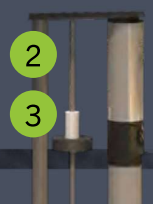
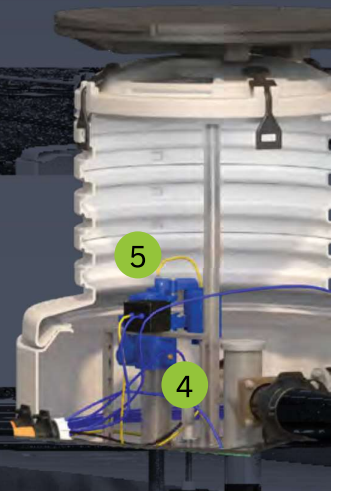
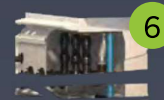


# FUEL MANAGEMENT SYSTEMS

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- 1 EVO™ Series Automatic Tank Gauges
- 2 Leak Detection and Inventory Control Probes
- 3 Float Kits for All Common Applications
- 4 Probe Installation Kits
- 5 Electronic Line Leak Detection
- 6 Discriminating Dispenser or Tank Sump Sensors
- 7 FFS PRO(R) Connect ATG Remote Access & SSA-2 Remote Fuel Management Software





# FIND THE RIGHT ATG **FOR YOUR SITE**



## EVO™ 200

- 6 Maximum Tank Capacity
- 6 Maximum Sensor Capacity
- 6 Total # of Inputs
- Turbine Pump Interface
- FFS PRO® Connect

Optional features  
below dashed line

- Inventory Reconciliation
- Tank Autocalibration
- Flow Rate Monitoring



## EVO™ 400

- 14 Maximum Tank Capacity
- 14 Maximum Sensor Capacity
- 14 Total # of Inputs
- Turbine Pump Interface
- FFS PRO® Connect

- Inventory Reconciliation
- Tank Autocalibration
- Flow Rate Monitoring



\* Additional capacity available with expansion console

<sup>1</sup> EVO™ 600/6000 only








<sup>2</sup> EVO™ 550/5000 only



## EVO™ 600 / EVO™ 550



- 36** Maximum Tank Capacity\*
- 48** Maximum Sensor Capacity\*
- 48** Total # of Inputs
-  Turbine Pump Interface
-  FFS PRO® Connect<sup>1</sup>

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-  Inventory Reconciliation
-  Tank Autocalibration
-  Flow Rate Monitoring
-  Corrosion Control™ Integration<sup>1</sup>
-  Electronic Line Leak Detection
-  Secondary Containment Monitoring<sup>2</sup>
-  DEF/AdBlue Recirculation



## EVO™ 6000 / EVO™ 5000

- 36** Maximum Tank Capacity\*
- 96** Maximum Sensor Capacity\*
- 96** Total # of Inputs
-  Turbine Pump Interface
-  FFS PRO® Connect<sup>1</sup>

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-  Inventory Reconciliation
-  Tank Autocalibration
-  Flow Rate Monitoring
-  Corrosion Control™ Integration<sup>1</sup>
-  Electronic Line Leak Detection
-  Secondary Containment Monitoring<sup>2</sup>
-  DEF/AdBlue Recirculation

Optional features  
below dashed line

FUEL MANAGEMENT  
SYSTEMS



# SELECTING AN AUTOMATIC TANK GAUGE

When you fully understand both your current site needs and where you might be headed in the future, you are able to make a sound ATG selection. Be sure to address your compliance needs and operational requirements when considering which ATG is right for you. The EVO™ Series offers you different options with right-sized features to meet the requirements of your specific application, size, and compliance needs.

Which ATG is right for your application?



## EVO™ 200

Maximum tank capacity	6
Maximum sensor input capacity	6
Total # of inputs	6
Line capacity	-
Dry contact input channels	2
AC input channels	-
4-20 ma input channels	-
Relay output channels	2
Colour LCD Size	7" (17.78 cm)
Printer options	External
Internal audible alarm	✓
Email/SMS notifications	✓
Inventory and delivery management	✓
Leak detection sensors	✓
Static and continuous tank testing	✓
Static and statistical electronic line leak detection	-
High/low product, water, and temperature alarm set points	✓
Inventory reconciliation/tank autocalibration	✓
Flow rate monitoring	✓
Density and mass measurement	✓
Phase separation detection	✓
Turbine Pump Interface	✓
AdBlue®/DEF recirculation system	-
Back-up generator monitoring	✓
Conditional programming	✓
MODBUS® compatibility	✓
Compatible with Multiplexing Sensor Hub	✓
Compatible with Corrosion Control™ Water Separator	✓
Secondary containment monitoring	-



**EVO™ 400**



**EVO™ 550 & EVO™ 600**



**EVO™ 5000 & EVO™ 6000**

14	36*	36*
14	48*	96*
14	48	96
-	24	24
2	2	2
-	36	36
-	24	24
2	26	44
7" (17.78 cm)	7" (17.78 cm)	7" (17.78 cm)
External	Internal & External	Internal & External
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
-	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
-	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	EVO™ 600 only	EVO™ 6000 only
✓	EVO™ 600 only	EVO™ 6000 only
-	EVO™ 550 only	EVO™ 5000 only

\*Additional capacity available with expansion console.

# EVO™ 200 & EVO™ 400 AUTOMATIC TANK GAUGES

EVO™ 200 & EVO™ 400 Automatic Tank Gauges (ATGs) provide highly accurate inventory management and containment monitoring for small to mid-size fuel systems. With pre-configured hardware and customizable software options, these ATGs provide straightforward tank level monitoring and compliance. Their simple setup and operation, remote connectivity, and advanced security features protect your fuel system while keeping you directly connected to vital site data whenever, and wherever. The highly-intuitive, full-colour, icon-based touch screen provides user-friendly on-site access to inventory, alarm, and compliance data.



## HIGHLIGHTS

- Provides inventory monitoring, static (included feature) and continuous tank testing (optional feature), tank autocalibration, inventory reconciliation, containment compliance monitoring, and flow rate monitoring.
- Both ATGs feature the capability to interface with probes and sensors in any combination up to 6 (EVO™ 200) or 14 (EVO™ 400).
- Customizable user roles and log-in security features protect against unwanted access while keeping track of user activity within your system.
- Streamlined setup and programming includes hardware auto-detection and wiring confirmation, multipoint tank charting, network printer auto-detection, and the ability to download and upload entire programming profiles from one ATG to another.
- Intuitive full-colour 7" (17.78 cm) touch screen interface provides simplified on-site access features including:
- Six available One Touch buttons that are custom programmed to carry out common automated tasks with a single tap.
- Quick Jump menu allows you to quickly maneuver from application to application using a single button.
- Programmable product colours.
- Available with optional 24-hour Statistical Continuous Automatic Leak Detection (SCALD) and Turbine Pump Interface (TPI) capability for enhanced and automated submersible turbine pump control.
- Web interface allows you to directly connect to your ATG via FFS PRO® Connect from any web-enabled device.
- Optional Wifi allows secure and protected on-site viewing of inventory levels for fuel delivery drivers.

### Approvals/Certifications

- UL, cUL, ATEX, IECEx
- Third party certification of leak detection capabilities

## SPECIFICATIONS

- Maximum tanks monitored: 6 (EVO™ 200)/14 (EVO™ 400)
- Maximum sensor input capacity: 6 (EVO™ 200)/14 (EVO™ 400)
- Total # of inputs: 6 (EVO™ 200)/14 (EVO™ 400)
- Dry contact input channels: 2
- Relay output channels: 2
- Connectivity: Ethernet, RS-232, RS-485, standard USB, mini USB, and Wifi (optional)
- Display type: 17.78 cm (17.78 cm) colour LCD touch screen
- Printer type: External (network or USB)
- Alarm: Internal audible alarm
- LEDs: Alarm, warning, and power
- Tank chart correction points: 7,500
- Applicable liquids: Petroleum, chemicals, and waste
- Level units: Inches, centimeters, and millimeters
- Volume units: gallons or liters (mass with density option)
- Power requirements: 110 to 240 VAC, 50/60 hz, 2.6 Amps
- Operating temperature: 32° to 104°F (0° to 40°C)
- Humidity: 0-95% non-condensing
- Dimensions: Height: 8" (205 mm), Width: 13 ¾" (350 mm), Depth: 3 ¼" (83 mm)

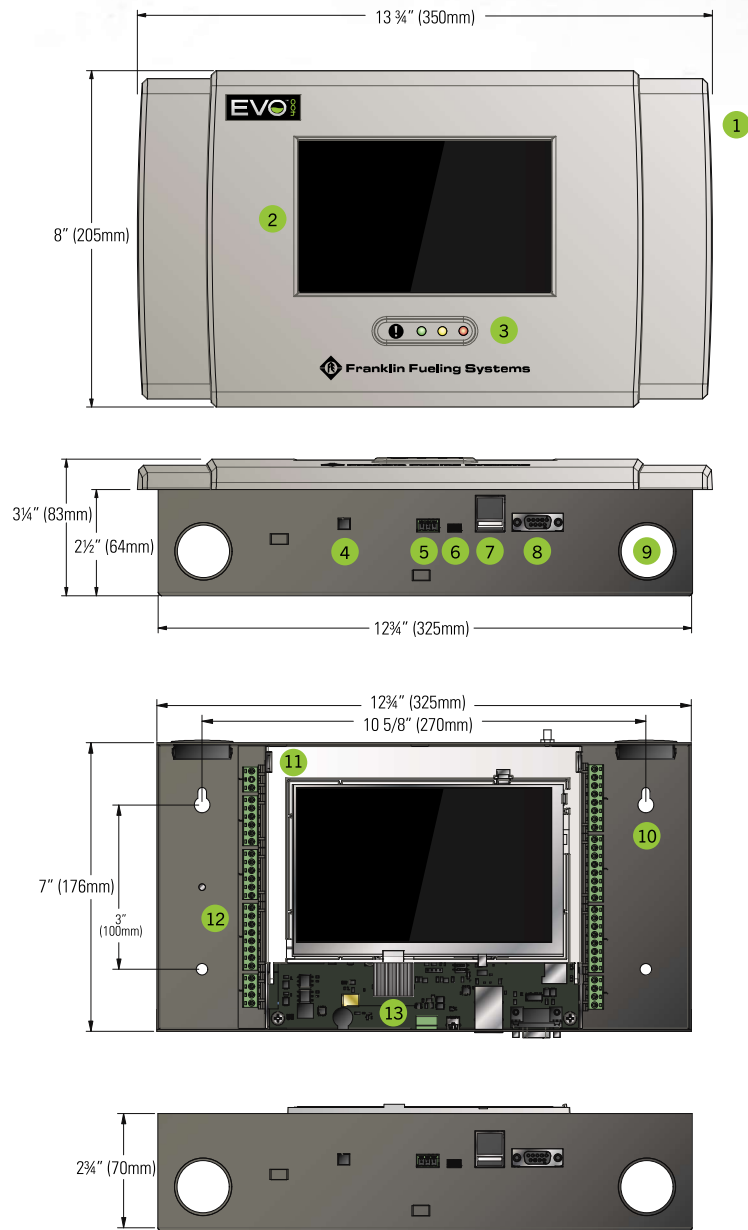
### Capabilities

- High/low product, water, and temperature alarm set points
- Inventory reconciliation/tank autocalibration, flow rate monitoring (optional)
- Density, mass, and phase separation measurement
- Conditional programming
- Email and SMS notifications
- Back-up generator monitoring
- MODBUS™ support

## SPECIFICATIONS CONTINUED

### Components

- 1 Cover
- 2 LCD touch screen
- 3 LED indicators
- 4 Annunciator (audible alarm)
- 5 RS-485
- 6 Mini USB port
- 7 Ethernet / USB port
- 8 RS-232
- 9 Top and bottom knockouts
- 10 Mounting holes
- 11 Flip up panel (touch screen)
- 12 Termination blocks
- 13 Main board



## ORDERING INFORMATION

### Ordering Guide

ATG model, software and hardware options can be listed separately or combined when ordering. Systems shipped from the factory will list the combined part number. Complete part numbers have a specific order and are created using the following guidelines:

### EVOX DW - TR

EVOX = Base Model Options

EVO200 = EVO™ 200 base model, up to 6 channels

EVO400 = EVO™ 400 base model, up to 14 channels

DW = Hardware Options (choose all that apply)

D = Display (colour LCD touch screen)

W = WIFI

TRFC = Software Options (choose all that apply)

T = SCALD 24-hour tank testing

R or F

R = Reconciliation/Autocalibration

F = Reconciliation/Autocalibration with flow rate monitoring

C = Enhanced logic conditions including value, counter, value compare, and latch

*Example: EVO400DW-TF = EVO™ 400 base model, up to 14 channels with display, with WIFI, with SCALD, and with reconciliation/autocalibration and flow rate monitoring.*

### EVO™ 200 & EVO™ 400 Base Models

Model	Description
EVO200	EVO™ 200 base model automatic tank gauge
EVO400	EVO™ 400 base model automatic tank gauge

### EVO™ 200 & EVO™ Hardware & Software Field Upgrades

EVO™ 200 and EVO™ 400 ATGs come standard with the ability to perform in-tank static leak detection. The following software and hardware options can be added to customize your ATG once it's been installed in the field.

