

Probe Products

Application Guide



VEEDER-ROOT

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Example Illustrations

Illustrations used in this guide for example sensor installations may contain components that are customer supplied and not included with the sensor. Please check with your Veeder-Root Distributor for recommended installation accessories.

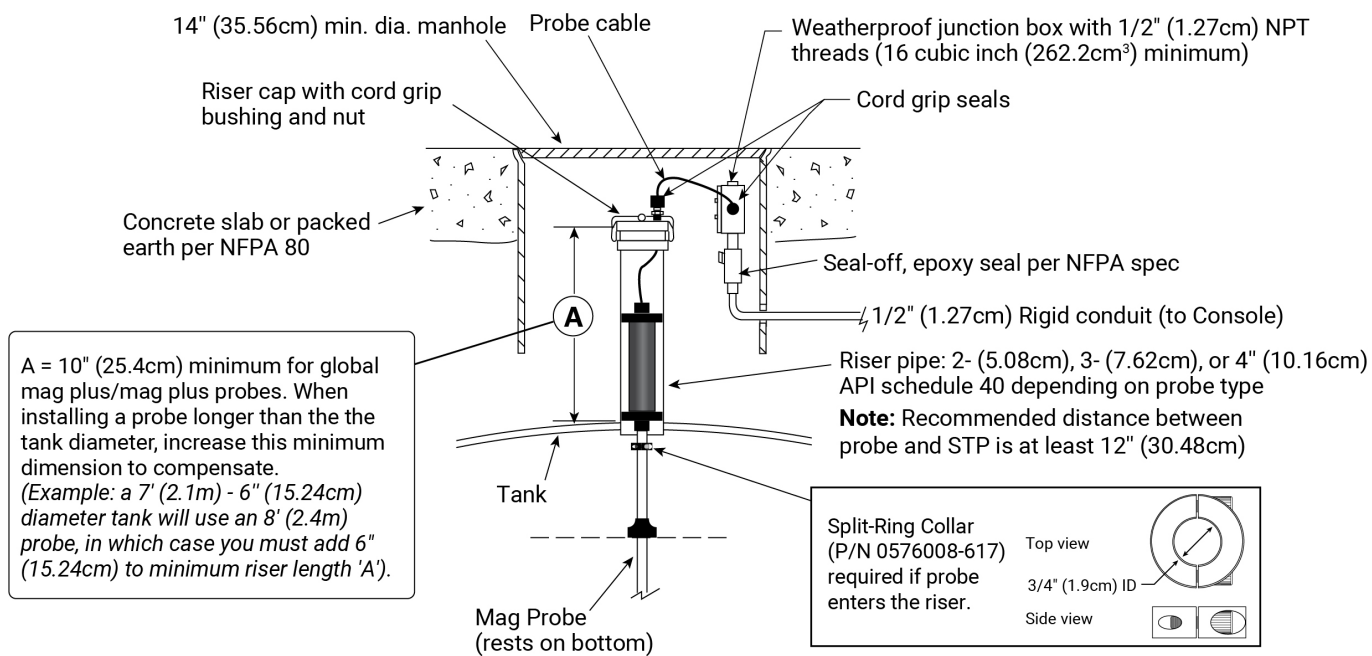
Third Party Evaluations


Third party evaluations of the Veeder-Root sensors contained in this application guide can be found under the Veeder-Root vendor name on the National Work Group on Leak Detection Evaluations (NWGLDE) website: <http://www.nwglde.org>

| | | | | | | |
|--|---|--|---|--------------------------|--|---|
| Probe Description & Product Application | Density Mag Plus In-Tank Probe for Monitoring Gasoline Products in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | | Approved Products | | Monitoring Functionality | |
| | Leak Detection / BIR – AccuChart Probes 1. 0846397-7xx Stainless Steel (SS) with High Grade Polymer (HGP) Canister with Water Detection & 0.1GPH Testing Capability, UL 2. 0846397-8xx SS with HGP Canister with Water Detection & 0.2 GPH Testing Capability, UL No Leak Detection/Inventory Only Probes 1. 0846397-9xx SS with HGP Canister with Water Detection & No Leak Detection/Inventory Only, UL | | Gasoline with <=20% Ethanol | | 0.1 GPH static in-tank testing | |
| | | | Gasoline with <=7% Methanol and 8% TBA | | 0.2 GPH static in-tank testing | |
| | | | Gasoline with <=15% MTBE | | 0.2 GPH Continuous Statistical Leak Detection (CSLD) | |
| | | | Gasoline with <=17% TAME | | No Leak Detection / Inventory Only | |
| | | | Regular Unleaded Gasoline | | BIR – AccuChart | |
| | | | Premium Unleaded Gasoline | | Density Range = 700 - 800 kg/m³ | |
| | | | Aviation Gasoline | | | |
| | | | Gasoline with <=15% ETBE | | | |
| | | | Gasoline with <=12% TBA | | | |
| Leaded Gasoline | | | | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) – Minimum Software Version 5B with TLS-XB installed (3 max per system) | 64 | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| Float Installation Kits | Form # & Description | | Float Size | Cable Lengths | | Min/Max Probe Length |
| | 0886001-1x0 Mag-D Gasoline Float Kit w/ EU Seal Kit | | 2" (5.08cm) | 5' (1.5m), 10' (3.05m) | | 48" (1.2m) - 144" (3.66m) |
| | 0886000-1x0 Mag-D Gasoline Float Kit w/ US Seal Kit | | | | | |
| Other Installation Accessories | 0312020-952 4" (10.16cm) NPT Riser Cap and Ring Kit for In-Tank Probes 0330020-282 4" (10.16cm) Threaded NPT Riser Cap for In-Tank Probes | | | | | |

| Specifications | Product | Water |
|---|---|----------------------------|
| Measurement Accuracy | +/- 0.0300" (0.762mm) | +/- 0.0300" (0.762mm) |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | +/- 0.002857" (0.072571mm) |
| Minimum Measurement – 2" (5.08cm) Float Kits | 8.00" (20.32cm) | 1.495" (3.797cm) |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | |
| Third Party Evaluation / Agency Listings & Links | UL, cUL, ATEX, IECEx | |
| | http://www.nwglde.org/evals/veeder_root_j.html | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | |

