

Pump Control Panel—SPC



- AUTOMATICALLY INTERFACES PUMP AND CONTROL VALVE TO AVOID STARTING AND STOPPING SURGES
- VISUAL INDICATION OF OPERATIONAL STATUS
- SIMPLE TO INSTALL WITH PRE-WIRED & LABELED TERMINAL STRIP AND CLEAR WIRING SCHEMATIC
- SUITABLE FOR USE WITH EITHER IN-LINE BOOSTER OR DEEP WELL BY-PASS PUMP CONTROL VALVES
- MINIMIZES FIELD WIRING COSTS

When Ordering Please Specify:

1. Catalog Model #.
2. Solenoid Voltage
3. SPC-IDC-2LS OR SPC-EC-LS Configuration
4. Optional Nema 4X Enclosure.

The Singer model SPC pump control panel provides the interface between the pump motor starter and the Singer pump control valve. The SPC ensures that the pump starts and stops without causing line surges.

The SPC panel energizes the control valve pilot solenoid simultaneously with pump start. When pump shutdown is called for the panel keeps the pump running while the pilot solenoid is de-energized. The panel turns the pump off just as the control valve completes its full stroke travel.

The SPC panel is equipped with delay timers and emergency fault contacts to provide the customer with local and remote indication for various operational failure conditions.

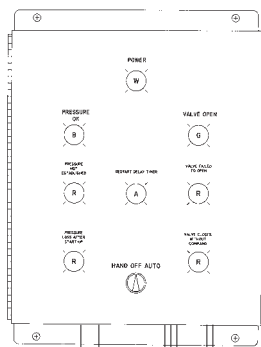
The SPC panel is connected to the pilot solenoid and limit switch which are standard components in the control valve pilot system. The panel is also connected to the customer supplied pump discharge pressure switch and the pump motor starter.

A second limit switch and emergency shutdown solenoid are optional components for the control valve pilot system.

The logical arrangement of indicator lights with the HOA (Hand Off Automatic) selector switch (or the optional stop/start buttons) provides easy supervision of the sequencing and the operating status.

Typical Application:

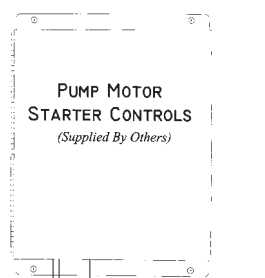
Singer Pump Control Panel Model SPC-EC-LS as shown



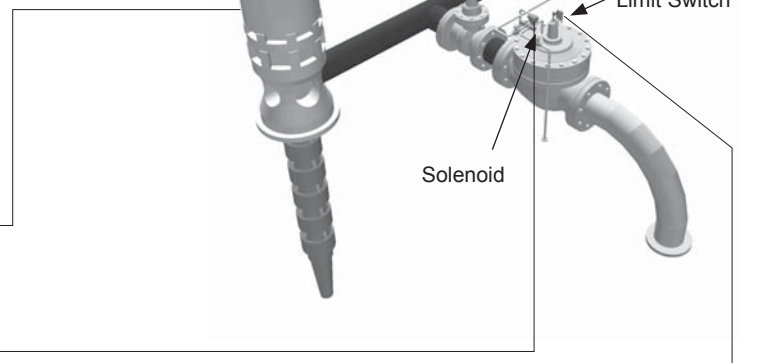
120VAC / 60Hz
Power Supply

Note: Wiring done by others

Pump Motor Starter



Pump Start Contacts



Typical Configuration:

Mounted on the front cover and wired to the terminal strip:

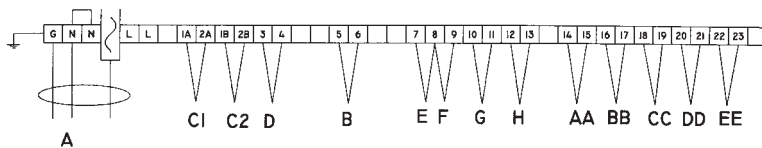
INDICATOR LIGHT FUNCTIONS:

