2520

Varec

A COGNESENSE BRAND

Automatic Tank Gauge (ATG)

For terminal operators, refinery engineers, inventory managers, and EPCs who need accurate level measurement on pressurized storage vessels without electrical infrastructure, the 2520 ATG delivers ±0.2 in (4 mm) accuracy per API Chapter 3.1B, ATEX II 2G certification, and a fully mechanical float and tape design built for LPG, petrochemical, cryogenic, and industrial gas applications. The 2520 uses a sealed magnetic drive mechanism that completely isolates the dial and counter assembly from internal tank pressure, preventing vapor migration through the gauge and maintaining measurement integrity under the full range of operating pressures - typically 150, 220, or 300 PSI depending on tank and process requirements.



Two housing configurations address the most common pressurized storage scenarios. Roof-mounted installation provides direct tank-top access for maintenance and calibration. Ground-level reading kits mount the dial or counter at grade, enabling inventory verification during routine walkarounds without accessing elevated structures. Both configurations are compatible with the 2920 Float & Tape Transmitter for digital output over Modbus, GPU Bi-Phase Mark, Mark/Space, and L&J Tankway, and with the 8920 Loop Powered Transmitter for 4–20 mA analog integration with PLCs, DCS systems, and RTUs.

Key Features

Magnetic Drive Isolation

A sealed magnetic drive mechanism completely isolates the dial and counter assembly from internal tank pressure. This prevents vapor escape, protects mechanical components from pressure related stress, and enhances overall system safety.

Power Free Mechanical Operation

The gauge delivers continuous level indication without requiring electrical power. This ensures uninterrupted measurement during power outages and supports deployment in remote or unpowered facilities.

High-pressure Performance

Purpose built for pressurized service, the 2520 ATG maintains reliable performance at typical pressure ratings of 150, 220, or 300 PSI, depending on the tank and application requirements.

Inventory Grade Accuracy

Installed directly on pressurized vessels, the gauge provides measurement precision of 0.2 inches (4 mm). This accuracy meets API Chapter 3.1B standards for reliable inventory control in high-pressure applications.

Ground Level Reading Capability

Optional ground level indicators allow operators to take readings safely from grade. This reduces the need for climbing tanks and significantly improves safety during routine inspections.

Digital Ready Architecture

Although mechanical by design, the 2520 ATG can be paired with the 2920 Float & Tape Transmitter to digitize level and temperature readings. Data can then be communicated to control systems using open protocols such as Modbus or L&J Tankway.

Typical Applications

LPG AND HYDROCARBON STORAGE

Continuous inventory-grade measurement on pressurized spheres and bullets handling compressed hydrocarbons, supporting EPA SPCC and API 2350 compliance documentation.

PRESSURIZED REFINERY VESSELS

Level indication under high internal pressures with magnetic isolation maintaining gauge integrity across the rated pressure range.

INDUSTRIAL GAS STORAGE

Reliable, power-free level visibility on pressurized industrial gas vessels at remote or off-grid facilities.

CRYOGENIC LIQUID FACILITIES

Specialized installation kits for reliable mechanical measurement performance under extreme low-temperature operating conditions.

BULK GAS TERMINALS

Grade-level reading options enable inventory verification during terminal walkarounds across elevated or pressurized vessel batteries.

PETROCHEMICAL PRESSURIZED TANKS

API 3.1B inventory-grade accuracy supports regulatory compliance and stock reconciliation under volatile or high-pressure product conditions.

Benefits

Magnetic Drive Vapor Isolation

Prevents vapor migration through the gauge mechanism, maintaining housing integrity across the full rated pressure range.

Power-Free Continuous Operation

Maintains the continuous level record required by EPA SPCC plans through outages and at off-grid locations.

Inventory-Grade Measurement Accuracy

API 3.1B inventory-grade accuracy on pressurized vessels supports stock reconciliation, overfill prevention compliance, and regulatory documentation.

Ground-Level Visual Verification

Grade-level readout enables inventory verification during routine walkarounds without accessing elevated tank structures.

Seamless Digital and Analog Upgrade Paths

2920 FTT and 8920 LPT digital and analog upgrade options connect the mechanical gauge to SCADA and inventory management platforms without gauge replacement.

