

Fuel Tanker Overfill Detection

FloTech Checkmate Overfill/Retain Plug-n-Play System



| | |
|----------------------|---|
| Application: | The reason for many overfill system breakdowns is failed or poor wiring connections. The required amperage within the overfill system is so low that any poorly wired or corroded wiring connections tend to fail (the low current cannot pass through corrosion or poor connections). To remove the possibility of wiring system problems, Dixon has introduced the FloTech Plug-n-Play system, all the wire connections are prewired and tested at the factory using high quality weather proof cables and plugs. Plug-n-Play system installation takes a fraction of the time to install when compared to conventional systems, just mount all the components and simply plug them all together. |
| Standards: | Manufactured to American Petroleum Institute standard API RP-1004, which allows for interchangeability. |
| Materials: | Dependent upon the component, see each product section for materials |
| Features & Benefits: | <ul style="list-style-type: none"> • Prewired cables and plugs on sensors, wiring harness', onboard monitor and sockets, make it simple to install our Plug-n-Play system in much less time than conventional systems. • Secure and weather tight connections all the time remove the possibility of poor wiring connections. Sealed connectors pass IP67 and DIN40050 salt spray tests. • Easy installation: literally Plug-n-Play, just mount the components and plug them all together. • Biofuel compatible up to E100 (100% Ethanol) and B100 (100% bio diesel) |

Monitors with Integrated Dual Sockets




Features and Benefits:

- Integrated Optic and Thermistor dual sockets with onboard monitor all in one aluminum case
- Takes less space than utilizing separate sockets and monitor
- Prewired and factory tested with Plug-n-Play cabling and plugs, eliminates hours of manual crimped wire connections and removes the problems and worries associated with connection problems.
- Includes water-tight integrated fuse holder, all stainless steel hardware and terminal blocks prevent corrosion
- Built-in configurable high current relay output for pump or signal control
- Color coded display shows well on trailers
- Sockets come standard with FloTech's unique guaranteed for life stainless steel wear rings.

Available Integrated Options:

- Top (overfill) only monitoring, or both top (overfill) and bottom (retain) monitoring
- Pre-wired ground bolt
- Pre-wired pressure sensor which can be used to interlock brakes or vapor vents
- Pre-wired TIM module
- Pre-wired dual male pin power cord

Product instruction sheets and technical data can be viewed on our website at dixonbayco.com by selecting the "Resources" menu

Biofuel Compatible 

Fuel Tanker Overfill Detection

FloTech Checkmate Overfill/Retain Plug-n-Play System Monitors with Integrated Dual Sockets (continued)