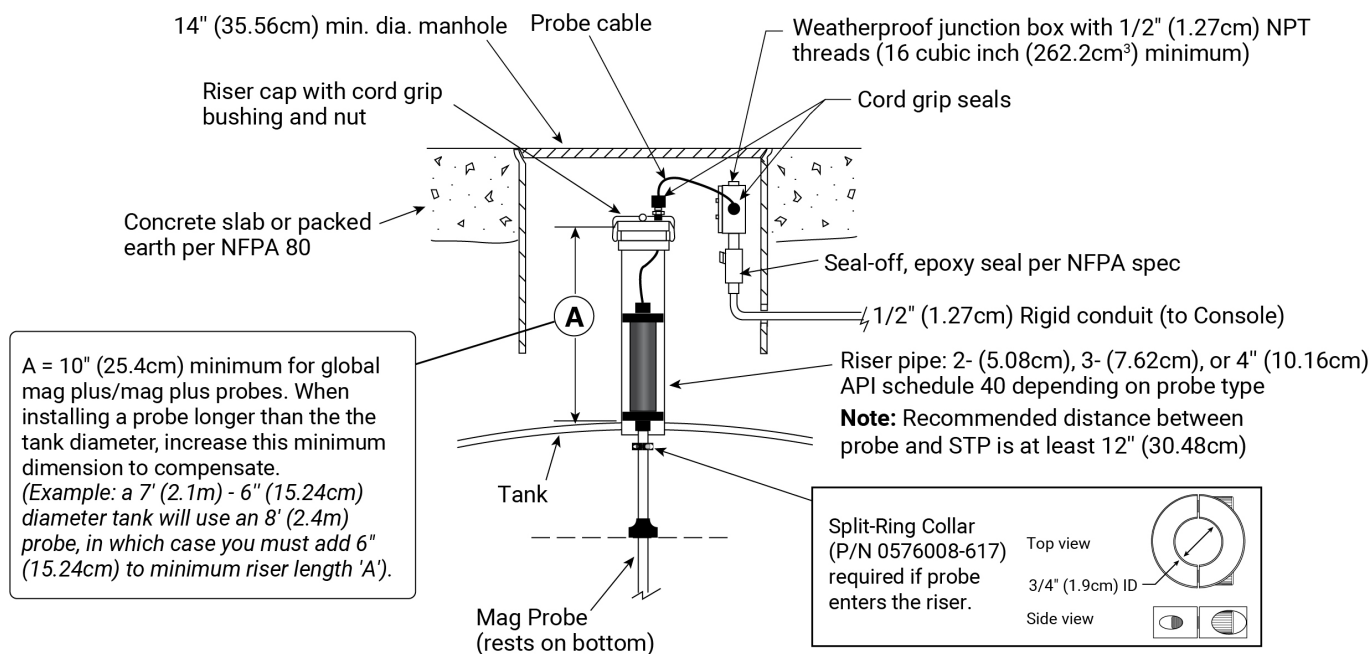
Example Installation




| | | | | | | |
|---|--|--|---|--|--|--------------|
| Probe Description & Product Application | Density Mag Plus In-Tank Probe for Monitoring Diesel & Other Products in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | | Approved Products | | Monitoring Functionality Options | |
| | Leak Detection / BIR – Accuchart Probes 1. 0846397-7xx Stainless Steel (SS) In-Tank Probe with High Grade Polymer (HGP) Canister with Water Detection & 0.1 GPH Testing Capability, UL 2. 0846397-8xx SS In-Tank Probe with HGP Canister with Water Detection & 0.2 GPH Testing Capability, UL No Leak Detection/Inventory Only Probes 1. 0846397-9xx SS In-Tank Probe with HGP Canister with Water Detection & No Leak Detection/Inventory Only, UL | | Diesel (Fuel Oil #2) | | 0.1 GPH static in-tank testing | |
| | | | Bio Diesel (Low Density) * | | 0.2 GPH static in-tank testing | |
| | | | Bio Diesel (High Density) * | | 0.2 GPH Continuous Statistical Leak Detection (CSLD) | |
| | | | Kerosene (Fuel Oil #1) | | No Leak Detection / Inventory Only | |
| | | | Jet Fuel (JP8) | | BIR – AccuChart | |
| | | | Fuel Oil #4 | | Density Range = 800 - 900 kg/m³ | |
| | * Tank testing approved for: B6-B20 meeting ASTM D7467 and B100 meeting ASTM D6751 | | | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| | TLS-450PLUS (8600 Series) – Minimum Software Version 5B with TLS-XB installed (3 max per system) | 64 (32 with BIR) | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 | 16 |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| Float Installation Kits | Part # & Description | | Float Size | Cable Lengths | Min/Max Probe Length | |
| | 0886001-1x1 Mag-D Diesel Float Kit w/ EU Seal Kit | | 2" (5.08cm) | 5' (1.5m), 10' (3.05m) | 48" (1.2m) - 144" (3.66m) | |
| | 0886000-1x1 Mag-D Diesel Float Kit w/ US Seal Kit | | | | | |
| Other Installation Accessories | 0312020-952 4" NPT Riser Cap and Ring Kit for In-Tank Probes 0330020-282 4" Threaded NPT Riser Cap for In-Tank Probes | | | | | |

| Specifications | Product | Water |
|--|---|----------------------------|
| Measurement Accuracy | +/- 0.0300" (0.762mm) | +/- 0.0300" (0.762mm) |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | +/- 0.002857" (0.072571mm) |
| Minimum Measurement – 2" (5.08cm) Float Kits | 6.367" (16.17cm) | 1.495" (3.797cm) |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | |
| Third Party Evaluation / Agency Listings & Links | UL, cUL, ATEX, IECEx | |
| | http://www.nwglde.org/evals/veeder_root_j.html | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | |

