

EVO™ 600 & EVO™ 6000 SERIES

EVO™ 600 & EVO™ 6000 provide highly accurate inventory management and full-featured compliance monitoring for any size fuel system. Being module-based, the EVO™ Series is 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-color, icon-based touch screen provides user-friendly on-site access to inventory, alarm, and compliance data.



HIGHLIGHTS

Highly accurate, real-time fuel inventory monitoring

Make informed, data-driven inventory / delivery decisions

Automated compliance monitoring, testing, and reporting

Navigate effortlessly with user-friendly touchscreen

Continuous electronic line leak detection (optional)

Advanced pump monitoring and control

Pre-configure software tool for fast, hassle-free setup

Anywhere, anytime access via PRO™ Connect

Reduce downtime with automatic firmware upgrades

Optimize throughput via real-time flow rate analysis

Custom security levels, user tracking, & multifactor log-in

Latest TLS/SSL protocols for secure data encryption

DO MORE WITH EVO™ SERIES

Leverage the power of an EVO™ to help operate and maintain your fuel system and network operations as efficiently as possible.



**TURBINE PUMP
INTERFACE™**



**ELECTRONIC LINE
LEAK DETECTION**



**CORROSION CONTROL™
INTEGRATION**



**FLOW RATE
MONITORING**



Inventory Reconciliation



Tank Autocalibration



Secondary Containment Monitoring



DEF/AdBlue® Recirculation

HIGHLIGHTS CONTINUED

Capabilities

- Inventory / delivery monitoring / reconciliation
- Tank autocalibration
- Static tank testing
- Statistical Continuous Automatic Leak Detection (SCALD®)
- Turbine Pump Interface™ (TPI)
- Containment leak detection & compliance monitoring
- Electronic Line Leak Detection (ELLD)
- AUTO-LEARN®
- ELLD line learning

Inventory Monitoring

Provides real-time tracking of fuel levels within storage tanks. This enables station owners to manage inventory effectively, reducing the risk of runouts or overfilling.

Inventory Reconciliation**

Compares dispensed fuel amounts with actual inventory levels to identify discrepancies. This helps detect potential leaks or theft, ensuring product accountability and environmental compliance.

Tank Autocalibration**

Automatically adjusts tank capacity measurements to reflect actual conditions. This enhances measurement accuracy, leading to more precise inventory management and compliance reporting.

Static Tank Testing*

Conducts scheduled, non-intrusive tests to verify tank integrity. Station owners benefit by ensuring regulatory compliance and preventing environmental contamination.

Statistical Continuous Automatic Leak Detection (SCALD®)*

SCALD® continuously analyzes data to detect tank leaks without requiring shutdowns or interrupting fueling. Ideal for 24/7 sites with minimal quiet periods, it ensures compliance without disrupting operations.

Containment Compliance Monitoring

Monitors containment sumps and tank interstitial for leaks. This ensures early detection of containment failures, protecting the environment and aiding in regulatory compliance.

Programmable Logic Conditions (Custom Applications)

Enables customization of system responses based on specific site conditions. This flexibility allows station owners to automate processes, enhancing operational efficiency.

Electronic Line Leak Detection (ELLD) *(Optional)*

Utilizes electronic sensors mounted in the submersible pump to detect leaks in fuel lines. Early detection prevents product loss and environmental hazards, ensuring system integrity.

- Statistical Line Leak Detection (SLLD)
- Programmable logic conditions (custom applications)
- Corrosion Control™ System automation
- DEF/AdBlue® recirculation
- Fuel point flow rate monitoring
- Enhanced Sentinel Mode (theft detection)
- PRO™ Connect remote access on any device
- Automatic firmware upgrades

AUTO-LEARN® ELLD Line Learning *(Optional)*

Automatically learns the characteristics of fuel lines to enhance leak detection accuracy. This ensures precise, customized leak detection, reducing the risk of false alarms and enhancing overall system accuracy.

Statistical Line Leak Detection (SLLD) *(Optional)*

Analyzes pressure and flow data over time to identify leaks. This allows sites with constant fuel flow to perform 0.2 gph leak testing, even during peak operation, which ensures continuous compliance without disrupting operations.