Overfill
Products

| Part # | Plug-n-Play Connections | | Available Accessories Installed | | | | | Sockets | |
|------------------------|-------------------------|-------------------------|---------------------------------|------------------------|------------|----------------------------|--|--------------------------------|---------------------------------|
| | Top Overfill Detection | Bottom Retain Detection | Ground Bolt | Pressure Sensor Switch | TIM Module | Dual Male Pin - Power Cord | Stainless Steel 'Guaranteed for Life' Wear Rings | Optic | Thermistor |
| <i>FT208-390P</i> | Yes | No | No | No | No | No | Standard | 6 contact pins, 3 "J" slots | 10 contact pins, 4 "J" slots |
| <i>FT208-390PG</i> | Yes | No | Yes | No | No | No | Standard | | |
| <i>FT208-390PGS</i> | Yes | No | Yes | Yes | No | No | Standard | | |
| <i>FT208-390PGST</i> | Yes | No | Yes | Yes | Yes | No | Standard | | |
| <i>FT208-390PGT</i> | Yes | No | Yes | No | Yes | No | Standard | | |
| <i>FT208-390PGSO</i> | Yes | No | Yes | Yes | No | Yes | Standard | | |
| <i>FT208-390PGSTO</i> | Yes | No | Yes | Yes | Yes | Yes | Standard | | |
| <i>FT208-390PP</i> | Yes | Yes | No | No | No | No | Standard | | |
| <i>FT208-390PPG</i> | Yes | Yes | Yes | No | No | No | Standard | | |
| <i>FT208-390PPGS</i> | Yes | Yes | Yes | Yes | No | No | Standard | | |
| <i>FT208-390PPGST</i> | Yes | Yes | Yes | Yes | Yes | No | Standard | | |
| <i>FT208-390PPGT</i> | Yes | Yes | Yes | No | Yes | No | Standard | | |
| <i>FT208-390PPGSO</i> | Yes | Yes | Yes | Yes | No | Yes | Standard | | |
| <i>FT208-390PPGSTO</i> | Yes | Yes | Yes | Yes | Yes | Yes | Standard | | |
| <i>FT208-391P</i> | Yes | No | No | No | No | No | Standard | 6 contact pins, 4 "J" slots | 10 contact pins 4 "J" slots |
| <i>FT208-391PG</i> | Yes | No | Yes | No | No | No | Standard | | |
| <i>FT208-391PGS</i> | Yes | No | Yes | Yes | No | No | Standard | | |
| <i>FT208-391PGST</i> | Yes | No | Yes | Yes | Yes | No | Standard | | |
| <i>FT208-391PGT</i> | Yes | No | Yes | No | Yes | No | Standard | | |
| <i>FT208-391PP</i> | Yes | Yes | No | No | No | No | Standard | | |
| <i>FT208-391PPG</i> | Yes | Yes | Yes | No | No | No | Standard | | |
| <i>FT208-391PPGS</i> | Yes | Yes | Yes | Yes | No | No | Standard | | |
| <i>FT208-391PPGST</i> | Yes | Yes | Yes | Yes | Yes | No | Standard | | |
| <i>FT208-391PPGT</i> | Yes | Yes | Yes | No | Yes | No | Standard | | |

See pages 123 and 124 for repair kits and replacement parts.

Product instruction sheets and technical data can be viewed on our website at dixonbayco.com by selecting the "Resources" menu



Biofuel Compatible

Fuel Tanker Overfill Detection

FloTech Checkmate Overfill/Retain Plug-n-Play System Stand Alone Monitors



Features and Benefits:

- Prewired and factory tested with Plug-n-Play cabling and plugs, eliminates hours of manual crimped wire connections, and removes the problems and worries associated with connection problems.
- Includes water-tight integrated fuse holder, all stainless steel hardware and terminal block within the aluminum housing.
- High tech color coded display shows well on trailers
- Monitors include advanced diagnostic capabilities as well as signal translation abilities for all socket types (optic, thermistor or float). The system offers true load at any rack compatibility.

Available Integrated Options:

- Top (overfill) only monitoring, or both top (overfill) and bottom (retain) monitoring

| Part # | Description |
|-----------------|--|
| FT208P | Checkmate monitor with Plug-n-Play connectors, top overfill protection only |
| FT208PP | Checkmate monitor with Plug-n-Play connectors, top overfill and bottom retain detection |
| FT208PPC | Checkmate monitor with Plug-n-Play connectors, top overfill and bottom retain detection, for Canadian 'B' trains |

See page 125 for repair kits and replacement parts.

Stand Alone Socket Assemblies



FT390PG-20

Features and Benefits:

- Prewired and factory tested with Plug-n-Play cabling and plugs, eliminates hours of manual crimped wire connections, and removes the problems and worries associated with connection problems.
- Aluminum housings, with either aluminum hardcoat or stainless steel wear rings, stainless steel contact pins.
- Dual and triple socket assemblies **take less space** than multiple single sockets.

Available Integrated Options:

- Pre-wired internal ground wire (dual or triple socket assemblies)
- Pre-wired TIM module (dual or triple socket assemblies)
- FT300P and FT301P sockets are available with FloTech's unique guaranteed for life stainless steel wear rings as options. Plug-n-Play dual and triple sockets come standard with guaranteed for life stainless steel wear rings.