#### Internal Hardware Options

Model	Description
FMP-LCD	EVO™ 200 and EVO™ 400 LCD upgrade
FMP-WIFI	EVO™ 200 and EVO™ 400 WIFI upgrade
FMP-SOMW-U	Unregistered upgrade SOM with WIFI
FMP-SOMW-UR	Registered upgrade SOM with WIFI

#### Internal Software Options / Field Upgrades

Model	Description
TS-TT	(T) Statistical continuous automatic leak detection, 24 hour continuous tank testing software
TS-TRAC	(R) Tank inventory reconciliation and autocalibration
TS-TRAC-F	(F) Reconciliation/autocalibration and flow rate monitoring software
TS-FLOW	Flow rate monitoring software (Field upgrade for ATGs with reconciliation/autocalibration)
TS-CON	(C) Enhanced logic conditions including value, counter, value compare, and latch

#### External Printer

Model	Description
FMP-ETP	External printer (EVO™ 200 and EVO™ 400, includes USB cable, power cord, one roll of thermal printer paper, and wall mount hardware)
FMP-EPPC	Case of 25 thermal printer paper rolls

*Note: The external printer measures 142 mm X 132 mm X 204 mm (w x h x d) and can be mounted to wall next to the EVO™ Series ATG using the included hardware.*

# EVO™ 600 & EVO™ 6000 AUTOMATIC TANK GAUGES

EVO™ 600 & EVO™ 6000 automatic tank gauges (ATGs) provide highly accurate inventory management and full-featured compliance monitoring for any size fuel system. These module-based ATGs are highly configurable for site-specific probe and sensor requirements. Their simple setup and operation, remote connectivity, and advanced security features protect your fuel system while keeping you directly connected to vital site data whenever, and wherever. The highly-intuitive, full-colour, icon-based touch screen provides user-friendly on-site access to inventory, alarm, and compliance data.



## HIGHLIGHTS

- Allows you to make informed, data-driven inventory management decisions while keeping your site in compliance and protected from security threats.
- Provides inventory monitoring, static (included feature) and continuous tank testing (optional feature), tank autocalibration, inventory reconciliation, containment compliance monitoring, and flow rate monitoring.
- With the EVO™ 600, six total modules can be installed with a maximum of four intrinsically safe modules and a maximum of three of any one kind of module. With the EVO™ 6000, eleven total modules can be installed with a maximum of nine intrinsically safe modules and a maximum of three of any one kind of module.
- Patented AutoLearn™ electronic line leak detection capability including Statistical Line Leak Detection for high throughput sites.
- Streamlined setup and programming includes hardware auto-detection and wiring confirmation, multipoint tank charting, network printer auto-detection, and the ability to download and upload entire programming profiles from one ATG to another.
- Intuitive full-colour 17.78 cm touch screen interface provides simplified on-site access features including:
  - One Touch buttons that are custom programmed to carry out common automated tasks with a single tap.
  - Quick Jump menu allows you to quickly maneuver from application to application using a single button.
  - Programmable product colours.
- Available with optional 24 hour statistical continuous automatic leak detection (SCALD) and the industry's only turbine pump interface (TPI) capability for enhanced and automated submersible turbine pump control.
- Web interface allows you to directly connect to your ATG from any web enabled device.
- Compatible with the Multiplexing Sensor Hub™ (FMP-MSH).
- Compatible with Corrosion Control™ Water Separator.

## SPECIFICATIONS

- Maximum tanks monitored: 36 (EVO™ 600) / 36 (EVO™ 6000)
- Maximum sensor input capacity: 48 (EVO™ 600)/96 (EVO™ 6000)
- Lines capacity: 24 (EVO™ 600)/24 (EVO™ 6000)
- Dry contact input channels: 2
- AC input channels: 36 (EVO™ 600)/36 (EVO™ 6000)
- Relay output channels: 26 (EVO™ 600)/50 (EVO™ 6000)
- Connectivity: Ethernet (qty 2), RS-485, standard USB, mini-USB
- Display type: 7" (17.78 cm) colour LCD touch screen
- Printer type: thermal (also network or USB)
- Alarm: internal audible alarm
- LEDs: alarm, warning, and power
- Applicable liquids: petroleum, chemicals, and waste
- Level units: inches, centimeters, and millimeters
- Volume units: gallons or liters (mass with density option)
- Power requirements: 110 to 240 VAC, 50/60 hz, 1.5 Amps
- Operating temperature: 32° to 104 °F (0° to 40 °C)
- Humidity: 0-90% non-condensing
- EVO™ 600: H: 11.75"(300 mm), W: 10¼"(260 mm), D: 9"(229 mm)
- EVO™ 6000: H: 11.75"(300 mm), W: 16½"(419 mm), D: 9"(229 mm)

### Capabilities

- High/low product, water, and temperature alarm set points
- Inventory reconciliation/tank autocalibration/flow rate monitoring
- Density, mass, and phase separation measurement
- Email and SMS notifications
- Back-up generator monitoring/conditions programming
- Advanced logic control for DEF/AdBlue® recirculation system
- MODBUS™ support

### Approvals/Certifications

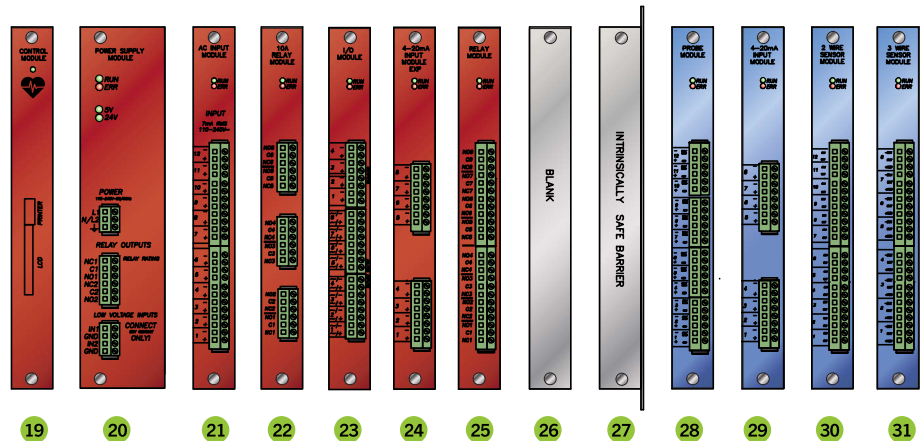
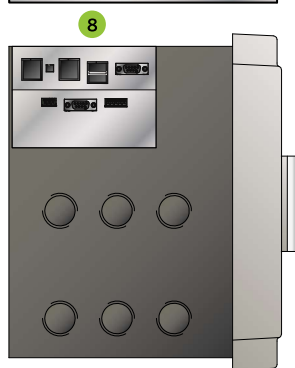
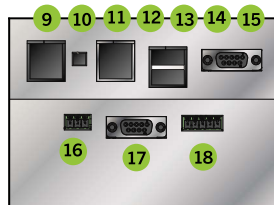
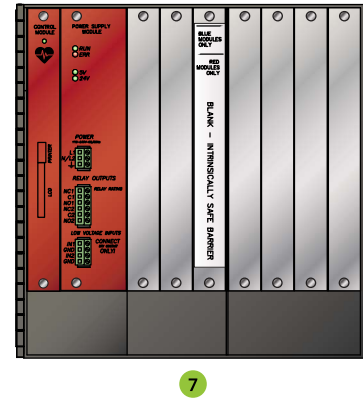
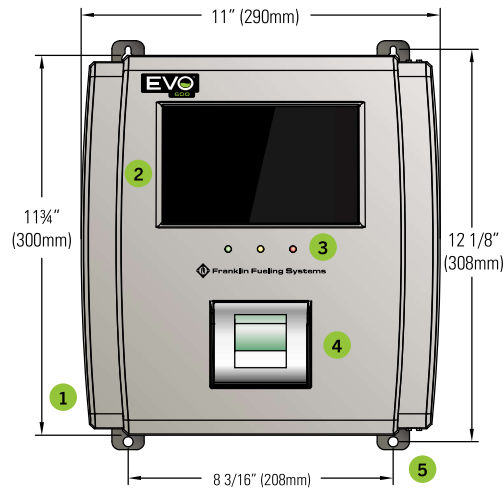
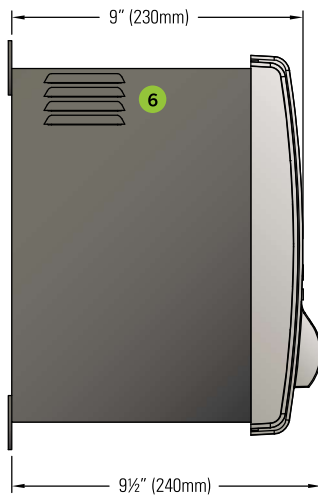
- UL, cUL, ATEX, IECEx
- Third party certification of leak detection capabilities



## SPECIFICATIONS CONTINUED

### Components

- |                               |                        |                               |
|-------------------------------|------------------------|-------------------------------|
| 1 Cover                       | 11 Ethernet port       | 21 AC input module            |
| 2 LCD touch screen            | 12 USB port (Type-A)   | 22 10 Amp relay module        |
| 3 LED indicators              | 13 USB port (Mini)     | 23 I/O module                 |
| 4 Printer                     | 14 Ground comm port    | 24 4-20mA module EXP          |
| 5 Mounting tabs               | 15 Wi-Fi               | 25 Relay module               |
| 6 Cooling vents               | 16 Bus extension       | 26 Blank                      |
| 7 Module slots                | 17 Serial comm port 2  | 27 Intrinsically safe barrier |
| 8 Communication ports         | 18 RS-485 comm port    | 28 Probe module               |
| 9 Annunciator (audible alarm) | 19 Controller module   | 29 4-20mA module              |
| 10 Ethernet port              | 20 Power supply module | 30 2 wire sensor module       |
|                               |                        | 31 3 wire sensor module       |



- There can only be three types of one module in an EVO™ Series ATG.
- If you require more than three types of one module, please contact your FFS sales representative to review your needs.
- The intrinsically safe barrier must be installed in the third slot or greater. (The third slot after the power supply module.)

## ORDERING INFORMATION

### Ordering Guide

ATG model, software and hardware options can be listed separately or combined when ordering. Systems shipped from the factory will list the combined part number. Complete part numbers have a specific order and are created using the following guidelines:

### TX DPWIE / TRFLGC

#### TX = Base Model Options

EVO600 = EVO™ 600 base ATG

EVO6000 = EVO™ 6000 base ATG

#### DPWIE = Hardware Options (choose all that apply)\*

D = Display

P = Printer

W = Wifi

I = Dispenser interface module

E = LON module

#### TRFLGC = Software Options (choose all that apply)

T = SCALD 24-hour tank testing

R or F = (R) Reconciliation/autocalibration or

(F) Reconciliation/autocalibration with flow rate monitoring

L or G = (L) Line leak detection or

(G) Generator line leak detection

C = DEF/AdBlue® recirculation, enhanced logic conditions including value, counter, value compare, and latch

*\*Only one EVO™-DIM or EVO™-LON module can be installed per ATG.*

*Example: EVO600DPWI/TRL = EVO™ 600 base model with display, with printer, with Wifi, with dispenser interface module, with SCALD, with reconciliation/autocalibration, and line leak detection.*

### EVO™ 600 & EVO™ 6000 Base Models

Model	Description
EVO600	EVO™ 600 base model automatic tank gauge
EVO6000	EVO™ 6000 base model automatic tank gauge

### EVO™ 600 & EVO™ 6000 Hardware & Software Options

EVO™ 600 and EVO™ 6000 ATGs come standard with the ability to perform in-tank static leak detection. The following software and hardware options can be added to customize your ATG. The internal hardware options will be factory installed when ordered with the ATG.