Dual-Sensor Connectivity in Parallel per Input

Allows two FMP-ULS sensors to connect to a single input channel in parallel. This expands monitoring capabilities without additional hardware, optimizing system resources.

Remote Access via PRO™ Connect

Provides off-site access to system data and controls through a secure web interface. Station owners can monitor and manage their sites remotely, improving response times and operational oversight.

Turbine Pump Interface™ (TPI)

Creates a network between intelligent pump controllers and EVO™ ONE allowing real-time data sharing and intelligent system responses. This enables remote troubleshooting and reduced downtime features like:

- **Pump in Water Automation**
Detect water in tanks and automatically shut off the affected pump, preventing water from being pumped into a customer's vehicle.
- **Clogged Pump Escalation**
Detect, verify, and automate the resetting of a pump to clear clogs and bring them back online faster without a service call.
- **Tank Leveling & Priority**
Balance the levels of multiple tanks with the same fuel type or prioritize one tank for faster, more efficient fuel deliveries.

**Requires the purchase/use of leak detection probes.*

***Leak detection probes are recommended to improve accuracy of results.*

SPECIFICATIONS

Inputs & Connectivity

	EVO™ 600	EVO™ 6000
Maximum tanks monitored (stand-alone)	48	48
Maximum tanks monitored, with accessories*	96	96
Maximum sensor input capacity (stand-alone)	80	140
Maximum sensor input capacity, with accessories*	220	280
Maximum total inputs (stand-alone)	126	186
Maximum total inputs, with accessories*	306	366
Maximum AC input channels (stand-alone)	48	108
Maximum AC input channels, with accessories*	156	216
Maximum relay output channels (stand-alone)	34	34
Maximum relay output channels, with accessories*	66	66
Dry contact input channels	2	2
Connectivity	Ethernet (qty 2). RS-232, RS-485, standard USB, USB Mini-B	

Hardware

Display type	7 in (17.78 cm) color LCD touch screen
Printer type	Thermal (also network or USB)
Alarm	Internal audible alarm
LEDs	Alarm, warning, and power
Power requirements	110 to 240 VAC, 50/60 Hz, 1.5 amps
Operating temperature	32° F to 104° F (0° C to 40° C)
Humidity	0-90% non-condensing
EVO™ 600 Dimensions (L x W x H)	11.1 in x 9.5 in x 12.7 in (282 mm x 242 mm x 321 mm)
EVO™ 6000 Dimensions (L x W x H)	17 in x 9.5 in x 12.7 in (432 mm x 242 mm x 321 mm)

