

**Accurate Measurement
and Detection**



for tanks
up to 17m

Mag-XL Tall Tank Monitoring System

The Mag-XL range of flexible magnetostrictive probes provide a practical and cost effective solution for accurately monitoring above ground fuel storage tanks. Used together with any of the world-leading TLS Tank Gauge Consoles, all wet stock management and inventory control requirements can be automated, allowing efficient management either locally on site or at remote central office locations.

Mag-XL systems offer a high level of accuracy and functionality at an affordable price. They are ideal for fuel distribution depots, marine terminals, aviation fuelling installations and many other facilities where fuels are stored in bulk. The Mag-XL is immune from the problems that other popular technologies can experience; it can reliably measure low dielectric petroleum products and reliably determine the product / water interface.

Features and Benefits

- > Digital magnetostrictive measurement technology
- > Consistently accurate fuel level monitoring
- > Temperature compensated volumes
- > Automatic delivery detection
- > User programmable in-tank alarms
- > Water detection option
- > Multi-point fuel temperature sensing
- > Flexible, lightweight construction for easy installation and transportation

Advantages

- > Proven quality and reliability from Veeder-Root, the market leader in fuel level measurement systems
- > Simple to install, no stilling well or crane hire
- > Low cost transportation
- > Just one tank entry required for Level, Temperature & Water measurement, no need for additional sensor entry points
- > Avoids the Health and Safety risk associated with climbing tall tanks to manually dip
- > One monitoring system for above and below ground tanks
- > Serial connectivity to other on-site devices for improved data management
- > Volt-free relay outputs allow control of external overflow alarms or other devices

Flexible and Easy Installation

Light and easy to handle



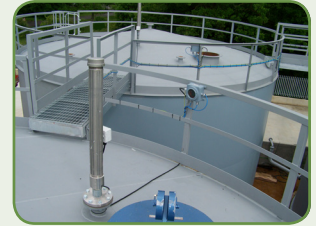
Coiled for easy delivery



2" to 4" entry



Simple installation

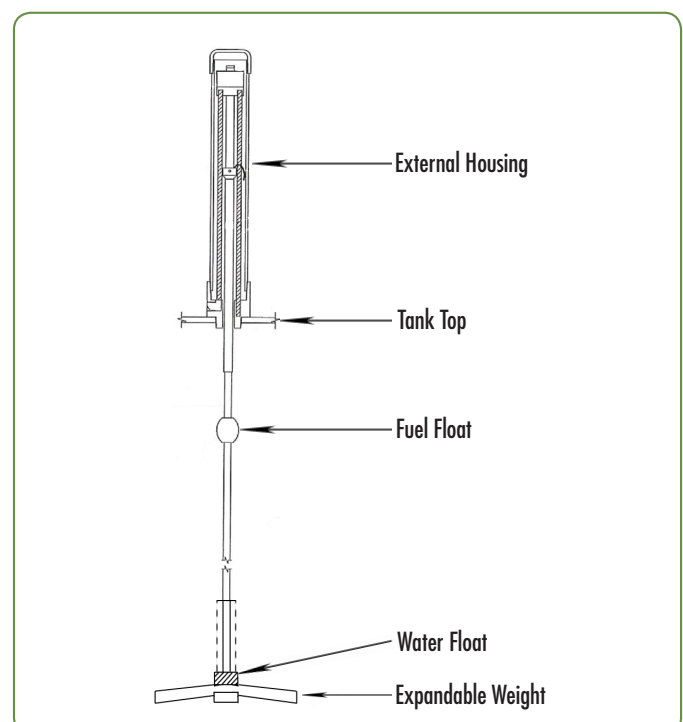


Alternative Installation Methods

Mag-XL probes are produced in two versions, **Top Mounted** and **Bottom Fixed**.