#### Internal Hardware Options

Model	Description
FMP-WIFI	(W) EVO Wifi Upgrade
EVO-DIMIB	(I) Internal dispenser interface module, dispenser interface cable must be ordered separately
EVO-LON	(E) Lon™ communication module, IFSF protocol capability

*Note: Only one EVO™-DIM or EVO™-LON module can be installed per ATG.*

#### Internal Software Options / Field Upgrades

Model	Description
TS-TT	(T) Statistical continuous automatic leak detection, 24 hour continuous tank testing software
TS-TRAC	(R) Tank inventory reconciliation and autocalibration
TS-TRAC-F	(F) Reconciliation/autocalibration and flow rate monitoring software
TS-FLOW	Flow rate monitoring software (Field upgrade for ATGs with reconciliation/autocalibration)
TS-ELLD	(L) Electronic line leak detection
TS-ELLD-G	(G) Electronic line leak detection for generator applications
TS-CON	(C) Enhanced logic conditions including value, counter, value compare, and latch

### Expansion Consoles

Model	Description
EVO-EXPC2	Secondary console to add six additional plug-in modules to the primary EVO™ 600 or EVO™ 6000 ATG, comes without a display or printer
EVO-EXPC	Secondary console to add eleven additional plug-in modules to the primary EVO™ 600 or EVO™ 6000 ATG, comes without a display or printer

*Note: The expansion consoles can also be used with the EVO™ 550 and EVO™ 5000.*

# EVO™ 600 & EVO™ 6000 ACCESSORIES

## EVO™ 600 and EVO™ 6000 Automatic Tank Gauges Interface Modules

The EVO™ 600 and EVO™ 6000 Automatic Tank Gauges come standard with a power supply module and a controller module. Additional interface modules can be installed. Interface modules ordered with an ATG will be installed at the factory. The following guidelines must be followed:

- EVO™ 600: Six total modules can be installed with a maximum of four intrinsically safe modules and a maximum of three of any one kind of module.
- EVO™ 6000: Eleven total modules can be installed with a maximum of nine intrinsically safe modules and a maximum of three of any one kind of module.

### Intrinsically Safe Modules

Model	Description
TS-PRB	12 input probe module, LL2 and LL3 Series mag probes, VFM flow meters and DMS Mag sensors, and all -U sensors
TS-2WSNS	12 input 2-wire sensor module, FMP-ULS, FMP-UHS, TSP-HLS, TSP-ULS, TSP-UHS, TSP-HLSXL, FMP-HFS, and FMP-HFS2 sensors
TS-3WSNS	8 input 3-wire sensor module, FMP-EIS, FMP-DIS, FMP-DDS, FMP-DTS, FMP-HIS, FMP-ULS, FMP-UHS, TSP-MWS, FMP-HFS, FMP-HFS2, TSP-ULS, TSP-UHS, TSP-HLS, TSP-HLSXL and TSP-DVS sensors. Can also support 2-wire sensors (FMP-ULS, FMP-UHS, TSP-HLS, TSP-ULS, TSP-UHS, TSP-HLSXL, FMP-HFS, FMP-HFS2)*
TS-420IB	8 input 4-20 mA module, LSU500 transducers and VPS and SCCM pressure sensors
FMP-485IS	RS485 module to connect up to four (4) Multiplexing Sensor Hubs (MSH)

*Note: -U sensors are only supported on the Probe Module (PRB), not the 2-wire nor the 3-wire sensor modules.*

### Non-Intrinsically Safe Modules

Model	Description
TS-ACI	12 input AC input module, dispenser hook inputs
TS-RLY	8 output relay module, SCCM solenoid and STP control
TS-10ARLY	6 output 10 Amp relay output module, dispenser power
TS-IO	Input output module, 4 output 4-20 mA, 8 input 3-240 VAC/DC
TS-420EXP	8 input 4-20 mA module, LSU500E transducers and external devices

*Note: TS-RLY Module is not required for STP control when utilizing turbine pump interface (TPI) communications. Do not include Power Supply and Controller Module when calculating total modules allowed.*

### TS-LS500 AutoLearn™ with Statistical Line Leak Detection

Pressurized line leak detection provides automatic 3.0 gph hourly (11.4 lph), 0.2 gph (.76 lph) monthly and 0.1 gph (.38 lph) annual precision line leak detection for the EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000 ATGs. Statistical Line Leak Detection (SLLD) is a standard feature that can provide 0.2 gph (.76 lph) monthly results on even high throughput lines. Available in intrinsically safe and explosion proof models. Use explosion proof when low voltage conduit is not available. The TS-420IB or TS-420EXP, TS-ACI and TS-RLY module and TS-ELLD software option must be ordered and installed in the fuel management system ATG.

### Intrinsically Safe

For new installations where separate low voltage conduits can be used. Use TS-420IB module.

Model	Description
TS-LS500/1	1-line transducer kit
TS-LS500/2	2-line transducer kit
TS-LS500/3	3-line transducer kit
TS-LS500/4	4-line transducer kit

*Note: Using turbine pump interface (TPI) communications eliminates the need for a TS-RLY module; FFS intelligent controllers required.*

### Dispenser Interface Module Cables

Model	Description
TSP-WDCBL	Wayne™ cable
TSP-TDCBL	Tokheim™ cable
TSP-GDCBL	Gilbarco® cable
TSP-GSDCBL	Gilbarco® G-Site™ cable

*Note: For new installations where separate low voltage conduits can be used. Use TS-420IB module.*

### Explosion Proof

For retrofit installations where only a high voltage conduit can be used. Use TS-420EXP module.

Model	Description
TS-LS500E/2	2-line transducer kit, explosion proof
TS-LS500E/3	3-line transducer kit, explosion proof
TS-LS500E/4	4-line transducer kit, explosion proof

*Note: Using turbine pump interface (TPI) communications eliminates the need for a TS-RLY module; FFS intelligent controllers required.*

### Alternative Fuels Accessories

Model	Description
TS-AFALNIP	Leak generator needle valve kit required for E85 installations

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Wayne™ is a trademark of Dresser Equipment Group Inc.  
Gasboy®, Gilbarco®, Encore™, and G-Site™ are trademarks of Gilbarco Inc.  
Tokheim™ is a trademark of Tokheim Holding B.V.

## Printer Supplies

Model	Description
<b>Thermal Printer Supplies</b>	
TS-TP2	One box of 5 rolls of thermal printer paper for EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000
TS-TP2C	One case (100 rolls) of thermal printer paper for EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000

## Upgrading Installed Fuel Management System ATGs

Two types of upgrades can be done on a fuel management system ATG: feature upgrades and software upgrades. The latest software versions are included with all feature upgrades. Most feature upgrades require ordering a software option, hardware options, and interface modules. Some modules may already be installed.

### Feature Upgrade

Upgrade	Software	Hardware	Interface Module	Compatibility
Internal modem	--	TS-MDMIB internal modem	--	EVO™ 550, EVO™ 5000
24 hour tank testing	TS-TT SCALD tank testing	--	--	EVO™ 200, EVO™ 400, EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000
Line leak	TS-ELLD electronic line leak detection	Appropriate TS-LS500/N transducer kit	TS-RLY module, not needed with TPI TS-420IB module, TS-ACI module	EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000
Tank inventory reconciliation	TS-TRAC tank inventory reconciliation and autocalibration	TS-DIMIB module* Appropriate DIM interface cables	--	EVO™ 200, EVO™ 400, EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000
Secondary containment monitoring	TS-SCM secondary containment monitoring	Appropriate TS-SCCM modules, installation kits and accessories	TS-ACI module TS-RLY module TS-420IB module	EVO™ 550 and EVO™ 5000

\* TS-DIMIB Module can be added to EVO™ 550, EVO™ 5000 or EVO™ 600, EVO™ 6000 but not EVO™ 200, EVO™ 400.

Note: When placing an order for a feature upgrade, the serial number of the ATG to be upgraded must be supplied.

### Software Version Upgrade Only

Model	Description
TSA-UPGMS	Software version upgrade shipped on a USB memory stick

# MULTIPLEXING SENSOR HUB™

The Multiplexing Sensor Hub™ (MSH) allows you to use a single 4-wire cable to connect up to six devices to an EVO™ 600 or EVO™ 6000 automatic tank gauge (ATG).

## HIGHLIGHTS

- For retrofit applications: the MSH can use existing 4-wire probe and sensor cables to add additional probes or sensors, providing expanded monitoring capabilities without the need to break concrete to run additional cable.
- For new applications: the MSH delivers labor and materials savings by reducing the amount of conduit and cable required for monitoring devices within a containment sump.
- Ideal for use in adding a Corrosion Control™ Water Separator and corrosion detection sensors (FMP-CDS-U) to an existing tank sump and provides all necessary input capabilities for this system.

## SPECIFICATIONS

### General

- Inputs: (1) LL3 probe, (4) UDP devices, (1) switch/temperature sensor
- Output to EVO™ 600/6000 ATG: (1) RS-485

### Theory of Operation

The FMP-MSH requires a minimum of four wires connected directly to an EVO™ 600 with an RS485 module. The four connections are power, ground, and A and B communication for the RS485 module. If a sump has two input field cables that are both 2-conductor cables, the A and B connections should be wired in the same cable that must be a twisted pair. Power and ground should be on the other cable. If it is a new installation, Belden™ cable #7962A, or a cable with equivalent parameters, is recommended. The FMP-MSH can power and accept input from 6 different probes or sensors.

### Approvals & Certifications

- UL listed, ATEX / IECEx

## ORDERING INFORMATION

Model	Description
FMP-MSH	Multiplexing Sensor Hub™



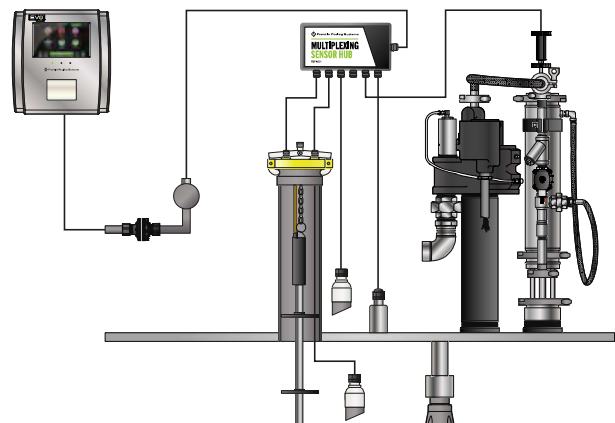
- Six input channels provide a wide assortment of device communication capabilities:
  - **Channel 1:** Always on, for FMP-LL3 digital inventory and leak detection probes.
  - **Channel 2-5:** Multiplexed, for 2-wire universal device protocol (UDP) communication devices.
  - **Channel 5:** Additional capability for 2-wire devices.
  - **Channel 6:** For any dry-contact single pole single throw (SPST) switch, a flow switch, two-wire device, or temperature sensor based on a 10k thermistor.

### Input Capabilities

The FMP-MSH is capable of supporting the following devices:

Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6
FMP-LL3	FMP-DDS-U	FMP-DDS-U	FMP-DDS-U	FMP-DDS-U	FMP-ULS
--	FMP-DTS-U	FMP-DTS-U	FMP-DTS-U	FMP-DTS-U	FMP-UHS
--	FMP-EIS-U	FMP-EIS-U	FMP-EIS-U	FMP-EIS-U	FMP-HFS2
--	FMP-DIS-U	FMP-DIS-U	FMP-DIS-U	FMP-DIS-U	10k Temp. Sensor
--	FMP-HIS-U	FMP-HIS-U	FMP-HIS-U	FMP-HIS-U	--
--	FMP-CDS-U	FMP-CDS-U	FMP-CDS-U	FMP-CDS-U	--
--	FMP-LL3-18*	FMP-LL3-18*	FMP-LL3-18*	FMP-LL3-18*	--
--	--	--	--	FMP-ULS	--

\*The FMP-LL3-18 is integrated into the Corrosion Control™ Water Separator to detect water level in the vessel.



Belden™ is a trademark of Belden Technologies, Inc.

# TS-LS500 AUTOLEARN™ ELECTRONIC LINE LEAK DETECTION

TS-LS500 AutoLearn™ electronic line leak detection (ELLD) learns the characteristics of each line, eliminating possible configuration errors and ensures unparalleled leak detection accuracy. It is an optional feature of the EVO™ 550, EVO™ 5000, EVO™ 600, and EVO™ 6000 fuel management systems. The TS-LS500 AutoLearn™ ELLD system includes a statistical line leak detection (SLLD) feature which can be activated at high throughput sites that cannot accommodate the prolonged downtime necessary for static line leak detection testing.



## HIGHLIGHTS

- Automatically learns exact pipeline characteristics.
- No pipe type and length programming required.
- Monitors flexible, steel, and/or fiberglass pipelines in any combination up to certified maximum values.
- Works with submersible pumps generating 25 psi or more.
- Automatically performs 3.0 gph, 0.2 gph, and 0.1 gph line tests, as well as other line pressure checks.
- Includes the industry's only statistical line leak detection (SLLD).
- Positive submersible pump shutdown in the event of a leak.
- Optional feature of the EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000.
- Intrinsically safe and explosion-proof options.
- Dispenser hook isolation and turbine pump interface (TPI) pump control options.
- Remote access to line pressure, test, and alarm information.

## SPECIFICATIONS

- Dimensions: 6¼" x 2" NPT
- Operating temperature: -40 °F to 149 °F (-40 °C to 66 °C)
- Operating pressure: 0 to 100 psi (0 to 689 kPa)
- Belden™ cable: #9363-22 AWG, #9364-20 AWG or #9365-18 AWG
- Maximum sensor to ATG cable distance: 500' (152.4 m)
- Sensor port fitting: 2" female NPT
- Sensor material: Anodized aluminum body and stainless steel sensor

### Capabilities

- Performs a 3.0 gph leak and pressure test after every dispense cycle or 45 min. Positive shutdown of the affected turbine(s) on test failure.
- Performs a 0.2 gph monthly and 0.1 gph annual precision leak test during the thermally stable periods of dispensing. Optional positive shutdown of the affected turbine(s) on test failure.
- Performs pressure up, catch pressure, and other additional checks. Alarm only on test failure.