Features

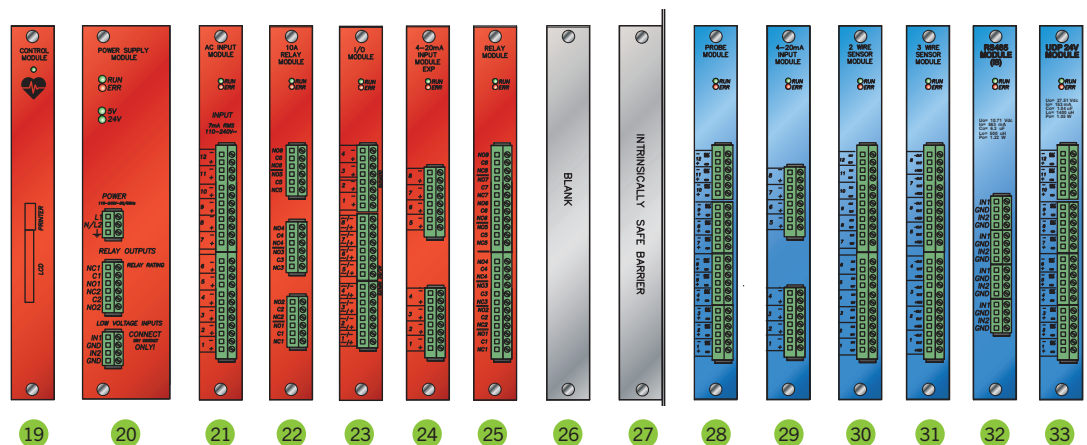
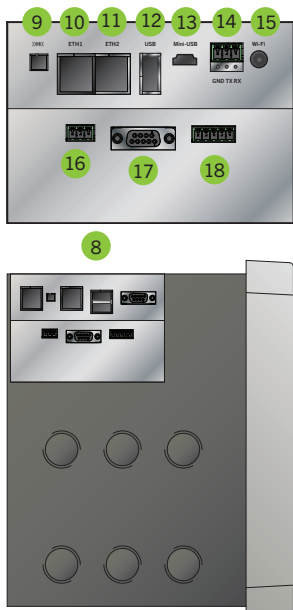
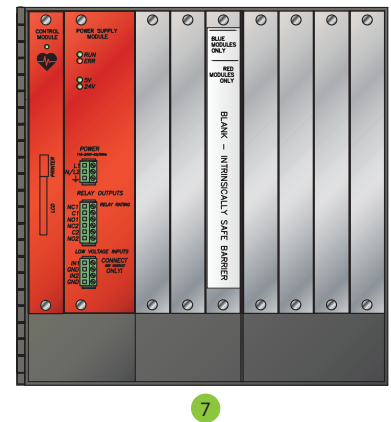
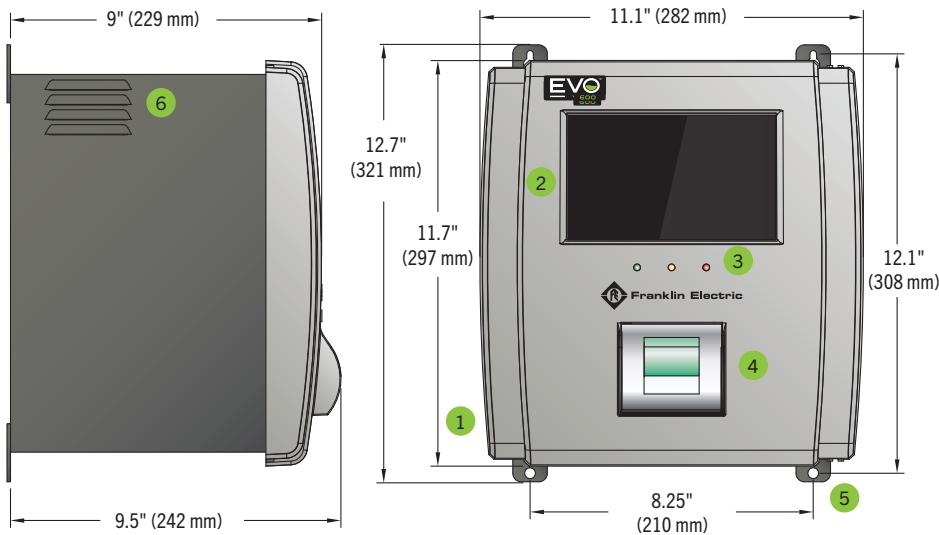
Level units	Inches, centimeters, and millimeters
Volume units	Gallons or liters (mass with density option)
Alarm set points	High/low product, water, and temperature
Technical Advantages	Inventory reconciliation, tank autocalibration, flow rate monitoring
Measurements	Density, mass, and phase separation measurement
Notifications	Email and SMS
Programming	Back-up generator monitoring/conditions
Advanced Logic Control	DEF/AdBlue® recirculation system
Support	MQTT, MODBUS™, XML, Veeder-Root®
Approvals	UL, cUL, ATEX, IECEx, GSA IT Security
Certifications	- Third-party certification of leak detection capabilities - Third-party verified “MATURE” security posture level

*Requires use of FMP-EXPC Expansion Modules.

