



(CMDR-FOC-FOS) COMMANDER FUEL OIL CONTROLLER "Multi-Fuction"

CMDR-FOC-FOS

The Smart Controller ~ Multi-Function Controller

One systems for the entire facility monitoring and controlling your complete fueling systems.

Commander Fuel Oil Controller system monitors tank levels and supplies pump controls for automatic fuel transfers for applications requiring day tanks and institutional boilers. The Smart Controls intelligently integrates all the components of the fueling system in to one simple automated package. Superior quality components insure years of trouble free service. It's a turn-key system that providing one call for service and support for the entire system if required. We are the leader in the industry in mission critical and non-mission critical automated fueling systems.

Integrates the following into one systems:

- Main Tank Level Monitor
- Day Tank Automatic Fill and Return Pump System
- Boiler Feed Controls
- Duplex Pump Controller
- Fuel Polishing System
- Power Fill System (PTO)
- Leak Detection System

The Main Storage Tank, Monitors up to 1 Main Tank:

- All Programmable Level Set Points.
- Product Level in US Gallons.
- Product Level in Inches.
- Product Level in Percent Of Full Tank Capacity.
- High Level Alarm Status.
- High Level Warning Status.
- Low Level Warning Status.
- Low Level Alarm Status.
- Interstitial (Double Wall) Leak Sensor Status.
- Piping Sump Sensor.
- Main Tank Fuel Polishing (optional)
- Present and Historical Alarm Conditions.
- Remote Fill Station Enunciator (optional).
- Anti-siphon Supply valve with Mechanical Bypass (standard)
- Visual Flow Indicator, Strainer and Isolation Ball Valve.

Day Tanks, Monitors up to 2 Day Tanks:

- All Programmable Level Set Points.
- Product Level in US Gallons.
- Product Level in Inches.
- Product Level in Percent Of Full Tank Capacity.
- High Level Alarm Status.
- Pump Fill Stop Status.
- Pump Fill Start Status.
- Return Pump Start Status
- Return Pump Stop Status. ·
- Low Level Alarm Status.
- Over Fill Level Mechanical Sensor (OFS).
- Interstitial (Double Wall) Leak Sensor Status.
- Piping Sump Leak Sensor.
- Present and Historical Alarm Conditions.
- Optional Remote Fill Station Enunciator.
- High Level Overflow Safety Solenoid Valve Relay Driven from The (OFS).
- Day Tank Supply Fill Valve with Mechanical Bypass (standard).
- Visual Flow Indicator, Strainer and Isolation Ball Valve.
- 10 GPM Flow Restrictor.
- Remote Day Tank High Level Enunciator (optional).

The Boilers, Communicated up to 8 Boilers:

- Monitors a Boiler Feed Pressure Switch (optional).
- Controls boiler feed control valves (optional).
- Supplies Present and Historical Alarm Conditions.
- Piping Sump Leak Sensor.
- Day Tank Supply Fill Valve with Mechanical Bypass (optional).
- Visual Flow Indicator, Strainer and Isolation Ball Valve (optional).
- End Loop Back Pressure Regulator (optional).

The Pump(s) Simplex or Duplex:

- Works with Either Submersible or Positive Displacement (PD) Pumps.
- Lead / Lag Supply Pumps (option).
- Day / Belly Tank Return Pumps.\ (option).
- Fuel Polishing Pump (option).
- Power Fill PTO Pump (option).
- Pump Run Status.
- Pump Overload Status.
- Pump Sump Leak Detection Sensor.
- Pump Pressure/Vacuum Sensor (optional).
- Pump Differential Pressure Sensors (optional).



- Variable Speed Motor Drives (optional).

The Filtration/Fuel Polishing System:

- Monitors up to 3 Stages of Filtration and Strainers
- Polishes Effectively to 1 Micron (2 Micron is Standard)
- Monitors Filter Differential Pressure.
- Monitors the Filter Water Separator for Water.
- Programmable 24/7 Fuel Polishing Schedule.
- Uses A Stand-a-lone Pump or One Of The System Pumps (Supply and Return Pumps).
- Stops Fuel Polishing If The System Is In a Call For Fuel.
- Verifies Critical Component (Solenoid Valves and Pumps) Are In Good Working Order By Using Them When Polishing.

Power Fill System, Fills up to 1 Main Tank:

- All Programmable Level Set Points.
- Product Level in US Gallons.
- Product Level in Inches.
- Product Level in Percent of Full Tank Capacity.
- High Level Alarm Status.
- High Level Warning Status.
- Interstitial (Double Wall) Leak Sensor Status.
- Pump Sump Leak Detection Sensor.
- Over Fill Level Mechanical Sensor (OFS).

The BMS Interface:

- System Summary Alarm (1) Dry
- Auto Dialer, SMS or Email for System Alarms and Warnings (optional)
- Modbus Ready for Serial RTU or TCP over IP (optional)
- Tank Level 4-20 mA outputs (optional)

Additional Expectations:

- Customized Flow Schematic and Point to Point Wiring Diagrams.
- Component Drawing Sold with The System.
- Custom Modifications and Configurations Extra Fees).
- Conduit and Piping Details; (Extra Fees).
- Main and Day Tank Drawing Piping and Layout Details; (Extra Fees).
- Site Drawings; (Extra Fees).

This is a List of Example Equipment To Order Along With The CMDR-FOC-FOS System. All Components Are Sold Separately and This List is Not Limited to:

Commander Options:

- CMDR-FOC-FOS-1P, Single Pump Commander Package.
- CMDR-FOC-FOS-2P, Two Pump Commander Package.
- CMDR-FOC-FOS-3P, Three Pump Commander Package.
- CMDR-FOC-FOS-4P, Four Pump Commander Package.
- CMDR-FOC-FOS-5P, Five Pump Commander Package.
- FOC-CWK, Out Door Cold Weather Kits.
- FOC-REC, Single Stage Fuel Polishing Filter / Separator Package.
- FPS-14, 14 GPM Three Stage Fuel Polishing Filter / Separator Package.

Main Tank Options:

- CMDR-FOC-FOS-5P, Five Pump Commander Package.
- FOC-MT-ASV, Main Tank Anti-Siphon Supply Valve Assembly.
- FOC-MT-LVL-PKG, Main Tank Leak and Level Package.
- FOC-RLD1, Remote High Level Alarm and Digital Tank Levels.

Day Tank Options:

- FOC-DT-LVL-PKG, Main Tank Leak and Level Package.
- FOC-DT-RP-TM14, Tank Mounted Return Pump Package (14 GPM)
- FOC-CV, Day Tank Supply Valve Assembly.

Boiler Options:

- FOC-BOILER, Visual Flow Indicator, Strainer and Isolation Ball Valve.

Specifications:

- Power requirements: Power input: 230VAC 1 phase with Neutral (others available including 3 phase).
- Enclosure: NEMA 4x, IP66 (suitable for outdoor and high corrosion areas).
- Stainless Steel NEMA 4x (optional)
- UL508A listed and meets NEC (NPFA70) and NFPA 30 37 requirements. Suitable for class 2, division 2, groups B, C, D.

[More Information](#)