### Approvals

- TS-LSU500: UL, cUL, ATEX, IECEx
- TS-LSU500E: UL, cUL
- Third party certification of leak detection capabilities.



## TS-LS500 ORDERING INFORMATION

### Minimum ATG Requirements

- EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000 fuel management systems
- TS-ELLD software options (TS-ELLD-G software option for generator-specific applications)
- TS-ACI, TS-420IB or TS-420EXP, \*TS-RLY modules

*\* TS-RLY module is not required when utilizing turbine pump interface (TPI) communications. Franklin Fueling Systems intelligent controllers required.*

### Intrinsically Safe

For new installations where separate low voltage conduits can be used. Use TS-420IB module.

Model	Description
TS-LS500/2	2-line transducer kit
TS-LS500/3	3-line transducer kit
TS-LS500/4	4-line transducer kit

### Explosion Proof

For retrofit installations where only a high voltage conduit can be used. Use TS-420EXP module.

Model	Description
TS-LS500E/2	2-line transducer kit, explosion proof
TS-LS500E/3	3-line transducer kit, explosion proof
TS-LS500E/4	4-line transducer kit, explosion proof

### Alternative Fuels Accessories

For new installations where separate low voltage conduits can be used. Use TS-420IB module.

Model	Description
TS-AFALNIP	Leak generator needle valve kit required for E85 installations

# SECONDARY CONTAINMENT MONITORING

The secondary containment monitoring (SCM) system is designed to detect leaks in double-wall piping, tanks, and sumps. The system utilizes the syphon/vacuum port of a submersible turbine pump to draw a vacuum on these interstitial spaces. The vacuum levels are then continuously monitored to detect any potential leaks in these double-wall containments.



## HIGHLIGHTS

- Up to four different containments can be connected to each submersible turbine pump using a combination of single and dual channel TS-SCCM secondary containment control modules and secondary syphon ports.
- The secondary containment control module collects information on all interstitial spaces.
- Gathers system status, replenish rate, alarm, and diagnostic information.
- Utilizes AUTO-LEARN® technology to learn the actual interstitial space being monitored based on the vacuum flow rate through a calibrated orifice for precise leak detection.
- Alarms when vacuum cannot be maintained or when liquid is detected in secondary space.
- Optional positive submersible turbine pump shut-down upon alarm.
- Compatible with FE PETRO® brand submersible turbine pumps as well as Red Jacket® STPs.
- All components necessary for installation including syphon check valve, vacuum hose, fittings and other installation accessories are available from Franklin Fueling systems.

*Note: Product compatible with EVO™ 550 and EVO™ 5000 only.*

## SPECIFICATIONS

- Operating vacuum level: -2 to -6 in Hg
- Available software option on EVO™ 550 and EVO™ 5000.
- TS-420IB, TS-RLY and TS-ACI modules and the TS-SCM software option must be ordered and installed in the tank gauge ATG.
- Requires TS-SCCM secondary containment control module consisting of pressure sensor(s) and solenoid valve(s).
- Requires syphon check valve to connect to STP manifold.
- Containments to be monitored must terminate inside the submersible turbine pump containment.
- Installer must verify the vacuum limitation of each containment with its manufacturer prior to installation.

### Approvals/Certifications

- Meets all requirements of California AB2481.
- National Work Group approved.

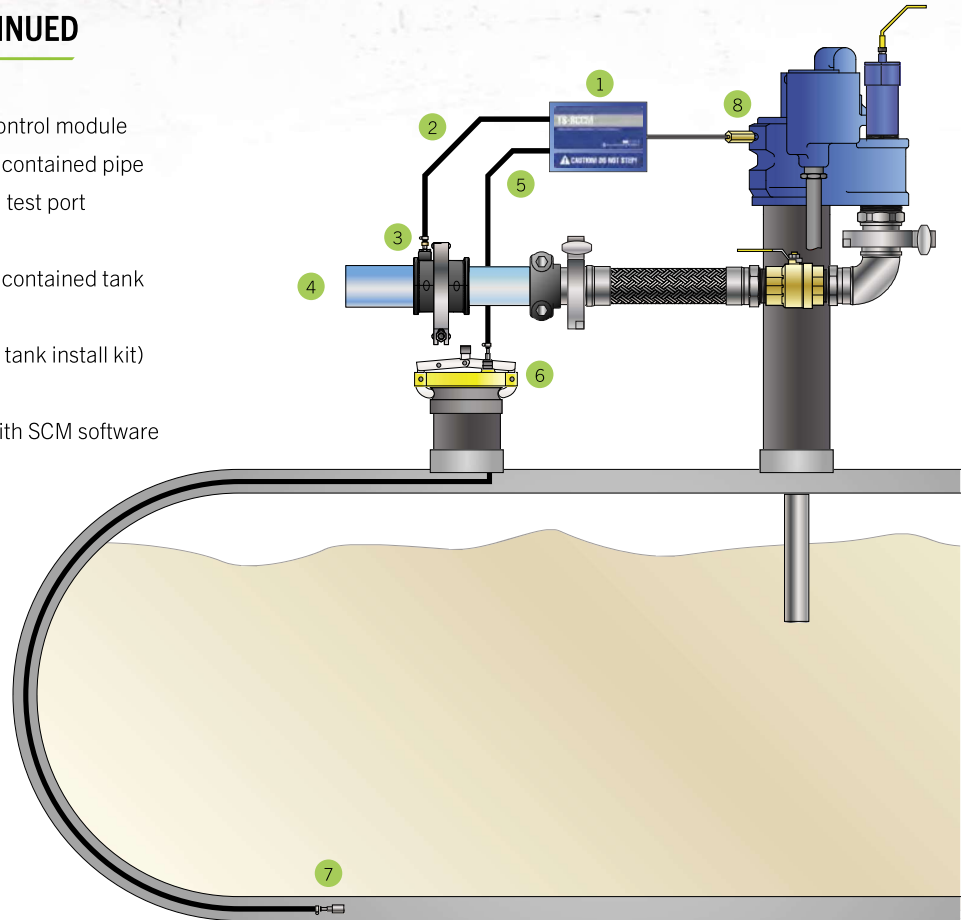
### Operation

Secondary containment monitoring uses the syphon port of the submersible turbine pump to draw and maintain a vacuum on the secondary containments of lines, sumps, tanks and vapour lines. During installation a calibrated leak is introduced during the AUTO-LEARN® process which allows the system to learn the vacuum characteristics of each containment space. The vacuum level is continuously monitored and compared to established leak rates to ensure that the secondary containment is tight.

## SPECIFICATIONS CONTINUED

### Components

- 1 Secondary containment control module
- 2 Vacuum line to secondary contained pipe
- 3 Pipe fitting with integrated test port
- 4 Secondary contained pipe
- 5 Vacuum line to secondary contained tank
- 6 Tank installation kit
- 7 Line weight (included with tank install kit)
- 8 Syphon check valve
- 9 EVO™ 550 or EVO™ 5000 with SCM software



## ORDERING INFORMATION

### Secondary Containment Control Modules

Model	Description
TS-SCCM/1	Single channel secondary containment control module
TS-SCCM/2	Dual channel secondary containment control module
TS-SCMCAL	Leak generator kit, one per station
VS-SCCM/1	220 VAC single channel secondary containment control module
VS-SCCM/2	220 VAC dual channel secondary containment control module

### Accessories

Model	Description
TSP-SCBRB	1/4" NPT barbed fittings (Qty 5)
TSP-SCBRBT	1/4" NPT barbed T-fitting
TSP-SCCLP	Hose clamps (Qty 5)
TSP-SCTB25	25' vacuum hose
TSP-SCTB50	50' vacuum hose
TSP-SCTB100	100' vacuum hose
TSP-SCVLV	Schreader valves (Qty 5)
400137937	Syphon check valve
TSP-SCVLV-PF	Push-Fit stem to Barb fitting (Qty 5)

### Installation Kits

Model	Description
TSP-SCLSI	Product, vapour line and sump containment install kit
TSP-SCTK2	Tank containment install kit for 2" NPT risers, in-tank hose sold separately
TSP-SCTK2B	Tank containment install kit for 2" BSP risers, in-tank hose sold separately
TSP-SCTK4	Tank containment install kit for 4" NPT risers, in-tank hose sold separately
TSP-SCTK4B	Tank containment install kit for 4" BSP risers, in-tank hose sold separately

# DIGITAL INVENTORY & LEAK DETECTION PROBES

INCON® brand digital inventory and leak detection probes provide accurate tank level monitoring and reporting with optional leak detection capabilities. These probes employ digital magnetostrictive position measurement technology for highly accurate tank readings.

## HIGHLIGHTS

- Models available for inventory control or inventory control with leak detection.
- Capable of precise leak detection, density measurement, and inventory monitoring.
- Suitable for use with gasoline, diesel, DEF/AdBlue®, and other manufacturer approved products.
- Bottom mounted installation for fast and simple install.
- Vibration motor integrated into probe head pulses every 5 minutes to reduce the effects of stiction on level reading and leak detection, providing readings with higher accuracy.
- Screw-in electrical connector provides quick installation or removal, eliminating the need to re-splice wires.
- Highly accurate digital communication between the probe and the tank gauge.
- Probes are available in many sizes that are suitable for all common tanks.
- Easily installed into 2", 3", or 4" riser pipes.

## SPECIFICATIONS

- Operating temperature: -40° to 140 °F (-40° to 60 °C)
- Storage temperature: -40° to 158 °F (-40° to 70 °C)
- Non-linearity:  $\pm 0.025\%$  of full scale
- Repeatability:  $\pm 0.001"$
- Temperature sensors: 5 thermistors located in the shaft (Leak Detection Models)
- Temperature resolution:  $\pm 0.02$  °F ( $\pm 0.01$  °C)
- Probe pigtail: 10' long three conductor cables with shields and polyurethane jacket
- Compatible with up to three floats for product, water, phase separation detection, or density measurement.
- Compatible with Franklin Fueling Systems tank gauges including: EVO™ 200, EVO™ 400, EVO™ 600, EVO™ 6000, TS-550 EVO™, TS-5000 EVO™, TS-5, TS-550, TS-5000, Colibri®, TS-1001/2011/750/504/508.

### Approvals/Certifications

- UL & cUL listed, ATEX, IECEx

### Applications

Digital probes feature exceptional linearity, resolution, and stability, and are used in underground and aboveground storage tanks. Two types of probes are available for the following applications:

- The leak detection probes are typically used for underground storage tanks and petroleum applications when static or SCALD leak detection is required.
- The inventory control probes are typically used for aboveground storage tanks, chemical or oil waste, or underground storage tanks that do not require in-tank leak detection.



## SPECIFICATIONS CONTINUED

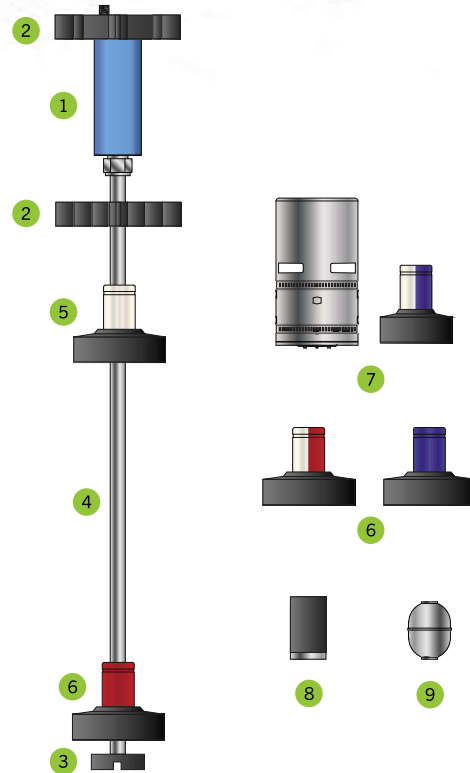
### Components

- 1 Probe head
- 2 Guides
- 3 Bottom mount fitting
- 4 Probe shaft
- 5 Product float
- 6 2" or 4" gas, diesel or phase separation water floats
- 7 Precision or standard density float
- 8 LPG float
- 9 Chemical float

*Note: All float kits sold separately.*

### Operation

An electromagnetic field is created inside the probe head and forms around a long waveguide within the probe shaft when position measurements are taken. The electromagnetic field interacts with the magnetic field of the float(s) and produces a shock wave in the waveguide that travels at a known speed. When the shock wave is detected at the probe head, the probe creates a signal that corresponds precisely to the product level. Product expansion calculations are enabled by temperature sensors that are located at various points in the probe shaft.



