VEEDER-ROOT

MAG-FLEX TALL TANK MONITORING SYSTEM

MAG-FLEX TALL TANK PROBE

A practical and cost-effective solution for accurately monitoring aboveground fuel storage tanks

Mag-FLEX is an ideal solution for fuel distribution depots, marine terminals, aviation fueling installations and many other facilities where fuels are stored in bulk. It utilizes the proven Veeder-Root magnetostrictive probe technology installed in over 500,000 tanks globally. This solution, paired with any Veeder-Root Automatic Tank Gauge (ATG), creates a powerful, affordable inventory management system backed by the support network and reliability of Veeder-Root. It delivers accurate reconciliation of your most expensive on-site assets, while eliminating the safety hazard of scaling formidable heights to determine inventory levels of Aboveground Storage Tanks (ASTs).

KEY FEATURES & BENEFITS

- **Single point of monitoring:** Automate product level, water level and temperature monitoring of storage tanks with a Veeder-Root fuel monitoring system.
- **Water detection:** Identify possible water intrusion and ensure fuel quality with a water float system. The standard water float included detects water at the 5.5" (14cm) level. An optional low-level water float is also available for water detection at the 1.9" (4.8cm) level, which requires 4" (10.2cm) tank opening.
- **Wireless & Wired applications:** Save installation time and cost with wireless technology, which eliminates wiring from the tank to the ATG. Where wireless is not practical, Mag-FLEX accommodates traditional wired installation as well.
- **Scalable solution to various site profiles:** The Veeder-Root ATG portfolio offers a wide range of consoles to best suit various site configurations.
- **Flexible, corrugated probe design:** Provides for easy transportation and installation.
- **Stainless steel probe shaft:** Provides increased protection of the mag wire and probe durability.

MAG-FLEX SPECIFICATIONS

PRODUCT MEASUREMENT	
Height Accuracy	±0.08" (±0.2cm)
Repeatability	±0.02" (±0.05cm)
Minimum Product Level Reading	7.3" (18.5cm)
Float Size	1.7" (4.3cm)

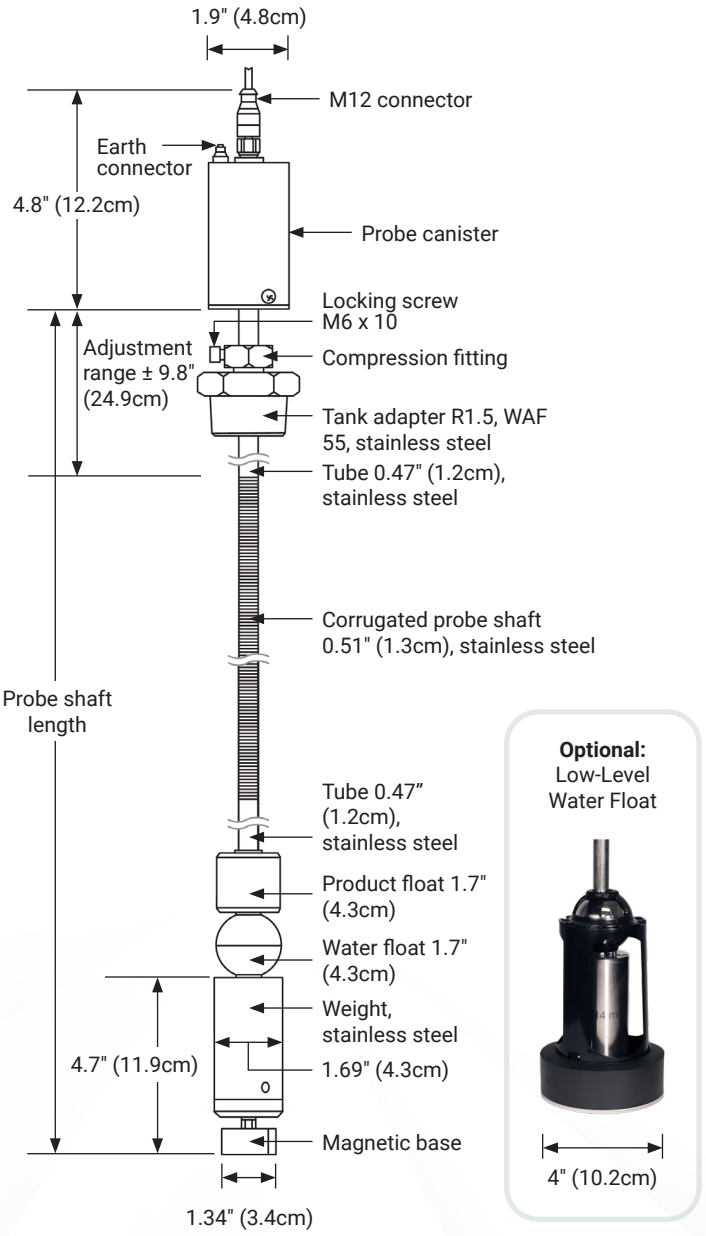
WATER MEASUREMENT	Standard	Optional
Height Accuracy	±0.12" (±0.3cm)	±0.12" (0.3cm)
Repeatability	±0.02" (±0.05cm)	±0.02" (0.05cm)
Minimum Water Level Reading	5.5" (14cm)	1.9" (4.8cm)
Float Size	1.7" (4.3cm)	4" (10.2cm)

