

EVO™

SERIES



EVOTM

The logo features the word "EVO" in a bold, black, sans-serif font. The letter "O" is a thick black circle containing a bright green, stylized leaf shape. A small "TM" trademark symbol is positioned to the upper right of the "O".

S E R I E S

NEVER STOP EVOLVING™

INTRODUCING
THE EVO™ SERIES
FAMILY OF AUTOMATIC
TANK GAUGES

Driven by our pursuit to innovate, simplify, and better connect every station owner to their secure system data, we introduce the EVO™ 200 and EVO™ 400 to our lineup of world class ATGs which already includes the EVO™ 550 and EVO™ 5000.





EVO™ 200 & EVO™ 400: RIGHT SIZED ATGs

The new EVO™ 200 and EVO™ 400 ATGs feature everything you've come to expect from our EVO™ 550 and EVO™ 5000 ATGs in packages that are right-sized for small sites and up-and-coming station networks.





EVO™ 550 & EVO™ 5000: PREMIUM LEVEL ATGs

The EVO™ 550 and EVO™ 5000 ATGs remain our premium-level ATGs which provide all of the functionality of the EVO 200 and EVO 400 plus electronic line leak detection, secondary containment monitoring, and DEF/AdBlue® recirculation.









EVO™ 200

- 6** Maximum Tank Capacity
- 6** Maximum Sensor Capacity
- 6** Total # of Inputs
-  Turbine Pump Interface
-  Remote monitoring
-  Inventory Reconciliation*
-  Tank Autocalibration*










EVO™ 400

- 14** Maximum Tank Capacity
- 14** Maximum Sensor Capacity
- 14** Total # of Inputs
-  Turbine Pump Interface
-  Remote monitoring
-  Inventory Reconciliation*
-  Tank Autocalibration*










EVO™ 550

- 36** Maximum Tank Capacity**
- 48** Maximum Sensor Capacity**
- 48** Total # of Inputs
-  Turbine Pump Interface
-  Remote monitoring
-  Inventory Reconciliation
-  Tank Autocalibration
-  Electronic Line Leak Detection
-  DEF/AdBlue® Recirculation
-  Secondary Containment Monitoring


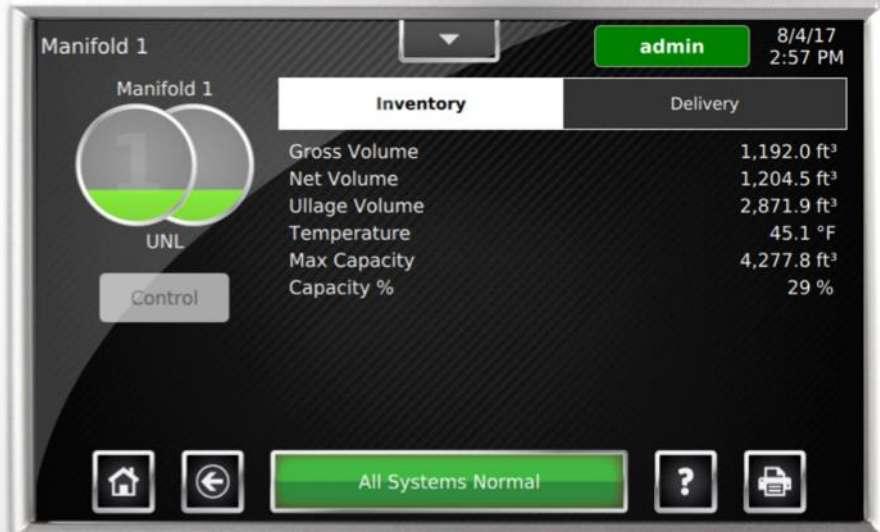


EVO™ 5000

- 36** Maximum Tank Capacity**
- 96** Maximum Sensor Capacity**
- 96** Total # of Inputs
-  Turbine Pump Interface
-  Remote monitoring
-  Inventory Reconciliation
-  Tank Autocalibration
-  Electronic Line Leak Detection
-  DEF/AdBlue® Recirculation
-  Secondary Containment Monitoring

*Optional feature

**Additional capacity available with expansion console

EVO™
550 Franklin Fueling Systems

SYSTEM CAPABILITIES

HIGHLY CAPABLE

EVO™ Series ATGs allow you to make informed, data-driven inventory management decisions.