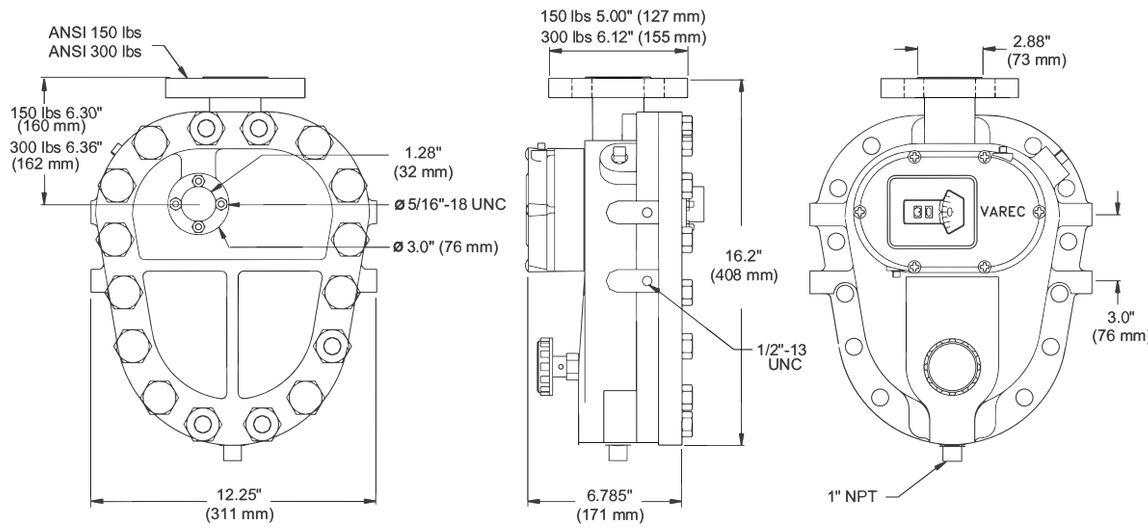
Hazardous Area and Environmental Certifications

ATEX, Class 1, Zone 2 (Ex II 2G T5) approval for 150 and 220 PSI versions, with optional IP66 enclosure rating.

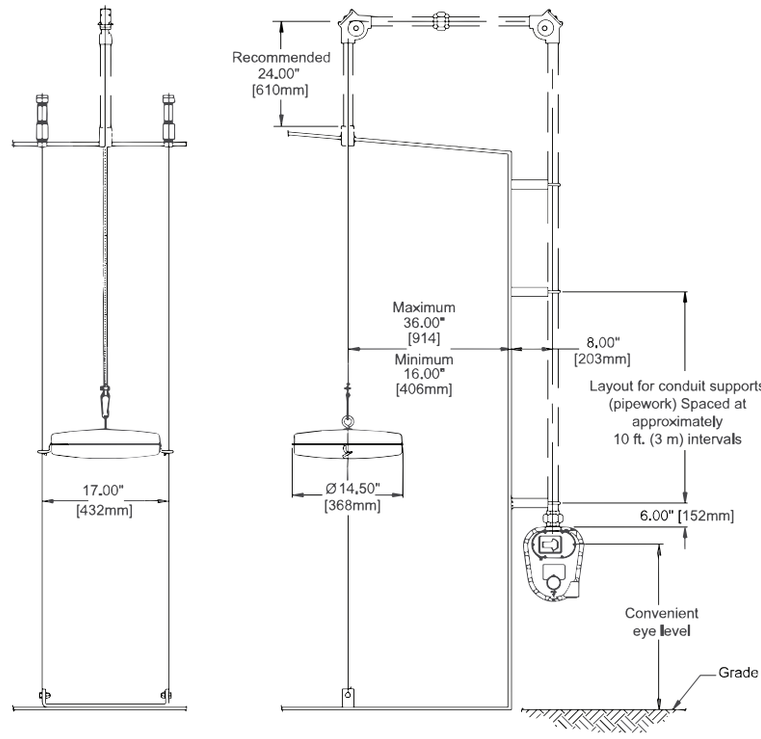
Technical Specifications

Specification	Details
Accuracy	Up to 0.2 in (4 mm) per API Chapter 3.1B
Pressure Ratings	Typical offerings: 150, 220, or 300 PSI
Operating Temperature	–30 °F to +160 °F (–34 °C to +71 °C)
Measuring Range	Standard: 0–60 ft (18 m)
Display Options	Metric or imperial dial/counter; decimals or fractions
Installation Options	Roof mount or ground level reading kits; spherical/bullet kits available
Magnetic Drive	Fully isolates indicator from tank pressure to eliminate vapor escape
Digital Integration	Compatible with 2920 Float & Tape Transmitter for level + temperature over Modbus, GPU/BPM, Mark/Space, L&J Tankway
Approvals	150 & 220 PSI versions certified to ATEX Ex II 2G T5 (Class 1, Zone 2)
Environmental Protection	Optional IP66 enclosure rating