## ORDERING INFORMATION

### Leak Detection Probes

Model	Description
FMP-LL3-29	2' digital leak detection probe
FMP-LL3-41	3' digital leak detection probe
FMP-LL3-53	4' digital leak detection probe
FMP-LL3-65	5' digital leak detection probe
FMP-LL3-69	5'4" digital leak detection probe
FMP-LL3-77	6' digital leak detection probe
FMP-LL3-81	6'4" digital leak detection probe
FMP-LL3-89	7' digital leak detection probe
FMP-LL3-101	8' digital leak detection probe
FMP-LL3-113	9' digital leak detection probe
FMP-LL3-125	10' digital leak detection probe
FMP-LL3-131	10'6" digital leak detection probe
FMP-LL3-137	11' digital leak detection probe
FMP-LL3-149	12' digital leak detection probe

### Inventory Control Probes

Model	Description
FMP-LL3-29-I	2' digital inventory control probe
FMP-LL3-41-I	3' digital inventory control probe
FMP-LL3-53-I	4' digital inventory control probe
FMP-LL3-65-I	5' digital inventory control probe
FMP-LL3-69-I	5'4" digital inventory control probe
FMP-LL3-77-I	6' digital inventory control probe
FMP-LL3-81-I	6'4" digital inventory control probe
FMP-LL3-89-I	7' digital inventory control probe
FMP-LL3-101-I	8' digital inventory control probe
FMP-LL3-113-I	9' digital inventory control probe
FMP-LL3-125-I	10' digital inventory control probe
FMP-LL3-131-I	10'6" digital inventory control probe
FMP-LL3-137-I	11' digital inventory control probe
FMP-LL3-149-I	12' digital inventory control probe

# SENSORS

No matter what the monitoring application is, Franklin Fueling Systems offers a sensor solution tailored to the specific requirements of each application.



## SENSOR SELECTION GUIDE

### Does your application require the need to tell the difference between fuel and water?








Discriminating Sensors are able to detect and send an alarm signal if the presence of liquid is detected inside and can also differentiate between liquid and hydrocarbons.

### Does your application only require the need detect any type of liquid?

Non-Discriminating Sensors are able to detect and send an alarm signal if the presence of liquid is detected inside of a containment space.

### What type of Automatic Tank Gauge (ATG) are you connecting to?

Select the appropriate model number of sensor that's compatible with your ATG using the chart below.

										
Sensor	Discriminating Dispenser Sump Sensor	Discriminating Turbine Sump Sensor	Discriminating Magnetostrictive Sump Sensor	Universal Liquid Sensor	Universal Hydrostatic Sensor	Electro-Optic Interstitial Sensor	Horizontal Float Switch Sensor	Discriminating Interstitial Sensor	Hydrostatic Interstitial Sensor	Corrosion Detection Sensor
Discriminating Capability	✓	✓	✓					✓		
Non-Discriminating				✓	✓	✓	✓		✓	
Turbine Sump Applications		✓	✓	✓						✓
Dispenser Sump Applications	✓		✓	✓						✓
Tank Interstitial Space Applications					✓	✓	✓	✓	✓	
Tank Ullage Applications										✓
Position Sensitive (Tamper Protection)			✓							
Hydrostatic Monitoring Capability					✓				✓	
EVO™ 200 / EVO™ 400 Model Number	FMP-DDS-U	FMP-DTS-U	TSP-DMS	FMP-ULS	FMP-UHS	FMP-EIS-U	-	FMP-DIS-U	FMP-HIS-U FMP-HIS-XL-U	FMP-CDS-U
EVO™ 550 / EVO™ 5000 Model Number*	FMP-DDS	FMP-DTS	TSP-DMS	FMP-ULS	FMP-UHS	FMP-EIS	FMP-HFS2	FMP-DIS	FMP-HIS FMP-HIS-XL	FMP-CDS-U
EVO™ 600 / EVO™ 6000 Model Number*	FMP-DDS, FMP-DDS-U	FMP-DTS FMP-DTS-U	TSP-DMS	FMP-ULS	FMP-UHS	FMP-EIS FMP-EIS-U	FMP-HFS2	FMP-DIS FMP-DIS-U	FMP-HIS FMP-HIS-XL FMP-HIS-U FMP-HIS-XL-U	FMP-CDS-U
Typical Application	Dispenser sump applications requiring discriminating capabilities	Turbine sump applications requiring discriminating capabilities	Turbine or dispenser sump applications with tamper protection regulations in place	Monitoring for the presence of a liquid in a containment sump	Dry double wall tank applications including fiberglass and wrap-around	Dry double wall tank applications including fiberglass and wrap-around	Dry double wall fiberglass tank applications	Dry double wall tank applications requiring discriminating capabilities	Double wall tank interstitial space filled with brine solution	Monitoring for corrosive environments

EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000 may support additional sensors. Sensors with "-U" are used with the EVO™ 600 and EVO™ 6000 to wire to the probe module. FMP-DDS, FMP-DTS, FMP-EIS, FMP-DIS, FMP-HIS and FMP-HIS-XL all require a 3-wire sensor module.



# DISCRIMINATING DISPENSER SUMP SENSOR (DDS)

The DDS is a discriminating dispenser sump sensor which provides reliable monitoring of dispenser pans and containment sumps.

## HIGHLIGHTS

- Uses magnetic float switches to detect liquid at two levels.
- Innovative polymer strip detects hydrocarbons along sensor and floating on water.
- Compatible with common fuels and chemicals.
- Detects liquid at 1½" (38 mm) from base.
- Detects hydrocarbons on sensor and floating on water.
- Digitally encoded status information sent from microcomputer to ATG from 775+ feet (236 m).
- Alarms to indicate liquid in sump, hydrocarbon detected, sump is full, and sensor malfunction.
- Variety of mounting methods possible depending on location. Bracket provided for quick installation.

## SPECIFICATIONS

### Applications

For dispenser sump monitoring.

## ORDERING INFORMATION

Model	Description
FMP-DDS	Discriminating dispenser sump sensor (EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000)
FMP-DDS-U	Discriminating dispenser sump sensor (EVO™ 200, EVO™ 400, EVO™ 600 and EVO™ 6000)
TSP-KS	Unistrut™ mounting kit

*Note: The FMP-DDS wires to the 3-wire sensor module and the FMP-DDS-U wires to the probe module.*



# DISCRIMINATING TURBINE SUMP SENSOR (DTS)

The DTS is a discriminating turbine sump sensor that detects the presence of liquid and hydrocarbons when installed in tank containment sumps.

## HIGHLIGHTS

- Uses magnetic float switches to detect liquid at two levels.
- Innovative polymer strip detects hydrocarbons along sensor and floating on water.
- Compatible with common fuels and chemicals.
- Detects liquid at 1½" (38 mm) from base.
- Detects hydrocarbons on sensor and floating on water.
- Digitally encoded status information sent from microcomputer to ATG from 775+ feet (236 m).
- Alarms to indicate liquid in sump, hydrocarbon detected, full sump, and sensor malfunction.

## SPECIFICATIONS

### Applications

For containment sump monitoring.

## ORDERING INFORMATION

Model	Description
FMP-DTS	Discriminating turbine sump sensor (EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000)
FMP-DTS-U	Discriminating turbine sump sensor (EVO™ 200, EVO™ 400, EVO™ 600 and EVO™ 6000)
TSP-KS	Unistrut™ mounting kit

*Note: The FMP-DTS wires to the 3-wire sensor module and the FMP-DTS-U wires to the probe module.*



# DISCRIMINATING MAGNETOSTRICTIVE SENSOR (DMS)

The DMS sensor is a fast acting discriminating sensor that utilizes magnetostrictive technology to provide reliable monitoring of dispenser pans and containment sumps. Its floats can detect the presence of water or hydrocarbons and also ensure that the sensor installation has not been tampered with. The DMS sensor can report water warnings and programmable water alarm points as well as product alarms.



## HIGHLIGHTS

- Utilizes proven magnetostrictive technology.
- Water warning, water alarm, and product alarm.
- Tamper protection feature will alarm if sensor is moved from installed position.
- Alarms and recovers quickly when hydrocarbons are present.

## SPECIFICATIONS

### Applications

For containment sump monitoring.

## ORDERING INFORMATION

Model	Description
TSP-DMS-12	Discriminating magnetostrictive sensor, monitors 12" (305 mm) of liquid & measures 22" (559 mm) in length (all EVO™ Series ATGs)
TSP-DMS-24	Discriminating magnetostrictive sensor, monitors 24" (610 mm) of liquid & measures 34" (864 mm) in length (all EVO™ Series ATG).
TSP-KS	Unistrut™ mounting kit

*Note: This sensor communicates with the ATG via the TS-PRB probe module.*

FUEL MANAGEMENT  
SYSTEMS

# UNIVERSAL LIQUID SENSOR (ULS)

Based on float-switch technology and made of chemically-resistant materials, the ULS is a low-cost sensor that can be installed in sumps, dispenser pans, steel double wall tanks or other locations where the presence of liquid indicates a leak has occurred.



## HIGHLIGHTS

- Highly reliable float technology and closed output circuit ensures that leaks are detected.
- Chemical-resistant materials assure compatibility with most liquids.
- Each ULS sensor comes with a 25' (7.6 m) cable. 1/2" NPT thread is provided on the compression gland fitting attached to the sensor's cable, allowing it to be suspended from standard electrical boxes and fittings. The sensor may be positioned vertically by adjusting cable length. For steel interstitial tanks, ULS is lowered into the opening provided on the tank and is suspended by optional TSP-KI2 installation kit. Other mounting methods available depending upon application and location.

## SPECIFICATIONS

### Applications

For containment sump monitoring.

## ORDERING INFORMATION

Model	Description
FMP-ULS	Universal liquid sump sensor (all EVO™ Series ATGs)
TSP-ULS	Universal liquid sump sensor (for use with S940 only)
TSP-KI2	Interstitial sensor riser cap kit for 2" (51 mm) riser pipes

*Note: This sensor communicates to the ATG using 2 wires on the 2-wire sensor modules or the 3-wire sensor module. It cannot be wired to the probe module.*

# UNIVERSAL HYDROSTATIC SENSOR (UHS)

The UHS uses float switch technology to continuously monitor liquid-filled double wall containment sumps. Normally submerged, the single float UHS will provide an indication if there is a loss of monitoring liquid.

## HIGHLIGHTS

- Highly reliable float technology and closed output circuit ensures that leaks are detected.
- Chemical-resistant materials.
- Each UHS sensor comes with a 25' (7.6 m) cable. The sensor can be installed into the reservoir of a liquid filled double wall containment sump. The sensor must be installed in a vertical position at a level where it is normally submerged. The UHS sensor will alert if the liquid level drops below the bottom of the sensor.

## SPECIFICATIONS

### Applications

Typically used for hydrostatic monitoring of the liquid in a double wall sump interstice.

## ORDERING INFORMATION

Model	Description
FMP-UHS	Universal hydrostatic sensor (all EVO™ Series ATGs)
TSP-UHS	Universal hydrostatic sensor (for use with S940 only)
HM-KIT	Hydrostatic monitoring installation kit. Includes: flexible brine tube, sensor housing clamp, sensor housing, sensor cap, and hardware

*Note: The FMP-UHS wires to the 2 wire sensor module or the 3 wire sensor module. It cannot be wired to the probe module.*



# ELECTRO-OPTIC INTERSTITIAL SENSOR (EIS)

Utilizing electro-optic technology, and made of chemically-resistant polysulfone plastic, the EIS may be installed in sumps, double wall tanks, or other locations where the presence of liquid indicates a leak has occurred.

## HIGHLIGHTS

- Highly accurate electro-optic technology and closed output circuit ensures that leaks are detected.
- Chemical-resistant materials.
- Can be installed in fiberglass or steel double wall tanks.
- Utilizes light-emitting diodes and prisms to indicate if a leak has occurred.
- Each EIS comes with 25' (7.6 m) of oil-resistant cable. For fiberglass tanks, the EIS is pulled into the interstitial space using a "fish" string or wire. For steel interstitial tanks, the EIS is lowered directly to the bottom of the interstitial space through a 2" NPT fitting provided for that purpose on the tank. Optional installation kits are available which include a riser cap and other parts required to complete installation.

## SPECIFICATIONS

### Applications

For dry tank interstitial monitoring.

## ORDERING INFORMATION

Model	Description
FMP-EIS	Electro-optic interstitial sensor (EVO™ 550, EVO™ 5000, EVO™ 600 & EVO™ 6000)
FMP-EIS-U	Electro-optic interstitial sensor (EVO™ 200, EVO™ 400, EVO™ 600 and EVO™ 6000)
TSP-K12	Interstitial sensor riser cap kit for 2" riser pipes

*Note: The FMP-EIS wires to the 3 wire sensor module and the FMP-EIS-U wires to the probe module.*



# HORIZONTAL FLOAT SWITCH SENSOR (HFS)

The HFS is designed for liquid detection in dry fiberglass tank interstitial spaces. These 2-wire, non-discriminating liquid sensors are used with all EVO™ Series Automatic Tank Gauges (ATGs).