- Inventory monitoring
- Static and continuous tank testing
- Tank autocalibration
- Inventory reconciliation
- Containment compliance monitoring when paired with sensors
- 24-hour statistical continuous automatic leak detection (SCALD)
- High/low product, water, and temperature alarm set points
- Email and SMS notifications
- Density, mass, and phase separation measurement

SYSTEM CAPABILITIES

HIGHLY SECURE

EVO™ Series ATGs keep your site in compliance and protected from security threats.

- Customizable user roles and log-in security features protect against unwanted access while keeping track of user activity within your system.
- Stores up to 3-years of data to provide back up security from power outages or other system interruptions.
- Optional Wifi allows secure and protected onsite viewing of inventory levels for fuel delivery drivers.*

*Wifi not available on all models.





SYSTEM CAPABILITIES

TURBINE PUMP INTERFACE

All EVO™ Series ATGs include the industry's only Turbine Pump Interface (TPI) capability for enhanced and automated submersible turbine pump monitoring and control.

Turbine Pump Interface is a powerful tool that creates a network between your Submersible Turbine Pump (STP) controllers and EVO™ Series ATGs. The devices share data to provide you with enhanced system capabilities like:

- Remote access to STPs
- STP status
- Dry tank protection
- Pump in water detection
- Clogged STP intake detection
- Overfill protection
- Primary/secondary pump management
- Adjusted pump priority (leveling on the fly)

REMOTE CONNECTIVITY DATA DRIVE DECISION MAKING WHENEVER, WHEREVER

The FFS PRO™ Connect web interface allows you to securely connect directly to your EVO™ Series ATG from any web enabled device. It automatically scales for tablets and smart phones meaning no app to download.

- Gathers and displays specified data in real-time.
- Inventory can be monitored as needed to precisely schedule deliveries.
- Deliveries can be forecasted from current inventory usage rates.
- Reports can be custom-scheduled, displayed, printed, or emailed at specific times.
- Centralized control of all compliance information.



ACCESSORIES

A TOTAL SYSTEM SOLUTION™

Franklin Fueling Systems provides a complete set of accessories compatible with EVO™ Series ATGs.

PROBES

Pair an EVO™ Series ATG with our magnetostrictive probes for accurate tank level measurement. Probes come available in two model options including Inventory Control probes for precision product and water level measurement and upgraded Leak Detection probes for tank level measurement plus tank leak detection testing.



GAS & DIESEL

Standard 4" and 2" gas & diesel float kits come complete with a product and water float. A single set is paired with each probe to collect tank level information.



PHASE SEPARATION

Protect your site from the dangers of undetected ethanol phase separation. Detect both water and phase separation with a single float kit.



DENSITY MEASUREMENT

Ensure fuel quality by detecting cross-drops with density measurement float kits. When paired with Leak Detection probes these kits allow you to monitor product and water levels.

ACCESSORIES

A TOTAL SYSTEM SOLUTION™

Franklin Fueling Systems provides a complete set of accessories compatible with EVO™ Series ATGs.

SENSORS

No matter what the application is, we have a containment monitoring solution to fit your needs. From dispenser sumps and turbine sumps, to tank interstitial spaces and monitoring wells, we have a sensor option to meet your requirements.



NON-DISCRIMINATING

These sensors are able to detect and send an alarm signal if the presence of liquid appears inside of a containment space.











DISCRIMINATING

These sensors are able to detect and send an alarm signal if the presence of liquid appears inside of a containment space and can also differentiate between liquid and hydrocarbons (fuel).

