



Water Temperature Control - Recirculation Systems

Digital

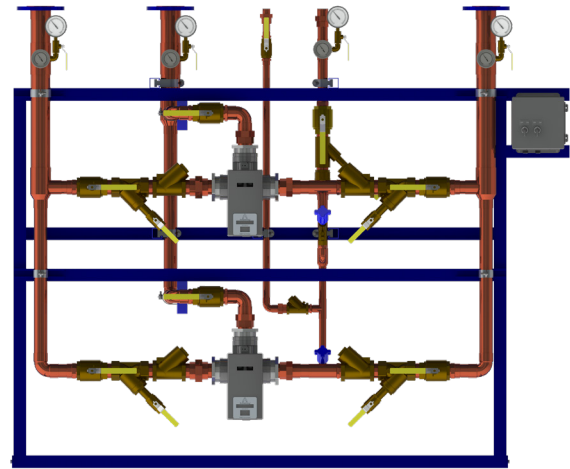
The Brain® Model DMC50-50

DMC50-50 is designed such that one valve is 100% redundant or can operate together to deliver blended flow rates less than 165 gpm at 7.5 ft/sec pipeline velocity.

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).

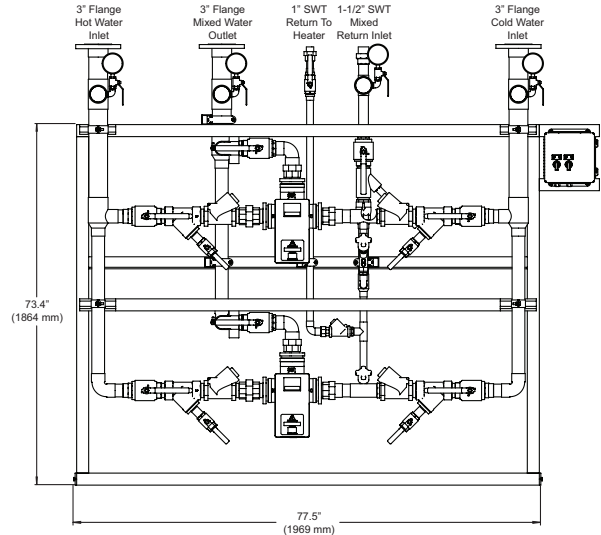
Operational Specifications (DRV50)

- +/-2°F DRV water temperature control at peak, moderate or zero fixture demand on hot water system designed for continuous recirculation
- 1°F minimum recirculating water temperature differential
- LCD display which indicates: set point, delivered temperature, error codes and alarm conditions capable of BAS and mobile connectivity
- Programmable set point range of 81-158°F (27-70°C) capable of BAS or mobile monitoring and adjustment
- Programmable thermal disinfection range of 158-185°F (70-85°C)
- Programmable 1st level hi/lo temp alarm display capable of BAS or mobile alerting
- Automatic safe closure of hot water inlet in response to: inlet supply failure, 110V power failure, or programmable high temperature error
- Automatic safe closure of hot water inlet powered by a replaceable lithium battery monitored for low-level alerting



Technical Specifications (DRV50)

- 100-240V AC
- Polymer Electronics Enclosure
- Stainless Steel Valve Construction
- Lead Free compliant
- Maximum inlet HW supply temperature 185°F (85°C)
- Minimum Continuous Recirculation - 10 GPM (38 LPM) per DRV50
- Minimum System Draw Off - 0 GPM
- Conforms to ASSE 1017, CSA B125.3-11, UL E357437, and CE
- Operational water pressure of 10-150 psig (7-10 barg)
- Display in °C or °F
- Shipping weight 870 lbs (395 kg)
- Integral MODBUS RTU for direct connectivity to BAS, or SAGE®



Connectivity

RS485 Serial Port – Integral MODBUS RTU for direct connectivity to BAS. Seamless integration with SAGE® (BS) connectivity options.

See DMC50-50BS for SAGE® (BS) module available with specific ProtoCessor cards for BAS Connectivity to systems which operate on Modbus TCP, BACnet™, or LonWorks™ protocols. Mobile Connectivity may be enabled by a customer activated no-term subscription.

Mobile Connectivity features smart hot water system dashboard monitoring, secure remote programming, multi-location view, temperature and system diagnostic alerts, with unlimited digital documentation and automated report generation.

For a submittal drawing, refer to D85100.

Recirculation Systems - Digital (GPM and PSIG)			
Model	Pressure Drop (PSIG)	Minimum System Draw-Off	C _v
DMC50-50	5		
GPM	188	0	84

Recirculation Systems - Digital (LPM and BARG)			
Model	Pressure Drop (BARG)	Minimum System Draw-Off	C _v
DMC50-50	0.3		
LPM	711.7	0	84

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.