VEEDER-ROOT
TLS-RF WIRELESS 2 SYSTEM

FOR UNDERGROUND STORAGE TANKS, ABOVEGROUND STORAGE TANKS AND VAPOR APPLICATIONS

Monitor More Sites Today Without Costly Installation

Whether your need is basic inventory management, sensor monitoring, or the benefits associated with either Static In-Tank Testing or Continuous Statistical Leak Detection (CSLD), Veeder-Root's TLS-RF Wireless 2 System can quickly and easily meet your needs where installing conduit and wiring is not a viable option.
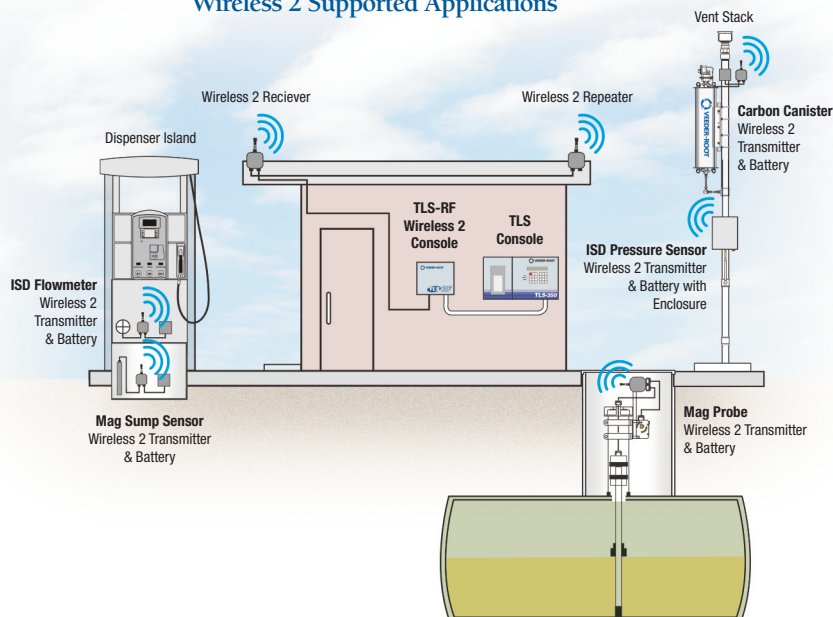
Maximize Data Transmission and Reduce Interference

Wireless 2 is the next generation of the Veeder-Root wireless communication protocol that maximizes data transmissions while reducing interference. Wireless 2 increases the already strong performance of Veeder-Root's wireless systems to deliver more reliable and consistent data between the probes, sensors and the TLS Console.

Additionally, the Wireless 2 equipment is redesigned with improved connection points, better sealing, and new antenna design that virtually eliminates water/moisture intrusion.
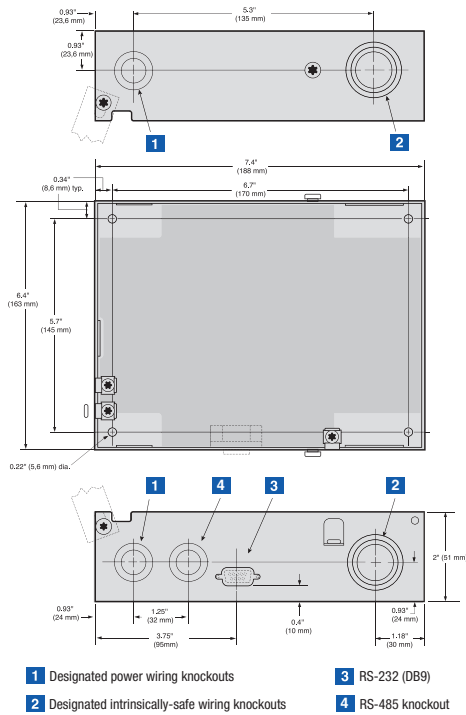
Features and Benefits

- Easy installation without the expense of wiring through the forecourt

- Operating frequency 900-928 MHZ

- Enhanced communication protocol for improved reliability

- mproved construction, supporting a broader range of environmental conditions
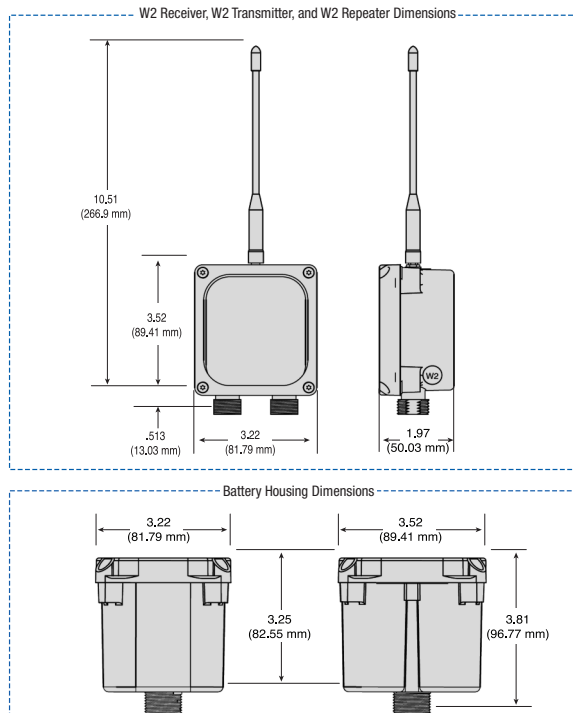
- Battery life up to 2 years

