

# CONTROLLER

# MODEL SDC-101

## THE PROBLEM

Failure to establish programmed flow after pump turn on signal has been applied.

Failure to maintain proper flow during normal operation due to line clogging, line rupture, incorrect valve positioning, etc.

## THE SOLUTION

Insertion of an SDC-101 shut down control in the input power line of pumps, heaters, valves, etc., that are flow critical will interrupt power automatically upon loss of flow.

Power will remain off until the problem has been corrected and proper flow re-established.

Loss of pump prime is a persistent fluid system problem. A flow switch at the pump output is a viable solution, except that it presents a "catch 22"

situation, i.e. lack of flow at start up will not allow the flow switch to supply power to the pump. A manual push to start or automatic time delay relay switch in parallel with the flow switch is required to supply power to the pump motor during startup. After the pump is up to speed the parallel switch kicks out and the flow switch takes over flow monitoring. Model SDC-101 is provided with a parallel variable time delay relay switch/flow switch combination to provide pump protection during startup as well as the continuous phase of operation.

SDC-101 modules may be connected to monitor:

Critical points in simple one pump systems or, in series, with pumps, heaters, valves, etc., so that failure of any part will shut the whole system down.

Isolated or remote components and sub-systems.



## TYPICAL USES

For use in:

Chemical Processing	Sanitation
Food Processing	Aerospace ground support systems
Water Treatment	Mining
Agriculture	Transportation

## ADDITIONAL FEATURES:

Continuous adjustment of time delay cycle.

120/240VAC and DC power options

Rain resistant housing for rugged, industrial usage

Can be used in mobile vehicles, ships, trains, etc.

## OPERATIONAL FEATURES:

Supplied pre-wired and ready for immediate installation

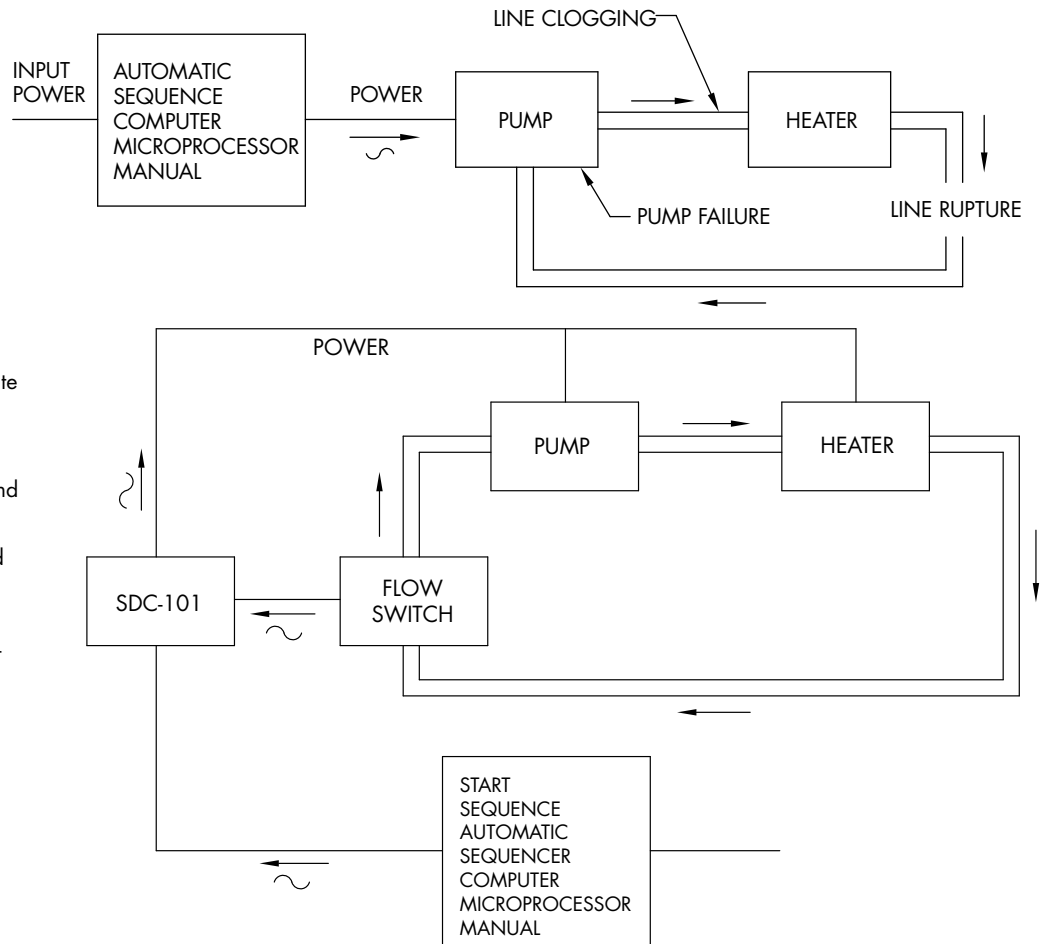
All components UL listed or recognized

Input and output power lines are quickly and easily attached to 30A terminal block

Terminal block positions are numbered and wiring is color coded for easy, fast and accurate installation and servicing.

Performance checks are quick and straightforward using an uncomplicated, standard multimeter.

Enclosure: NEMA 4 / IP 66.