TEMPERATURE MEASUREMENT	
Operating Range	-40°F to 140°F (-40°C to 60°C)
Accuracy	±0.36°F (±0.2°C) @ -40°F (-40°C) to 185°F (85°C) ±0.18°F (±0.1°C) @ -4°F (-20°C) to 131°F (55°C)
Repeatability	±0.5°F (±0.5°C)
Resolution	0.1°F (0.1°C)
Thermistors	5 Thermistors

INSTALLATION DETAILS	
Probe Shaft Length	Up to 72' (22m) tank height
Tank Adapter/Tank Entry	R 1.5" (3.8cm) screw-in unit
Height Adjustment Range	±9.8" (24.9cm)
Electrical Connection	M12 plug-in connection
Protection Class	IP68

SENSOR MATERIALS	
Probe Canister	Stainless steel 303
Rigid Shaft Sections	Stainless steel 304
Corrugated Flexible Shaft & Floats	Stainless steel 316 Ti
Weight	Stainless steel 303
Magnet Casing	Conductive plastic

GENERAL INFORMATION	
Options	Tank adapter made of stainless steel. Weight made of stainless steel.
Certifications	ATEX, IECEx, UL, cUL



VEEDER-ROOT AUTOMATIC TANK GAUGES	
Maximum Measurable Liquid Height	
TLS3* or TLS4 Series**	72' (22m)
Maximum Volume Capability	
TLS3 Series*	999,999 gallons (3,784,996 liters)***
TLS4 Series**	264,172,052 gallons (999,999,999 liters)***
Probe Maximum Capacity per TLS Console	
TLS-350R & TLS-350PLUS	16 Probes
TLS-450PLUS	64 Probes
TLS4/TLS4B	12/6 Probes
TLS-300i, TLS4i/TLS-300C, TLS4c	4/2 Probes

* TLS3 Series includes TLS-350/R/PLUS, TLS-300i, TLS-300C
** TLS4 Series includes TLS-450PLUS, TLS4, TLS4B, TLS4i and TLS4c

*** Liters may be increased by programming in English units first and switching the console to Metric units.

COMMERCIAL AND INDUSTRIAL SOLUTIONS

Veeder-Root is a leading global supplier of fuel management solutions with a tradition of excellence in the petroleum industry. Our products improve profitability and abate risk for customers by delivering solutions to manage on-site operations, compliance reporting, fuel procurement, inventory reconciliation, and accounting processes. Veeder-Root products and services are installed in over 500,000 tanks globally and responsible for 22 billion gallons of gasoline and diesel fuel annually.

PRODUCT RANGE

PUMPS AND DISPENSERS

Gasboy's and Veeder-Root's broad portfolio of dispensers and pumps are proven to deliver profitability for our customers.

AUTOMATIC TANK GAUGING

Innovative tank monitoring and loss detection to automate wet stock management, environmental control and risk management across the network and allows centralized data management to optimize operational profitability.

SUBMERSIBLE TURBINE PUMPS

Red Jacket is the world's leader in submersible pressure technology with a diverse product portfolio that pumps motor fuel, diesel jet fuel, aviation gasoline, liquid petroleum gas, ethanol/methanol and kerosene.

METER REGISTERS

Our meter registers have been used successfully throughout a wide range of industries and are the most cost effective register solutions available in today's market.

FLEXIBLE AND EASY INSTALLATION

The flexible design of the Mag-FLEX probe allows it to be coiled, ensuring it can be packed compactly for low cost shipping and conveniently transported to the tank top, quickly ready for an easy installation.

After the Mag-FLEX probe has been installed, the corrugated steel shaft is oriented vertically and held in its operating position by the integral weight and magnet. The probe floats will precisely follow the level changes in the tank and report the presence of any water. The Mag-FLEX probe utilizes magnetostrictive measuring technology to provide consistently accurate and repeatable data.

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