## HIGHLIGHTS

- Fiberglass interstitial monitoring using a 2-wire sensor.
- For dry fiberglass tank interstitial monitoring.
- Highly reliable magnetic-float/reed-switch technology.
- Chemical-resistant materials.
- Easily fits tight interstitial spaces.
- Rounded design makes it easy to remove for cleaning and reinstall after an alarm condition has been triggered or for maintenance and testing.
- Each HFS comes with a 25' (7.6 m) oil-resistant cable. For fiberglass tanks, the sensor is pulled into the interstitial space using a "fish" string wire. Optional installation kits are available which include a riser cap and other parts required to complete the installation.



## SPECIFICATIONS

### Applications

For dry tank interstitial monitoring.

## ORDERING INFORMATION

Model	Description
FMP-HFS2	Horizontal float switch sensor (all EVO™ Series ATGs)
TSP-KI2	Interstitial sensor riser cap kit for 2" riser pipes
TSP-KW4	Interstitial sensor riser cap kit for 4" riser pipes

*Note: The FMP-HFS2 wires to the 2 wire sensor module or the 3 wire sensor module. It cannot be wired to the probe module.*

FUEL MANAGEMENT  
SYSTEMS

# DISCRIMINATING INTERSTITIAL SENSOR (DIS)

The DIS installs in the interstitial space of steel and fiberglass double wall tanks and sumps and detects the presence of various liquids in tanks as well as sumps and other locations.

## HIGHLIGHTS

- Uses light beam traveling through probe to determine if sensor is wet.
- Microprocessor inside sensor interprets readings and communicates data to the EVO™ Series ATG.
- Fail-safe digital communications with built-in alarm if sensor malfunctions.
- Alarms indicate petroleum present, water present, and sensor malfunction.
- Each DIS comes with 25' (7.6 m) of oil-resistant cable. For fiberglass tanks, the DIS is pulled into the interstitial space using a "fish" string or wire. For steel interstitial tanks, the DIS is lowered directly to the bottom of the interstitial space through a 2" NPT fitting provided for that purpose on the tank. Optional installation kits are available which include a riser cap and other parts required to complete installation.



## SPECIFICATIONS

### Applications

For dry tank interstitial monitoring.

## ORDERING INFORMATION

Model	Description
FMP-DIS	Discriminating interstitial sensor (EVO™ 550, EVO™ 5000 EVO™ 600 and EVO™ 6000)
FMP-DIS-U	Discriminating interstitial sensor (EVO™ 200, EVO™ 400, EVO™ 600 and EVO™ 6000)
TSP-KI2	Interstitial sensor riser cap kit for 2" riser pipes

*Note: The FMP-DIS wires to the 3 wire sensor module and the FMP-DIS-U wires to the probe module.*

# HYDROSTATIC INTERSTITIAL SENSOR (HIS)

The HIS detects leaks in double wall tanks where the interstitial space is filled with a liquid brine solution. The polyester, Nitrile, and epoxy construction is compatible with all types of brine.



## HIGHLIGHTS

- Versatile sensor for virtually all fiberglass double wall tanks equipped for hydrostatic leak detection.
- Microcomputer monitors liquid at varying levels within tanks and relays digitally encoded status information via the fail-safe sensor digital communication system to fuel management system or Tank Sentinel® ATGs, alerting of any alarm conditions.
- For installation, lower the HIS to the bottom of the brine reservoir of double wall tank. The normal brine level should reside half way up the sensor. Sensors include the TSP-KV4 vented 4" riser cap.

## SPECIFICATIONS

### Applications

For liquid-filled tank interstitial monitoring.

## ORDERING INFORMATION

Model	Description
FMP-HIS	Hydrostatic interstitial sensor, 11" (EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000)
FMP-HIS-XL	Hydrostatic interstitial sensor, 21" (EVO™ 550, EVO™ 5000, EVO™ 600 and EVO™ 6000)
FMP-HIS-U	Hydrostatic interstitial sensor, 11" (EVO™ 200, EVO™ 400, EVO™ 600 and EVO™ 6000)
FMP-HIS-XL-U	Hydrostatic interstitial sensor, 21" (EVO™ 200, EVO™ 400, EVO™ 600 and EVO™ 6000)
TSP-KV4*	Hydrostatic sensor vented riser pipe cap kit for 4" riser pipes

*Note: The FMP-HIS/FMP-HIS-XL wire to the 3 wire sensor module, and the FMP-HIS-U/FMP-HIS-XL-U wire to the probe module.*

*\*One TSP-KV4 is already included with each HIS or HIS-XL sensor.*

# HIGH PRODUCT LEVEL SENSOR (HLS)

The HLS level sensor is an overfill prevention switch that may be adjusted to operate over a wide range of levels. The HLS is based on float-switch technology and is made of chemical-resistant materials to assure compatibility with most liquids.



## HIGHLIGHTS

- Each sensor is supplied with jacketed cable five feet in length.
- The normally-closed output circuit provides supervised operation, ensuring that broken wires and similar failures will not go undetected.
- A small magnetically-activated read switch is located inside the body of the sensor. Tiny magnets are positioned inside a lightweight float which is free to move up and down along the shaft so that the magnets are below the read switch. When the sensor is immersed in liquid, the float rises and the magnet activates the read switch, signaling the ATG that the high limit has been reached.

## SPECIFICATIONS

### Applications

Overfill protection switch.

## ORDERING INFORMATION

Model	Description
TSP-HLS-15	High product level sensor, 15" long, installed in tank (EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000 ATGs)
TSP-HLS-15/SS	High product level sensor, stainless steel 15" long, installed in tanks containing alternative fuels (EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000 ATGs)
TSP-HLS-30	High product level sensor, 30" long, installed in tank (EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000 ATGs)
TSP-HLS-30/SS	High product level sensor, stainless steel 30" long, installed in tanks containing alternative fuels (EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000 ATGs)

*Note: The TSP-HLS connects to the 2 wire sensor module or the 3 wire sensor module. It cannot be wired to the probe module.*



# CORROSION CONTROL™ CORROSION DETECTION SENSOR (CDS)

As part of the Corrosion Control™ System the Corrosion Detection Sensor (CDS) provides automated notification of a corrosive environment in the tank ullage space. Keep the fuel system running at peak performance and avoid costly maintenance, equipment replacement, downtime, and system failure caused by excessive corrosion.



## HIGHLIGHTS

- Sensor will detect the presence of corrosion on a sacrificial sample and provide an alarm.
- Protects the tank ullage from the formation of corrosion which can lead to fuel system deterioration.
- Displays a level reading for corrosion index via the EVO™ Series Automatic Tank Gauge (ATG) with programmable alarm types including:
  - Corrosive Environment Present
  - Corrosion Sensor Sample Error
  - Corrosion Sample Needs Replacement
- Compatible with all blends of gasoline, diesel, and Ethanol.
- ATG compatibility:
  - EVO™ 200 and EVO™ 400
  - EVO™ 550 and EVO™ 5000
  - EVO™ 600 and EVO™ 6000

## ORDERING INFORMATION

### Corrosion Control™ Corrosion Detection Sensor

Model	Description
FMP-CDS-U	Corrosion Detection Sensor (all EVO™ Series ATGs)
FMSP-RDS1	Replacement detection screen, qty 1
FMSP-RDS10	Replacement detection screen, qty 10
TSP-KS	Unistrut® mounting kit

*Note: this sensor communicates with the ATG via a TS-PRB probe module (EVO™ 550, EVO™ 5000, EVO™ 600, and EVO™ 6000) or via an IS channel (EVO™ 200 & EVO™ 400).*

## SPECIFICATIONS

### Applications

Monitoring for a corrosive environment within a tank ullage space.

### Theory of Operation

The CDS is installed in the tank ullage space. The intrinsically safe sensor utilizes an included quick disconnect cable to wire to any EVO™ Series ATG via the probe module (EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000) or any Intrinsically Safe (IS) channel (EVO™ 200 and EVO™ 400). The sensor utilizes a sacrificial metal screen which is used to detect the formation of corrosion. This screen can be removed and replaced upon the formation of corrosion.



# SENSOR INSTALLATION ACCESSORIES

## INTERSTITIAL SENSOR RISER CAP INSTALLATION KIT

Installation kit for installing the DIS, EIS or ULS sensors in dry interstitial spaces with 2" (5 cm) riser pipe openings. The cap is compression-fit into the riser pipe via the use of a lever.

### HIGHLIGHTS

- Supplied with a cord grip and butt splices for wiring connections.
- Provided with security holes that fit a padlock to prevent unauthorized access into the riser pipe.

### ORDERING INFORMATION

Model	Description
TSP-KI2	Interstitial sensor riser cap kit for 2" (5 cm) riser pipes



## HYDROSTATIC SENSOR VENTED RISER CAP INSTALLATION KIT

Vented installation kit for use with the FMP-HIS-U or FMP-HIS XL-U sensor installed in a 4" (10 cm) reservoir opening on double wall fiberglass tanks. The cap is compression-fit into the riser pipe via the use of a lever.

### HIGHLIGHTS

- Supplied with a cord grip and butt splices for wiring connections.
- Provided with security holes that fit a padlock to prevent unauthorized access into the riser pipe.

### ORDERING INFORMATION

Model	Description
TSP-KV4	Hydrostatic sensor vented riser cap kit for 4" (10 cm) riser pipes



## INTERSTITIAL/MONITORING WELL PIPE CAP INSTALLATION KIT

Installation kit for installing sensors in a dry tank interstitial or monitoring well with a 4" (10 cm) riser. The interstitial/monitoring well cap is compression-fit into the riser pipe via the use of a lever.

### HIGHLIGHTS

- Supplied with a cord grip and butt splices for wiring connections.
- Provided with security holes that fit a padlock to prevent unauthorized access into the riser pipe.

### ORDERING INFORMATION

Model	Description
TSP-KW4	Interstitial/monitoring well pipe cap kit for 4" (10 cm) riser pipes



## UNISTRUT® MOUNTING KIT

Installation kit for installing the DDS, DTS, and DMS sensors in sump space.

### HIGHLIGHTS

- Easily customized to fit virtually any sump by cutting the Unistrut® assembly to desired length.
- Provided with 2", 3", and 4" pipe clamps for mounting to sump piping.
- Sensor location easily adjusted by the unique sliding feature of the Unistrut® assembly.

### ORDERING INFORMATION

Model	Description
TSP-KS	Unistrut® mounting kit



## DIRECT BURIAL SPLICE CONNECTOR KITS

For direct burial cable applications or when weatherproof junction boxes are not used.

### HIGHLIGHTS

- Each direct burial splice connector kit includes a receptacle, three splice connectors, and epoxy for the dispensing tool.

### ORDERING INFORMATION

Model	Description
TSP-DB1	One direct burial splice connector kit
TSP-DB10	Pack of 10 direct burial splice connector kits
TSP-DBTOOL	Epoxy dispensing tool



## SPLICE CONNECTORS

Save time and ensure accurate wire connections with splice connectors. Available in either 22-14 AWG (blue) or 26-19 AWG (red) options, both splice connector models employ a specially designed wire insulation displacement contact to make a reliable electrical connection to each wire.

### HIGHLIGHTS

- Three ports accept two or three conductors for splicing.
- Includes a factory-installed sealant to protect against corrosion and seal out moisture.
- Self-stripping, flame retardant, and moisture resistant.

### ORDERING INFORMATION

Model	Description
TSP-KW30	22-14 AWG (blue) splice connectors, 30 pack
FMP-CON30	26-19 AWG (red) compact splice connectors, 30 pack



# EASY-ACCESS SENSOR BRACKET SYSTEM

The Easy-Access Sensor Bracket System eliminates the high risk activity of confined space entry by enabling sensors to be removed from both tank sumps and dispenser sumps at grade level for safe maintenance and testing.

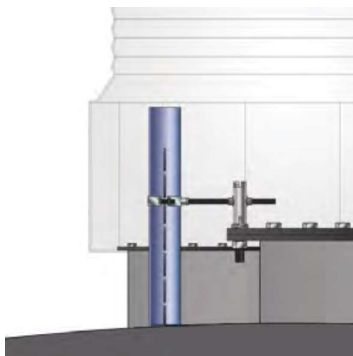
## HIGHLIGHTS

- System includes a removable sensor mounting bracket, extendable lifting handle (sold separately), and optional conversion kit for use in dispenser sumps (sold separately).
- Models available with compatibility for all versions of Franklin Fueling Systems' ULS, DDS, DTS, and DMS sensors.
- Suitable for use with alternative sensors with similar dimensions. Please contact Franklin Fueling System Technical Support for questions regarding sensor compatibility beyond those sensors listed.
- Delivers labor cost savings with faster, one-person inspections that do not require the additional safety precautions associated with a two-person confined space entry including mechanical retrieval.
- Securely bolts to any new or existing tank manway with included M16 x 80 mm bolt to stabilize the sensor and optimize its position to ensure that the sensor sits at the lowest point of the containment.
- Provides a wide range of sensor height adjustment.
- Lifting handle extends from 43" (109 cm) to 79" (200 cm), accommodating both medium and deep bury containment.
- Stainless steel bracket components provide compatibility with all fuel types including standard fuel, biofuel, and alcohol blend fuels.