- NEMA 6 equivalent

Supported TLS Probes and Sensors

- **Standard Mag Probe** and **Mag Plus Probe**, for full TLS feature support including:
  - Static In-Tank Leak Detection
  - Business Inventory Reconcilliation
  - Delivery detection and reporting
  - CSLD

- **Mag Sump Sensor,** for full featured Containment Sump Sensor Monitoring

- **Pressure Sensor**, California Air Resources Board (CARB) certified for use with In Station Diagnostics (ISD) and Pressure Management Control (PMC)

- **Vapor Flow Meter**, CARB certified for use with ISD

- **Vapor Polisher**, CARB certified for use with PMC

Station Layout Illustrating Wireless 2 Supported Applications

Vent Stack

Wireless 2 Reciever

Wireless 2 Repeater

Dispenser Island

Carbon Canister
Wireless 2 Transmitter & Battery

TLS-RF Wireless 2 Console

TLS Console

ISD Pressure Sensor
Wireless 2 Transmitter & Battery with Enclosure

ISD Flowmeter
Wireless 2 Transmitter & Battery

Mag Sump Sensor
Wireless 2 Transmitter & Battery

Mag Probe
Wireless 2 Transmitter & Battery

VEEDER-ROOT

Wireless 2 TLS-RF Console Dimensions and Designated Conduit Knockouts

1 Designated power wiring knockouts
3 RS-232 (DB9)
2 Designated intrinsically-safe wiring knockouts
4 RS-485 knockout

Wireless 2 Component Dimensions

W2 Receiver, W2 Transmitter, and W2 Repeater Dimensions

Battery Housing Dimensions

The TLS-RF Wireless 2 System is not backwards compatible with the TLS-RF Wireless 1 System. Wireless 1 components will remain available to maintain existing sites.

Part No.	Description	Requirement	Supported Sensor Types Mag-XL	Vapor	UST
Wireless 2 Components					
858090-201	TLS-RF W2 Kit (TLS RF W2 Transmitter & Battery Pack)[4]	1 per Wireless Device		X	X
858090-202	TLS-RF W2 Mag-XL Kit (TLS RF W2 Transmitter & Battery Pack)[1,5]		X		
858090-205	TLS-RF W2 Kit (TLS-RF W2 Transmitter & EVR Battery Pack)[4]			X	X
858090-203	TLS-RF W2 Kit (TLS-RF W2 Console, W2 Receiver, W2 Repeater)[3]	1 per Site	X	X	X
858090-204	TLS-RF W2 Kit (TLS-RF W2 Console, W2 Receiver, W2 Repeater)[3] Includes "Mag-XL Installation Manual"		X	X	X
Installation Kits					
330020-716	Universal Enclosure Kit	1 per Pressure Sensor[6] (Optional for W2 Repeater & W2 Receiver)	X	X	X
332455-XXX	RS-485 Cable	1 per Site	X	X	X
Replacement Parts					
330020-527	TLS-RF Battery Pack[2]	1 per Wireless Device	X	X	X
330020-718	TLS-RF W2 EVR Battery Pack (with extended warranty)[2]		X	X	X
330020-673	TLS-RF W2 Transmitter		X		
330020-674	TLS-RF W2 Transmitter			X	X
330020-453	TLS-RF Repeater/ Receiver Installation Hardware Kit		X	X	X
330020-522	TLS-RF Transmitter Installation Hardware Kit			X	X
330020-658	TLS-RF Transmitter Installation Hardware Kit		X		
330020-668	TLS-RF W2 Console/Expansion Box (If multiple TLS-RF consoles are required, see "TLS-RF Wireless 2 Installation and Maintenance Manual")	1 per 8 TLS-RF Transmitters	X	X	X
330020-669	TLS-RF W2 Receiver	1 per Site	X	X	X
330020-670	TLS-RF W2 Repeater		X	X	X

[1] This kit only supports Mag-XL Flex probes for tall tank installations and cannot be used for Vapor and UST applications
[2] These battery packs support Wireless 1 and Wireless 2 equipment
[3] Kit comes with 2 installation hardware kits (330020-453)
[4] Kit comes with 1 installation hardware kit (330200-522)
[5] Kit comes with 1 installation hardware kit (330020-658)
[6] Requires wireless pressure sensor P/N 861190-201

Part No.	Description	Requirement	Supported Sensor Types Mag-XL	Vapor	UST
The following Wireless 1 components will remain available as spare parts to support existing sites. All new wireless systems should use Wireless 2. Wireless 1 and Wireless 2 *cannot* be used on the same site.					
330020-516	TLS-RF W1 Receiver				X
330020-518	TLS-RF W1 Repeater				X
330020-523	TLS-RF W1 Console				X
330020-524	TLS-RF W1 Transmitter				X

TLS Console Sensor Capacity*

Console	8463, 8563, 8462 Mag Plus Probe	8891 Mag-XL Probe	8570 Mag Sump Sensor	Vapor Flow Meter	Vapor Pressure Sensor	Carbon Canister Vapor Polisher	Maximum Number of Wireless Devices
TLS-450	Up to 32	Up to 32	Up to 32				32
TLS-350R TLS-350 Plus	Up to 16	Up to 16	Up to 32	Up to 32	Up to 32	Up to 32	32
TLS-350J	Up to 8	Up to 8					8
TLS-300i	Up to 4	Up to 4					4
TLS-300C	Up to 2	Up to 2					2
TLS-2	Up to 6	Up to 6					6

*All software features may not support maximum sensor capacity

To learn more, contact us at **888.561.7942**, or visit **www.veeder.com.**

VEEDER-ROOT