## mc

### Water Temperature Control - Recirculation Systems

#### **Digital**

#### The Brain® Model DMC25-25

DMC25-25 is a fully Digital Mixing Center ( DMC ) 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).

Completely integral digital valve with no need for external or ancillary components such as actuators, sensors or controllers.

#### **Operational Specifications (DRV25)**

- Ready to go out of the box or field adjustable via Bluetooth® connectivity with the SAGE® mobile app
- +/-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
- Programmable set point range of 81-158°F (27-70°C) capable of BAS or SAGE® mobile app for monitoring and adjustment
- Programmable thermal disinfection range of 158-185°F (70-85°C)
- 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

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#### **Technical Specifications**

- 100-240V AC
- · Polymer Electronics Enclosure
- · Stainless Steel Valve Construction
- · Lead Free compliant
- Maximum inlet HW supply temperature 185°F (85°C); 131°F (55°C) during Group Control
- · Minimum Continuous Recirculation 2 GPM (7.6 LPM)
- · Minimum System Draw Off 0 GPM; 2 GPM (7.6 LPM) during Group Control
- Conforms to ASSE 1017, CSA B125.3-11, UL E357437, and CE
- Operational water pressure of 10-150 psig (.7-10.3 barg)
- Bluetooth® (BLE) enabled for direct communication with the DRV25 via the SAGE® mobile app status dashboard and programming.
- · Shipping weight 300 lbs (136.4 kg)

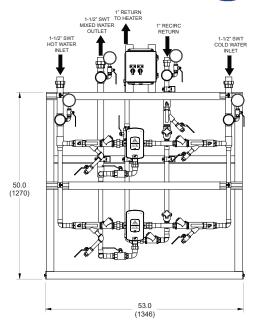
#### Connectivity

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

SAGE® mobile app allows for Bluetooth® (BLE) communications with the DRV25 and SAGE® to Cloud communications if optional mobile connectivity subscription is activated

See DMC25-25BS for SAGE® (BS) module available with specific ProtoCessor cards for BAS Connectivity to systems which operate on Modbus TCP, BACnet™, or LonWorks™ protocols. Mobile Connectivitymay 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 D113044.

Recirculation Systems - Digital (GPM and PSIG)									
Model		Pressure D	rop (PSIG)		Minimum System Draw-Off	$\mathbf{C}_{v}$			
DMC25-25	5	10	15	20					
GPM	44	62	73	90	0	19.6			

Recirculation Systems - Digital (LPM and BARG)									
Model		Pressure D	rop (BARG)		Minimum System Draw-Off	K <sub>v</sub>			
DMC25-25	0.3	0.7	1.0	1.4					
LPM	167	235	295	341	0	17.0			