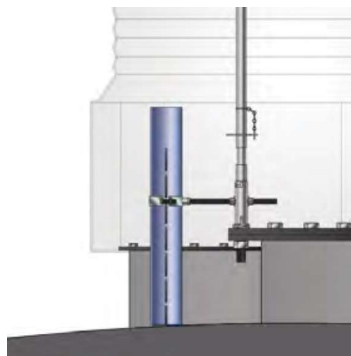


## SPECIFICATIONS

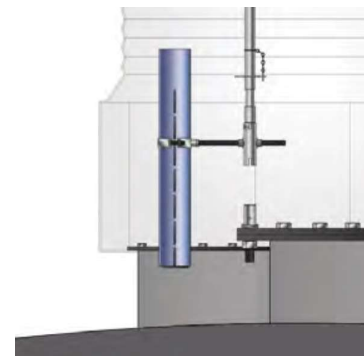
### Operation



Sensor installed in bracket



Engage lifting handle from grade



Lift to grade for inspection

SPECIFICATIONS CONTINUED

Components

- 1

Sensor clamp
- 2

Sensor bracket holder
- 3

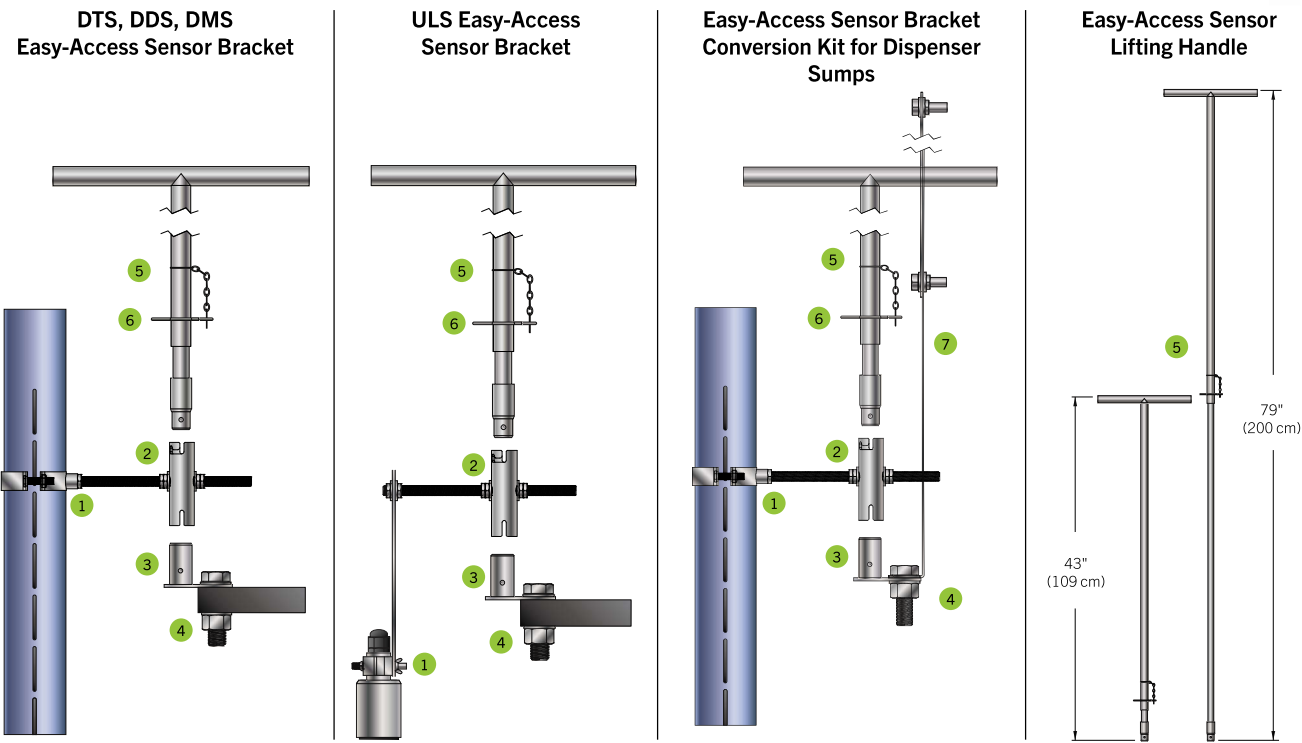
Bracket seat
- 4

Mounting bolt
- 5

Extendable lifting handle
- 6

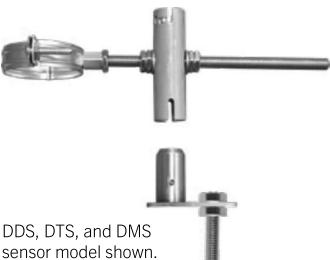
Spring clip to fix handle length
- 7

Conversion kit arm  
(bolts to stabilizer bar kit)

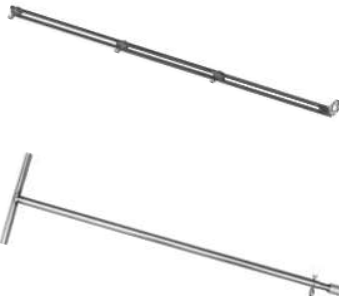


ORDERING INFORMATION

Easy-Access Sensor Brackets



Model	Description
FMP-SIB-DMS	Easy-Access Sensor Bracket for all models of the DDS, DTS, and DMS sensors
FMP-SIB-ULS	Easy-Access Sensor Bracket for all models of the ULS sensors



Model	Description
FMP-SIB-UDC	Easy-Access Sensor Bracket conversion kit for dispenser sumps

Note: The conversion kit must be installed with the FMP-SIB-DMS or FMP-SIB-ULS Easy-Access Sensor Bracket.

Model	Description
FMP-SIB-HDL	Easy-Access Sensor Bracket lifting handle, extends from 43" (109 cm) to 79" (200 cm)

# FLOAT KITS



2" and 4" Floats

Chemical Floats

LPG Floats

## HIGHLIGHTS (2" AND 4" FLOATS)

- Designed for applications involving 2", 3" or 4" riser pipes.
- Each float set contains a product and water float.
- Compatible with a wide variety of petroleum products.
- Water floats are coloured red for gasoline and blue for diesel to assure compatibility with most liquids.

## HIGHLIGHTS (LPG FLOATS)

- Designed for applications involving tank openings of at least 2".
- Single float used for monitoring the level of LPG (propane) fuel.
- Suitable for monitoring pressurized products.
- For use in USTs or ASTs with FFS probes. TSP-LPG/EU float can be used with locally supplied tank isolation sleeves.

## HIGHLIGHTS (CHEMICAL FLOATS)

- Suitable for use in a wide variety of chemical applications; consult factory for chemical compatibility issues.
- Use one float per probe.
- Float specific gravity 0.55 to 0.63.
- Collapse pressure 500 psi/g minimum.

Model	Description
TSP-IDF2	2" float set for diesel tanks
TSP-IGF2	2" float set for gasoline tanks
TSP-IDF4	4" float set for diesel tanks
TSP-IGF4	4" float set for gasoline tanks
TSP-LPGF	2" float for LPG tanks, with or without isolation sleeve
TSP-SSP	2-1/16" OD, #316 stainless steel float for chemical applications only

Note: Order one float set for each FFS Mag probe.

# PHASE SEPARATION FLOAT KITS

2" and 4" phase separation float kits detect both water and phase separation with a single float kit. The water and phase separation detection float kit allows you to effectively manage product levels as well as alert you of water or phase separation levels in your tanks. A single float is used to detect the presence of both water or phase separated fuel to ensure the detection of either from reaching customer's vehicles.



## HIGHLIGHTS

- Optional float kit for gasoline and Ethanol blend users.
- Product float determines fuel level.
- Water float will rise with the presence of water or phase separated fuel.
- Simple single-float solution for both water and phase separation.
- Improved minimum water level detection capability.
- Allows you to easily shut down a submersible pump before water or phase separation reaches the customer's vehicle.

## SPECIFICATIONS

- Designed for applications using 2" or 4" risers.
- Each float kit contains both product float and water and phase separation float.
- Appropriate for use with gasoline and Ethanol blends up to E15.
- Compatible with all FFS probes.
- Options available for EVO™ 200, EVO™ 400, EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000.

## ORDERING INFORMATION

Model	Description
TSP-IGF2P	2" phase separation float kit for gasoline and up to E15
TSP-IGF4P	4" phase separation float kit for gasoline and up to E15

# DENSITY MEASUREMENT FLOAT KITS

With density float kits, EVO™ Series fuel management systems have the ability to continuously monitor the density of fuel stored in underground and aboveground storage tanks. The same magnetostrictive probe that provides inventory management and leak detection capabilities can also supply product density and mass without the addition of extra probes or sensors. Programmable high and low density alarm points allow the user to determine the range of acceptable density fluctuations.



## HIGHLIGHTS

- Designed for applications involving 4" riser pipes.
- Each float set contains a product, density, and water float.
- Available in Standard (3 kg/m<sup>3</sup> accuracy).
- Floats are constructed of Nitrile rubber and PVDF (precision model density floats are also nickel-plated).
- Water and product floats are coloured red for gasoline and blue for diesel.
- Density and product floats are calibrated and must be maintained as a set.
- Theory of Operation: Density measurement is based on the distance between the calibrated product and density floats. As the density of the fuel changes, the gap between the floats will increase or decrease in proportion to the change. The tank gauge receives this information from the probe and uses it to calculate and display the current density of the fuel.

## SPECIFICATIONS

- Measurement accuracy:  $\pm 3.0$  kg/m<sup>3</sup>
- Measurement resolution:  $\pm 0.1$  kg/m<sup>3</sup>
- Minimum detectable product level with water float: 10.70"
- Minimum detectable product level without water float: 6.70"
- Options available for EVO™ 200, EVO™ 400, EVO™ 550, EVO™ 5000, EVO™ 600, EVO™ 6000

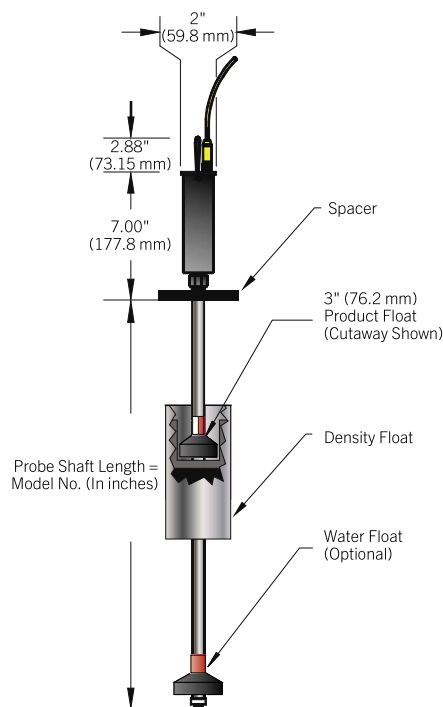
FUEL MANAGEMENT  
SYSTEMS

## ORDERING INFORMATION

Model	Description	Density Range
TSP-IDF4D3	Standard diesel/fuel oil density float kit	790-900 kg/m <sup>3</sup>
TSP-IGF4D3	Standard gasoline density float kit	690-800 kg/m <sup>3</sup>

*Note: Order one density measurement float kit for each magnetostrictive probe.  
Probes used with density float kits must have serial numbers greater than 6000000*

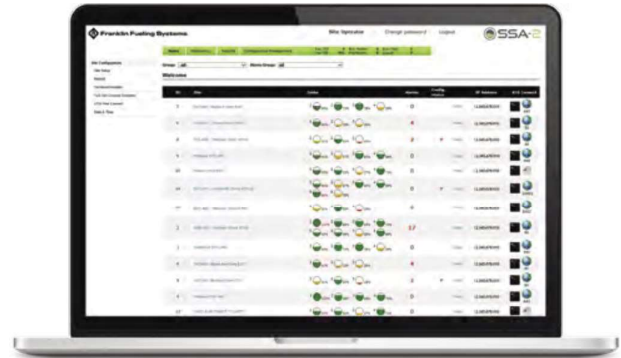
### System Diagram





## FUEL MANAGEMENT SYSTEMS

# REMOTE FUEL MONITORING SELECTION GUIDE



Franklin Fueling Systems offers three different remote monitoring options with features effectively meeting the specific requirements of your automatic tank gauge (ATG) network.

Our premier remote fuel monitoring software consolidates your network to view data faster and configure your ATGs, allowing you to control ATG setup across your entire network at once.

