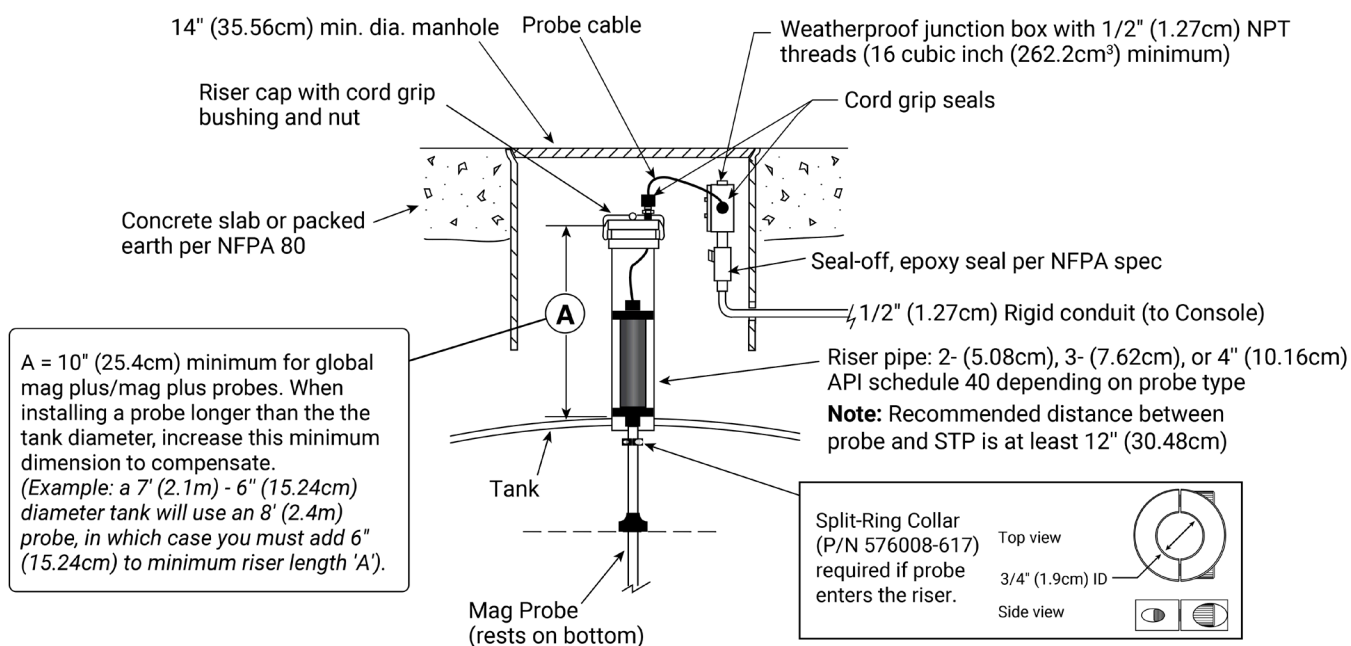| Probe Description & Product Application	Aluminum Mag Plus In-Tank Probe for Monitoring **Gasoline, Retail Diesel Products & Water** in both USTs and ASTs

	Part # & Description	Approved Products	Monitoring Functionality Options
Specific Products Monitored / Product Compatibility	**Leak Detection / BIR - Accuchart Probes** 1. 846396-1XX Aluminum (AL) In-Tank Probe with High Grade Polymer (HGP) Canister with Water Detection & 0.1 GPH Testing Capability, UL 2. 846396-2XX AL In-Tank Probe with HGP Canister with Water Detection & 0.2 GPH Testing Capability, UL 3. 846390-1XX AL In-Tank Probe with AL Canister with Water Detection & 0.1 GPH Testing Capability, UL 4. 846390-2XX AL In-Tank Probe with AL Canister with Water Detection & 0.2 GPH Testing Capability, UL	Gasohol (<=15% Ethanol)	0.1 GPH static in-tank testing for USTs only
		Gasoline with <=7% Methanol and 8% TBA	0.2 GPH static in-tank testing for USTs only
		Gasoline with <=15% MTBE	0.2 GPH Continuous Statistical Leak Detection (CSLD) for USTs only
		Gasoline with <=17% TAME	
		Leaded Gasoline	No Leak Detection/ Inventory Only
		Mineral Spirits	BIR – AccuChart for USTs only
		Premium Unleaded Gasoline	
		Regular Unleaded Gasoline	
		Gasoline with <=15% ETBE	
		Gasoline with <=12% TBA	
		Diesel (Fuel Oil #2)	
		Aviation Gas	
		Kerosene (Fuel Oil #1)	
		Bio Diesel (Low Density)	

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)	332812-001	Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD	Up to 4	16	Sold Separately (either Factory Installed or as a Spare Module)
TLS4i (8601 Series)	4	No module required, probe input capability factory installed				
TLS4c (8601 Series)	2					
TLS-350/R/PLUS	16	329356-002	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					

	Part # & Description	Float Size	Cable Lengths	Min/Max Probe Length
Float Installation Kits	886100-XX0 Mag Plus Phase-Two Separation Float Kit	4" (10.16cm)	5' (1.5m), 10' (3.05m), 20' (6.1m)	48" (1.2m) - 144" (3.66m)
	846400-3X0 Mag Plus Gasoline Float Kit	3" (7.62cm)		
	846400-1X0 Mag Plus Gasoline Float Kit	2" (5.08cm)		
	846400-0X1 Mag Plus Diesel Float Kit	4" (10.16cm)		
	846400-3X1 Mag Plus Diesel Float Kit	3" (7.62cm)		
	846400-1X1 Mag Plus Diesel Float Kit	2" (5.08cm)		
Other Installation Accessories	312020-952 4" (10.16cm) NPT Riser Cap and Ring Kit for In-Tank Probes 330020-282 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 - 3" (7.62cm) Float Kits	3.04" (7.7cm)	0.630" (1.6cm)
Minimum Measurement - 4" (10.16cm) Float Kits	3.04" (7.7cm) / 7.0" (17.78cm) for Phase-Two Float Kit	0.630" (1.6cm)
Operating (Working) Temperature Range	-40 to +122°F (-40 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

14" (35.56cm) min. dia. manhole

Probe cable

Weatherproof junction box with 1/2" (1.27cm) NPT threads (16 cubic inch (262.2cm³) minimum)

Riser cap with cord grip bushing and nut

Cord grip seals

Concrete slab or packed earth per NFPA 80

Seal-off, epoxy seal per NFPA spec

1/2" (1.27cm) Rigid conduit (to Console)

A = 10" (25.4cm) minimum for global mag plus/mag plus probes. When installing a probe longer than the the tank diameter, increase this minimum dimension to compensate. *(Example: a 7' (2.1m) - 6" (15.24cm) diameter tank will use an 8' (2.4m) probe, in which case you must add 6" (15.24cm) to minimum riser length 'A').*

Riser pipe: 2- (5.08cm), 3- (7.62cm), or 4" (10.16cm) API schedule 40 depending on probe type

Note: Recommended distance between probe and STP is at least 12" (30.48cm)

Tank

Mag Probe (rests on bottom)

Split-Ring Collar (P/N 576008-617) required if probe enters the riser.

Top view

3/4" (1.9cm) ID

Side view

879-13.eps

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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

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