ACCESSORIES

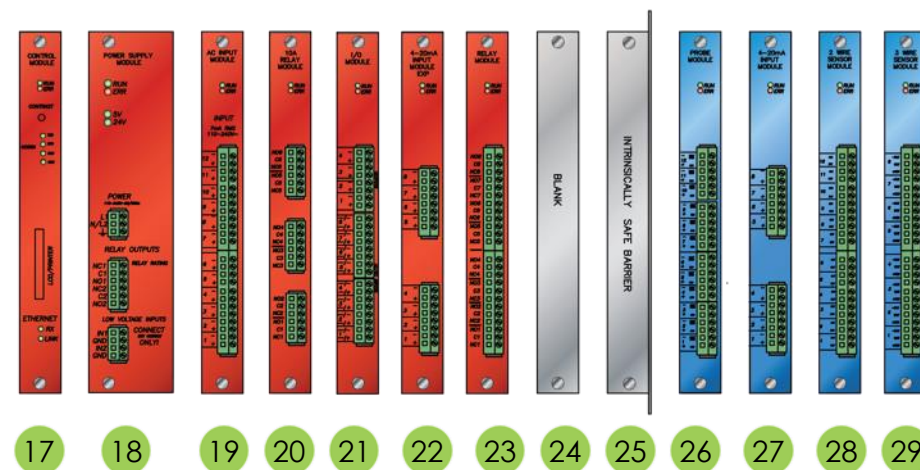
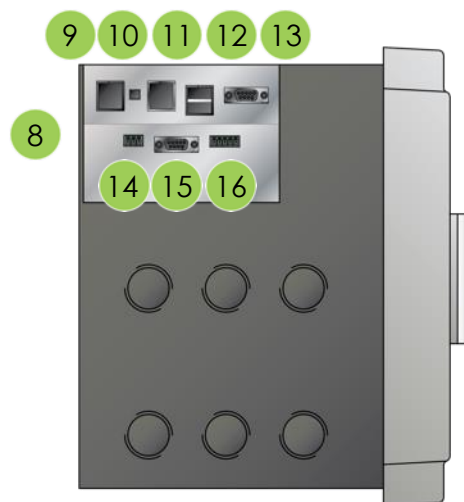
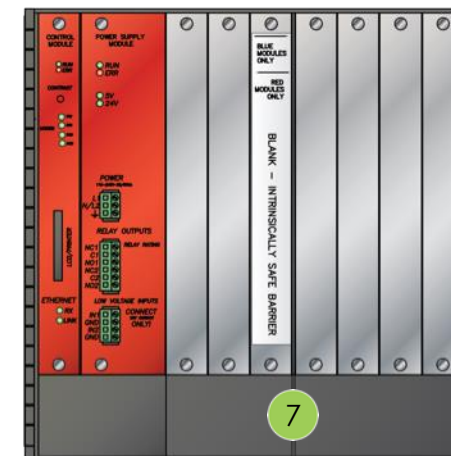
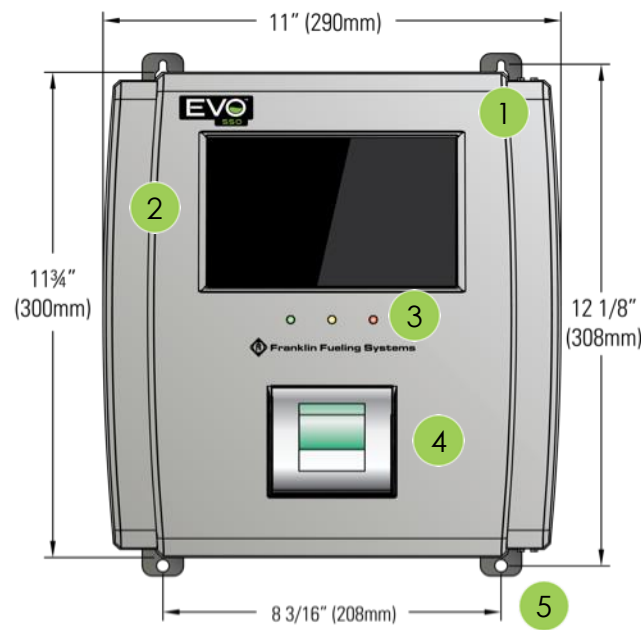
SENSOR SELECTION

No matter what the application is, we have a containment monitoring solution to fit your needs. From dispenser sumps and turbine sumps, to tank interstitial spaces and monitoring wells, we have a sensor option to meet your requirements.

