



Water Temperature Control - Recirculation Systems

Digital

The Brain® Model DMC1

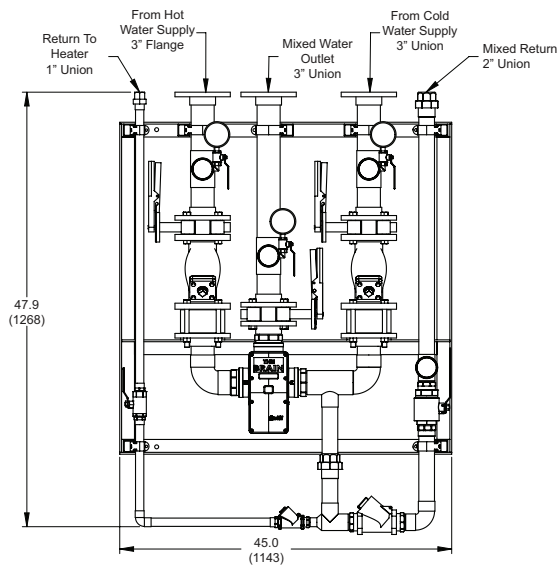
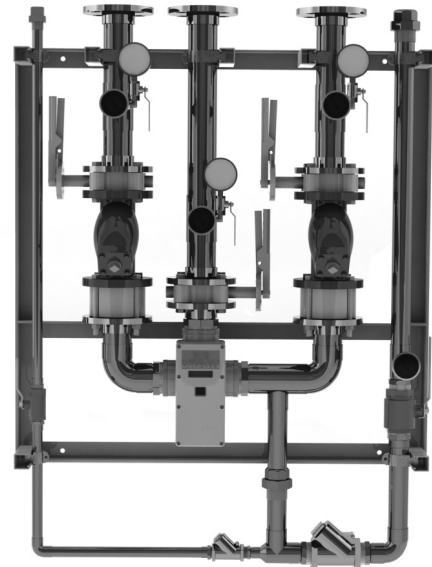
Model DMC 1 features a single DRV 80 pre-piped and pressure tested complete with isolation valves, strainers, check valves, thermometers, pressure gauges along with an optionally selected system circulating pump (DMC12). The Brain™ Model DRV80 is a fully digital recirculating valve (DRV) for “point of source” or mechanical room based installation. DRV 80 is designed specifically to be the primary water temperature controller in a continuously pumped recirculating hot water system



Operational Specifications - DRV80

The enhanced accuracy possible with DRV80 digital technology, combined with its data input/output communication capability equals:

- Accurate control of blended water drawn from the system at a point of use typically within +/-2°F at draw off points a minimum of 5m downstream of mixing valve during consistent system demand periods
- Operational water pressure of 10 -150 psig
- Minimum valve inlet to outlet temperature requirement (system recirculation temperature loss) of 2°F
- 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
- Maintain a consistent system “idling” temperature and control Temperature Creep without the use of a manual throttling device or balance valve.
- System shall not require a temperature activated pump shut-off device (aquastat).
- Programmable set point range of 81-158°F (29-71°C)
- Ability to thermally disinfect at recommended temperatures
- Programmable 1st level hi/lo temp alarm display
- Programmable temperature error level for safety shutdown



Technical Specifications

- 100-240 V Power supply (12 V AC output)
- 2 x 4-20 mA current loop interfaces:
 - Input: Setpoint Selection
 - Output: Mixed Water Outlet Temperature
- Relay output: 24V DC/240 V AC SPCO
 - Error Relay: Activated in alarm or error mode
- BrainScan Connection Port
- Stainless Steel Construction (DRV80)
- 3" Flanged Connections DMC1 - 150 (shown)
- 2" NPT Option DMC1 - 90
- ASSE 1017, CSA B125 and CE Certified
- Shipping weight 700 lbs (317.5 kg)

For submittal drawings, refer to:

- DMC1 - 90 D6766
- DMC1 - 150 D6776

Recirculation Systems - Digital (gpm)							
Model	Pressure Drop (psi)				Minimum System Draw-Off	Maximum Flow @7.5 ft/sec.	C _v
	5	10	15	20			
DRV80/R	94	133	163	188	0	165	42
DMC1	94	133	163	188	0	165	42
DMC2	188	266	326	376	0	294	84
DMC3	282	399	399	564	0	459	126