Example Installation

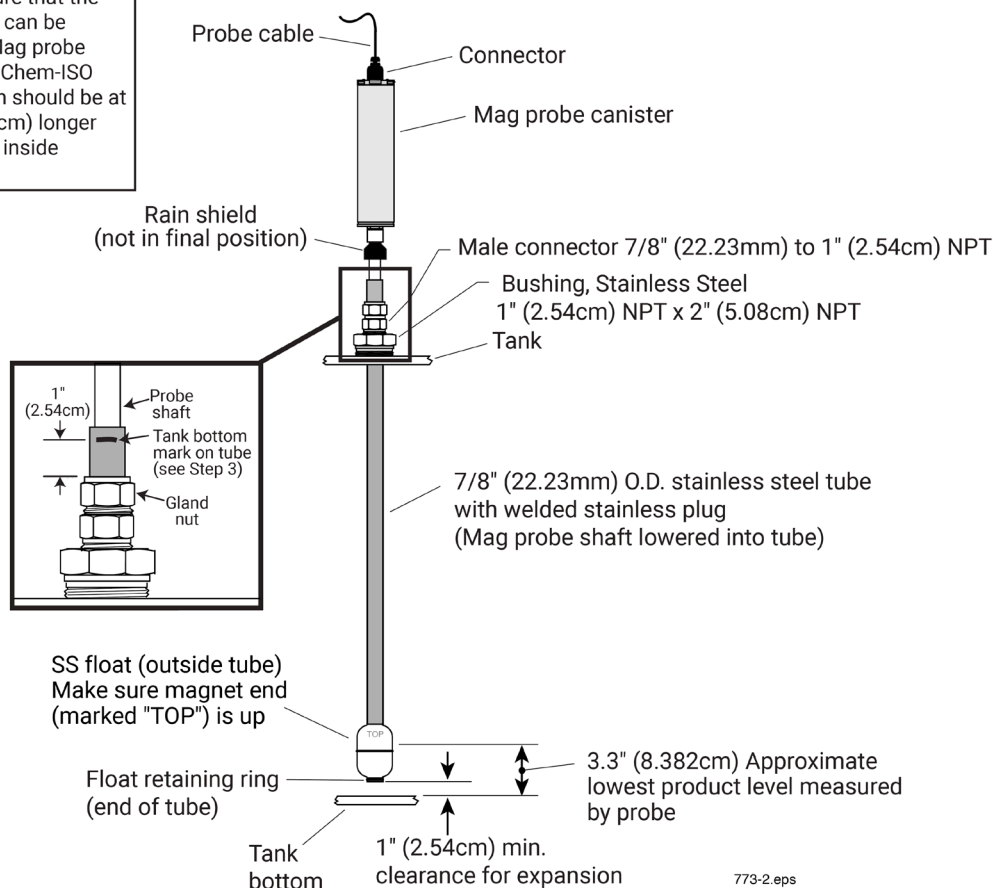


| | | | | | | |
|---|---|--|---|------------------------------------|------------------------------------|---|
| Probe Description & Product Application | Mag Plus In-Tank Probe for Monitoring Chemical Products in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | | Approved Products | | Monitoring Functionality Options | |
| | 0846397-6xx Stainless Steel (SS) In-Tank Probe with High Grade Polymer (HGP) Canister No Water Detection, UL | | Acetone | | No Leak Detection / Inventory Only | |
| | | | Xylene | | | |
| | | | Acetate (Ethyl, Butyl, n-Propyl) | | | |
| | | | Dichloromethane | | | |
| | | | Petroleum Naphtha | | | |
| | | | Isopropyl Alcohol | | | |
| | | | Dimethyl formamide | | | |
| | | | 1-Butyl (butyl alcohol) | | | |
| | | | Butanol | | | |
| | | | Methyl Ethyl Ketone | | | |
| | | | Ethyl Benzene | | | |
| | | | Methyl Isobutyl Ketone | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) | 64 | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 – TLS-4xx | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| TLS-350/R/PLUS | 16 | 0329356-002 | 4-Input Probe Interface Module | 4 | 4 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS-300i | 4 | No module required, probe input capability factory installed | | | | |
| TLS-300C | 2 | | | | | |
| Float Installation Kits | Part # & Description | | Float Size | Cable Lengths | Min/Max Probe Length | Min/Max Chemical Tank Diameter |
| | 0331824-xxx Chemical-ISO Probe Inventory Only Installation Kits | | 2" (5.08cm) | 5' (1.5m), 10' (3.05m), 20' (6.1m) | 48" (1.2m) - 144" (3.66m) | 42" (106.68cm) - 138" (350.52cm) |
| Other Installation Accessories | N/A | | | | | |


| Specifications | Product | Water |
|--|---|-------|
| Measurement Accuracy | +/- 0.0300" (0.762mm) | N/A |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | N/A |
| Minimum Measurement – 2" (5.08cm) Float Kits | 3.3" (8.382cm) | N/A |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | N/A |
| Third Party Evaluation / Agency Listings & Links | http://www.nwglde.org/evals/veeder_root_j.html | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | |

Example Installation

***NOTE:** to ensure that the probe/ tube kit can be installed, the Mag probe length and the Chem-ISO probe kit length should be at least 6" (15.24cm) longer than the tank's inside diameter.



773-2.eps

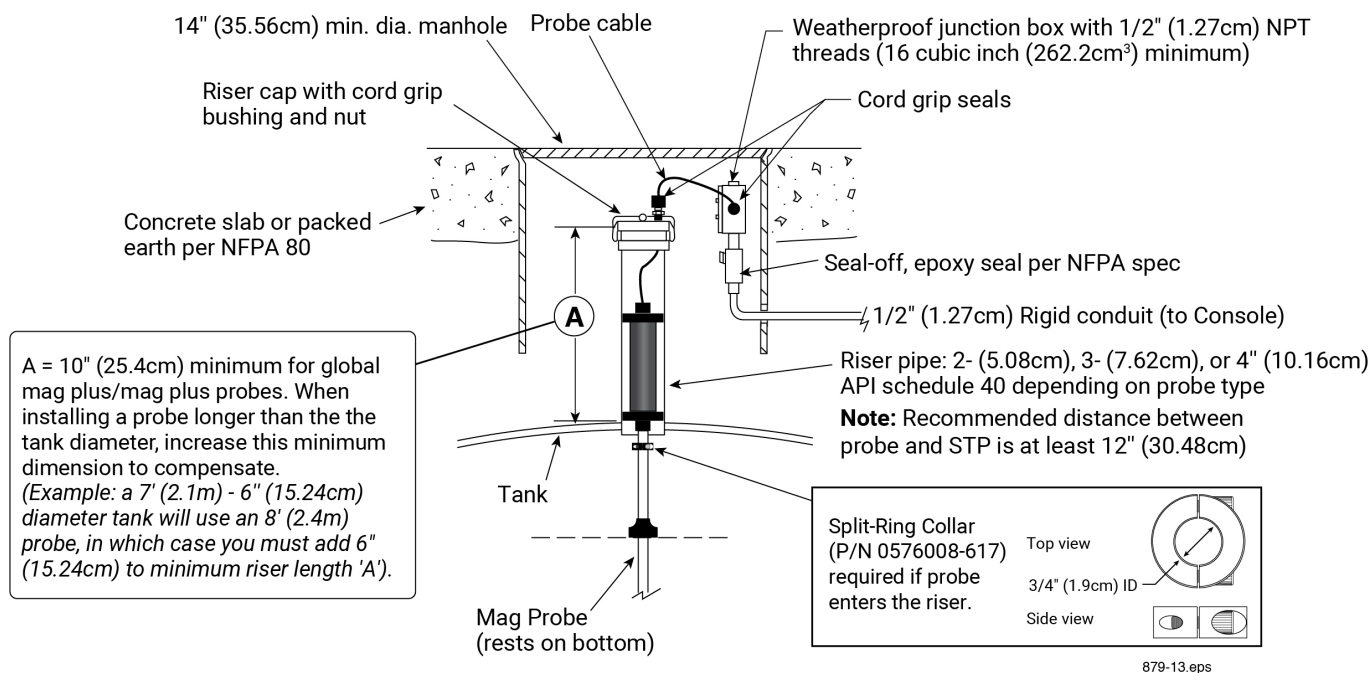
| | | | | | | |
|--|---|--|---|---------------------------|------------------------------|---|
| Probe Description & Product Application | Mag Plus In-Tank Probe for Monitoring Light & Heavy Oil Products with & without Water Detection in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | Approved Products (Use with Light Oil Float Kit) | Monitoring Functionality Options | | | |
| | No Leak Detection/Inventory Only Probes with Water Detection 1. 0846397-3xx Stainless Steel (SS) In-Tank Probe with High Grade Polymer (HGP) Canister with Water Detection & No Leak Detection/Inventory Only, UL No Leak Detection/Inventory Only Probes with No Water Detection 1. 0846397-6xx SS In-Tank Probe with HGP Canister with No Water Detection & No Leak Detection/Inventory Only, UL | Bio Diesel (High Density – Specific Gravity > 0.865) * | No Leak Detection / Inventory Only | | | |
| | | Fuel Oil #4 | | | | |
| | | Motor Oil ** | | | | |
| | | Gear Oil, 90W | | | | |
| | | Toluene | | | | |
| | | Transmission Fluid | | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) with TLS-XB installed (3 max per system) | 64 | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| TLS-350/R/PLUS | 16 | 0329356-002 | 4-Input Probe Interface Module | 4 | 4 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS-300i | 4 | No module required, probe input capability factory installed | | | | |
| TLS-300C | 2 | | | | | |
| Float Installation Kits | Part # & Description | Float Size | Cable Lengths | Min/Max Probe Length | | |
| | 0846400-0x4 Mag Plus Alternative Fluids Float Kit – No Water Float | 4" (10.16cm) | 5' (1.5m), 10' (3.05m) | 48" (1.2m) - 144" (3.66m) | | |
| | 0846400-1x4 Mag Plus Alternative Fluids Float Kit – No Water Float | 2" (5.08cm) | | | | |
| | 0846400-002 Light Oil | 4" (10.16cm) | | | | |
| | 0846400-102 Light Oil | 2" (5.08cm) | | | | |
| | 0846400-007 Heavy Oil | 4" (10.16cm) | | | | |
| | 0846400-107 Heavy Oil | 2" (5.08cm) | | | | |