								
Sensor	Discriminating Dispenser Sump	Discriminating Turbine Sump	Discriminating Magnetostrictive Sump	Universal Liquid	Universal Hydrostatic	Electro-Optic Interstitial	Discriminating Interstitial	Hydrostatic Interstitial
Discriminating Capability	✓	✓	✓				✓	
Non-Discriminating				✓	✓	✓		✓
Turbine Sump Applications		✓	✓	✓				
Dispenser Sump Applications	✓		✓	✓				
Tank Interstitial Space 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
EVO™ 550 / EVO™ 5000 Model Number	FMP-DDS	FMP-DTS	TSP-DMS	FMP-ULS	FMP-UHS	FMP-EIS	FMP-DIS	FMP-HIS FMP-HIS-XL
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	Turbine and dispenser sumps or drop-down tank interstitial space	Hydrostatic monitoring of a liquid in a double wall sump interstitial space	Dry double wall tank applications including fiberglass and wrap-around	Dry double wall tank applications requiring discriminating capabilities	Double wall tank interstitial space filled with brine solution

EVO™ 550 & EVO™ 5000

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



TS-LS5000 AUTO-LEARN

Pressurized Electronic Line Leak Detection



TS-LS5000 AUTO-LEARN

Pressurized Electronic Line Leak Detection

- Available on the TS-550, TS-550 evo & TS-5000 consoles
- AutoLearn technology learns the pressure characteristics of each line a startup
- No requirement to program line size and length which may be unknown
- Provides Line Leak Detection
 - 3.0 gph Hourly Gross Leak Tests
 - 0.2 gph Monthly Precision Leak Tests
 - 0.1 gph Annual Precision Leak Tests
 - Other catastrophic leak detection
- Available in Intrinsically Safe and Explosion Proof Models



TS-LS5000 AUTO-LEARN

Pressurized Electronic Line Leak Detection

- Includes Statistical Line Leak Detection (SLLD)
 - Standard Feature
 - Provides 0.2gph Monthly results even on high throughput lines
- Hardware Requirements
 - TS-420IB or TS-420EXP
 - TS-ACI
 - TS-RLY or TPI
 - TS-LS500/x transducer kits



TS-LS5000 AUTO-LEARN

Pressurized Electronic Line Leak Detection

- Available in 2, 3 & 4 Transducer configurations
- Number of lines based on 4-20 ma Module
- Transducer kits include
 - Intrinsically safe 4-20 ma transducer
 - IS for installations using separate low voltage conduit dedicated for transducer
 - Needle/valve kit
 - Leak Generator kit



TS-LS5000 AUTO-LEARN

Pressurized Electronic Line Leak Detection

- Line leak pressure transducer installed at submersible pump
- Dedicated signal wire from transducer to TS-550/5000 console
- Two wire conductor



TS-LS5000 AUTO-LEARN

Pressurized Electronic Line Leak Detection

- Not susceptible to external changes in pressure or temperature
- Extremely accurate – Currently going through 3rd party approval
 - 3gph, .2 gph & .1 gph
 - Learns characteristics of an actual 3 GPH
 - Self diagnostic
- Works with all Piping types



AUTO-LEARN Learn Mode

- Line must pass tightness test before installation of LS5000
- Step 1: Before beginning calibration process, pump "OFF" pressure change must be less than 5 psi within 5 minutes
- Step 2: Install leak generator kit. Drop line pressure to zero by opening the needle valve (pump is off)
- Step 3: Put console in learn mode. This is done through LCD display of console
- Console learns 0 pressure point (transducer offset)
- Step 4: Pump auto-starts and the pumping pressure is learned (high pressure). The line must pressurize up to at least 17.5 psi
- Step 5: Console auto-learns piping decay curve (needle valve remained open from step 2).



AUTO-LEARN Pressure Checks

- Pressure-Up Check
 - Performed each time the pump is activated
 - Looking for a gross leak, such as a broken pipe
 - Line pressure must reach at least 12 psi within 3 seconds
 - If not, auto pump off occurs and a second check occurs to see if pipe can hold at least 7.5 psi for 2 seconds following pump turn off
 - If both checks fail the alarm is sounded
- Fail To Catch Pressure
 - Performed each time pump is shut off
 - Alarm if catastrophic leak is detected



Additional AUTO-LEARN Tests

- Sudden Pressure Loss
 - Performed during no dispense 45 minute waiting periods
 - Looking for a sudden loss of pressure, such as a broken pipe
 - If slope exceeds the 3 gph learned slope for 1.5 minutes and/or
 - If the pressure drops below 5 psi
 - The alarm is sounded and the pump will be shut down
- Extended Pump Run
 - If the hook signal is on for more than 60 minutes and the pressure is greater than or equal to pump on pressure
 - Alarm occurs but the pump will not shut down
- High Pressure Alarm
 - If the line pressure immediately following the catch pressure test is 50 psi or higher for 3 consecutive dispensing
 - Alarm occurs and the pump will shut down