541 Kinetic Drive  
Oxnard, CA 93030  
www.harwil.com

v8.01

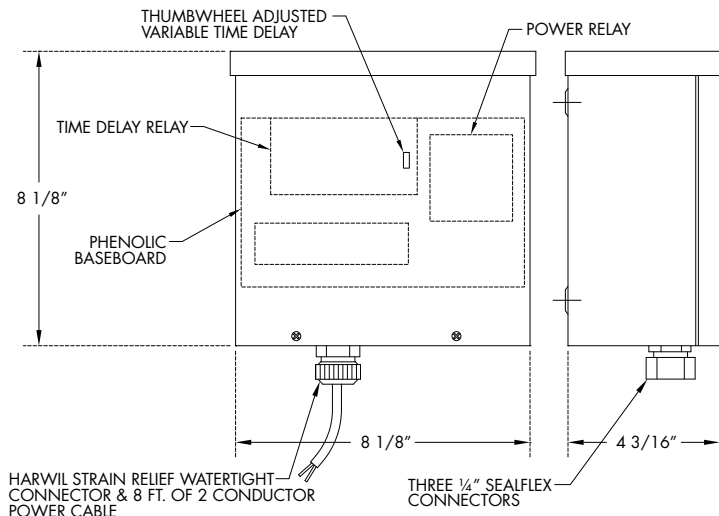
Phone: (805) 988-6800  
Fax: (805) 988-6804  
Email: harwil@harwil.com

**SPECIFICATIONS:**

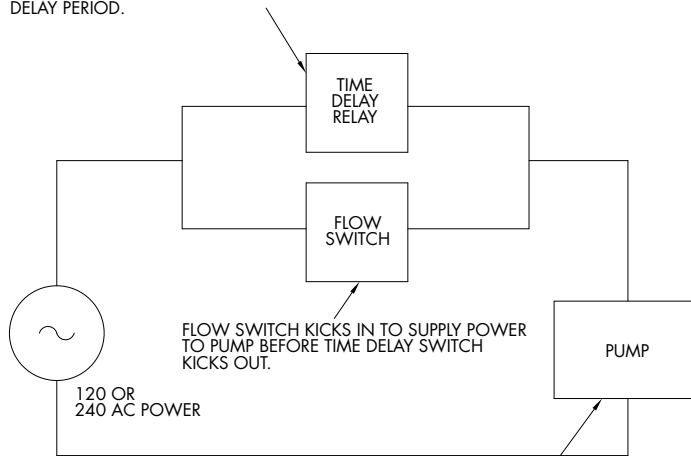
Control Box

Rain resistant type 3R - UL listed.

# MODEL SDC-101



POWER IS SUPPLIED TO THE PUMP IMMEDIATELY ON START UP. THE TIME DELAY IS ALSO INITIATED WHICH THEN OPENS THE PARALLEL BYPASS SWITCH AT END OF THE DELAY PERIOD.



IF PUMP FAILS TO INITIATE FLOW ON START UP, PUMP POWER IS IMMEDIATELY SHUT OFF. IF PUMP IS ESTABLISHED AT START UP BUT IS LOST AT A LATER TIME, PUMP POWER IS SHUT OFF.

**TIME DELAY RELAY**

Operation

When rating voltage is applied to the input, the timing cycle begins and the DPDT relay is activated. At the end of the timing cycle, the relay is de-activated and remains in that condition until power is removed from the input. Switching off and then turning on of input power re-starts the timing cycle. This timing sequence will repeat each time the system is turned on.

- Input Voltage - 120/240VAC, 50/60 Hz
- Output Contact Arrangement - DPDT
- Contact Rating
- 10A, 1/2 hp @ 120/240VAC, 50/60 Hz
- Standard Time Cycle
- 1 to 180 sec., Continuously adjustable
- Ambient Operating Temp. Range -5° to 140°F
- Termination - 1/4" quick disconnect terminals

**SWITCH PERFORMANCE DATA**

Refer to manufacturer's specification sheets for information regarding performance of:

- Harwil Fluid Flow or Liquid Level switches
- Pressure switches
- Motion Limit switches
- Proximity Switches, etc. which may be used in conjunction with, but are not included with, the SDC-101 module.

Complete operating instructions. Mechanical and Electrical installation drawing and a numbered parts list is supplied with each unit.

Super-simple maintenance and checkout for personnel using a standard test meter.

**MOTOR CONTACTOR SPECIFICATIONS**

**OPERATING COIL**

- 120VAC or 208-240VAC 50/60 Hz
- Inrush: 31 VA
- Continuous Use: 7 VA
- Pickup: 90VAC (120VAC Coil)
- 170VAC (208 VA Coil)
- Coil Insulation: class B
- Coil Connections: Double Male 1/4" quick connect
- Maximum Ambient Temperature: 155°

**OUTPUT POWER CONTACTS**

- Type: DPST - Normally Open
- Contact rating per pole.

Terminal Strip - 812 Series

**ELECTRICAL RATING**

- Rated voltage - 1600 Volts RMS
- Current rating - 30A

**WIRE SIZE**

- Will accommodate lugs for wire sizes AWG #14 to #12

**HARDWARE**

- Screws and terminals - brass, nickel plated
- Solder terminals - brass, hot-tinned

**MOLDED MATERIAL**

- G.P. phenolic (94V-0).
- UL Recognized

• Installation drawing and a numbered parts list is supplied with each unit.  
 • Special one-day delivery is available.