Digital

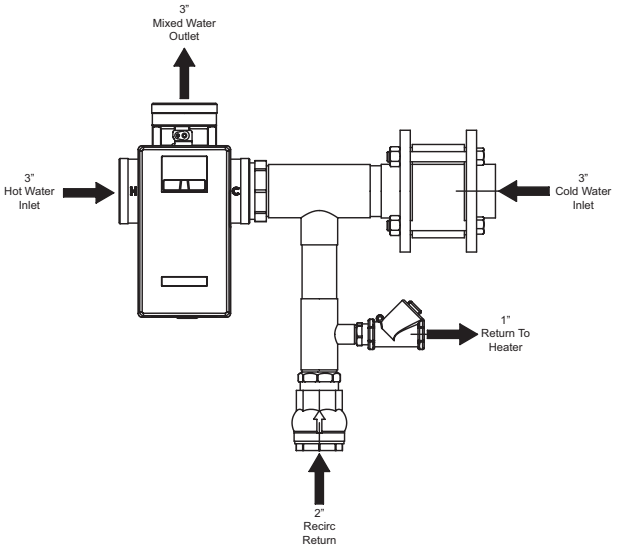
The Brain® Model DRV80R

DRV80R Digital Recirculation Valve (DRV) designed specifically to be the primary water temperature controller in a continuously pumped circulating hot water system. DRV80R is supplied with a recirculation return manifold as shown.

Digital technology provides enhanced water temperature control accuracy which resists zero system demand “Temperature Creep” without the use of a manual throttling valve or a temperature activated pump shut-off device (aquastat).

Operational Specifications

- +/-2°F water temperature control at points of use 25’ downstream during demand
- +/-2°F water temperature control at the DRV during zero system demand “idling” periods
- 2°F minimum valve inlet to outlet temperature requirement (system recirculation temperature loss).
- Automatic shutoff of hot water flow upon cold water inlet supply failure
- Automatic shutoff of hot water flow in the event of a power failure
- Programmable set point range of 81-158°F (27-70°C)
- Programmable thermal disinfection mode
- Programmable 1st level hi/lo temp alarm display
- Programmable temperature error level for safety shutdown



Technical Specifications

- 100-240 V AC
- Polymer Electronics Enclosure
- Stainless Steel Valve Construction
- Complete Assembly Lead Free Compliant
- DRV80R 3” NPT Inlet/Outlet
- DRV50R 2” NPT* Inlet/Outlet
- Maximum inlet HW supply temperature 185°F (85°C)
- Minimum Circulation Flow – 10 GPM/38 LPM
- Minimum System Draw Off - 0
- ASSE 1017, CSA B125 and CE Certified
- Operational water pressure of 10-150 psig
- Display in °C or °F
- Shipping weight 70 lbs (32 kg)

Connectivity

SPCO Relay Outputs – Relay which is energized during operation.

LCD Display – Provides information on set point, delivered temperature, error codes and alert conditions.

RS485 Serial Port – Connects the DRV to either BrainScan or Modbus.

BrainScan® – BAS interface for Modbus, Bacnet™ or LonWorks™ plus operates as a web server.

Modbus – DRV can be configured to communicate directly with Building Automation Systems (BAS) using Modbus protocols.

*DRV50R is a DRV80 supplied with 3” x 2” Bushings at the hot inlet, 2” recirculation manifold and outlet.

For a submittal drawing, refer to D40821.

Recirculation Systems - Digital (gpm)							
Model	Pressure Drop (psi)				Minimum System Draw-Off	Maximum Flow @7.5 ft/sec.	C_v
	5	10	15	20			
DRV80R	94	133	163	188	0	165	42

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

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