3 GPH Leak Test

- A 3 GPH test is initiated each time pump is shut off or after 45 minutes if line is inactive
- The 3 GPH test is conducted once, if pass on first test. Requires three consecutive fails spaced at 5 minute intervals to fail
- Upon failure, the alarm sounds and the submersible is shut down (positive pump shut off)
- Dispense requests will interrupt the leak test, which will restart from the beginning after dispense is complete

AUTO-LEARN User Interface

- Easy to interpret graphic display
 - Actual pressure readings
 - Status of line and test
 - Last test result



Advantages of Turbine Pump Interface (TPI)

- Reduces down time and saves money
- ATG and Smart Controllers share information to improve performance
- Pump in water shut down, leveling mode, auto-reset and much more
- Standard on all EVO Series Fuel Management Systems



Advantages of Turbine Pump Interface (TPI)



Vapor Recovery Monitoring Components

TS-VFM Vapor Flow
Meter



Vapor Recovery Monitoring Components

TS-VPS Vapor Pressure
Sensor

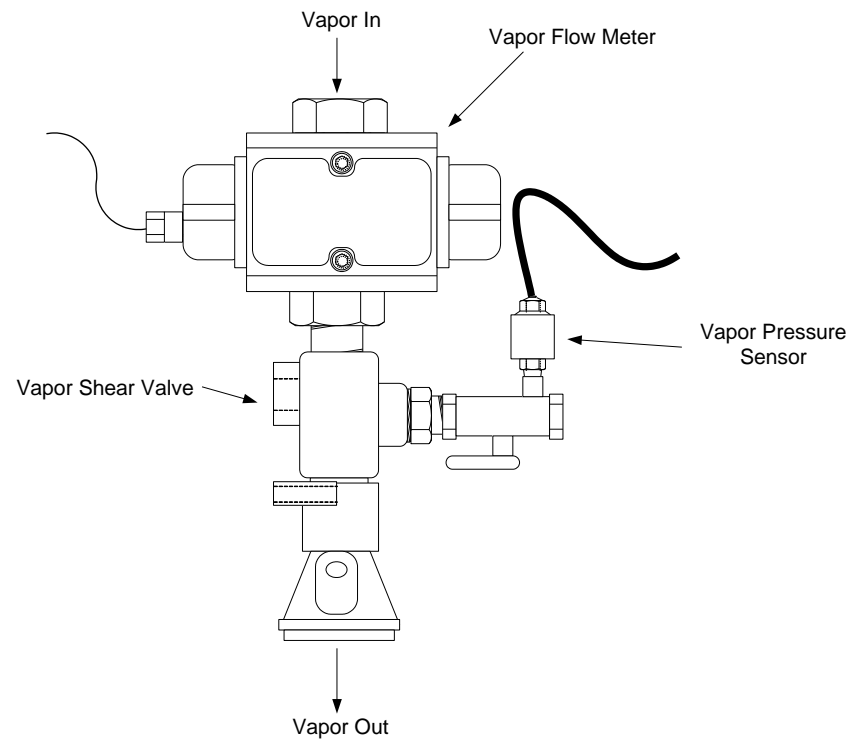


Vapor Recovery Monitoring Components

TS-550EVO
or
TS-5000EVO
Fuel Management System



VFM and VPS Typical Installation



Vapor Recovery Monitoring

- Notifies User of System abnormalities
- Controls Dispenser Power
- TS-550/5000 FMS can also perform all Tank, Line and Containment Monitoring



Vapor Recovery Monitoring

• Reports

- Can be printed on the internal printer
- Or Generated within the web browser and printed from the PC

