

CSI Controls Fusion Three Phase Simplex Instruction Manual

Home » CSI Controls » CSI Controls Fusion Three Phase Simplex Instruction Manual



Three Phase Simplex Installation and Operation Manual



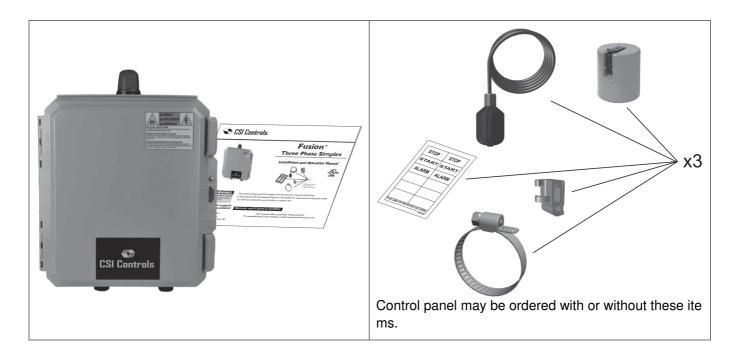
Contents

- 1 Parts Included
- 2 Installing the Float

Switches

- **3 Mounting the Control Panel**
- **4 Wiring the Control Panel**
- **5 Operation**
- 6 Documents / Resources
 - **6.1 References**
- 7 Related Posts

Parts Included



△WARNING!

ELECTRICAL SHOCK HAZARD

Disconnect all power sources before servicing. Failure to do so could result in serious injury or death. This control panel must be installed and serviced by a licensed electrician in accordance with the National Electric Code NFPA-70, state and local electrical codes.

UL Type 4X enclosures are for indoor or outdoor use.

Warranty void if panel is modified.

For information regarding operation, available options, or servicing questions, please call CSI Control s Technical Support.

CSI Controls off ers a fi ve-year limited warranty. For complete terms and conditions, please visit www.csicontrols.com.

Products returned must be cleaned, sanitized, or deco ntaminated as necessary prior to shipment to ensure t hat employees will not be exposed to health hazards i n handling said material. All applicable laws and regul ations shall apply.

Manufactured by: CSI Controls Technical Support: +1-800-746-6287

techsupport@sjeinc.com www.csicontrols.com Technical Support Hours: Monday-Friday, 7:00 AM to 6:00 PM Central Time PN 1074870A 11/22 ©2022 SJE, Inc. All Rights Reserved. CSI CONTROLS is a trademark of SJE, Inc

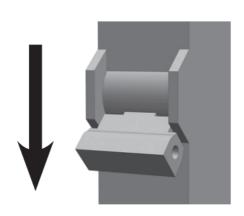
Installing the Float Switches

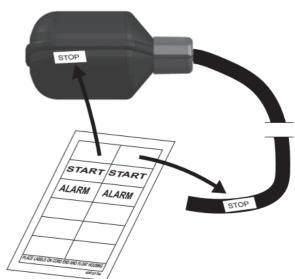
The Fusion™ Three Phase Simplex control panel operates with 3 float switches to activate pump STOP, pump START, and highlevel ALARM functions.

1. **WARNING**

Ensure all power is turned OFF before installing floats in tank. Failure to do so could result in serious or fatal shock.

2. Label each fl oat and cord end with the provided pairs of STOP, START and ALARM stickers.





3 ACAUTION

If the fl oats are not properly mounted and connected in the correct order, the pumps will not function properly.

Mounting the Control Panel

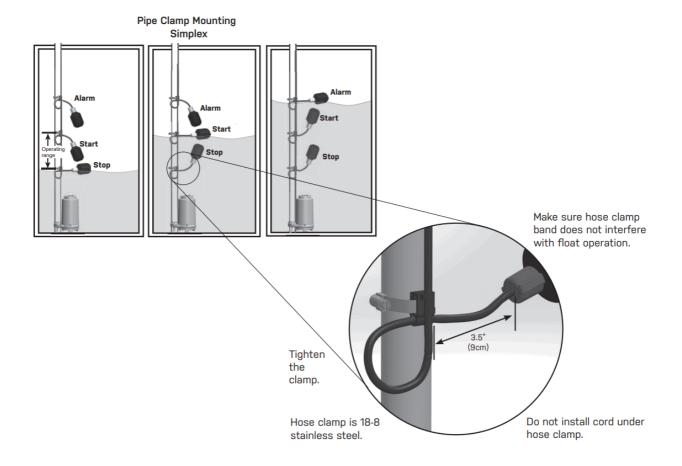
NOTE

If the distance to the control panel exceeds the length of the fl oat switch cords or the pump power cord, splicing in a liquid-tight junction box will be required. For outdoor or wet installation, we recommend a CSI Controls UL Type 4X junction box.



Floats require free range of motion.