* Tank testing approved for: B6-B20 meeting ASTM D7467 and B100 meeting ASTM D6751

** Compatible with tank testing

| | | |
|--|--|----------------------------|
| Other Installation Accessories | 0312020-952 4" NPT Riser Cap and Ring Kit for In-Tank Probes 0330020-282 4" Threaded NPT Riser Cap for In-Tank Probes | |
| Specifications | Product | Water |
| Measurement Accuracy | +/- 0.0300" (0.762mm) | +/- 0.0300" (0.762mm) |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | +/- 0.002857" (0.072571mm) |
| Minimum Measurement – 2" (5.08cm) Float Kits | 3.23" (8.2cm) | 0.867" (2.2cm) |
| Minimum Measurement – 4" (10.16cm) Float Kits | 3.04" (7.72cm) | 0.630" (1.6cm) |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | |
| Third Party Evaluation / Agency Listings & Links | http://www.nwglde.org/evals/veeder_root_j.html | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | |

Example Installation

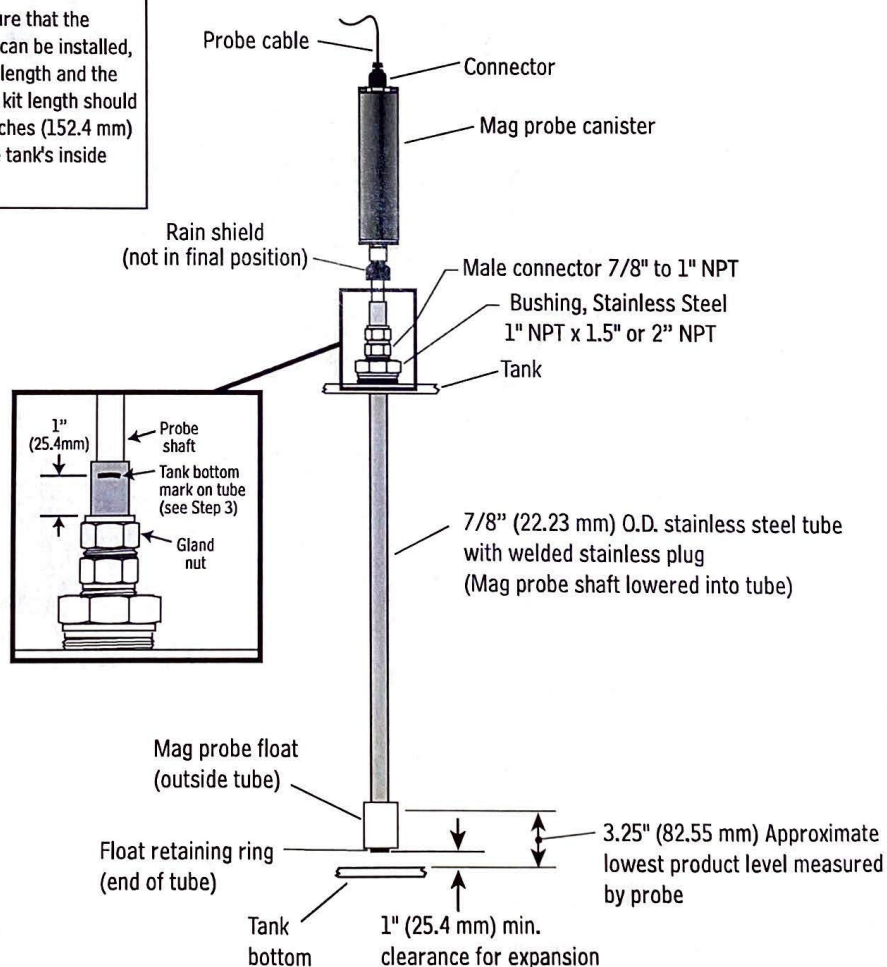



| | | | | | | |
|---|--|--|---|------------------------------------|------------------------------------|---|
| Probe Description & Product Application | Mag Plus In-Tank Probe for Monitoring LPG Products in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | | Approved Products | | Monitoring Functionality Options | |
| | 1. 0846397-6xx Stainless Steel (SS) In-Tank Probe with High Grade Polymer (HGP) Canister, No Water Detection, UL | | Liquified Petroleum Gas Propane | | No Leak Detection / Inventory Only | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) | 64 | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| TLS-350/R/PLUS | 16 | 0329356-002 | 4-Input Probe Interface Module | 4 | 4 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS-300i | 4 | No module required, probe input capability factory installed | | | | |
| TLS-300C | 2 | | | | | |
| Float Installation Kits | Part # & Description | | Float Size | Cable Lengths | Min/Max Probe Length | Min/Max Chemical Tank Diameter |
| | 0333083-xxx LPG-ISO Probe Inventory Only Installation Kits | | 1.5" (3.81cm) | 5' (1.5m), 10' (3.05m), 20' (6.1m) | 48" (1.2m) - 144" (3.66m) | 42" (106.68cm) - 138" (350.52cm) |
| | 0333082-xxx LPG-ISO Probe Inventory Only Installation Kits | | 2.0" (5.08cm) | | | |
| Other Installation Accessories | N/A | | | | | |

| Specifications | Product | Water |
|---|---|-------|
| Measurement Accuracy | +/- 0.0300" (0.762mm) | N/A |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | N/A |
| Minimum Measurement – 1.5" (3.81cm) Float Kits | 3.25" (82.55mm) | N/A |
| Minimum Measurement – 2.0" (5.08cm) Float Kits | 3.25" (82.55mm) | N/A |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | N/A |
| Working Pressure | 375 psi | N/A |
| Third Party Evaluation / Agency Listings & Links | http://www.nwglde.org/evals/veeder_root_j.html | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | |

Example Installation

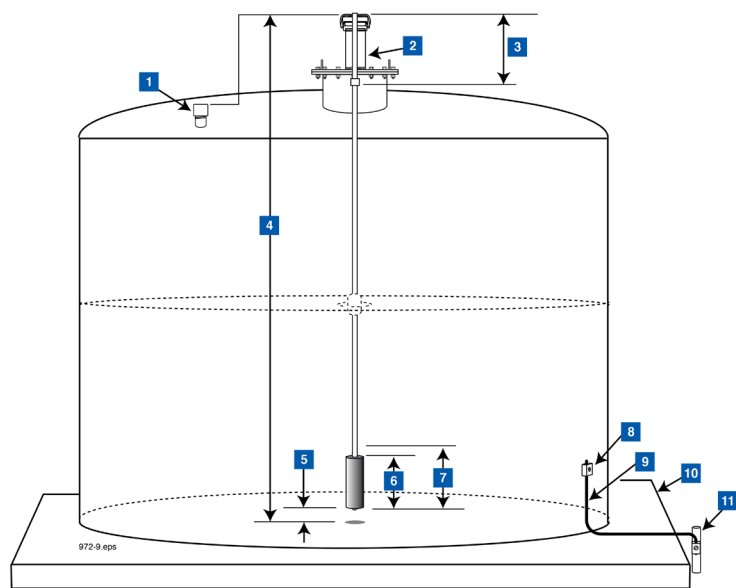
***NOTE:** to ensure that the probe/tube kit can be installed, the Mag probe length and the LPG-ISO probe kit length should be at least 6 inches (152.4 mm) longer than the tank's inside diameter.




| | | | | | | |
|---|---|--|---|---------------------------------|---|---|
| Probe Description & Product Application | Mag-FLEX In-Tank Probes for Monitoring Gas, Diesel, & Alternative Fluids in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | | Approved Products | | Monitoring Functionality Options | |
| | 1. 0889591-4xx Mag-FLEX probe with gasoline & water floats, wired, UL/cUL * | | Gasohol (<=15% Ethanol) | | No Leak Detection / Inventory Only | |
| | 2. 0889591-5xx Mag-FLEX probe with diesel & water floats, wired, UL/cUL * | | Gasoline with <=7% Methanol and 8% TBA | | | |
| | 3. 0889591-6xx Mag-FLEX probe with no water float, wired, UL/cUL * | | Gasoline with <=15% MTBE | | | |
| | 4. 0889591-8xx Mag-FLEX probe for methanol tanks with no water float, wired, UL/cUL | | Gasoline with <=17% TAME | | | |
| | 5. 0889591-1xx Mag-FLEX probe with gasoline & water floats, wireless, UL/cUL | | Leaded Gasoline | | | |
| | 6. 0889591-2xx Mag-FLEX probe with diesel & water floats, wireless, UL/cUL | | Mineral Spirits | | | |
| | 7. 0889591-3xx Mag-FLEX probe with no water float, wireless, UL/cUL | | Premium Unleaded Gasoline | | | |
| | 8. 0889591-7xx Mag-FLEX probe for methanol tanks with no water float, wireless, UL/cUL | | Regular Unleaded Gasoline | | | |
| | 9. 0889561-4xx Mag-FLEX probe with gasoline & water floats, wired, ATEX | | Gasoline with <=15% ETBE | | | |
| | 10. 0889561-5xx Mag-FLEX probe with diesel & water floats, wired, ATEX | | Gasoline with <=12% TBA | | | |
| | 11. 0889561-6xx Mag-FLEX probe with no water float, wired, ATEX | | Diesel (Fuel Oil #2) ** | | | |
| | 12. 0889561-8xx Mag-FLEX probe for methanol tanks with no water float, wired, ATEX | | Kerosene (Fuel Oil #1) ** | | | |
| | 13. 0889561-1xx Mag-FLEX probe with gasoline & water floats, wireless, ATEX | | Bio Diesel (Low Density) ** | | | |
| | 14. 0889561-2xx Mag-FLEX probe with diesel & water floats, wireless, ATEX | | Methanol *** | | | |
| | 15. 0889561-3xx Mag-FLEX probe with no water float, wireless, ATEX | | | | | |
| | 16. 0889561-7xx Mag-FLEX probe for methanol tanks with no water float, wireless, ATEX | | | | | |
| | <i>* Only compatible with TLS4, TLS4B, and TLS-450PLUS consoles, software version 6.A or higher</i> | | | | | |
| <i>** Only compatible with the Diesel Float Kit</i> | | | | | | |
| <i>*** Applicable to 0889591-8xx, 0889561-8xx, 0889591-7xx, and 0889561-7xx part numbers only</i> | | | | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) with TLS-XB installed (3 max per system) | 64 | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| TLS-350/R/PLUS | 16 | 0329356-002 | 4-Input Probe Interface Module | 4 | 4 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS-300i | 4 | No module required, probe input capability factory installed | | | | |
| TLS-300C | 2 | | | | | |

| Float Installation Kits | Part # & Description | Float Size | Special Instructions | Min/Max Probe Length |
|--|---|--|---|-------------------------|
| | 0330020-776 Kit – Low Level Water Float (1.9" for Gasoline) | 4" (10.16cm) | Low level water float kits require a 4" tank opening and connect directly to the existing water float. Wall guide included. | 5' (1.5m) - 72.1' (22m) |
| | 0330020-777 Kit – Low Level Water Float (1.9" for Diesel) | 4" (10.16cm) | | |
| | 0330020-824 Kit – Low Level Water Float (1.9" for Bio-Diesel) | 4" (10.16cm) | | |
| Other Installation Accessories | 0848100-004 Over voltage protection device 1 per probe recommended 0576008-708 2" (5.08cm) NPT Adapter for installation of Mag-FLEX AST probes (req'd 1/probe) | | | |
| Specifications | Product | Water | | |
| Measurement Accuracy | +/- 0.0800" (2.032mm) | +/- 0.12" (3.048mm) | | |
| Resolution – One Sample Reading | +/- 0.02" (0.508mm) | +/- 0.02" (0.508mm) | | |
| Minimum Measurement | +/- 7.3" (18.542cm) probe; 1.5" (3.81cm) float | +/- 5.5" (13.97cm) Std; 1.9" (4.826cm) low level | | |
| Operating (Working) Temperature Range | -40°F to +140°F (-40°C to +60°C) | | | |
| Thermistors | 5 Thermistors | | | |
| Product | Material | | | |
| 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 | | | |
| Third Party Evaluation / Agency Listings | http://www.nwglde.org/evals/veeder_root_j.html | | | |
| Product Installation Guide | https://www.veeder.com/us/technical-document-library | | | |