Northgate Arco AM/PM

4747 Northgate Blvd

Sacramento CA

ISD Certification Site

with Healy Systems

June 2007

Daily ISD Report

07/11/2007 10:05:09

ISD version 1.0.0

ISD Up Time 100%

pass

fail

warning

insufficient

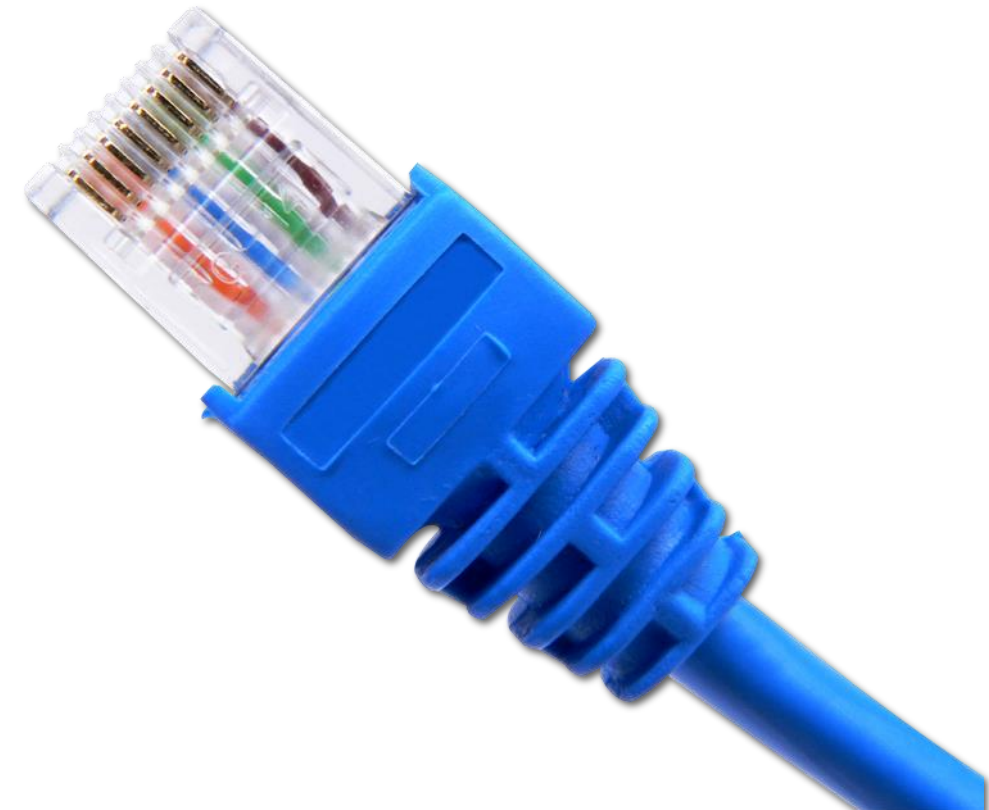
disabled

Date	ISD Up Time	ISD Pass Time	Pressure				Fueling Points A/L Ratio							
			max	min	75th	95th	1	2	3	4	5	6	7	8
06/01/2007	100	100	-3.26	-8.40	-6.81	-5.65	0.93	0.92	0.98	0.98	0.96	0.98	0.98	1.02
06/02/2007	100	100	-1.08	-8.41	-6.61	-2.26	0.96	0.95	0.96	0.93	0.96	0.98	0.96	0.99
06/03/2007	100	100	-4.49	-8.41	-7.34	-5.65	0.98	1.00	0.95	0.99	0.98	0.96	1.00	1.03
06/04/2007	100	100	-2.77	-8.40	-4.51	-2.82	0.95	0.96	1.00	0.00	0.91	0.96	0.96	0.95
06/05/2007	100	100	-5.62	-8.41	-7.56	-6.28	0.93	0.94	0.98	0.94	0.91	0.97	0.96	0.99
06/06/2007	100	100	-1.04	-8.45	-6.99	-1.69	0.95	0.97	1.00	0.99	0.99	0.96	0.99	1.02
06/07/2007	100	100	-0.97	-8.42	-7.15	-2.70	0.96	0.96	1.00	0.99	0.96	0.99	0.99	1.02
06/08/2007	100	100	-3.75	-8.41	-7.21	-3.82	0.97	0.94	0.99	0.95	0.97	0.99	0.96	0.99
06/09/2007	100	100	-3.15	-8.41	-5.06	-3.37	0.95	0.93	1.02	0.94	0.93	0.92	0.91	0.97
06/10/2007	100	100	-3.39	-8.39	-6.77	-5.32	0.96	0.84	0.90	0.97	0.97	0.95	0.93	1.03
06/11/2007	100	100	-3.08	-8.39	-6.26	-5.16	0.94	0.94	0.00	0.95	0.98	0.92	0.97	1.03
06/12/2007	100	100	-4.43	-8.40	-6.79	-5.28	0.95	0.94	1.01	0.93	0.96	0.96	0.97	1.00
06/13/2007	100	100	-4.53	-8.39	-6.54	-5.22	0.88	0.92	0.87	0.90	0.91	0.88	0.84	0.98
06/14/2007	100	100	-3.57	-8.39	-7.68	-5.47	0.91	0.90	0.87	0.85	0.88	0.90	0.89	0.95

