



DIESEL ENGINE FIRE PUMP CONTROLLER

Battery Electric Start To NFPA. No 20 Auto start Type EFP2



Description -- Ficon diesel engine firepump controller are designed for starting and monitoring firepump diesel engine. The controller will start the engine from demand signal drop in water line pressure. They are available with 12 or 24 V negative ground System.

Approvals -- Ficon fire pump controller are built to meet or exceed the requirements of the latest editions of NFPA20 *Installation of centrifugal Fire Pump* and NFPA70 *National Electric Code*

Standard Features The following are included as standard with each controller.

- Two 5 Amp battery charger
- Two battery voltmeter
- Two charge rate ammeter
- Digital weekly test clock with drain solenoid
- Built in run time for autostop after autostart
- Provide remote start terminal close for start
- Visible display with audible alarm

Low oil pressure , Engine over temperature , Fail to start , Engine overspeed , Battery1 trouble , Battery2 trouble , Charger failure , Operating control man-off-auto start mode selector switch , Test selector switch , Two manual start battery crank pushbutton

- 20-300 psi pressure switchmounted inside control cabinet
- Volt free changeover contact to annunciate in control center via telemetry to another location
Pump running , Fault , Ready for auto, Crank sequence

STARTING The controller will start engine from drop in water line pressure. The pressure switch has independently adjustable (10-300 PSI). The controller will also start the engine from remote start station.

TEST Momentarily drops water pressure closing pressure switch , starting engine.

AUTO Controller in standby mode , automatic function ready for operation.

OFF Disconnects automatic and manual start function.

MANUAL All automatic function are by-pass. Two manual start pushbuttons are provide for manually crank the engine from either set of batteries. Both switches may be depressed simultaneously increasing potential battery.

MANUAL STOP Allowing engine shutdown afterstarting and demand have return to normal

AUTOMATIC WEEKLT TEST Seven day program clock which can be set to give automatic test run on any day of the week and any time of the day desired.

BATTERY CHARGER Dual battery charger simultaneously charges and monitors both batteries. The rate of charge up to 5 amperes line voltage regulated and current limited and full protection during cranking. Also provide two ammeters two voltmeters, and circuitry to operate "Charger fail" and "Battery trouble" alarm.

CRANK CONTROL Six 15 second fixed crank period separete by 5five 15 second fixed rest periods are provided. The engine will be cranked continuously until it start or batteries fail .Should the engine fail to start during any given crank cycle the control will continue this alternating until the engine start.

BATTERY FAILURE LOCKOUT Should one set of batteries fall below 60% of the rated voltage during cranking controller will be lock out on the other set of batteries of the remaining cranking cycles. The appropriate lamp will go on.

FAILURE ALARMS ON CONTROLLER Circuit are supplied to provide local lights and alarm for the following

- *Fail to start (overcrank)*
- *Low Oil Pressure*
- *High Water Temperature*
- *Overspeed (alarm & shutdown)*
- *Loss of battery charger*
- *Loss of AC Power*

FAILURE ALARMS REMOTE INDICATION

Dry contacts (NO & NC) are wired to the field wiring terminal for remote indication of the following

- *PUMP RUNNING*
- *SWITCH IN AUTO*
- *ENGINE FAILURE*

COMMON ALARM For Overcrank , Low oil pressure , High water temp , Overspeed , Loss of battery1 , Loss of battery2 , Loss of battery charger.

STATUS LIGHT 14 Lights provided on the controller indicate working status of system.

VOLTAGE SURGE ARRESTOR Surge arrestor complying with ANSI C62.1

ENCLOSURE Nema 2 heavy duty moisture resistance drift proof, free standing with locking door and break glass panel over control switch and manual start pushbuttons.

CONTROL RELAYS Relay are dust-tight plug in for ease of service from front cabinet.

TESTING Each controller is factory wired , tested and ready for immediate installation.

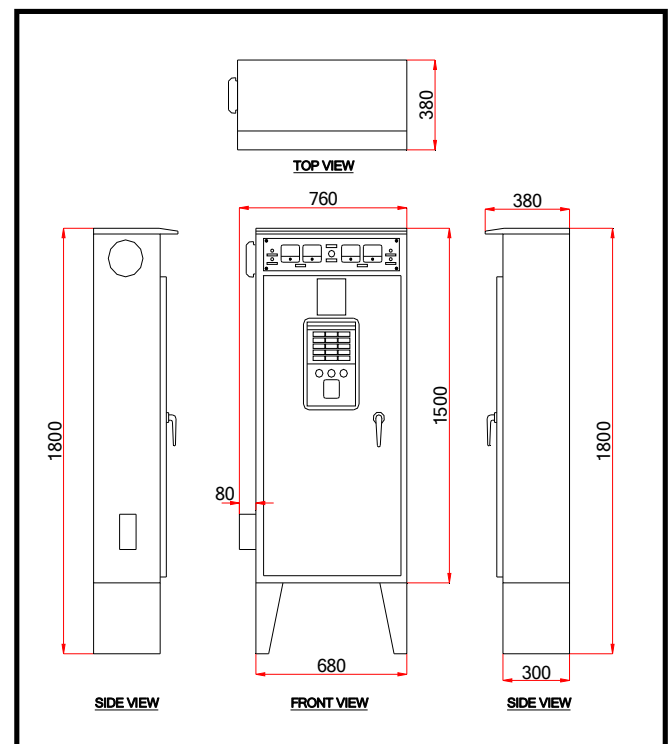
OPTIONS

300 PSI DC operated 7-day pressure recorder.
Floor Mounting Legs.



Dual battery charger

Dimensions



NOTE -- Due to continual product enhancements dimension and specification may change at any time with out notice. Contact factory or local representative for current specification.