SPECIFICATIONS

Components

- 1 Cover
- 2 LCD Touch Screen
- 3 LED Indicators
- 4 Printer
- 5 Mounting Tabs
- 6 Cooling Vents
- 7 Module Slots
- 8 Communication Ports
- 9 Annunciator (audible alarm)
- 10 Ethernet Port 1
- 11 Ethernet Port 2
- 12 USB Port (Type-A)
- 13 USB Port (Mini-B)
- 14 RS-232 Comm Port 1
- 15 Wi-Fi
- 16 Bus Extension
- 17 RS-232 Comm Port 2
- 18 RS-485 / TPI
- 19 Controller Module
- 20 Power Supply Module
- 21 AC Input Module (TS-ACI)
- 22 10 Amp Relay Module (TS-10ARLY)
- 23 I/O Module (TS-IO)
- 24 4-20mA Module EXP (TS-420EXP)
- 25 Relay Module (TS-RLY)
- 26 Blank
- 27 Intrinsically Safe Barrier
- 28 Probe Module (TS-PRB)
- 29 4-20mA Module (TS-420IB)
- 30 2-Wire Sensor Module (TS-2WSNS)
- 31 3-Wire Sensor Module (TS-3WSNS)
- 32 RS-485 Module (FMP-485IS)
- 33 UDP 24V Module (FMP-UDP24)



The intrinsically safe barrier must be installed in the third slot or greater. (The third slot after the Power Supply Module.)

SPECIFICATIONS CONTINUED

Module Selection Guide

Module	Relay Module (TS-RLY)	10 Amp Relay Module (TS-10ARLY)	4-20 mA Module NIS (TS-420EXP)	AC Input Module (TS-ACI)	Input Output Module (TS-IO)	RS-485 Module (FMP-485IS)	UDP 24V Module (FMP-UDP24)	Probe Module (TS-PRB)	3-Wire Sensor Module (TS-3WSNS)	2-Wire Sensor Module (TS-2WSNS)	4-20 mA Module IS (TS-420IB)
Inputs	-	-	8	12	8 (3-240 VAC/DC)	4	12	12	8	12	8
Outputs	8	6	-	-	4 (4-20 mA)	-	-	-	-	-	-
EVO™ 600/6000 Compatibility	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EVO™ 550/5000 Compatibility	✓	✓	✓	✓	✓	-	-	✓	✓	✓	✓
Franklin Electric Device Compatibility	SCM TS-SCCM <u>WATER SEPARATOR</u> 407985903 <u>OVERFILL ALARM</u> TS-RK	-	ELLD TS-LSU500E	-	-	MSH FMP-MSH	PROBES FMP-LL3-XXX FMP-LL3-XXX-I FMP-FLX-XXX TSP-LL2-XXX TSP-LL2-XXX-I SENSORS FMP-UHS FMP-ULS FMP-CDS-U FMP-DDS-U FMP-DDS-UD FMP-DIS-U FMP-DPS-U FMP-DTS-U FMP-EIS-U FMP-HIS-U FMP-HIS-XL-U TSP-DMS-XX	PROBES FMP-LL3-XXX FMP-LL3-XXX-I FMP-FLX-XXX TSP-LL2-XXX TSP-LL2-XXX-I SENSORS FMP-CDS-U FMP-DDS-U FMP-DDS-UD FMP-DIS-U FMP-DPS-U FMP-DTS-U FMP-EIS-U FMP-HIS-U FMP-HIS-XL-U TSP-DMS-XX	SENSORS FMP-DDS* FMP-DIS* FMP-DTS* FMP-EIS* FMP-HFS FMP-HFS2 FMP-HIS* FMP-HIS-XL* FMP-UHS* FMP-ULS* TSP-DVS TSP-HLS-XX TSP-HLS-XX/SS	SENSORS FMP-HFS FMP-HFS2 FMP-UHS* FMP-ULS* TSP-HLS-XX TSP-HLS-XX/SS	ELLD TS-LSU500 SCM TS-SCCM SENSORS TS-VPS DEF RECIRCULATION FMP-TEM
Typical Application	Secondary containment control, submersible pump control, water separator control, and overfill alarm control.	Dispenser shutdown control	LS500 transducer pressure monitoring, third-party 4-20mA device monitoring	Dispenser hook signal monitoring	Remote monitoring control, building monitoring system interfacing	Connecting to Multiplexing Sensor Hubs™	Liquid level monitoring, discriminating / non-discriminating liquid detection, corrosion control monitoring	Liquid level monitoring, discriminating / non-discriminating liquid detection, corrosion control monitoring.	Discriminating / non-discriminating liquid detection, overfill prevention	Non-discriminating liquid detection, overfill prevention	LS500 transducer pressure monitoring, vapor recovery monitoring, secondary containment monitoring, third-party 4-20mA device monitoring