Remote Connectivity

Access options

- Information can be retrieved via
 - Web browser
 - Get Connected AnyWare
 - System Sentinel AnyWare
- 3rd party software using industry standard protocols



System Sentinel AnyWare™

- Gathers specified data in a user-defined polling schedule or in real-time.
- Inventory can be monitored as needed to precisely schedule deliveries.
- Deliveries are forecast from current inventory usage rates.
- Provides centralized control of all compliance information such as tank and line leak testing data and leak detection sensor status.
- A wide variety of reports can be custom-scheduled, displayed and printed or faxed at specific times.
- Communicates with all major tank gauge brands.
- Supports an unlimited number of sites.
- Offers immediate notification of alarms for corrective action.



Export Feature

- The new export feature allows you to extract this data in several different formats so it can be used by other applications. The data files can be automatically sent to an email address, FTP site, or saved to a local drive.



Rules Engine

- Rules engine consists of collection of user-defined “if-then” condition statements
 - If this Event happens...then take this Action

Rules	+		
Rule - Power On	»
Rule - Alarm Notification	»
Rule - Application Events	»
Rule - New Rule #1	-	Name	New Rule #1
		Enabled	No
Events	+		
Event	-	Type	New Alarm Occurred
		Category	Any
		Code	Any
		Device	Any
		State	Any
Actions	+		
Action	-	Type	E-Mail
		Address	your_email@address.com
		Content	Generated
		Template	Text