<b>Site network type</b>	Enterprise-level
<b>Total # of ATG connections</b>	Unlimited
<b>Software hosted</b>	Cloud or on-premise
<b>ATG support/compatibility</b>	EVO™ Series, INCON™, Veeder-Root® (including TLS-450PLUS), Red Jacket®, OPW®, FAFNIR®, Hectronic®, Caldwell, OMNTEC®
<b>Basic data</b>	Inventory, testing, alarm, compliance
<b>Configuration management</b>	Yes
<b>Remote ATG setup and configuration</b>	Yes
<b>ATG setup change reporting</b>	Yes
<b>User level security roles</b>	Yes
<b>In-house IT team required</b>	Cloud: no On-premise: yes
<b>Report generation</b>	Automated, entire network
<b>Customized reporting</b>	Yes
<b>On-demand polling</b>	Yes
<b>Email notifications</b>	Yes
<b>Alarm notifications</b>	Yes, entire network
<b>Pay structure</b>	Monthly fee billed annually—including maintenance, support, and feature/function upgrades
<b>Custom export</b>	CSV, HTML, Microsoft® Office® formats, Atom-compliant data fields



Connect any number of major ATG brands in your network to unlimited users for on-demand polling and reporting. Provides automated alarm, leak test, and inventory data to multiple users.



Provides direct one-to-one access to a single EVO™ Series ATG from any web enabled device. Gathers and displays specified data in a user-defined polling schedule, or in real-time.

FUEL MANAGEMENT  
SYSTEMS

Enterprise-level	Single ATG
Unlimited	One (accessed individually)
On-premise	Web browser
EVO™ Series, INCON™, Veeder-Root® (excluding TLS-450PLUS), Red Jacket®	EVO™ Series
Inventory, testing, alarm, compliance	Inventory, testing, alarm, compliance
No	No
No	Yes
No	No
Yes	Yes
Yes	No
Automated, entire network	Automated, single ATG
No	No
Yes	No
Yes	Yes
Yes, entire network	Yes, single ATG
One-time fee—plus annual maintenance and support fee	Free with qualified ATG purchase
CSV, Excel, TelaPoint™, Trimac, PDF	--

\*Common ATGs listed. Contact your sales team member for a full list of compatible ATGs.

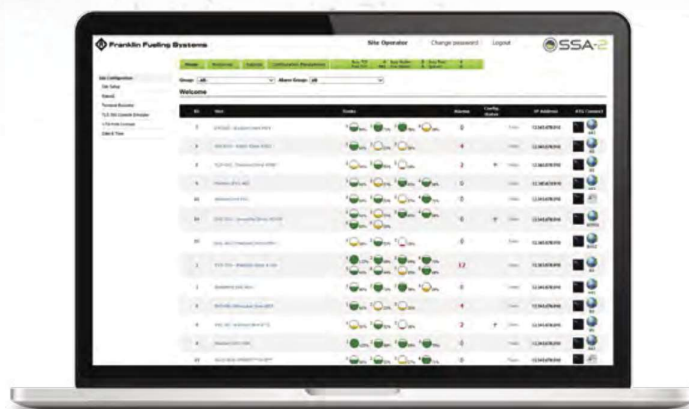
Note: For SSA-2 cloud and on-premise hosting options, site minimums may apply. Please check with your Franklin Fueling System sales representative.

# SSA-2 ADVANCED REMOTE FUEL MONITORING

System Sentinel AnyWare™-2 (SSA-2) Advanced Remote Fuel Monitoring Software fully connects owners, operators, and compliance personnel to diverse networks of Automatic Tank Gauges (ATGs) from any web-enabled device. This enterprise level platform can be hosted on the cloud or with a customer's on-premise servers.

## HIGHLIGHTS

- Get instant remote access to consolidated network alarm, inventory, and compliance data and reporting with the ability to export in a variety of formats for on-demand use.
- SSA-2 hosting options: cloud or customer's on-premise servers.
- Multiple levels of customizable user access allow admins to configure administrative functionality and grant role-based access to the secure database.
- Configuration management allows Operators to remotely program ATGs and monitor for configuration changes — saving time, travel, and expense.
- Operators can save ATG setup and configuration templates and remotely apply them to one ATG, a group of ATGs, or all ATGs simultaneously.
- Configuration management provides added security by automatically flagging any ATG setting in the network that has been changed.
- An automated report allows Operators to review any changes in ATG setups and either accept the change or revert back to the baseline setup.
- Make informed decisions on fuel management, deliveries, and compliance data from one centralized location.
- The advanced reporting engine enables users to automate report generation on all tanks, lines, inventory, reconciliation, deliveries, sensors and more.
- Restricted access and view-only roles provide basic visibility, while full-access roles grant system-wide visibility. Security logs provide a record of all user logins.
- SSA-2 is compatible with a wide variety of the industry's most common ATGs, providing consolidated fuel management for a diverse network of ATGs (see following page for a full list of compatible ATGs).
- All data is safely stored in a secure database that can be exported as CSV, HTML, Microsoft® Office® formats, and Atom-compliant data fields for on-demand use.



## SPECIFICATIONS

Get remote access to vital site information including:

### Standard Reports

- Alarm history
- Alarm status
- Business inventory reconciliation
- Configuration active
- Configuration compare
- Configuration changes
- Configuration core
- SCALD/CSLD
- Current inventory
- Delivery
- Inventory
- Line test
- Mail dispatch
- Sensor
- Setup
- Site
- Tank history
- Tank test result

### Security Settings

- Users
- Security audit log

### Global Settings

- General
- License management
- Fuel carrier setup
- Fuel terminal setup
- Fuel division setup

### Site Settings

- Groups
- Sites
- Compliance exclusion
- Site details
- Tank setup

### Polling

- Collection profile
- Sets
- Event log

### Alarm Notifications

- Email users
- Email groups
- Alarm groups
- Email subscriptions
- Email templates

## SPECIFICATIONS

### General Requirements for Application Hosted On-Premise

- Server-based, 64-bit components.
- Microsoft SQL server 2012 or greater.
- Microsoft .NET framework 4.6.
- Microsoft SQL Server Reporting Services (SSRS) login with system administrator privileges to install reports.
- VMware & multiple server configurations supported.
- Internet or modem access to ATG network (internet recommended).
- If modem, 4 or 8 multi-port modem with PCI or PCI-express interface.
- Number of modem ports driven by number of ATGs with modems and desired response time.
- For owner/operators with more than 250 sites, a distributed deployment architecture is recommended.
- Separate machine (or VMs) for database server and application server.
- Machine sizing recommendations are available given number of sites, frequency of polling, number of concurrent users, and data retention policy.

### Compatible ATGs

Franklin Fueling Systems	Veeder-Root®	OPW®	Electronic Sensors, Inc.
• EVO™ 200 / EVO™ 400*	• TLS-2	• SiteSentinel® Integra 100™	• Level Devil®
• EVO™ 600 / EVO™ 6000*	• TLS4B	• SiteSentinel® Integra 500™	OMNTEC
• EVO™ 550* / EVO™ 5000*	• TLS4c	• SiteSentinel® Nano®	• OEL8000II
• Colibri™	• TLS4i	• Petro Vend 100®	• OEL8000III
• INCON™ TS-504/508	• TLS-250	• Petro Vend 200	• Proteus-X
• INCON™ TS-750	• TLS-300*	• Petro Vend FSC 3000®	Caldwell
• INCON™ TS-1000/1	• TLS-350*	FAFNIR®	• TM-2000
• INCON™ TS-2000/1	• TLS-450*	• VISY-Command	• TMW-650
• INCON™ TS-5	• TLS-450PLUS*	• VISY-Command XL	Hectronic®
• INCON™ TS-550*	• Simplicity	• SECON-X	• Mineo Controller Touch
• INCON™ TS-5000*	All Line Equipment Co.		• OptiLevel Supply
• EBW® AutoStik	• Fuel Boss		

\*Supports configuration management feature.

Note: Some legacy ATGs may not support all SSA-2 functionality.

## ORDERING INFORMATION

### SSA-2 Advanced Remote Fuel Monitoring

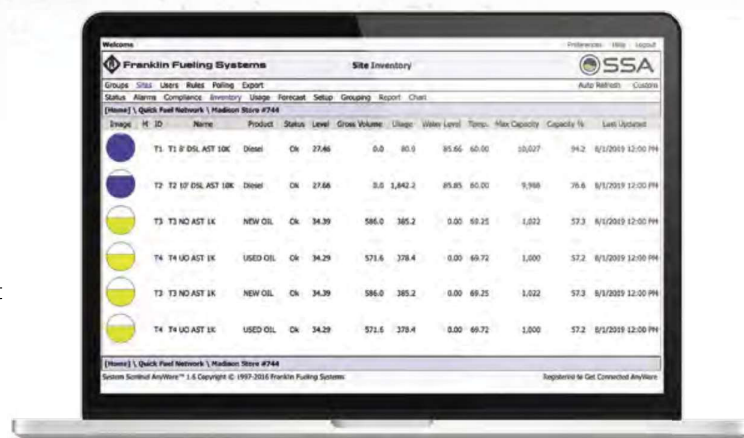
Model	Description
SSA-2C	SSA-2 cloud license for (1) site, purchased through an authorized distributor
SSA-2CM	SSA-2 cloud license for (1) site, purchased directly
SSA-2P	SSA-2 on-premise license for (1) site, purchased through an authorized distributor
SSA-2PM	SSA-2 on-premise license for (1) site, purchased directly
FFSPROSSA2	Premium on-site installation support service, one day

Note: For SSA-2 cloud and on-premise hosting options, site minimums may apply. Please check with your Franklin Fueling System sales representative.

Veeder-Root® is a registered trademark of Danaher.  
 Red Jacket® is a registered trademark of Veeder-Root, Inc.  
 OPW® is a registered trademark of Dover Co.  
 Fafnir® is a registered trademark of Fafnir GmbH.  
 Hectronic® is a registered trademark of Hectronic AG.  
 Level Devil® is a registered trademark of Electronic Sensors, Inc.  
 Microsoft® Office® is a registered trademark of Microsoft Corporation.

# SSA REMOTE FUEL MONITORING

Monitor your sites with System Sentinel AnyWare™ (SSA), a web-based software platform for fuel monitoring and data analysis. Hosted on your local server, SSA allows your critical personnel to have instant access to all your Automatic Tank Gauge (ATG) data, keeping you totally connected.



## HIGHLIGHTS

- Provides centralized collection of all compliance information such as tank and line leak testing data and leak detection sensor status.
- Visibility into present inventory and history helps you make informed fuel management and delivery decisions.
- Multiple levels of customizable user roles allow you to configure access and administrative functionality to best fit your organization.
- Connect any number of mixed-manufacturer ATGs\* in your network for on-demand polling and reporting.
- A wide variety of reports can be custom-scheduled, displayed and printed at specific times.
- Offers immediate notification of alarms for corrective action.
- All of your data is safely stored in a secure database that can be exported as text, Excel, or CSV for on-demand use.
- Broad communication capabilities via modem, local or wide area networks, satellites, DSL, cable or other high-speed web-based methods.
- Compatible with most major ATGs including: EVO™ Series, INCON™, Veeder-Root®, and FAFNIR™ (full compatibility list on following page).
- Multiple language options: English, Spanish, French, Russian, Chinese, Hindi, and Portuguese.

\*See compatibility list

## SPECIFICATIONS

Get remote access to vital site information including:

### Groups

- Status
- Setup
- List

### Sites

- Status
- Alarms
- Compliance
- Inventory
- Usage
- Forecast
- Setup
- Grouping
- Report
- Chart

### Standard Reports

- Inventory
- Delivery
- Forecast
- Alarm status
- Alarm history
- Tank test
- Line test
- Regulatory
- Sensor status
- Pump status
- Vapour sensor
- Reconciliation
- ISD

## SPECIFICATIONS CONTINUED

### General Requirements

#### Server

- Microsoft Windows server operating system
  - Windows Server 2019
  - Windows Server 2016
  - Windows Server 2012 R2
- Minimum processor 64 bit 1.4 GHz, recommended 2 GHz
- 1 GB memory required, 4 GB recommended
- Hard drive space requirement 40 GB plus room for database

#### Third Party Application

- LaTeX reports server
- Microsoft Internet Server (IIS) web server
- Microsoft SQL 2017 server

### Compatible ATGs

#### Franklin Fueling Systems

- EVO™ 200
- EVO™ 400
- EVO™ 550
- EVO™ 5000
- EVO™ 600
- EVO™ 6000
- INCON™ TS-1000
- INCON™ TS-2000
- INCON™ TS-5
- INCON™ TS-550
- INCON™ TS-5000
- Colibri™

#### Veeder-Root®

- TLS-2
- TLS-4
- TLS-350
- TLS-450

#### FAFNIR™

- VISY-X

## ORDERING INFORMATION

Model	Description
SSA-SU25	1-25 Sites License
SSA-SU50	1-50 Sites License
SSA-SU100	1-100 Sites License
SSA-SU10	Additional increments of 10 sites
FFSPROSSA2	Premium on-site support service

#### Notes:

1. When placing orders, the following information must be supplied along with email addresses to issue a software license:

- Address of company.
- Phone number of company.
- Contact name at company.

2. Licenses may not be returned after purchase.

3. An additional fee will be charged for optional on-site installation and training. The charge is \$625/day plus travel expenses.

4. The purchase of an annual maintenance contract is required for continued technical support and to receive any software updates. The maintenance fee is 15% of the list price of the user's system at the time of renewal.