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## **Water Temperature Control - Recirculation Systems**

### **Digital**

## The Brain® Model DMC80BS

DMC80BS is a fully Digital Mixing Center (DMC), with SAGE® hot water system monitoring and reporting tool, designed specifically to be the primary water temperature controller in a continuously pumped circulating hot water system.

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).

SAGE® (BS) available with specific ProtoCessor cards for BAS connectivity to systems which operate on Modbus TCP, BACnet™, or LonWorks™ protocols.

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. Mobile connectivity may be enabled by a customer activated subscription.

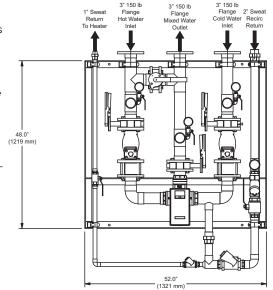
#### **Operational Specifications (DRV80)**

- +/-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**

- 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)
- 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
- SAGE® (BS) for BAS or Mobile Connectivity
- · Shipping weight 665 lbs (301.6 kg)

For a submittal drawing, refer to D40816



Recirculation Systems - Digital (GPM and PSIG)											
Model DMC80BS		Pressure D	rop (PSIG)		Minimum System Draw-Off	$\mathbf{C}_{v}$					
	5	10	15	20							
GPM	94	133	163	188	0	42					

Recirculation Systems - Digital (LPM and BARG)											
Model		Pressure D	rop (BARG)		Minimum System Draw-Off	C					
DMC80BS	0.3	0.7	1.0	1.4	Willimum System Draw-On	υ <sub>ν</sub>					
LPM	355.8	503.5	617.0	711.7	0	42					

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