

Fuel Management System Console Accessories

TS-550 and TS-5000 Fuel Management System Console Interface Modules

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 console will be installed at the factory. The following guidelines must be followed:

- TS-550: 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.
- TS-5000: 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

Part Number	Description
TS-PRB	12 input probe module, LL2 Series mag probes, VFM flow meters and DMS Mag sensors
TS-2WSNS	12 input 2-wire sensor module, TSP-ULS and TSP-HLS sensors
TS-3WSNS	8 input 3-wire sensor module, TSP-EIS, TSP-DIS, TSP-DDS, TSP-DTS, TSP-HIS, TSP-MWS and TSP-DVS sensors
TS-4201B	8 input 4-20 mA module, LSU500 transducers and VPS and SCCM pressure sensors

Non-Intrinsically Safe Modules

Part Number	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.
The TS-420EXP module requires Controller Module software version 9.5 or greater

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. Available in intrinsically safe and explosion proof models. Use explosion proof when low voltage conduit is not available. The TS-4201B or TS-420EXP, TS-ACI and TS-RLY module and TS-ELLD software option must be ordered and installed in the fuel management system console.

Intrinsically Safe

For new installations where separate low voltage conduits can be used. Use TS-4201B module.

Model	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.

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

Dispenser Interface Module Cables

Part Number	Description
TSP-WDCBL	Wayne cable
TSP-TDCBL	Tokheim cable
TSP-GDCBL	Gilbarco cable
TSP-GSDCBL	Gilbarco G-Site cable
TSP-BDBCL	Bennett 515 only cable

Paper Supplies

Part Number	Description
TS-TP5000	TS-550 and TS-5000 impact printer paper
TS-TP5000C	12 rolls of impact printer paper
TS-INKRB	TS-550 and TS-5000 ink ribbon

Secondary Containment Monitoring

The secondary containment monitoring system is designed to detect leaks in double-wall tanks, sumps and piping. TS-420IB, TS-RLY and TS-ACI modules and the TS-SCM software option must be ordered and installed in the tank gauge console.

Sensor Modules

Part Number	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	220VAC single channel secondary containment control module
VS-SCCM/2	220VAC dual channel secondary containment control module

Install Kit

Part Number	Description
TSP-SCLSI	Product, vapor line and sump containment install kit
TSP-SCTK2	Tank containment install kit for 2" risers, in-tank hose sold separately
TSP-SCTK2B	Tank containment install kit for 2" risers with BSP threads, in-tank hose sold separately
TSP-SCTK4	Tank containment install kit for 4" risers, in-tank hose sold separately
TSP-SCTK4B	Tank containment install kit for 4" risers with BSP threads, in-tank hose sold separately

Accessories

Part Number	Description
TSP-SCBRB	Five 1/4" NPT barbed fittings
TSP-SCBRBT	1/4" NPT barbed T-fitting
TSP-SCCLP	Five hose clamps
TSP-SCTB25	25' hose
TSP-SCTB50	50' hose
TSP-SCTB100	100' hose
TSP-SCVLV	Five Schreader valves

Upgrading Installed Fuel Management System Consoles

Two types of upgrades can be done on a fuel management system console: 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
Internal modem		TS-MDMIB internal modem	
24 hour tank testing	TS-TT SCALD tank testing		
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
Tank inventory reconciliation	TS-TRAC tank inventory reconciliation and auto calibration	TS-DIMIB module Appropriate DIM interface cables	
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
Vapor recovery monitoring (ISD)	TS-VRM vapor recovery monitoring	TS-VFM flow meters TS-VPS pressure sensor TS-DIMIB dispenser interface	TS-ACI module (not needed w/VRM 1.2) TS-RLY or TS-10ARLY module TS-PRB probe module TS-420IB module

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

Software Version Upgrade Only

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

