TLS-MAG-D DENSITY MEASUREMENT

RELIABLE AND PRECISE MEASUREMENT OF FUEL DENSITY

The Veeder-Root TLS-MAG-D (density) Probe and float system continuously measures the density of fuel in new and existing installations. Fuel quality issues are receiving significant attention around the world and the TLS-MAG-D system is a cost-effective and practical approach to measuring the density of fuel and detects the disbursement of sub standard fuel.

Open a window to the quality of your fuel

- Continuously monitor the density of product to ensure consistent fuel quality
- Quickly detect contaminated or adulterated fuel and cross-drop deliveries
- Identify a bad fuel delivery before it is dispensed

Accurate reconciliation of fuel delivered and dispensed

Quickly and accurately identify the integrity of your fuel delivery using temperature compensated density measurement. This is achieved by converting fuel measurement from mass to volume using a density factor. You can view the status of your fuel quality in real-time on your Veeder-Root TLS Console.

Rely on field-proven digital magnetostrictive technology

- Maintain inventory control and in-tank leak detection functionality
- Make installation easy as this system fits seamlessly in a 2”, 3”, 4” tank opening without any modification
- Manage your wet-stock inventory more effectively with the low minimum fuel height feature in the TLS-MAG-D Probe

The TLS-MAG-D System overview

The TLS-MAG-D System consists of a Probe and Float Kit that is based on the same magnetostrictive technology found in Veeder-Root Mag Plus Probes. The TLS-MAG-D System uses the new TLS-MAG-D Float Kit to calculate an accurate measurement of fuel density.

The TLS-MAG-D Float Kit combines a redesigned water float with a new cage and density float calibrated for gas or diesel. The density float is suspended in the middle of the cage when placed in gasoline or diesel. The density of the fuel is calculated by measuring the displacement of the calibrated density float within the density cage. The kit also includes an updated product float (gas or diesel), and other components found in a traditional Veeder-Root Float Kit.

The new TLS-MAG-D system has the comprehensive leak detection approvals that have set Veeder-Root apart from the competition for years. And, it’s offered with our TLS family of ATGs which have proven over decades to be extremely reliable based on customer and regulator feedback.
VEEDER-ROOT TLS-MAG-D SYSTEM

Density is a key indicator of fuel quality, and Veeder-Root’s new temperature-compensated TLS-MAG-D System enables stations to differentiate with measured fuel quality.

Density Specifications

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Metric units</th>
<th>USA (Imperial) units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density Range (gas)</td>
<td>690 - 800 kg/m³</td>
<td>43.1 - 50.0 lb/ft³</td>
</tr>
<tr>
<td>Density Range (diesel)</td>
<td>800 - 900 kg/m³</td>
<td>50.0 - 56.2 lb/ft³</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 2.0 kg/m³</td>
<td>± 0.13 lb/ft³</td>
</tr>
<tr>
<td>Resolution</td>
<td>± 0.1 kg/m³</td>
<td>± 0.01 lb/ft³</td>
</tr>
<tr>
<td>Repeatability (15°C)</td>
<td>± 0.5 kg/m³</td>
<td>± 0.03 lb/ft³</td>
</tr>
<tr>
<td>Minimum Fuel Height</td>
<td>200 mm</td>
<td>8.0 inches</td>
</tr>
<tr>
<td>Minimum Water Height</td>
<td>22 mm</td>
<td>0.87 inches</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-40°C to 50°C</td>
<td>-40°F to 132°F</td>
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</table>

Compatibility

The TLS-MAG-D Float Kit is not compatible with the Veeder-Root MAG nor MAG PLUS Probes. They must be used with TLS-MAG-D Probes.

The TLS-MAG-D system is compatible with Veeder-Root TLS-2 and TLS-2P Automatic Tank Gauge Consoles. Additional Veeder-Root Console compatibility is in development.

If you have any questions on your system requirements, contact Veeder-Root at marketing-programs@veeder.com.

Ordering Notes

To configure the right Veeder-Root System for your sites, contact a Veeder-Root representative or visit www.veeder.com.

To learn more, contact us at 1-888-561-7942, or visit www.veeder.com