*EVO™ 600, EVO™ 6000, EVO™ 500, and EVO™ 5000, are backwards compatible with the TSP-XXX versions of the sensors.
NOTE: FMP-XXX-U sensors are not compatible with EVO™ 550/5000.

ORDERING INFORMATION

Ordering Guide

EVO™ 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 DPWI / TRFLGC

EVOX = Base Model Options

EVO600 = EVO™ 600 base model

EVO6000 = EVO™ 6000 base model

DPWI = Hardware Options (choose all that apply)

D = Display

P = Printer

W = Wi-Fi

I = Dispenser Interface Module

TRFLGSC = 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) Electronic Line Leak Detection or

(G) Generator Electronic Line Leak Detection

S = Secondary Containment Monitoring

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

Example: EVO600DPWI/TRL = EVO™ 600 base model with display, printer, Wi-Fi, Dispenser Interface Module, SCALD®, Reconciliation/Autocalibration, and line leak detection.

Dispenser Interface Module Cables

Model	Description
TSP-BDCBL	Bennett® 515 only cable
TSP-GDCBL	Gilbarco® cable
TSP-GSDCBL	Gilbarco® G-Site™ cable
TSP-WDCBL	Wayne™ cable

EVO™ 600/6000 Interface Modules

The EVO™ 600 and EVO™ 6000 come standard with a Power Supply Module and a Controller Module. Additional interface modules can be installed. Interface modules ordered with an EVO™ will be installed at the factory (FMP-/TS-). If you would like them to not be installed, please order the spare/replacement version of the module (FMSP-/TSSP-).

- EVO™ 600: 6 total modules can be installed with a maximum of 4 intrinsically safe modules.
- EVO™ 6000: 11 total modules can be installed with a maximum of 9 intrinsically safe modules.

The following guidelines must be followed:

- AC Input, 2-Wire Sensor, and 3-Wire Sensor Modules
 - No limits
- Relay + 10A Relay + Input Output Modules
 - Must be ≤ 4
- UDP 24V
 - Must be ≤ 4
- 4-20 mA + RS-485
 - Depends on how many UDP 24V modules are being used.

Total UDP 24V Modules	Allowable 4-20 mA + RS-485 Modules
0 or 1	4
2	3
3	1
4	0

NOTE: If your application requires exceeding the module guidelines, please contact your sales representative.

ORDERING INFORMATION

Intrinsically Safe Modules

Model	Description
FMP-485IS	RS-485 Module, 4 MSH inputs (allows for 24 total inputs), Compatible with FMP-MSH Multiplexing Sensor Hubs™
FMSP-485IS	Spare/Replacement RS-485 Module
FMP-UDP24	UDP 24V Module, 12 inputs, Compatible with FMP-LL3-XXX, FMP-LL3-XXX-I, FMP-FLX-XXX, TSP-LL2-XXX, and TSP-LL2-XXX-I Probes; FMP-UHS, FMP-ULS, FMP-XXX-U, and TSP-DMS-XX Sensors
FMSP-UDP24	Spare/Replacement UDP 24V Module
TS-2WSNS	2-Wire Sensor Module, 12 inputs, Compatible with FMP-HFS2, FMP-UHS*, FMP-ULS*, TSP-HLS-XX, and TSP-HLS-XX/SS sensors
TSSP-2WSNS	Spare/Replacement 2-Wire Sensor Module
TS-3WSNS	3-Wire Sensor Module, 8 inputs, Compatible with FMP-DDS*, FMP-DIS*, FMP-DTS*, FMP-EIS*, FMP-HIS*, FMP-HIS-XL*, FMP-UHS*, FMP-ULS*, TSP-DVS, TSP-HLS-XX, and TSP-HLS-XX/SS sensors
TSSP-3WSNS	Spare/Replacement 3-Wire Sensor Module
TS-PRB	Probe Module, 12 inputs, Compatible with TSP-LL2-XXX, TSP-LL2-XXX-I, FMP-LL3-XXX, and FMP-LL3-XXX-I probes; TSP-DMS-XX and FMP-XXX-U sensors; and TS-VFM vapor flow meters
TSSP-PRB	Spare/Replacement Probe Module
TS-420IB	4-20 mA Module, 8 inputs, Intrinsically Safe, Compatible with FMP-LSU500 and TS-LSU500 transducers and FMP-TEM, TS-VPS, and TS-SCCM sensors
TSSP-420IB	Spare/Replacement 4-20mA Module, Intrinsically Safe