Example Installation

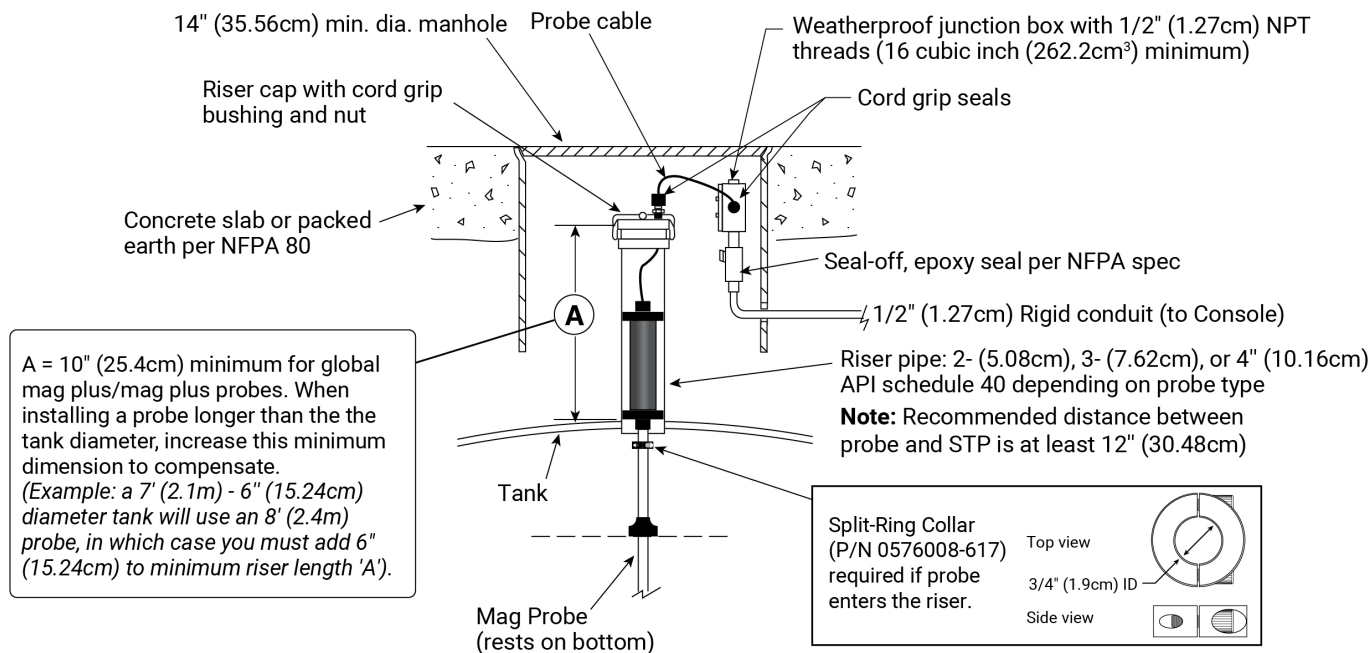



1. Insertion measuring point for 2" (5.08cm) pipe cap installations (top of pipe cap to tank bottom)
2. Insertion measuring point for 4" (10.16cm) riser pipe installations (top of riser pipe to tank bottom). Add 2" (5.08cm) for brass ring/and riser cap.
3. Null zone - typical all probes
4. Measured insertion length (always order smaller probe if measured insertion length falls between two probes in table)
5. Clearance off bottom
6. Weight length
7. Dead zone
8. Tank grounding bracket
9. Grounding cable
10. Concrete tank pad
11. Earth grounded electrode with cable bracket

| | | | | | | |
|--|---|--|---|--------------------------|------------------------------|---|
| Probe Description & Product Application | Stainless Steel Mag Plus In-Tank Probe for Monitoring Alternative Fluids with No Water Detection in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | Approved Products | Monitoring Functionality Options | | | |
| | Leak Detection / BIR – Accuchart Probes 1. 0846397-4xx Stainless Steel (SS) In-Tank Probe with High Grade Polymer (HGP) Canister with No Water Detection & 0.1 GPH Testing Capability, UL 2. 0846397-5xx SS In-Tank Probe with HGP Canister with No Water Detection & 0.2GPH Testing Capability, UL No Leak Detection/Inventory Only Probes 1. 0846397-6xx SS with HGP Canister with No Water Detection & No Leak Detection/ Inventory Only, UL | Alcohol (<=100% Alcohol) * | A. 0.1 GPH static in-tank testing for USTs only | | | |
| | | Fuel Oil #6 ** | B. 0.2GPH static in-tank testing for USTs only | | | |
| | | Propylene Glycol ** | C. 0.2 GPH Continuous Statistical Leak Detection (CSLD) for USTs only | | | |
| | | Methyl Alcohol * | | | | |
| | | Methanol (<=100% Alcohol) * | D. No Leak Detection / Inventory Only for USTs & ASTs | | | |
| | | ETBE (<=100% Ether) | E. BIR – Accuchart for USTs only | | | |
| | | Ethanol (<=100% Alcohol) includes E85 * | | | | |
| | | MTBE (<=100% Ether) | | | | |
| | | Used Oil | | | | |
| | | Ethylene Glycol ** | | | | |
| | Windshield Washer Fluid ** | | | | | |
| | DEF (AdBlue) ** | | | | | |
| | * Limited to 85% for ATEX probes ** These products are not approved for leak detection | | | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) with TLS-XB installed (3 max per system) | 64 (32 with BIR) | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| TLS-350/R/PLUS | 16 | 0329356-002 | 4-Input Probe Interface Module | 4 | 4 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS-300i | 4 | No module required, probe input capability factory installed | | | | |
| TLS-300C | 2 | | | | | |

| Float Installation Kits | Part # & Description | Float Size | Cable Lengths | Min/Max Probe Length |
|--|--|--------------|---------------------------|------------------------------|
| | 0846400-0x4 Mag Plus Alternative Fluids Float Kit – No Water Float | 4" (10.16cm) | 5' (1.5m), 10' (3.05m) | 48" (1.2m) - 144" (3.66m) |
| | 0846400-1x4 Mag Plus Alternative Fluids Float Kit – No Water Float | 2" (5.08cm) | | |
| Other Installation Accessories | 0312020-952 4" (10.16cm) NPT Riser Cap and Ring Kit for In-Tank Probes 0330020-282 4" (10.16cm) Threaded NPT Riser Cap for In-Tank Probes | | | |
| Specifications | Product | Water | | |
| Measurement Accuracy | +/- 0.0300" (0.762mm) | N/A | | |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | N/A | | |
| Minimum Measurement – 2" (5.08cm) Float Kits | 3.23" (8.2cm) | N/A | | |
| Minimum Measurement – 4" (10.16cm) Float Kits | 3.04" (7.72cm) | N/A | | |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | | | |
| Third Party Evaluation / Agency Listings & Links | UL, cUL, ATEX, IECEx | | | |
| | http://www.nwglde.org/evals/veeder_root_j.html | | | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | | | |

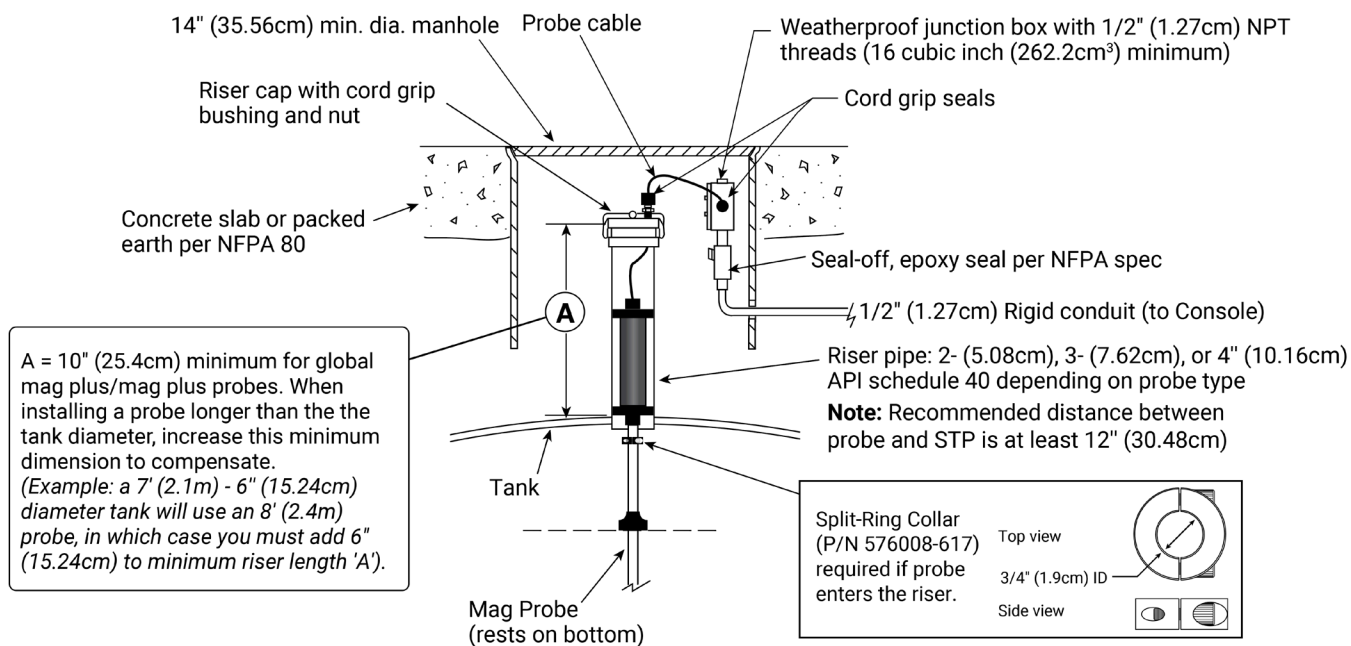
Example Installation

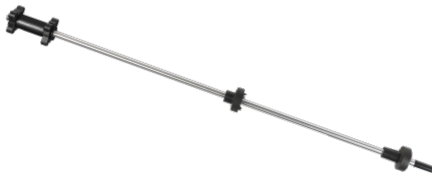


| | | | | | | |
|---|---|--|---|--------------------------|---|---|
| Probe Description & Product Application | Stainless Steel Mag Plus In-Tank Probe for Monitoring Gasoline & Retail Diesel Products , with Water Detection in both USTs & ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | Specific Products | | | Monitoring Functionality | |
| | Leak Detection / BIR – AccuChart Probes 1. 0846397-1xx Stainless Steel (SS) In-Tank Probe with High Grade Polymer (HGP) Canister with Water Detection & 0.1GPH Testing Capability, UL 2. 0846397-2xx SS In-Tank Probe with HGP Canister with Water Detection & 0.2GPH Testing Capability, UL No Leak Detection/Inventory Only Probes 1. 0846397-3xx SS with HPG Canister with Water Detection & No Leak Detection/ Inventory Only, UL | Gasohol (<=20% Ethanol) * | | | A. 0.1 GPH static in-tank testing for USTs only | |
| | | Gasoline with <=7% Methanol and 8% TBA * | | | B. 0.2 GPH static in-tank testing for USTs only | |
| | | Gasoline with <=15% MTBE | | | C. 0.2 GPH Continuous Statistical Leak Detection (CSLD) for USTs only | |
| | | Gasoline with <=17% TAME | | | | |
| | | Leaded Gasoline | | | D. No Leak Detection / Inventory Only for USTs & ASTs | |
| | | Premium Unleaded Gasoline * | | | E. BIR – AccuChart for USTs only | |
| | | Regular Unleaded Gasoline * | | | | |
| | | Gasoline with <=15% ETBE | | | | |
| | | Gasoline with <=12% TBA * | | | | |
| | | Aviation Gas | | | | |
| | | Only compatible with the Diesel Float Kit | | | | |
| | | Diesel (Fuel Oil #2) | | | | |
| | | Kerosene (Fuel Oil #1) | | | | |
| | | Bio Diesel (Low Density) ** | | | | |
| Mineral Spirits | | | | | | |
| <i>* Compatible with Phase Separation Float Kit</i> <i>** Tank testing approved for: B6-B20 meeting ASTM D7467 and B100 meeting ASTM D6751</i> | | | | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) with TLS-XB installed (3 max per system) | 64 (32 with BIR) | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 - TLS-4xx | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| TLS-350/R/PLUS | 16 | 0329356-002 | 4-Input Probe Interface Module | 4 | 4 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS-300i | 4 | No module required, probe input capability factory installed | | | | |
| TLS-300C | 2 | | | | | |

| Float Installation Kits | Part # & Description | Float Size | Cable Lengths | Min/Max Probe Length |
|--|--|----------------------------|---------------------------|------------------------------|
| | 0886100-xx0 Mag Plus Phase Separation Float Kit | 4" (10.16cm) | 5' (1.5m), 10' (3.05m) | 48" (1.2m) - 144" (3.66m) |
| | 0846400-1x0 Mag Plus Gasoline Float Kit | 2" (5.08cm) | | |
| | 0846400-0x1 Mag Plus Diesel Float Kit | 4" (10.16cm) | | |
| | 0846400-1x1 Mag Plus Diesel Float Kit | 2" (5.08cm) | | |
| Other Installation Accessories | 0312020-952 4" (10.16cm) NPT Riser Cap and Ring Kit for In-Tank Probes 0330020-282 4" (10.16cm) Threaded NPT Riser Cap for In-Tank Probes | | | |
| Specifications | Product | Water | | |
| Measurement Accuracy | +/- 0.0300" (0.762mm) | +/- 0.0300" (0.762mm) | | |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | +/- 0.002857" (0.072571mm) | | |
| Minimum Measurement – 2" (5.08cm) Float Kits | 3.23" (8.2cm) | 0.867" (2.2cm) | | |
| Minimum Measurement – 4" (10.16cm) Float Kits | 3.04" / 7.0" for Phase Sep. | 0.630" (1.6cm) | | |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | | | |
| Third Party Evaluation / Agency Listings & Links | UL, cUL, ATEX, IECEx | | | |
| | http://www.nwglde.org/evals/veeder_root_j.html | | | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | | | |

