



## DUAL SET POINT PUMP CONTROLLER

### MODEL BD200

#### FEATURES:

The Bulldog Model BD200 versatile, simple, and inexpensive, making it the ideal instrument for controlling dual pump lifting stations. Setpoints for ON/OFF and HI/LO alarms are easily set on the front panel. These same buttons also Enable/Disable pump alternation. A selectable time delay of up to 60 seconds on power-up for pump two prevents both pumps from starting at the same time and a large current draw. Alarms for pump seal failure and motor windings overheating are indicated by lights on the front panel. The dial can also display a runtime clock for each pump. An isolated 4-20 mA retransmission is standard. The front face is rated NEMA-4X for outdoor panel mounting. The BD-200 is also available with RS-232 or RS-485 protocol for connectivity with SCADA systems.



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Dual Set Point Pump Controller

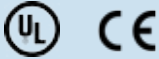
#### SPECIFICATIONS:

- Selectable pump alternation when used with two pumps to minimize pump wear. With alternation "On", a seal failure or over temperature condition will force the non-failed pump to lead status and stop alternation
- Alarm light for seal failure when used with a submersible pump that includes a moisture sensor
- Alarm light for overheating when used with a pump that includes a thermostat. Pump is removed from service & can be brought back online manually or automatically when pump has cooled down
- Runtime displayed by a front panel button.
- 24 VDC power for level transmitter
- 4-20 mA or voltage signal output
- Non-volatile memory, no batteries
- Test System function simulates process input to test program, or to ensure pumps are operating
- User-selectable security lock-out of programming and/or setpoints



# SET POINT PUMP CONTROLLER

Standard Specifications are listed below. Consult factory for further options, which may change the overall dimensions.

<b>Input</b>	4 (or 0) to 20 mADC or 2 (or 0) to 10 VDC selectable
<b>Input Impedance</b>	Current = 10 $\Omega$ , Voltage = 100K $\Omega$
<b>Output Ratings</b>	Control Relays: SPDT, 10A @ 240 VAC resistive, ¼ hp @ 120 VAC, ½ hp @ 240 VAC Alarm Relays: SPST, 3A @ 240 VAC resistive, ¼ hp @ 120 VAC
<b>Control Type</b>	On/Off, reverse (pump out) or direct (pump in) acting
<b>Accuracy</b>	$\pm 0.25\%$ of span $\pm 1$ least significant digit
<b>Display</b>	Two 4 digit, 7 segment, 14.2mm (0.56") high LED's
<b>Resolution</b>	1 count
<b>Power Consumption</b>	7.5 VA maximum
<b>Electrical Supply</b>	100 to 240 VAC nominal, +10% to 15%, 50 to 400 Hz single phase; 132 to 240 VDC +10% to 15%
<b>Loop Powered Supply</b>	Isolated +24 VDC @ 50 mA, regulated
<b>Temperature Range</b>	Operating Range: -10 °C to 55 °C (-14 °F to 130 °F) Storage Range: -40 °C to +80 °C (-40 °F to +175 °F)
<b>Humidity Range</b>	0 to 90% up to 40 °C for non- condensing
<b>Seal Failure (Moisture Sensor)</b>	Power: 2.5 VDC Search Current: 3 micro amps Resolution: 10K to 500K ohms in 10K ohm steps
<b>Agency Approvals</b>	UL508, CE 
<b>Memory Backup</b>	Non-volatile memory, no batteries
<b>Panel Cutout</b>	92mm X 92mm (3.622" X 3.622")
<b>Weight</b>	454 g (16 oz)
<b>Front Panel Rating</b>	IP66 (Type NEMA 4X)
<b>Options</b>	RS-232 or RS-485 with Modbus protocol; Ethernet using TCP/IP
<b>Accessories</b>	Weatherproof Enclosures, NEMA 4X

All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact Blue Ribbon Corporation for assistance with your application.

