

## Tank Sentinel® - Automatic Tank Gauge TS-5000/550



The INCON fuel management system's modular design provides compliance and fuel management capability in a single enclosure.



### Features

- Can monitor up to 72 tanks.
- Continuous inventory monitoring and tank testing through proven magnetostrictive probe technology.
- Highest rated continuous 24 hour leak detection (SCALD) in the industry.
- Patented AutoLearn™ electronic line leak detection capability.
- Standard communication ports including Ethernet, (2) RS-232 and USB.
- Internal fax and data modem options.
- Interstitial and piping sump leak sensing for up to 72 sensors.
- Can handle 72 dispenser hook inputs eliminating need for external box.

### Capabilities

The INCON fuel management system is built on established open system software platform.

- Standard Ethernet connection allows easy integration to existing wide area networks.
- XML based software allows access to data remotely without the need of additional software.
- Graphical touch screen LCD allows text to be displayed in native language.
- Generic interface modules give flexibility in configuring station monitoring requirements.
- E-mail notification gives station owners real-time status information.
- Multiple printing options give flexibility in style and format of reports.

### Applications

The flexible architecture of the INCON fuel management system allows multiple applications to run concurrently satisfying current and future business and regulatory requirements.

- Fuel management system applications provide accurate inventory information, third party approved tank and line leak detection, automated inventory reconciliation and submersible pump monitoring.
- The Vapor Recovery Monitoring application gauges the effectiveness of a station's vapor recovery equipment through continuous monitoring of gasoline vapors during fueling operations.
- Secondary Containment Monitoring application continuously monitors the interstitial spaces of double wall tanks, lines and sumps, and notifies station owners when a release of product into the environment has occurred.



## TS-5000/550 Specifications

Intrinsic Safety Rating	US: Class I, Div. I, Group D Europe: Group IIA, Zone 0
Operating temperature	32° to 104° F (0° to 40° C)
Storage temperature	-4° to 140° F (-20° to 60° C)
Power requirements	110-220 VAC, +15%, -10%, 150 Watt maximum, 1.5 Amp

MODEL	DESCRIPTION
<b>TS-5000 110 VAC &amp; 220 VAC Models</b>	
T5000	TS-5000 base console, without display and printer
T5000D	TS-5000 base console, with display and without printer
T5000DP	TS-5000 base console, with display and printer
<b>TS-550 110 VAC &amp; 220 VAC Models</b>	
T550	TS-550 base console, without display and printer
T550D	TS-550 base console, with display and without printer
T550DP	TS-550 base console, with display and printer
<b>Expansion Console</b>	
TS-EXPC	Secondary Console to add eleven additional plug-in modules to primary TS-5000/550 console. No display or printer.

## Full Feature Modular Console Software & Hardware Options

The TS-550 and TS-5000 consoles comes standard with the ability to monitor inventory levels. The following software and hardware options can be added to customize your consoles. The Internal Hardware Options will be factory installed when ordered with the console.

PART NUMBER	DESCRIPTION
<b>Internal Software Option</b>	
TS-TT	(T) Tank Testing Software (Includes Static and SCALD)
TS-TRAC	(R) Tank Inventory Reconciliation and Auto Calibration
TS-ELLD	(L) Electronic Line Leak Detection
TS-SCM	(S) Secondary Containment Monitoring
<b>Internal Hardware Option</b>	
TS-DIMIB	(I) Internal Dispenser Interface Module (Dispenser Interface Cable must be ordered separately)
TS-LON	(E) EcheLON Communication Module (IFSF protocol capability)
TS-MDMIB	(M) Internal Modem (Includes fax and data software capability)

Note: Only one TS-DIMIB or TS-LON module can be installed per console.

# FUEL MANAGEMENT SYSTEMS



## Full Feature Modular Consoles Interface Modules

The TS-550 and TS-5000 consoles come standard with a Power Supply Module and a Controller Module. Additional interface modules can be installed. Interface modules ordered with a TS-550/5000 console will be installed in the console at the factory. The following guidelines must be followed:

- TS-5000: Eleven total modules can be installed with a maximum of nine intrinsically safe modules, a maximum of three of any one kind of module.
- TS-550: Six total modules can be installed with a maximum of four intrinsically safe modules, a maximum of three of any one kind of module.

### Intrinsically Safe Modules

PART NUMBER	DESCRIPTION
TS-PRB	12 Input Probe Module (LL2 Series Mag Probes and VFM Series Flow Meters)
TS-2WSNS	12 Input 2-wire Sensor Module (TSP-ULS and TSP-HLS Sensors)
TS-3WSNS	8 Input 3-wire Sensor Module (TSP-EIS, DIS, DDS, DTS, HIS and DVS Sensors)
TS-420IB	8 Input 4-20 ma Module (LSU500 Transducers and VPS & VCM Series Pressure Sensors)

### Non-Intrinsically Safe Modules

PART NUMBER	DESCRIPTION
TS-ACI	12 Input AC Input Module (Dispenser Hook Inputs)
*TS-RLY	8 Input Relay Output Module (VCM Series Solenoid)

## TS-LS500 AutoLearn™

Pressurized Line Leak Detection provides automatic 3.0 gph hourly, 0.2 gph monthly and 0.1 gph annual precision line leak detection for TS-550 and TS-5000 consoles. A TS-420IB, TS-ACI and TS-RLY modules and TS-ELLD software option must be ordered and installed in tank gauge console.

PART NUMBER	DESCRIPTION
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

PART NUMBER	DESCRIPTION
TSP-WDCBL	Wayne DIM Cable
TSP-TDCBL	Tokheim DIM Cable
TSP-GDCBL	Gilbarco DIM Cable
TSP-GSDCBL	Gilbarco G-Site DIM Cable

## Secondary Containment Monitoring

The Secondary Containment Monitoring system is designed to detect leaks in double-walled tanks, sumps and piping. A TS-420IB, TS-RLY module, TS-ACI and TS-SCM software option must be ordered and installed in the tank gauge console.

### Sensor Modules

PART NUMBER	DESCRIPTION
TS-SCCM/1	Single Secondary Containment Control Module
TS-SCCM/2	Double Secondary Containment Control Module
TS-SCMCAL	Leak Generator Kit (one per station)

### Install Kit

PART NUMBER	DESCRIPTION
TSP-SCLSI	Product/Vapor Line/Sump Containment Install Kit
TSP-SCTKI	Tank Containment Install Kit (in tank hose sold separately)

### Accessories

PART NUMBER	DESCRIPTION
TSP-SCTB25	25 foot hose
TSP-SCTB50	50 foot hose
TSP-SCTB100	100 foot hose
TSP-SCCLP	Five hose clamps
TSP-SCVLV	Five Schraeder valves
TSP-SCBRB	Five ¼" NPT barbed fittings
TSP-SCBRBT	¼" NPT barbed T fitting