White	Power connected to panel
Blue	Pump start and discharge pressure time delay status
Green	Solenoid energized, valve open time delay status
Yellow	Loss of Power restart status
Flashing Red	Fault condition - either in conjunction with primary lights or as a separately labeled light

OTHER COVER MOUNTED FEATURES:

- Hand/Off/Automatic Selector Switch
- Optional independent START/STOP push buttons
- Optional independent EMERGENCY STOP push button with

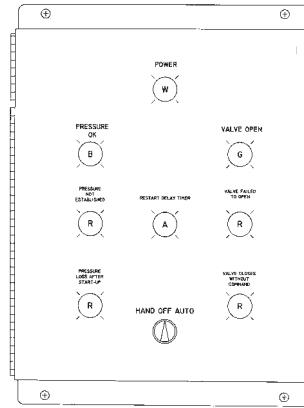
MANUAL RESET feature



Terminal Strip Connections:

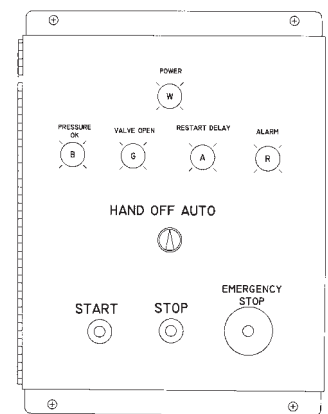
- A 120VAC / 60Hz Power
- B Motor Starter Contacts (20Amp fused)
- C Emergency Closing Solenoid (120VAC) - optional
- D Normal Singer Pilot Solenoid (120VAC)
- E Pressure Switch (N.O.) (customer supplied)
- F Valve Limit Switch (N.O.) - standard
- G Remote/Automatic Start
- H Loss of Power Restart (Jumper installed enables restart)

Model SPC-EC-LS



NEMA 4 ENCLOSURE
LAYOUT MAY VARY

Model SPC-IDC-2LS



Remote Alarm Connections:

- AA Failure to Develop Discharge Pressure - non-powered
- BB Loss of Discharge Pressure - non-powered
- CC Valve Failed to Open Fully - non-powered
- DD Valve Closed without Command - non-powered
- EE Loss of Power Restart Delay - 120VAC

Selection Summary:

Equipped with factory programmed logic module, the Singer Model SPC can be readily customized to meet client's requirements. The two most common configurations are:

- SPC-IDC-2LS For PTC based Singer pump control valves with internal drop check and dual limit switches. Typically used for non-modulating applications where the valves are required to open fully.
- SPC-EC-LS For PG based Singer pump control valves with modulating functions, no internal drop check, and equipped with emergency closing solenoids.

Specifications:

The pump control panel shall be a Singer Valve model SPC-"_____"-"_____", powered by 120VAC/60Hz (220VAC/50Hz) source, suitable for interfacing with Singer Model 106/206-BPC, PG-BPC, DW, and DWX pump control valves. The panel shall include 3-Amp controls circuit breaker, and a 20-Amp motor starter panel contact circuit breaker. Logic module, relays, and fully labeled connection terminals shall be housed inside a NEMA 4 rated raintight enclosure.

- The pump control panel shall provide proper sequencing and operation of the pump control valve with the pumping system.
- The pump control panel shall accept a pressure switch dry contact, limit switch dry contact, and remote start command contact.
- The pump control panel shall use a pre-programmed logic module to provide proper sequencing and digitally adjustable delay timer adjustments.
- The pump control panel shall have cover-mounted H-O-A (HAND-OFF-AUTOMATIC) switch, operation indicator lights, and alarm indicator lights.
- Prior to shipment, the panel shall undergo full function and operational tests.

Singer Valve Inc. • 12850 - 87th Avenue • Surrey, British Columbia, Canada V3W 3H9
 Tel: 604 594 5404 • Fax: 604 594 8845 • Toll-Free Fax (US & Canada): 1 800 663 7266
 E-Mail: singer@singervalve.com • singervalve.com • An ISO 9001:2000 Registered Company