

Jockey Pump Controllers and Alarm and Shutdown Panels



Jockey Pump Controllers

General Information

Firetrol® Jockey Pump Controllers are intended for use with fire pump systems. They are used for pressure maintenance in fire pump installations to prevent unnecessary cycling of the main fire pump.

Jockey Pump Controllers are available in the following configurations:

FTA500—Full Voltage Starting

FTA516—Wye-Delta Reduced Voltage Starting
(Open Circuit Transition)

Approvals — Firetrol Jockey Pump Controllers are listed by Underwriters Laboratories, Inc., in accordance with UL508, *Standard for Industrial Controls*, and CSA, *Standard for Industrial Control Equipment (cUL)*. They are built to meet or exceed the requirements of the approving authorities as well as NEMA and the latest edition of NFPA 70, *National Electrical Code*.

Enclosures — The standard enclosures are NEMA Type 2 (IEC IP11), drip-proof, for installation in areas protected from direct sunlight with an ambient temperature above 41°F (5° C).

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

- NEMA Type 2 (IEC IP11) drip-proof enclosure
- Horsepower rated disconnect switch, fuse block, and fuses
- Horsepower rated motor contactor and overload relay
- HAND-OFF-AUTO selector switch to allow manual operation of the pump
- Minimum run timer to prevent short-cycling
- 15-290 psi (1-20 bars) Pressure switch, diaphragm-style, snap action type contact and 15-120 psi (1-8.3 bars) adjustable differential, suitable for freshwater applications.
- Control Circuit Transformer w/ 120VAC Secondary

FTA500 Jockey Pump Controllers

The FTA500 Jockey Pump Controller utilizes across the line, full voltage starting. Full voltage is applied to the motor as soon as the controller is actuated, and the motor supplies its rated torque. When using full voltage starting, the power source must have sufficient KVA capacity to handle motor locked rotor current and prevent the line voltage from dropping below acceptable levels.

When the controller is actuated, either by a drop in system pressure (in the “Auto” mode), or by placing the HAND-OFF-AUTO switch in the “Hand” position, the pump will start. In the “Auto” mode, the pump will continue to run until the pressure returns to a normal level and the minimum run timer has expired, whichever occurs last. In the “Hand” mode, the pump will continue to run until the HAND-OFF-AUTO selector switch is moved from the “Hand” position.

The pressure switch is mounted inside the enclosure and is piped to a fitting on the bottom of the enclosure.

FTA516 Jockey Pump Controllers

Operation of the FTA516 Jockey Pump Controller is identical to that of the FTA500 except for the starting method. The FTA516 employs Wye-Delta (Open Transition) Reduced Voltage Starting. Wye-Delta starting controllers are used with delta-wound induction motors.

When the controller is actuated, the motor starts on the wye connection which applies approximately 58% of full line voltage to the motor windings. At the reduced voltage, the motor develops approximately 33% of normal starting torque and will draw approximately 33% of normal starting current. After a time delay (approx. 3.5 seconds), the motor is automatically reconnected in delta, applying full voltage to the motor windings.

The FTA516 Jockey Pump Controller is useful in applications where the power source is inadequate to supply the full starting current without objectionable voltage drop.

Options and Modifications —Refer to the Product Description sheet for a complete listing of Options and Modifications.

FTA200 Alarm Panels

Firetrol® FTA200 alarm panels are designed to meet the NFPA 20 specifications requiring a remote alarm panel when the pump house or pump room is not constantly attended. The alarm panel must be installed in a location that is under supervision at all times.

Approvals — Firetrol alarm panels are listed by Underwriters Laboratories, Inc., in accordance with UL508, *Standard for Industrial Controls*, certified by CSA, *Standard for Industrial Control Equipment (cUL)*, approved by the New York City Bureau of Electrical Control and Board of Standards and Appeals and Factory Mutual. They are designed to meet or exceed the requirements of the approving authorities listed above as well as NFPA 20, *Installation of Centrifugal Fire Pumps*.

Enclosures — The standard enclosures are NEMA Type 2 (IEC IP11), drip-proof for indoor wall mounting. The standard enclosure color is red.