| Part # | Description |
|----------------------|---|
| FT300P | Single socket with Plug-n-Play connector. API Optic, 6 contact pins and 3 J slots (U.S.) |
| FT300PG | Single socket with Plug-n-Play connector. API Optic, 6 contact pins and 3 J slots (U.S.). With internal ground wire. |
| FT301P | Single socket with Plug-n-Play connector. API Thermistor, 8 contact pins and 4 J slots (U.S.) |
| FT306P | Single socket with Plug-n-Play connector. Optic J560 type |
| FT390PG-20 | Dual socket assembly with Plug-n-Play connector on 20' cable. API Optic, 6 contact pins and 3 J slots, and Thermistor, 10 contact pins and 4 J slots. Internal ground wire. Guaranteed for life stainless steel wear rings included. (U.S.) |
| FT394P | Triple socket assembly with Plug-n-Play connector. API Optic, 6 contact pins and 3 J slots, Thermistor, 10 contact pins and 4 J slots, and Optic J560 type. Guaranteed for life stainless steel wear rings included. (U.S.) |
| FT394PG | Triple socket assembly with Plug-n-Play connector. API Optic, 6 contact pins and 3 J slots, Thermistor, 10 contact pins and 4 J slots, and Optic J560 type. With internal ground wire. Guaranteed for life stainless steel wear rings included. (U.S.) |
| FT394VP | Triple socket assembly in a vertical socket arrangement with Plug-n-Play connector. API Optic, 6 contact pins and 3 J slots, Thermistor, 10 contact pins and 4 J slots, and Optic J560 type. Guaranteed for life stainless steel wear rings included. (U.S.) |
| FT394VPG | Triple socket assembly in a vertical socket arrangement with Plug-n-Play connector. API Optic, 6 contact pins and 3 J slots, Thermistor, 10 contact pins and 4 J slots, and Optic J560 type. With internal ground wire. Guaranteed for life stainless steel wear rings included. (U.S.) |
| NEW FT395P-20 | Triple socket assembly with Plug-n-Play connector on 20' cable. Optic, 6 contact pins and 4 J slots, Thermistor, 10 contact pins and 4 J slots, and Optic J560 type. Guaranteed for life stainless steel wear rings included. (Canada) |
| FT395PG-20 | Triple socket assembly with Plug-n-Play connector on 20' cable. Optic, 6 contact pins and 4 J slots, Thermistor, 10 contact pins and 4 J slots, and Optic J560 type. With internal ground wire. Guaranteed for life stainless steel wear rings included. (Canada) |
| FT391P-20 | Dual socket Plug-n-Play assembly with 4-J slots; 20 feet of Plug-n-Play cable |
| FT391PG-20 | Dual socket Plug-n-Play assembly with 4-J slots and internal ground wire; 20 feet of Plug-n-Play cable |

See pages 125-131 for repair kits and replacement parts.

Product instruction sheets and technical data can be viewed on our website at dixonbayco.com by selecting the "Resources" menu
Biofuel Compatible 

Fuel Tanker Overfill Detection

FloTech Checkmate Overfill/Retain Plug-n-Play System Overfill Sensors



Features and Benefits:

- Overfill detection sensors are intended to detect a pending overfill condition inside the fuel tank compartment. When they are wetted (come in contact with the fuel) they signal the fuel loading rack to close the fuel supply control valve, to prevent a spill of product.
- Prewired and factory tested with Plug-n-Play cabling and plugs, eliminates hours of manual crimped wire connections, and removes the problems and worries associated with connection problems. Easy to install, just mount the housing into the tank and plug the cables together.
- Trouble Free Probes: FloTech brand probes incorporate a double elastomer design which seals and secures the sensitive glass optic prism tip. The elastomer seals are flexible allowing thermal expansion and resistance to steam cleaning and petroleum chemical attack.
- Custom lengths available upon request
- The FT151P series sensor housing contains a Plug-n-Play probe in a cast aluminum housing. The sensor housing has a 2" NPT mounting thread, heavy duty stainless steel hardware, and FKM probe seal. Install into either a 2" NPT threaded port or a 2-3/8" diameter tank opening using the gasket and locking nut provided. All screws and rings are heavy duty stainless steel for easy assembly and long life.

| Part # | Description |
|------------------|---|
| FT151P | Housing with 7" Plug-n-Play overfill detection probe, with Plug-n-Play harness connector |
| FT151P-12 | Housing with 12" Plug-n-Play overfill detection probe, with Plug-n-Play harness connector |
| FT151P-18 | Housing with 18" Plug-n-Play overfill detection probe, with Plug-n-Play harness connector |

Replacement Probes

| Part # | Description |
|------------------|--|
| FT150P | Replacement 7" Plug-n-Play probe with Plug-n-Play harness connector |
| FT150P-12 | Replacement 12" Plug-n-Play probe with Plug-n-Play harness connector |
| FT150P-18 | Replacement 18" Plug-n-Play probe with Plug-n-Play harness connector |

See page 132 for repair kits and replacement parts.