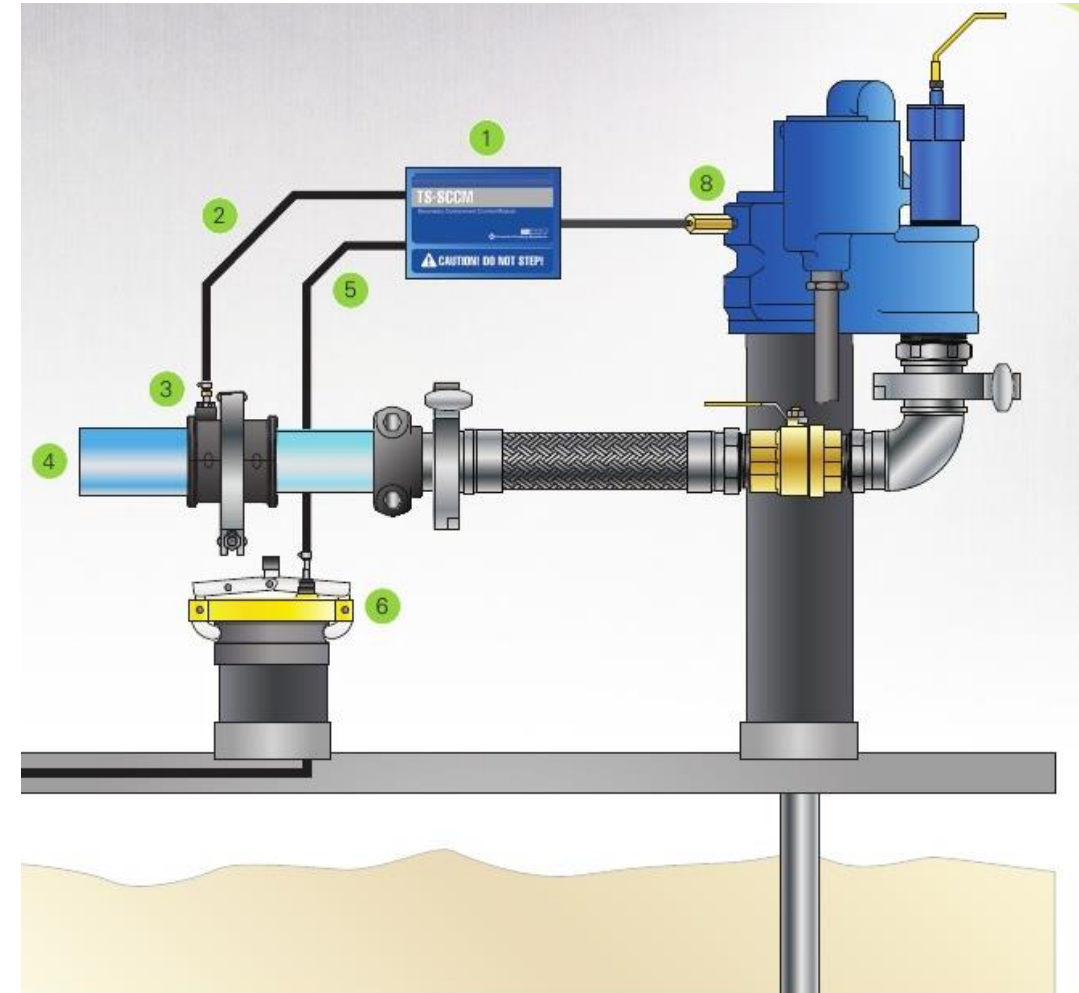
SCM: Secondary Containment Monitoring

- Continuous monitoring of secondary spaces of piping, tanks, and sumps.
- Uses siphon port of submersible pump to maintain vacuum on the secondary containments of Lines, Sumps, Tanks and Vapor Lines.
- Uses AutoLearn technology to determine characteristics of each secondary space at location.
- Up to four different containments can be connected to each STP using combinations of single and dual TS-SCCM modules.



SCM: Secondary Containment Monitoring

- Module consists of pressure sensor and solenoid valve
 - Uses submerged turbine pump as the vacuum source by directly connecting to the siphon port
- Continuously monitors vacuum level of the interstitial spaces



Going Beyond Fuel Management

You already know that our complete line of T5 Series tank gauges set the industry standard for making fuel management simple and easy for any user. When you pair the powerful rules engines in our tank gauges with a few third-party sensors or accessories, you can get that same level of efficiency for your entire operation with major cost saving implications.

Here are just a few basic types of third-party sensors and accessories you can pair with a T5 Series tank gauge:

Temperature

A temperature control sensor uses ambient temperature sensing technology to send a signal to a controller with changes in the surrounding temperatures.

Magnetic

A magnetic contact sensor includes two surface mounted magnets which send a signal to a controller when one magnet moves away from the other.

Photo

A photo control sensor uses ambient light sensing technology to send a signal to a controller with changes in the surrounding levels of lighting.



ATG COMPONENTS **EVO™ 550 & EVO™ 5000**



Video Surveillance

Several markets require constant video surveillance of fueling positions and if a video camera goes down, you need to make sure that the fueling point it's covering is deactivated. By pairing your video equipment with a T5 Series tank gauge, you can shut down the affected dispenser until your video camera has been serviced and is back up and running.



Lighting Management

With each sunrise and sunset you want to activate your station's lighting systems accordingly. With the exact sunrise and sunset times changing daily, a timer-based system can end up costing you. By pairing a photo control sensor with a T5 Series tank gauge you can let the ambient lighting automatically dictate your lighting system.

ATG COMPONENTS **EVO™ 550 & EVO™ 5000**



Property Security

Protecting your station from theft is extremely important to station owners. Mount a magnetic sensor device on your dispenser access panels or your exterior doors and pair them with a T5 Series tank gauge. If either are opened when they shouldn't be, you can program the tank gauge to sound an alarm or send a text message to alert you or the authorities of a potential theft or break-in.

EVO™ 550 & EVO™ 5000

Refrigeration Monitoring

The costs of keeping your convenience store products cold are enough as it is. By pairing a temperature sensor with a T5 Series tank gauge, you can program the system to send you an alert if your refrigerator temperatures drop, indicating a door has been left open too long or a refrigerator malfunction has occurred so you can react timely.

EVO™ 550 & EVO™ 5000

Emergency Stop

When you pair an emergency stop button with a T5 Series tank gauge you can program your system to automatically shut down submersible pumps when the stop button is pushed. You can also alert station managers or service technicians with an automatic text message or email letting them know of the stoppage so they can respond accordingly.

ATG COMPONENTS **EVO™ 550 & EVO™ 5000**



Automating Devices

By pairing common convenience store equipment with a T5 Series tank gauge, you can automate actions such as turning on store signage, controlling interior lighting, or controlling food preparation or warming equipment. It can even help you ensure that high energy consuming equipment like ovens or fryers are shut off at night.

EVO™

SERIES