FTA500 Jockey Pump Controller





FTA200-A Remote Alarm Panel

Standard Features — The following are included as standard as shown with each alarm panel type:

Type A — Designed for use with electric motor driven fire pump controllers, they provide indication for the following conditions:

- Supervisory Voltage Normal (Audible & Visible)
- Pump Operating (Audible & Visible)
- Pump Phase Failure (Audible & Visible)
- Pump Phase Reversal (Audible & Visible)

Type B — Designed for use with electric motor driven fire pump controllers, they provide indication for the following conditions:

- Supervisory Voltage Normal (Visible only)
- Pump Operating (Audible & Visible)
- Pump Phase Failure (Audible & Visible)
- Pump Phase Reversal (Audible & Visible)

Type F — Designed for use with diesel engine driven fire pump controllers, they provide indication for the following conditions:

- Supervisory Voltage Normal (Visible Only)
- Engine Trouble (Audible & Visible)
- Engine Running (Audible & Visible)
- Main Switch Mis-Set (Audible & Visible)

Type G — Designed for use with diesel engine driven fire pump controllers, they provide indication for the following conditions:

- Supervisory Voltage Normal (Visible Only)
- Engine Trouble (Audible & Visible)
- Engine Running (Audible & Visible)
- Main Switch Mis-Set (Audible & Visible)
- Pump Room Trouble (Audible & Visible)

FTA200 alarm panels make use of printed circuit boards which provide reliable and trouble free service.

Mounted on the enclosure door are the pilot lights for visible alarm indication, the audible device for audible alarm indication, the SILENCE ALARM push-button and the PUSH-TO-TEST push-button.

Each pilot light will illuminate to indicate its alarm condition and will remain lighted until the abnormal condition has been corrected. The audible alarm will sound when the alarm conditions occur and will continue to sound until the abnormal condition has been corrected or the SILENCE ALARM push-button has been pressed. Pressing the SILENCE ALARM push-button will silence the audible alarm but will not extinguish the pilot light. If another alarm condition occurs, the audible alarm will again sound until silenced by the SILENCE ALARM push-button or until the abnormal condition has been corrected.

The PUSH-TO-TEST push-button is supplied for manually testing the pilot lights, audible alarm and output circuits.

Options and Modifications — Refer to the Product Description sheet for a complete listing of Options and Modifications.

FTA200 Low Suction Pressure Shutdown Panels

Firetrol® FTA200 low suction pressure alarm and shutdown panels are intended for use where a local authority mandates pump shutdown in the event of low suction pressure.

Approvals — Firetrol low suction pressure alarm and shutdown panels have been approved by Factory Mutual.

Enclosures — The standard enclosures are NEMA Type 2 (IEC IP11), drip-proof for indoor wall mounting. The standard enclosure color is red.

Standard Features — The following alarms are included as standard with each shutdown panel:

- Supervisory Voltage Normal (Audible & Visible)
- Pump Controller Voltage Failure (Audible & Visible)
- Low Suction Pressure (Audible & Visible)

Type D — These panels reset automatically when suction pressure is restored.

Type E — These panels must be reset manually when suction pressure is restored.

WARNING: Because NFPA 20 specifically prohibits the installation of any device in the suction piping which will restrict starting or stopping of the fire pump (See NFPA 20 (2007), Paragraph 5.14.9.1), ASCO Power Technologies, LP assumes no liability when Type D or E Shutdown Panels are used in conjunction with fire pump control equipment.

FTA200 low suction alarm and shutdown panels provide pump shutdown in the event a low suction pressure condition occurs. The suction pressure is monitored by a side mounted 3-30 psi (0.7-2.07 bars) pressure switch designed for freshwater use.

Mounted on the enclosure door are the pilot lights for visible alarm indication, the audible device for audible alarm indication, the SILENCE ALARM push-button, the PUSH-TO-TEST push-button and the RESET push-button (Type E only).

Each pilot light will illuminate to indicate its alarm condition and will remain lighted until the abnormal condition has been corrected. The audible alarm will sound when the alarm conditions occur, and will continue to sound until the abnormal condition has been corrected or the SILENCE ALARM push-button has been pressed. Pressing the SILENCE ALARM push-button will silence the audible alarm but will not extinguish the pilot light.