Retain Sensors



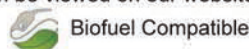
Features and Benefits:

- Retain sensors inform the loading terminal if the tank compartments are empty, or if there is product left in the tank prior to re-loading the tank (product has been retained).
- Prewired and factory tested with Plug-n-Play cabling and plugs, eliminates hours of manual crimped wire connections, and removes the problems and worries associated with connection problems. Easy to install, just mount the housing into the tank and plug the cables together.
- Trouble Free Probes: FloTech brand probes/sensors incorporate a double elastomer design which seals and secures the sensitive optic prism tip. The elastomer seals are flexible allowing thermal expansion and resistance to steam cleaning and petroleum chemical attack.
- The FT152 sensor is a bottom retain detection sensor. Sensor is shipped with a 1/2" NPT weld-on aluminum half coupling for mounting. The main sensor portion is stainless steel to prevent galling in the tank. The wiring box is plastic to prevent corrosion.

| Part # | Description |
|---------------|---|
| FT152P | Housing with Plug-n-Play retain probe, with Plug-n-Play harness connector |

See page 133 for repair kits and replacement parts.

Product instruction sheets and technical data can be viewed on our website at dixonbayco.com by selecting the "Resources" menu



Biofuel Compatible

Fuel Tanker Overfill Detection

FloTech Checkmate Overfill/Retain Plug-n-Play System Wiring Harnesses



Features and Benefits:

- Prewired and factory tested with Plug-n-Play cabling and plugs, eliminates hours of manual crimped wire connections, and removes the problems and worries associated with connection problems. Easy to install, just mount all the components (sensors, sockets, monitors) onto the tank and plug them into the preconfigured harness.
- Plug-n-Play cable harnesses come preconfigured for the type of tank (truck mounted tanks or for full length tank trailers) the number of tank compartments, standard harnesses have been designed to fit most standard tank configurations.
- Custom length harnesses are available.
- Secure and weather tight connections all the time, remove the possibility of poor wiring connections. Sealed connectors pass IP67 and DIN40050 salt spray tests.

| Part # | Description |
|---|---|
| Overfill detection Plug-n-Play cable harnesses for full length tank trailers | |
| FT20801 | One compartment tank trailer. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20802 | Two compartment tank trailer. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20803 | Three compartment tank trailer. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20804 | Four compartment tank trailer. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20805 | Five compartment tank trailer. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20806 | Six compartment tank trailer. Overfill detection (top) cable harness with Plug-n-play connections |
| Retain detection Plug-n-Play cable harnesses for full length tank trailers | |
| FT20801S | One compartment tank trailer. Retain (bottom) cable harness with Plug-n-play connections |
| FT20802S | Two compartment tank trailer. Retain (bottom) cable harness with Plug-n-play connections |
| FT20803S | Three compartment tank trailer. Retain (bottom) cable harness with Plug-n-play connections |
| FT20804S | Four compartment tank trailer. Retain (bottom) cable harness with Plug-n-play connections |
| FT20805S | Five compartment tank trailer. Retain (bottom) cable harness with Plug-n-play connections |
| FT20806S | Six compartment tank trailer. Retain (bottom) cable harness with Plug-n-play connections |
| Overfill detection Plug-n-Play cable harnesses for truck mounted tanks | |
| FT20801TWS | One compartment truck mounted tank. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20802TWS | Two compartment truck mounted tank. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20803TWS | Three compartment truck mounted tank. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20804TWS | Four compartment truck mounted tank. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20805TWS | Five compartment truck mounted tank. Overfill detection (top) cable harness with Plug-n-play connections |
| FT20806TWS | Six compartment truck mounted tank. Overfill detection (top) cable harness with Plug-n-play connections |

Product instruction sheets and technical data can be viewed on our website at dixonbayco.com by selecting the "Resources" menu

Biofuel Compatible 