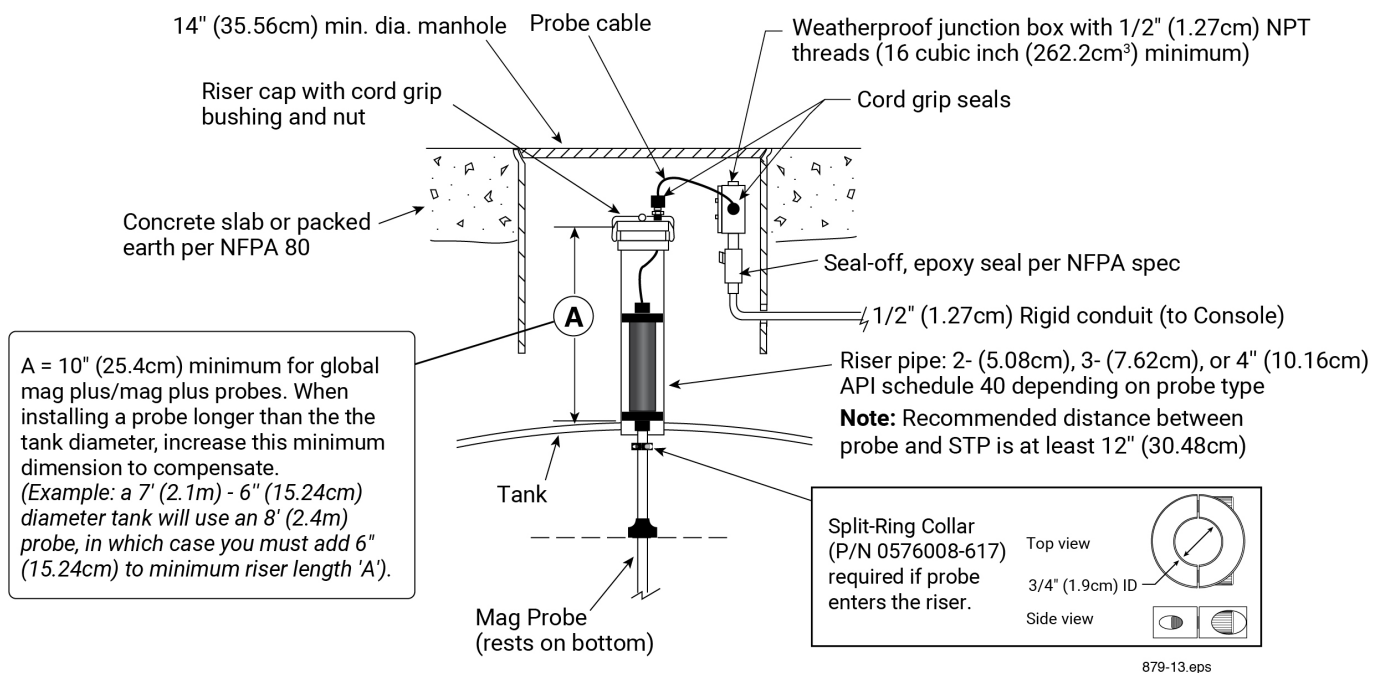
Example Installation



| | | | | | | |
|---|--|--|---|---------------------------|---|---|
| Probe Description & Product Application | Stainless Steel Mag Plus In-Tank Probe for Monitoring Jet Fuel Products with Water Detection in both USTs and ASTs | |  | | | |
| Specific Products Monitored / Product Compatibility | Part # & Description | | Approved Products | | Monitoring Functionality Options | |
| | Leak Detection with Water Detection 1. 0846397-1xx Stainless Steel (SS) with High Grade Polymer (HPG) Canister with Water Detection & 0.1GPH Testing Capability 2. 0846397-2xx SS with HPG Canister with Water Detection & 0.2GPH Testing Capability No Leak Detection/Inventory Only Probes 1. 0846397-3xx SS with HPG Canister with Water Detection & No Leak Detection/Inventory Only | | Jet Fuel (JP8) | | A. 0.1 GPH static in-tank testing for USTs only B. 0.2GPH static in-tank testing for USTs only C. 0.2 GPH Continuous Statistical Leak Detection (CSLD) for USTs only D. No Leak Detection / Inventory Only for USTs & ASTs E. BIR – Accuchart for USTs only | |
| | | | Jet Fuel (JP10) | | | |
| | | | | | | |
| Console Compatibility | Maximum Probes / Console | Probe Interface Modules | | | | |
| | | Module Part # | Module Description | # of Modules per Console | # of Probe Inputs per Module | Availability |
| TLS-450PLUS (8600 Series) | 64 | 0332812-001 | Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD | Up to 4 | 16 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS4 (8601 Series) | 12 | No module required, probe input capability factory installed | | | | |
| TLS4B (8601 Series) | 6 | | | | | |
| TLS-350/R/PLUS | 16 | 0329356-002 | 4-Input Probe Interface Module | 4 | 4 | Sold Separately (either Factory Installed or as a Spare Module) |
| TLS-300i | 4 | No Module required, probe input capability factory installed | | | | |
| TLS-300C | 2 | | | | | |
| Float Installation Kits | Part # & Description | | Float Size | Cable Lengths | Min/Max Probe Length | Min/Max Chemical Tank Diameter |
| | Diesel Float Kits for JP8: | | | | | |
| | 0846400-0x1 Mag Plus Diesel Float Kit | | 4" (10.16cm) | 5' (1.5m), 10' (3.05m) | 48" (1.2m) - 144" (3.66m) | N/A |
| | 0846400-1x1 Mag Plus Diesel Float Kit | | 2" (5.08cm) | | | |
| | Heavy Oil Float Kits for JP10: | | | | | |
| | 0846400-0x7 Mag Plus Heavy Oil Float Kit | | 4" (10.16cm) | 5' (1.5m), 10' (3.05m) | 48" (1.2m) - 144" (3.66m) | N/A |
| 0846400-1x7 Mag Plus Heavy Oil Float Kit | | 2" (5.08cm) | | | | |
| Other Installation Accessories | 0312020-952 4" (10.16cm) NPT Riser Cap and Ring Kit for In-Tank Probes 0330020-282 4" (10.16cm) Threaded NPT Riser Cap for In-Tank Probes | | | | | |

| Specifications | Product | Water |
|--|---|----------------------------|
| Measurement Accuracy | +/- 0.0300" (0.762mm) | +/- 0.0300" (0.762mm) |
| Resolution – One Sample Reading | +/- 0.002857" (0.072571mm) | +/- 0.002857" (0.072571mm) |
| Minimum Measurement – 2" (5.08cm) Float Kits | 3.23" (8.2cm) | 0.867" (2.2cm) |
| Minimum Measurement – 4" (10.16cm) Float Kits | 3.04" (7.72cm) | 0.630" (1.6cm) |
| Operating (Working) Temperature Range | -40°F to +122°F (-40°C to +50°C) | |
| Third Party Evaluation / Agency Listings & Links | http://www.nwglde.org/evals/veeder_root_j.html | |
| Product Installation Guide Link | https://www.veeder.com/us/technical-document-library | |

Example Installation





For technical support, sales or
other assistance, please visit:
www.veeder.com