Note: EVO™ 600/6000 are backwards compatible with the TSP-XXX versions of sensors denoted with "***".

Non-Intrinsically Safe Modules

Model	Description
TS-10ARLY	10 Amp Relay Module, 6 outputs, 10 Amp, Compatible with high power dispenser shutdown control functions
TSSP-10ARLY	Spare/Replacement 10 Amp Relay Module
TS-420EXP	4-20 mA Module, 8 inputs, Explosion-Proof, Compatible with TS-LSU500E transducers
TSSP-420EXP	Spare/Replacement 4-20mA Module, Explosion-Proof
TS-ACI	AC Input Module, 12 inputs, Compatible with dispenser hook signal monitoring functions
TSSP-ACI	Spare/Replacement AC Input Module
TS-IO	Input Output Module, 4 4-20 mA outputs, 8 3-240 VAC/DC inputs, Compatible with remote monitoring control and building monitoring system interfacing functions
TSSP-IO	Spare/Replacement Input Output Module
TS-RLY	Relay Module, 8 outputs, 2 Amp, Compatible with submersible pump control, water separator control, secondary monitoring control, and overflow alarm control functions
TSSP-RLY	Spare/Replacement Relay Module

Expansion Consoles

The EVO-EXPC2 must follow the same guidelines as the EVO™ 600, and the EVO-EXPC must follow the same guidelines as the EVO™ 6000.

Model	Description
EVO-EXPC	Secondary console to add eleven additional plug-in modules, comes without a display or printer
EVO-EXPC2	Secondary console to add six additional plug-in modules, comes without a display or printer

EVO™ 600/6000 Hardware & Software Field Upgrades

The following software and hardware options can be added to customize your EVO™ once it's been installed in the field.

Hardware Field Upgrades

Model	Description
EVO-LCD	Display upgrade with existing Interface Board REV 5 or higher (for REV 4 or lower, use EVO-DISPREP)
EVO-DISPREP	Display upgrade with existing Interface Board REV 4 or lower
EVO-TMPTR	Thermal internal printer assembly upgrade
EVO-DIMIB	Internal Dispenser Interface Module upgrade, dispenser interface cable must be ordered separately
EVO-6CM-W/R	Wi-Fi upgrade, includes new Controller Module with Wi-Fi hardware and Wi-Fi antenna, factory programmed with existing software options

Note: The serial number of the existing EVO™ must be provided when ordering the EVO-6CM-W/R.

ORDERING INFORMATION

Dispenser Interface Module Cables

Model	Description
TSP-BDCBL	Bennett® 515 only cable
TSP-GDCBL	Gilbarco® cable
TSP-GSDCBL	Gilbarco® G-Site™ cable
TSP-WDCBL	Wayne™ cable

Internal Software Field Upgrades

Model	Description
TS-TT	Statistical Continuous Automatic Leak Detection (SCALD®) 24-hour tank testing
TS-TRAC	Tank inventory reconciliation and autocalibration
TS-TRAC-F	Reconciliation/autocalibration and flow rate monitoring
TS-FLOW	Flow rate monitoring
TS-ELLD	Electronic line leak detection
TS-ELLD-G	Electronic line leak detection for generator applications
TS-SCM	Secondary containment monitoring
TS-CON	Enhanced logic conditions including value, counter, value compare, latch, and DEF/AdBlue® recirculation

Note: The serial number of the existing EVO™ must be provided when ordering internal software field upgrades.

