

SI-7000

The New SI-7000 LTD Tank Gauge System

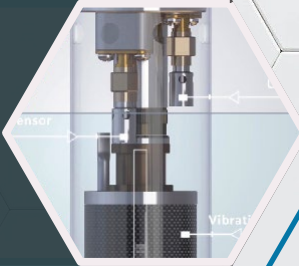
The leader in Rollover Prevention in
LNG Storage Tanks



The latest generation SI Gauge model SI-7000 is the industry's leading solution for level, temperature, and density profiling in LNG & LPG storage tanks. The third generation LTD from Scientific Instruments is designed to detect stratification and to provide the DCS and other host the data necessary for rollover prediction and prevention, as well as for fiscal calculations. The LTD provides real-time and averaged measurement data that is used to monitor conditions inside the tank. This data also provides early warnings to plant operators, thus empowering them to make smart decisions and to take control of situations before becoming dangerous emergencies.

PROVEN TECHNOLOGY

Accuracy & Reliability Dedicated Sensors for Level, Temperature and Density embedded into a single housing / Probe



INNOVATION

Smart Electronics Single Control Module, easily accessible for service & maintenance



RELIABILITY

Reliable Mechanical Drive Robust 316 SS Vertical-Gear-Drive mechanism (VGD) & 304 SS Chain



CONNECTIVITY

Flexible Connectivity Standard Serial MODBUS



About us

Scientific Instruments was founded in 1967 by Aeronautical Engineer Jack Hoey and Physicist Gib Halverson. Their core competence focused on precision cryogenic thermometry. Their accomplishments include creating the first Germanium Resistance Thermometer (GRT) used by NASA for Apollo missions.

In 1975 they also invented / patented the first LTD system.

An intelligent system comprising of multi-sensors embedded into a single probe capable of measuring Level, Temperature and Density inside LNG Storage Tanks.

Current CEO Leigh Ann Hoey has been successfully leading & transforming the company while proceeding with her father's legacy

Why Choose us

- Original inventor of the first LTD in 1975, globally recognized as the "SI Gauge"
- Market Leader with more than 500 units installed in LNG Storage Tanks around the world.
- Market focus, providing LNG and Cryogenic Measurement solutions since 1967.
- Global sales and technical support. Providing Turn-Key Tank Gauge Solutions



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SI-7000 Specifications



Level

- Range: 54m max
- Resolution: 1 mm
- Accuracy: ± 2 mm
- Top and Bottom reference

Temperature

- Sensor Range: -200°C to $+50^{\circ}\text{C}$
- Resolution: 0.01
- Accuracy: $\pm 0.1^{\circ}\text{C}$

Density

- Oscillating Spool
- Range: 400 to 1000 kg/m³
- Resolution: 0.01 kg/m³
- Accuracy: ± 0.5 kg/m³

Electrical

- Power Supply
- 85-264 VAC, 47-63 Hz, 150 W

Communications

- (2) Standard RS-485 MODBUS

Sensor Isolation

- Intrinsically Safe

Physical

Maximum Operating Pressure

- 400 mbarg (for higher, consult factory)

Profile Data

- 200 Available Programable Points

Protection Class

- IP66

Mounting Flange

- Standard 6" ANSI 150#RF
(more available upon request)

Sensor Drive

- 304 Stainless Steel Chain

Housing Material

- 316 Stainless Steel

Safety Certification

- IECEx / ATEX, cml Ex, PESO,
UL / CSA

Seismic Rating

- Designed to meet 3.0G (testing required)

Stilling Well

- With or Without (Consult Factory)

Isolation Valves

- External Pinch Valve (Required)

Ambient Temperature

- -20°C to $+50^{\circ}\text{C}$

Dimensions

- 125 (50) \times 76 (30) \times 37 (15) cm (in.)
- Weight: 180 (396.8) kg (lbs.)

OUR GLOBAL INSTALLED BASE SINCE 1976 **



**Includes new and previous LTD versions
Quantities vary



SCIENTIFIC
INSTRUMENTS

Cryogenic Temperature Sensors and Instruments • Aircraft Temperature Probes • LNG Tank Gauging
Engineering Design Services, Integrated Solutions and Technical Services

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