

MURPHYMATIC® Fire Pump Controller



FP350 Model

- For Diesel Engine Driven Fire Pumps
- Microprocessor Based Controller
- Meets NFPA-20 Standards
- Also Built to Customer Requirements
- LED Indicators for Inputs and Outputs
- Dual Cranking Output
- NEMA 3R Type Enclosure
- Adjustable Start/Stop Time Delay
- Battery Charger (Option)

Description

The MURPHYMATIC® FP350 Fire Pump Controller is a microprocessor based controller for diesel engine driven fire pumps. It meets NFPA-20 specifications for engine driven fire pump controllers.

The FP350 provides adjustable dual-battery cranking. The controller will automatically alternate start signals to the starter solenoids in the event of low fire water header pressure. The program monitors the voltage of each battery during cranking. If the voltage drops below the adjustable alarm trip point setting, the controller automatically locks onto the other battery for a new crank cycle.

Adjustable functions for engine warmup, time delay to bypass low oil pressure and high engine temperature signals at start-up, and an overcrank contact to stop the automatic start sequence are also included.

A NEMA 3R rated enclosure protects the FP350 Fire Pump Controller. It includes a hinged door and an upper window for viewing the system controls.

Applications

The MURPHYMATIC® FP350 controller is intended for diesel fire pumps such as:

- Municipal Applications
- Office Buildings
- Factories
- Petroleum Storage Tank Farms

Standard Features

- Dual cranking output with automatic alternation circuit
- NEMA 3R weatherproof enclosure
- LED indicators for each input and output
- 16 digital inputs
- Two analog inputs
- 13 relay outputs
- Status lights for “battery voltages normal” and “selector switch in automatic mode”
- Battery failure sensing to lockout faulty battery bank—lock onto other battery bank
- Dry contacts for remote annunciation for engine running and common alarm
- Test-Off-Auto-Manual selector switch
- Programmable timer for automatic weekly test start
- Drain valve solenoid
- Pressure SWICHGAGE® instrument
- Wire numbered termination points
- Pressure recorder with spring wound backup
- Delay on start time (adjustable from 0–300 seconds)
- Delay on stop time (adjustable from 0–300 seconds)

Optional Features

- Audible horn.
- Battery charger with DC ammeter and voltmeter to maintain/recharge two (2), 100 ampere-hour batteries in 24 hours, (complies with NFPA-20).

Specifications

Analog Inputs: Two (2); 8-bit external or 4-20 mA.

Digital Inputs: Sixteen (16) opto-isolated.

Relay Outputs: Thirteen (13) single pole, single throw (SPST) normally open (NO).

Enclosure: Weatherproof NEMA3R rated steel (audible horn option available).

Manual-Off-Auto-Test Selector: One (1) selector switch with 4-positions:

- Manual: *Engine is started from controller. All functions are **alarm-only** functions.*
- Off: *Prevent engine from starting. Provides immediate shutdown.*
- Auto: *Engine in standby waiting for start signal, functions are **alarm-only**, but over-speed function will be shutdown.*
- Test: *Same as in auto position but all functions are **shutdown-only** functions.*

LED's: Light emitting diodes for each input and output, (“on” when input/output is active).

Parameter Adjustments: 12 potentiometers (20-turn type).

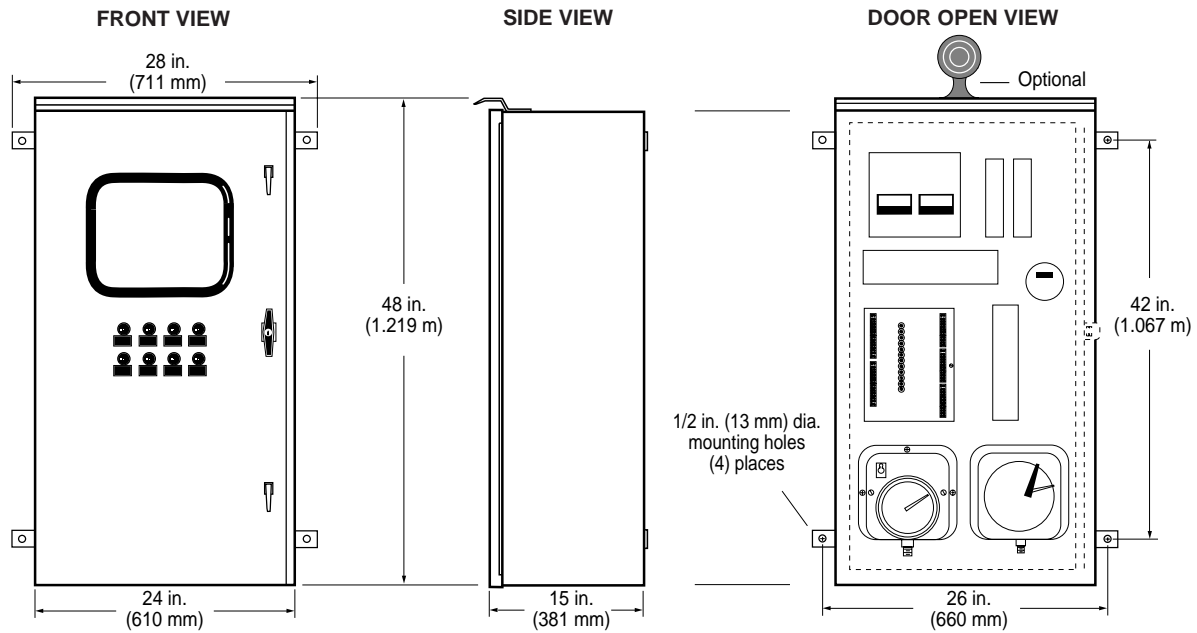
Time Delays: Delay periods on start and on stop (adjustable from 0–300 seconds).

Pressure Switch: 0-300 psi (0-2.07 MPa) dual scale pressure SWICHGAGE®.

Shipping Weight: 245 lbs (111 kg).

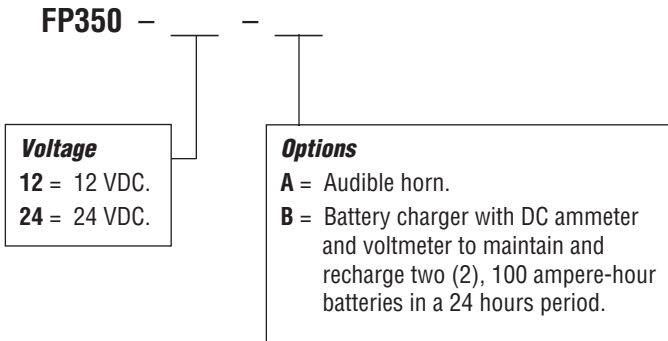
Shipping Dimensions: 60 x 30 x 18 in. (1.524 m x 763 mm x 457 mm).

Dimensions



How to Order

To order the FP350 use the following diagram:



The FP350 can be expanded and customized to your needs



Warranty

A two year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.