

## **DUAL DRAIN WITH ALTERNATING PUMPS SYSTEM AND HIGH LEVEL SET POINT – WITH INTERNAL DIAGNOSTIC TEST SYSTEM**

WaterLine Controls™ Model WLC-9100-XXX (50, 100, 150 or 200 depending on Sensor wire length) Specification  
Electronic Water Level Controls by Levolor®

The Model WLC-9100 WaterLine Controls as supplied by System Dynamics, Inc (WLC-6000-XXX) shall be supplied as a unit, including sensor with wire, controller. The system shall be solid state, with non-corrosive components, NEMA 4 enclosure with all components suitable for use outdoors in an Industrial Application or mechanical room environment. The system will provide automation monitoring, fine control, ease of operation, ease of service and accessibility.

The environment water level shall be controlled automatically within a range identified as “the operating range”. It will also monitor a High Water Level set-point and act upon it and a secondary High Water Level set point and act upon it. It shall have a High Water Level Alarm set higher than the Secondary High Water level set point.

The water level control system shall be comprised of a sensor and sensor housing with wire attached and installed at water level, control panel mounted at a convenient location. A second and third relay system shall operate a Secondary High Water Level Alarm and a High Water Level Alarm.

The 3” sensor housing shall be installed according to the drawings. The sensor shall be mounted at water level in a safe and convenient location according to the drawings using the “U” bolts provided. The sensor assembly shall be of solid state construction and contain six sensing probes made of stainless steel. Units with floats or moving parts will not be considered as approved equals and shall be rejected.

The Sensor shall be connected to the control panel with a maximum of 200 ft of wire provided as part of the sensor. The wire comes in 50ft increments up to 200ft and cannot be spliced to extend it. Specify wire length by the ending three digits of the part number.

The control panel shall be solid state construction and approved for installation by applicable regulations and draw no more than 0.25 Amps at 110VAC and 0.125 Amps at 220VAC. All Power relays are rated at 30Amps 250VAC. Each output function shall have a corresponding set of normally open dry contacts rated at 0.5Amps at 60Volts to be connected to the building automation system.

Control Panel shall feature displays indicating Power, Drain, High Water Level Drain II, High Water Level indicators, a fault indicator and a test system to test the electronics portion of the controls without removing or disconnecting the probes. The system shall change between relays fired for the Primary Drain. This feature is designed to alternate between the pumps or gate valve so one does not wear faster than the other. The system shall have a time delay between sensing and Drain before initializing a pump or gate

valve. The system shall have a time delay between sensing and the Secondary High Water Level pump or gate valve before initializing the relay to activate the Secondary High Water Level Drain System. The system shall have a time delay between sensing and the High Water Level Alarm before initializing the relay to activate the High Water Level Alarm. The system will have a switch to activate the test process and it will automatically cycle through the Draining process, Secondary High Water Level Drain and the High Water Level Alarm. The system will have a light to indicate that it is in the test mode. The "Fault" indicator will change the power LED (green) to red when the Primary "Drain" command has been "ON" for greater than six continuous hours. After one minute it will turn back to green and the system will function normally. The system is available in 110VAC or 220VAC 50/60Hz and is hard wired into a panel for permanent installation.

**Dimensions:**

**Enclosure:** 8-3/4" X 10-1/2" X 6" including the hinge and the latch

**Sensor assembly:** 3" diameter and 20" long

**Solenoid Valve:** 1" NPT and 110VAC made by ASCO 8221

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