

MARK^{III+} Diesel Engine Fire Pump Controller



Description – Firetrol® combined automatic and manual MARK^{III} based diesel engine fire pump controllers are intended for starting and monitoring fire pump diesel engines. They are suitable for use with both mechanical and electronic type engines. The controller is available for 12 or 24 volt negative ground systems, using lead acid or Nickel-Cadmium batteries. The controller monitors, displays and records fire pump system information.

Approvals – Firetrol fire pump controllers are listed by Underwriters' Laboratories, Inc., in accordance with UL218, *Standard for Fire Pump Controllers*, CSA, *Standard for Industrial Control Equipment* (cUL), and approved by Factory Mutual. They are built to meet or exceed the requirements of the approving authorities as well as NEMA and the latest editions of NFPA 20, *Installation of Centrifugal Fire Pumps*, and NFPA 70, *National Electrical Code*.

Standard Features – The following are included as standard with each controller:

- NEMA Type 2 (IP22) Enclosure with Bottom Entry Gland Plate, Lifting Lugs and Locking Door Handle
- AC Line & Battery circuit breakers
- Two independent battery chargers, 10A continuous charge - 500mA Trickle Charge
- 7.0" LCD capacitive type color touch screen (HMI technology) software upgradeable operator interface powered by an embedded microcomputer with software PLC logic.
- Push-buttons for Crank from Battery #1, Crank from Battery #2, Stop and Run Test
- 500 PSI Pressure Transducer (calibrated for 300 PSI (20.7 Bar) and Test Solenoid for fresh water applications, externally mounted with protective cover
- Audible alarm buzzer embedded in the MarkIII+
- Pressure and Event Recording with Date Stamp to System Memory Accessible VIA The User Interface and Downloadable to a USB Flash Drive
- Visual Indication for: Engine Run • Main Switch Position • Periodic Test • Cranking Cycle • AC Power Available • Pump Room Temperature
- Visual Alarm Indication for: Pump Room Trouble • Pump On Demand • AC Power Failure • Charger 1-2 Failure • Battery 1-2 Weak • Battery 1-2 Overvoltage • Loss of Continuity on Starter 1-2 • High Fuel Level • Fuel Tank Leak • PLD Low Suction Pressure • High Raw Water Temp. • Low Pump Room Temp. • High Pump Room Temp. • ECM Warning • Weekly Test Cut-In Pressure Not Reached • Check Weekly Test Solenoid • Pressure Transducer Fault • Invalid Cut-In Pressure • Service Required

- Audible and Visible Alarm Indication for: Engine Trouble • Controller Trouble
 - Engine Low Oil Pressure • Engine High Temp. • Engine Low Temp. • Engine Overspeed • DC Failure • Battery 1-2 Failure • Engine Fail To Start • Low Fuel Level • ECM Fault • ECM SS In Alternate Position • Fuel Injection Malfunction
- DPDT 8A 250V Remote Alarm Contacts Are Provided For:
 - Engine Run
 - Common Controller Trouble (Charger Failure, Pressure Transducer Fault)
 - Common Engine Trouble (High Engine Temp., Fail To Start, Fuel Injection Malfunction, ECM Selector Switch in Alternate Position, Battery 1-2 Failure, DC Failure, Loss of Continuity to Starter 1-2, Engine Overspeed, Fail When Running, Low Oil Pressure, PLD Low Suction Pressure)
 - Common Pump Room Trouble (Low Fuel Level, High Fuel Level, Fuel Tank Leak, Low / High Pump Room Temperature, AC Power Failure, H-O-A Selector Switch in OFF or HAND)
- Modbus Communications with TCP/IP frame format and a shielded female RJ45 connector.
- Input Terminals for Connection to External Devices:
 - Low Fuel Level
 - Remote AUTOMATIC Start
 - Deluge Valve Start (re-assignable)
 - Fuel Tank Leak (re-assignable)
 - High Fuel Level (re-assignable)
- Pump Room Ambient Temperature Switch, Display and Alarms
- Seismic Certification per IBC 2015, CBC 2016

For Model # Information See Publication SD1100-60

For Options and Modifications See Publication OP1100-60

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