

# FTA1100J Diesel Engine Fire Pump Controllers Product Description



**Description** – Firetrol® combined automatic and manual Mark IIXG 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:

- AC Line & Battery circuit breakers
- Manual-Off-Auto selector switch
- Manual test push-button
- Two manual crank push-buttons
- Two 10 Amp battery chargers with 4 stage charging cycle, selectable AC voltage (110 / 220), selectable DC voltage (12 / 24), and selectable battery type (Lead Acid, Ni-Cad 9/18 Cell, Ni-Cad 10/20 Cell)
- Door mounted display/interface panel featuring a 128 x 64 pixel backlit LCD graphical display, Membrane Type User Control Push-buttons and easy to read LED Indicators for:
  - AC POWER AVAILABLE
  - ALARM
  - MAIN SWITCH IN AUTO

- MAIN SWITCH IN MANUAL
- SYSTEM PRESSURE LOW
- ENGINE RUNNING
- ENGINE FAIL TO START
- ENGINE TEMPERATURE HIGH
- ENGINE OIL PRESSURE LOW
- ENGINE OVERSPEED
- ENGINE ALTERNATE ECM
- ENGINE FUEL INJECTOR MALFUNCTION
- FUEL LEVEL LOW
- AUTOMATIC SHUTDOWN DISABLED
- CHARGER MALFUNCTION
- BATTERY #1 TROUBLE
- BATTERY #2 TROUBLE
- Minimum Run Timer / Off Delay Timer
- Programmable Daylight Saving Time Option
- Weekly Test Timer
- Engine Run Time Meter
- Digital Pressure Display
- USB Host Controller and Port
- Solid State Pressure Transducer
- Data Log
- Event Log (3000 events)
- Simultaneous Display of Battery Voltages, Charging Rates, AC Volts, Pressure and Alarm Messages
- Disk Error Message
- Disk Near Full Message
- Pressure Error Message
- Fail to Start Message
- Low Suction Pressure Message
- Crank Cycle Status Indication (Displays Cranking Battery, Number of Starting Attempts and Crank/Rest Time Remaining)
- 300 psi (20.7 bars) wet parts (solid state pressure transducer, solenoid valve, plumbing) for fresh water applications
- NEMA Type 2 enclosure (IEC IP22)
- Each standard controller comes with user set options for:
  - AC Power Loss Start
  - Low Pressure Aud.
  - Main Sw. Mis-Set
  - Pump Run Alarm
  - User Defined Input
  - Low Pump Rm Temp
  - Relief Valve Open
  - High Reservoir
  - Interlock Alarm
  - Low Suction
  - Manual Test
  - Remote Start
  - Weekly Test Setup
  - Low Reservoir
  - High Fuel Level

#### Special Enclosures

- T NEMA Type 3R (IEC IP22), Painted Steel
- E NEMA Type 4 (IEC IP66), Painted Steel
- F NEMA Type 4X (IEC IP66) #304 Stainless Steel, Brushed Finish
- FXP NEMA Type 4X (IEC IP66) #304 Stainless Steel, Painted Finish
- FD NEMA Type 4X (IEC IP66) #316 Stainless Steel, Brushed Finish
- FDB NEMA Type 4X (IEC IP66) #316 Stainless Steel, 12 Gauge, Seam Welded, Brushed Finish
- FDP NEMA Type 4X (IEC IP66) #316 Stainless Steel, Painted Finish
- G NEMA Type 12 (IEC IP54)

#### Mounting Legs

- N31 Standard 12" Mounting Legs
- N31S 12" Mounting Legs, Stainless Steel

#### Anti-Condensation Space Heaters

- H 120 Volt Space Heater
- J 120 Volt Space Heater with Thermostat
- K 120 Volt Space Heater with Humidistat
- L 240 Volt Space Heater
- M 240 Volt Space Heater with Thermostat
- N 240 Volt Space Heater with Humidistat

#### Pressure Transducers, Solenoid Valves, Plumbing

- B 0-600 psi (0-41.4 bars) wet parts for fresh water applications
- C 0-300 psi (0-20.7 bars) wet parts for copper corrosive applications
- D 0-600 psi (0-41.4 bars) wet parts for copper corrosive applications

#### Alarms

- AC Additional contacts for remote indication, engine running - 2 sets provided as standard
- AJ Contacts for remote indication, engine overspeed
- AK Contacts for remote indication, low oil pressure
- AL Contacts for remote indication, high water temperature
- AM Contacts for remote indication, engine failed to start
- AN Contacts for remote indication, battery / charger failure
- AP Contacts for remote indication, main switch in manual
- AR Contacts for remote indication, main switch in off
- AS Contacts for remote indication, main switch in auto
- AT Contacts for remote indication, pump room trouble<sup>1</sup>
- AV Contacts for remote indication, low pump room temperature<sup>1</sup>
- AW Contacts for remote indication, reservoir low<sup>1</sup>
- AY Contacts for remote indication, low suction pressure<sup>1</sup>
- COM Visible low suction pressure alarm, Manual reset only (Includes reset push-button, initiating pressure switch not included)<sup>1</sup>

- CPL Contacts for remote indication, system 115% over pressure (for use with PLD engines only)
- CTS Built-in low suction pressure alarm panel (Includes selectable auto/manual reset, audible, visible and remote alarms and mounted and wired pressure switch)
- EE Additional contacts for remote indication, engine trouble - 1 set provided as standard
- EF Additional contacts for remote indication, main switch mis-set - 1 set provided as standard
- EH Contacts for remote indication, relief valve discharge<sup>1</sup>
- EJ Audible & Visible flow meter on alarm<sup>1</sup>
- EK Contacts for remote indication, flow meter on<sup>1</sup> (Requires option -EJ)
- JR Visible jockey pump running indication
- JT Audible and visible jockey pump trouble indication
- LC Contacts for remote indication, high fuel level<sup>1</sup>
- LD Audible & Visible fuel spill alarm<sup>1</sup>
- LE Contacts for remote indication, fuel spill<sup>1</sup> (Requires option -LD)
- LG Contacts for remote indication, reservoir high<sup>1</sup>
- PE Contacts for remote indication, low system pressure (Pump On Demand)

#### Miscellaneous

- AZ Low pump room temperature switch, mounted and wired
- BA 220-240 Volt operation
- EL Series pumping, high zone controller
- EM Series pumping, mid zone controller
- EN Series pumping, low zone controller
- IEC CE Marking with Externally Mounted Wet Parts
- IECI CE Marking (Internal Wet Parts)
- OSP OSHPD Seismic Certification (State of California) (Requires Option -SEI)
- S Tropicalization
- SEI Seismic Certification (in accordance with IBC)
- USBX External USB Port
- ZPA Customized, annual service display message (factory programmed)
- ZPN Serial Modbus RTU over Ethernet TCP/IP using 5150 Connectivity Module
- ZPM Serial Modbus RTU over 2-wire or 4-wire RS485

FTA1100-K1 Low fuel level switch, 16" max insertion length<sup>2</sup>  
FTA1100-K1-X High/Low fuel level switch - specify levels/tank dimensions  
FTA1100-K2 Low fuel level switch, 25" max. insertion length<sup>2</sup>  
FTAK21 380-480 volt operation (transformer)<sup>2</sup>  
Export packaging (Wooden crating to conform to IPPC Standards)

<sup>1</sup> - Initiating switches by others

<sup>2</sup> - Shipped loose for installation by the customer

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