Low Suction Pressure Alarm and Shutdown Panels General Information

If another alarm condition occurs, the audible alarm will again sound until silenced by the SILENCE ALARM push-button or until the abnormal condition has been corrected.

The PUSH-TO-TEST push-button is supplied for manually testing the pilot lights, audible alarm and output circuits.

NOTE: On Type E panels, the LOW SUCTION PRESSURE alarm must be manually reset.

Options and Modifications — Refer to the Product Description sheet for a complete listing of Options and Modifications.

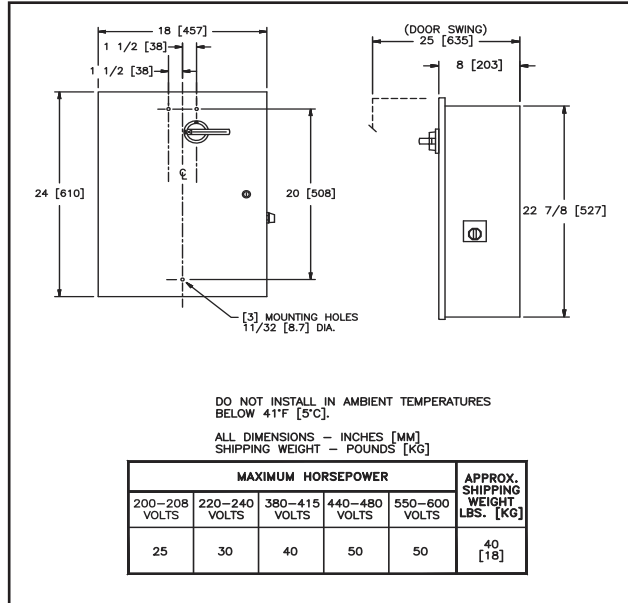
Other Firetrol Products and Services — Information on the following is available from a Firetrol representative or from the factory:

- Fire Pump Controllers
- Power Transfer Switches
- High Voltage Fire Pump Controllers — 100-4000 HP (74-2984 kW), 7200 Volts Maximum
- Diesel Engine Fire Pump Controllers
- Simplex, Duplex, and Triplex Motor Controls
- Variable Frequency Drive Control Systems
- Sump and Sewage Motor Controls
- Condensate Return and Boiler Feed Motor Controls
- Cooling Tower Controllers
- Industrial Diesel Engine Controllers, Including Class I, Division I and Class I, Division II
- Computer and PLC Based Systems

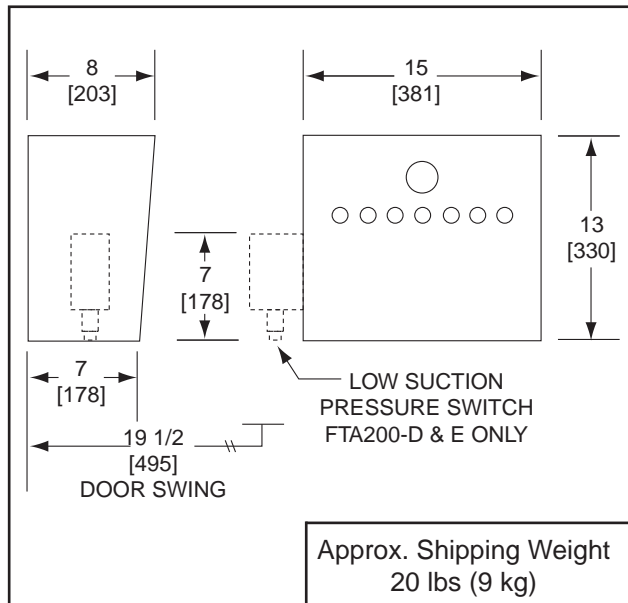
FTA200-D Low Suction Pressure Alarm and Shutdown Panel



Dimensions and Shipping Weights FTA500, FTA516



Dimensions and Shipping Weights — FTA200 Type A, B, D, E, F, G



Note — Due to continual product enhancements, dimensions and specifications may change at any time without notice. Contact the factory or your local representative for current specifications.

Firetrol®

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