4x0.5mm² (2m)
- Wiring Configuration:

Pin 1: Power+

Pin 2: NC (Normally Closed)

Pin 3: Power-

Pin 4: NO (Normally Open)

