



# Water Temperature Control - Recirculation Systems

## Digital

### The Brain® Model DRV25

DRV25 Digital Recirculation Valve (DRV) 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). Also capable of zoned system control with or without recirculation.

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

### Operational Specifications

- 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
- 2°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



### 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 System Draw Off - 0 GPM
- Minimum Direct Draw Off - 2 GPM (7.6 LPM)
- Conforms to ASSE 1017, CSA B125.3-11, UL E357437, and CE
- Operational water pressure of 10-200 psig (7-13.3 barg)
- Bluetooth (BLE) enabled for direct communication with the DRV25 via the SAGE® mobile app status dashboard and programming.
- Shipping weight 6.8 lbs (3.1 kg)

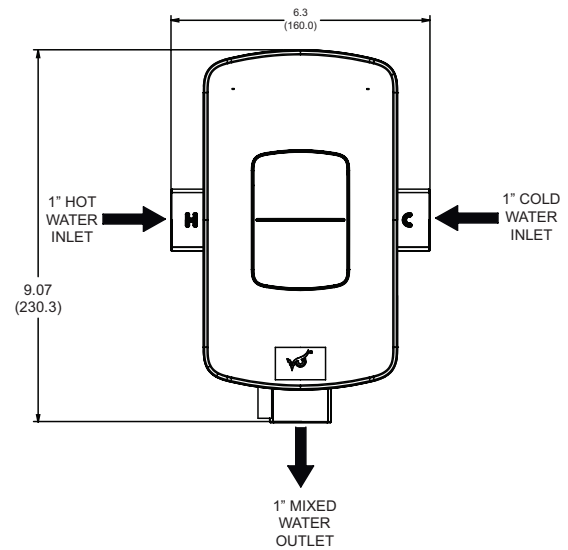
### Connectivity

**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 DRV25BS 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 D112404.

Recirculation Systems - Digital (GPM and PSIG)						
Model DRV25	Pressure Drop (PSIG)				Minimum System Draw-Off	C <sub>v</sub>
	5	10	15	20		
GPM	22	31	39	45	0	9.8

Recirculation Systems - Digital (LPM and BARG)						
Model DRV25	Pressure Drop (BARG)				Minimum System Draw-Off	K <sub>v</sub>
	0.3	0.7	1.0	1.4		
LPM	81	118	145	171	0	8.5

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit [armstronginternational.com](http://armstronginternational.com) for up-to-date information.