

Cryo-Stic

Level Sensor



Cryo-Stic serves as a direct replacement for mechanical float gauges, delivering continuous, high-accuracy level measurement ($\pm 1\%$ full scale) — superior to traditional mechanical or pressure-based devices. Its integrated thermal barrier ensures reliable performance by shielding electronics from extreme coldness.

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The Cryo-Stic is a robust level meter designed for liquefied gases including nitrogen, oxygen, argon, carbon dioxide, and nitrous oxide. It provides easy installation and reliable digital level measurement with high accuracy. The level meter measures capacitance through the dielectric properties of the liquid between its stainless-steel electrodes. These electrodes generate a signal that the sensor head converts to digital level data, available either on a directly mounted gauge or remotely via cable connection.

Special designs are available for LNG, cryofreezers, and LPG applications. The gauge can be removed during container transport, reducing damage risk and extending product life.

All Cryo-Stics are backed by CSM renowned customer service, offering comprehensive support from conceptual design to implementation and includes a 3 months Defect Warranty.

Typical Applications

- Cryogenic Liquid Storage Tanks
- Liquid Natural Gas (LNG)
- Liquid Petroleum Gas (LPG)
- Cryofreezer

Features and Benefits

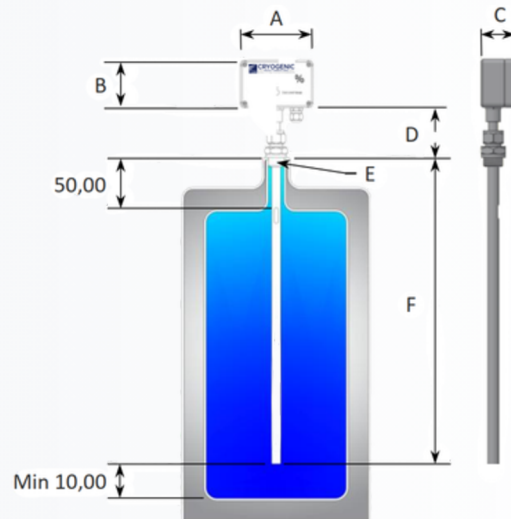
- Accurate measurements improves overall system accuracy and efficiency
- Higher flexibility than a thermal device, enables continuous measurement of liquid level
- Remote monitoring options are available for data acquisition
- No moving parts enhance reliability and durability, thus preventing unnecessary damage to the Cryo-Stic
- Flexible gauge mounting options allow it to be mounted directly on the sensor or remotely attached via cable



Cryo-Stic Specifications

| Model | CLG1 | CLG2 |
|-----------------------|--|--|
| Enclosure Material | Polycarbonate (PC) | Aluminum |
| Sensor Probe Material | Stainless Steel Series 300 | Stainless Steel Series 300 |
| Display | 3-Digit Red LED (In % Full) | 3-Digit White LED (In % Full) Always On With External Power Supply |
| Power Source | 9 V Battery / 4-20 mA Loop | AAA Battery / 9-30 VDC |
| External Connection | 4 - 20 mA Loop | 9-pin Sub-D Connector |
| Output Signal | 4 - 20 mA Loop | 4 - 20 mA Loop / 3-Wire Ratiometrical Voltage Output |
| Communication | Continuous Reading Optical and Acoustic Alarms LED Status Indicators | Continuous Reading Optical and Acoustic Alarms LED Status Indicators |
| Operating Temperature | Level Gauge: -20 to 60 °C Sensor Probe: -200 to 100 °C | Level Gauge: -20 to 60 °C Sensor Probe: -200 to 100 °C |
| Level Gauge Mounting | Directly On Sensor Only | Directly On Sensor / Detachable For Mounting On Wall |
| Standard Testing | Functional Test | |

Cryo-Stic Models



| Part No. | Probe Length (F) ^[1] | Connection Size (E) ^[1] | Probe Length (D) | Display Dimension (A x B x C) | Minimum Tank Depth | Enclosure Material |
|------------|---------------------------------|------------------------------------|------------------|-------------------------------|--------------------|--------------------|
| CLG-1-530 | 530 mm | 1/2" BSP | 77 mm | 98 x 64 x 38 mm | 540 mm | PC |
| CLG-1-610 | 610 mm | | | | 620 mm | |
| CLG-1-860 | 860 mm | | | | 670 mm | |
| CLG-1-1243 | 1243 mm | | | | 1253 mm | |
| CLG-2-1000 | 1000 mm | 3/4" - 16 UNF | 150 mm | 115 x 65 x 30 mm | 1010 mm | Aluminium |

^[1] Other connection sizes (1/2" NPT & 7/8-14 UNF) and probe length are available upon request.