EVO™ 600 & EVO™ 6000 Spare/Replacement Parts

Spare/Replacement Modules

Model	Description
EVO-6CM	Spare Controller Module, no software options
EVO-6CM/R	Replacement Controller Module, factory programmed with existing software options
EVO-6CM-W/R	Replacement Controller Module with Wi-Fi hardware and Wi-Fi antenna, factory programmed with existing software options
TSSP-EXPPS	Spare/Replacement Expansion Console Power Supply Module
TSSP-PS	Spare/Replacement Power Supply Module
TSSP-T550MB	Spare/Replacement Backplane Module

Note: The serial number of the existing EVO™ must be provided when ordering the EVO-6CM/R and EVO-6CM-W/R.

Spare/Replacement Hardware

Model	Description
EVO-IFBR	Spare/Replacement Interface Board
EVO-LCD	Spare/Replacement LCD Display for existing Interface Board REV 5 or higher (for REV 4 or lower, use EVO-DISPREP)
EVO-DISPREP	Spare/Replacement LCD Display and Interface Board
EVO-TMPTR	Spare/Replacement thermal internal printer assembly
EVO-6CVR	Spare/Replacement Cover
EVO-DIMIB	Spare/Replacement Internal Dispenser Interface Module
TSSP-TRMBLK	Spare package of 10 assorted terminal blocks
FMSP-6CBL1	Spare/Replacement Wide Ribbon Cable - Controller Module to Interface Board
FMSP-6CBL2	Spare/Replacement Thin Ribbon Cable - Controller Module to Interface Board
FMSP-6CBL3	Spare/Replacement Wide Ribbon Cable - Display to Interface Board

Note: The serial number of the existing EVO™ must be provided when ordering the EVO-6CM-W/R.

Printer Paper Supplies

Model	Description
TS-TP2	One box of 5 rolls of thermal printer paper
TS-TP2C	One case with 20 boxes of 5 rolls of thermal printer paper

ORDERING INFORMATION CONTINUED

EVO™ Series Upgrade Kit

Get all of the EVO™ 600/6000 capabilities, including Corrosion Control features and more, on an existing EVO™ 550/5000 with the easy-to-install EVO™ Series Upgrade Kit.

Model	Description
EVO-600UPG/U	Upgrade kit for EVO™ 550 to EVO™ 600, includes Controller Module, comm port cover, and EVO™ 600 jewel (no software options)
EVO-6000UPG/U	Upgrade kit for EVO™ 5000 to EVO™ 6000, includes Controller Module, comm port cover, and EVO™ 6000 jewel (no software options)
EVO-600UPG	Upgrade kit for EVO™ 550 to EVO™ 600, includes Controller Module, comm port cover, and EVO™ jewel, factory programmed with existing software options
EVO-6000UPG	Upgrade kit for EVO™ 5000 to EVO™ 6000, includes Controller Module, comm port cover, and EVO™ 6000 jewel, factory programmed with existing software options
EVO-600UPG-W	Upgrade kit for EVO™ 550 to EVO™ 600 with Wi-Fi, includes Controller Module with Wi-Fi hardware, comm port cover, Wi-Fi antenna, and EVO™ 600 jewel, factory programmed with existing software options
EVO-6000UPG-W	Upgrade kit for EVO™ 5000 to EVO™ 6000 with Wi-Fi, includes Controller Module with Wi-Fi hardware, comm port cover, Wi-Fi antenna, and EVO™ 6000 jewel, factory programmed with existing software options

Note: The serial number of the existing EVO™ must be provided when ordering the EVO-600UPG, EVO-6000UPG, EVO-600UPG-W, and EVO-6000UPG-W.

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