They must not touch each other or any equipment in the pump chamber.



Wiring the Control Panel

1. Determine conduit entrance locations on control panel as shown. Check local codes and schematic inside the panel for the number of power circuits required.

△CAUTION!

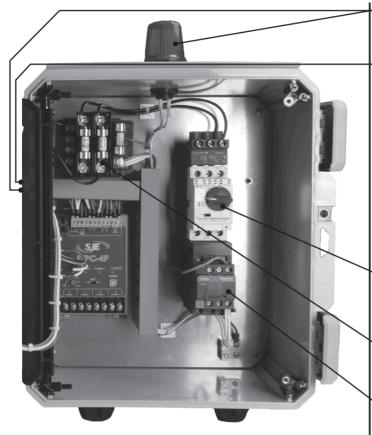
Be sure the pump power voltage and phase are the same as the pump motor being installed.

- 2. Connect the following wires to the proper terminal positions:
 - · incoming power
 - pump
 - · float switches

See schematic inside control panel for details.

Operation

Fusion™ Three Phase Simplex control panel operates with float switches. When all fl oats are in the open or OFF position, the panel is inactive. As the liquid level rises and closes the STOP fl oat, the panel remains inactive until the START fl oat closes. At this point the pump will turn ON (if the Hand-Off -Auto switch is in the AUTO mode and the power is ON). The pump will remain ON until both the STOP and START fl oats return to their OFF positions. If the liquid level rises to reach the ALARM fl oat, the alarm will be activated.



Typical Layout (May vary with options ordered).

Alarm System (Indicator Light and Horn)

When an alarm condition occurs, the red light and horn will be activated.

If the **TEST/SILENCE** button is pressed when alarm is present, it will silence the horn until the alarm condition is reset. If the alarm is not present, the TEST/SILENCE button will activate the alarm until the button is released.

Hand-Off-Auto (HOA) Switch (Not pictured)

The HOA 3-way switch control pump functions.



In HAND mode, the pump will turn ON.



OFF turns the pump OFF.

In AUTO mode, commands from the float switches turn each pump ON and OFF.

Motor Protective Switch

Each pump circuit has a motor protective switch that provides pump disconnect, overload, and branch circuit protection. Adjust overload to pump FLA.

Transformer

The transformer converts incoming three phase power to 120V to be used for control and alarm.

Motor Contactor

Motor contactor controls pumps by switching electrical lines.



You must use conduit sealant to prevent moisture or gases from entering the panel. Type 4X conduit must be used to maintain a Type 4X rating of the control panel.

3. Verify correct operation of control panel after installation is complete.



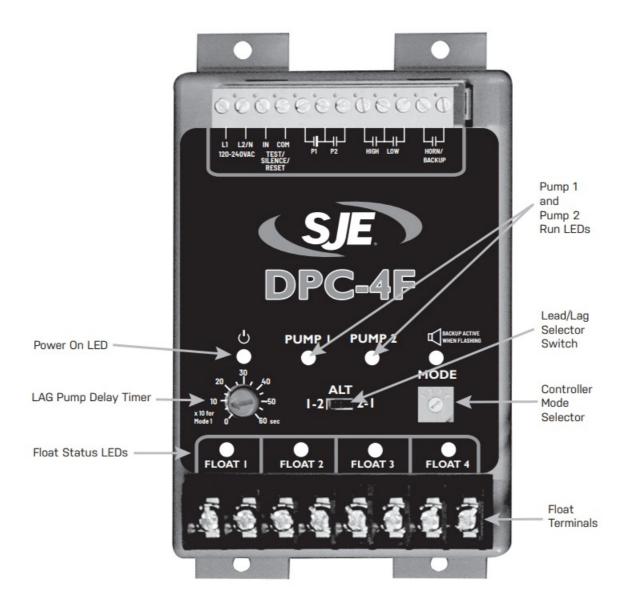
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Monday - Friday

7:00 AM to 6:00 PM Central Time

DPC-4F PUMP CONTROLLER



MODE 4: Three Float Simplex Operation

Simplex Basic Operation:

Pump turns on when Float 2 closes. Pump turns off when Float 1 opens.

While the DPC-4F controller is designed to operate in duplex applications, it can also be used for simplex applications. In simplex operation, float 3 and pump 2 functions will not be utilized.

Float Out-of-Sequence: If a float closes or opens in the incorrect sequence, the alarm will activate. The Out-of-Sequence fault will clear if the failed float returns to the correct position.



www.csicontrols.com

Technical Support Hours: Monday - Friday, 7 A.M. to 6 PM Central Time

Documents / Resources



<u>CSI Controls Fusion Three Phase Simplex</u> [pdf] Instruction Manual Fusion Three Phase Simplex, Fusion Simplex, Three Phase Simplex, Simplex

References

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