

DESCRIPTION

PRYCO's

FUEL CONTROL and MONITORING (FCM) system is the most sophisticated and powerful control tool available for your fuel supply system -- electronic or mechanical. It may be mounted on a day tank, subbase tank or a remote pumping unit.

The **FCM** is totally solid state electronic except for a fail-safe critical high fuel level switch. It uses an ultra-sonic sensor, to accurately determine the level of the fuel. It is specially designed for Pryco for this type of environment.

Through electronic "action levels" the **FCM** controls the activities of up to four pumps and motors (Fill or Reverse Flow).

It also controls and provides a signal for a full array of external alarms and similar devices based upon predetermined levels.

The action levels shown in the table on the last page represent a "normal" setup — changes may be made providing the integrity of a sequence of operation is not violated.



Main electronic components of the FCM are:

- ⇒ an **Interface Board**, which is designed to receive all external connections.
- ⇒ the **"Main Logic" Board**, which is the brains of the system.
- ⇒ an **Ultra-Sonic Sensor** which reports the level of the fuel in the tank to the computer -- it is the "eyes" and "ears" of FCM system.
- ⇒ the **"Control Panel" Board**, which has operator lights, alarms switches, etc.

STANDARD FEATURES

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|---|--|
| ⇒ Ultra-Sonic Sensor - 4-20 ma | ⇒ Control Panel Alarm Reset Switch |
| ⇒ Critical (Safety) High Switch w/Fill Motor Shut Off | ⇒ Control Panel Alarm Silence Switch |
| ⇒ 24vdc Input For Continuous Operation | ⇒ High Fuel Level Notification |
| ⇒ Power Available LED | ⇒ Low Fuel Level Notification |
| ⇒ System Ready LED | ⇒ "Dry Tank" Prevention |
| ⇒ Electronic Fuel Gauge | ⇒ Secondary Containment Leak Detection |
| ⇒ HOA Switches | ⇒ "No Cost" Special Actions Settings |
| ⇒ Control Panel System Test Switch | |

OPTIONAL ACCESSORIES

Num	Description
706	Critical Low Level Alarm - Activates red light on control panel, provides signal for remote annunciation and engine shut down (prevents loss of engine fuel prime).
727	Duplex Fill Pump and Motor - (addition to standard pump and motor) secondary "lag" pump/motor system to back-up primary "lead" pump/motor. Normally the lead pump/motor begins operation at 86% usable fuel capacity; the lag system begins at 82%. Both system turn off at 100% capacity.
727A	Duplex Fill Pump and Motor w/Automatic Lead/Lag Alteration - Same as Option 727 with a switch to automatically alternate each pump/motor into the lead starting position.
773	Pump(s) Fail Detection w/Automatic and Manual Reset - Includes: the control panel switch, an in-line flow switch, and other required items necessary to detect, report, and reset a "no fuel in line" condition (one per pump). A flow switch, option #372, is required.
799	Reverse Flow Controls For Optional Pump and Motor - Controls and piping necessary for a reverse flow single pump/motor (sold separately) to pump fuel back to main storage tank to prevent overflow. This system begins operation at a level above the fill pump(s) normal turn-off point
799A	Duplex Reverse Flow Controls For Optional Pump and Motor - Two sets of controls and piping necessary for two reverse flow pumps/motors to pump fuel back to main storage tank to prevent overflow. (The pumps and motors are sold separately.) The "lead" system begins operation at a level above the fill pump(s) turn-off point – the "lag" system begins at a level above the lead system (provides assistance and backup).

NORMAL ACTION LEVELS

ACTION LEVEL	PY5 - PY10	PY15	PY25	PY50	PY60	PY75 - PY150	PY200 - PY1000
Top Of Tank	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Safety High Level	3.0	3.0	3.0	3.0	3.0	3.0	3.0
High Fuel Level	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Secondary Reverse Flow - ON	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Primary Reverse Flow - ON	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Fill Pumps - OFF (100% Full)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Reverse Pumps - OFF	5.5	6.0	6.0	6.0	6.0	6.0	6.0
Primary Fill Pump - ON	6.0	8.0	8.0	8.0	8.0	8.0	10.0
Secondary Fill Pump - ON	6.5	10.0	10.0	10.0	10.0	10.0	14.0
Low Fuel Level	7.0	12.0	14.0	14.0	14.0	14.0	18.0
Critical Low Level	8.0	14.0	19.0	26.0	34.0	39.0	44.0
Dry Tank Protection Level	9.5	15.5	20.5	27.5	35.5	40.5	45.5
Empty Tank (0%)	12.5	18.5	23.5	30.5	38.5	43.5	48.5