- > Top Mounted probes are suspended from the top of the tank via a simple Adjustable Tank Adaptor. An integrated Weight Kit keeps the probe vertically oriented in the tank. The minimum fuel and water level reported varies, subject to probe length.
- > Bottom Fixed probes are held under tension vertically between an Expandable Weight Kit that rests on the tank bottom, and an External Housing at the top of the tank. An internal spring mechanism maintains the correct tension on the probe to absorb tank height changes due to temperature or distortion. Bottom Fixed probes allow fuel and water levels to be reported from a lower level than Top Mounted versions.

Bottom Fixed Mag-XL



Technical Specifications

Material construction (excluding external components not exposed to tank environment)

- > Mag-XL probes: flexible Polyvinylidene Fluoride (PVDF)
- > Weight Kits and Tank Adaptors: stainless steel (AISI 304 or 316)

Specification & technical data	Mag-XL Top Mounted	Mag-XL Bottom Fixed
Linearity	±0.01% of probe span	
Operating temperature	-40 to +70°C (Mag-XL Probes) -25 to +55°C (XLi Converter)	
Storage temperature	-40 to +60°C (XLi Converter)	
Temperature sensors	5, distributed over length of probe	
Tank entry requirements	2" BSP minimum	100mm minimum ID opening, reduced to 2" NPT for External Housing
Minimum water detection level (indicative)	180 - 560mm (2" entry) 110 - 430mm (≥3" entry)	140mm
Minimum fuel level reading (indicative)	As above (no Water Detect, 2" only) As above + 100mm (with Water Detect)	280 - 325mm (with Water Detect)
Part numbers	889111-xxx (no Water Detect) 889112-xxx (Water Detect)	889211-xxx (no Water Detect) 889212-xxx (Water Detect)
Packaging (typical per probe)*	1.2m x 1.2m x 0.3m	1.2m x 1.6m x 0.3m

* Note - Top Mounted probes with an Insertion Length of ≤191" (889X1X-032 and below) cannot be coiled and will ship in rigid tubes.

Certification

Component	Approvals & Certification
Mag-XL Digital Magnetostrictive Probes	NEMKO 09 ATEX 1072X
XLi Converter CPU	Sira 09ATEX2097X IECEX SIR 09.0045X
XLi Converter Assembly	Sira 09ATEX1112

TLS Tank Gauge Console System - Specifications

TLS Tank Gauge Console System - Specifications	
Maximum measurable liquid height	TLS 2: 9.9m TLS-3xx & TLS-450: 16.6m
Maximum volume capability	TLS 2 & TLS-3xx: 984,100 litres TLS-450: 7 digit volume reporting
Probe maximum capacity per TLS Console	TLS 2: 6 TLS-300: 2, 4 or 8 depending on TLS-300 Console type TLS-350R & TLS-350 Plus: 16 TLS-450: 32

System Enhancement

In addition to automated wet stock management and inventory control, the monitoring system can be enhanced by incorporating to other Gilbarco Veeder-Root devices and systems on site:

- > DIS Delivery Information Systems provide tank ullage information and other safety features externally in the filling area, for use by delivery personnel
- > Use in conjunction with the Veeder-Root EMR³ to enhance fuel reconciliation
- > Provide data to Fuel Management Systems via serial link



Gilbarco Veeder-Root Products – commercial offer



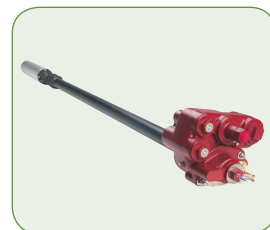
Pumps and Dispensers

Designed to be at the core of retail forecourt solutions centering on quality and innovation, Gilbarco Veeder-Root's broad portfolio of pumps and dispensers are proven to deliver profitability for our customers today and tomorrow.



Automatic Tank Gauging

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



Submersible Pumps

The most efficient way to pump fuel on a forecourt; consistent flow rates, no vapour lock and minimal maintenance.



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.

For more information on Tall Tank Monitoring Systems contact us at:

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