Dimensions



Typical System Layout



Model Number Selection

N2520-

150 PSI (10.3 Bar) Gage

	Measurement Units
01	English
02	Metric

	Tank Type
T01	Tank Spheres to 16 ft. Diameter or Horizontal Cylinder Tanks
T02	Tank Spheres to 48 ft. Diameter
T03	Top Mounting on Tank Sphere or Horizontal Cylinder Tanks
T04	Tank Spheres to 60 ft. Diameter or Horizontal Cylinder Tanks

	Plug Valve
0	Plug Valve Not Used
1	1½" (38 mm) 150 PSI (10.3 Bar) Gage Plug valve (Viton -A plug)

	Transmitter Adapter
0	Transmitter Adapter Not Used
1	2581 Transmitter Adapter

N2520-

220 PSI (15 Bar) Gage

	Measurement Units
05	English*
06	Metric*

	Tank Type
T05	Tank Spheres to 16 ft. Diameter or Horizontal Cylinder Tanks
T06	Tank Spheres to 48 ft. Diameter
T07	Top Mounting on Tank Sphere or Horizontal Cylinder Tanks
T08	Tank Spheres to 60 ft. Diameter or Horizontal Cylinder Tanks

	Plug Valve
0	Plug Valve Not Used
1	1-1/2 220 psig (15 Bar) Gage Plug Valve (Viton-A Plug)

	Transmitter Adapter
0	Transmitter Adapter Not Used
1	2581 Transmitter Adapter

* Conforms to ATEX, Class I, Zone 2 (Ex II 2G T5)

N2520-

220 PSI (15 Bar) Gage

	Measurement Units
05	English*
06	Metric*

	Tank Type
T05	Tank Spheres to 16 ft. Diameter or Horizontal Cylinder Tanks
T06	Tank Spheres to 48 ft. Diameter
T07	Top Mounting on Tank Sphere or Horizontal Cylinder Tanks
T08	Tank Spheres to 60 ft. Diameter or Horizontal Cylinder Tanks

	Plug Valve
0	Plug Valve Not Used
1	1-1/2 220 psig (15 Bar) Gage Plug Valve (Viton-A Plug)

	Transmitter Adapter
0	Transmitter Adapter Not Used
1	2581 Transmitter Adapter

* Conforms to ATEX, Class I, Zone 2 (Ex II 2G T5)

N2520-

N2520- 300 PSI (20.6 Bar) Gage

	Measurement Units
03	English
04	Metric

	Tank Type
T05	Tank Spheres to 16 ft. Diameter or Horizontal Cylinder Tanks
T06	Tank Spheres to 48 ft. Diameter
T07	Top Mounting on Tank Sphere or Horizontal Cylinder Tanks
T08	Tank Spheres to 60 ft. Diameter or Horizontal Cylinder Tanks

	Plug Valve
0	Plug Valve Not Used
1	1-1/2 300 PSI (20.6 Bar) Gage Plug Valve (Viton-A Plug)

	Transmitter Adapter
0	Transmitter Adapter Not Used
1	2581 Transmitter Adapter

Example Order Code: N2520-04-T05-1-1

Summary

The 2520 Automatic Tank Gauge delivers continuous, inventory-grade level measurement for pressurized bulk liquid storage, combining a sealed magnetic drive mechanism with fully mechanical float and tape operation. It maintains the uninterrupted measurement record required by EPA SPCC plans and API 2350 overfill prevention standards across LPG, petrochemical, cryogenic, and industrial gas applications - without electrical power. When paired with the 2920 Float & Tape Transmitter or the 8920 Loop Powered Transmitter, the 2520 connects to FuelsManager®, SCADA platforms, and RTUs, extending the mechanical gauge's measurement into the digital data architecture of the terminal or refinery.

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