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Water Temperature Control - Recirculation Systems

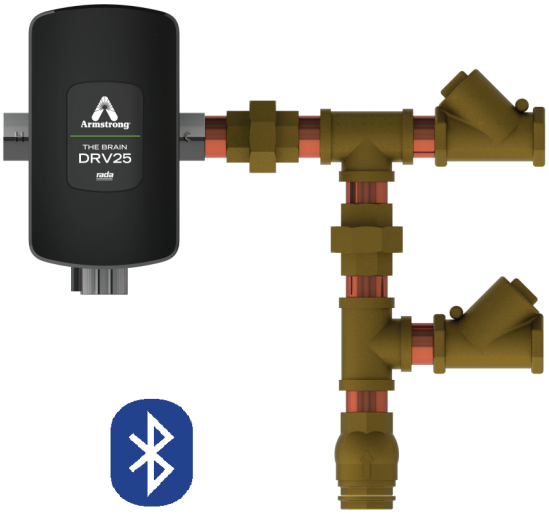
Digital

The Brain® Model DRV25R

DRV25R Digital Recirculation Valve (DRV) designed specifically to be the primary water temperature controller in a continuously pumped circulating hot water system. DRV25R is supplied with a recirculation manifold as shown.

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.

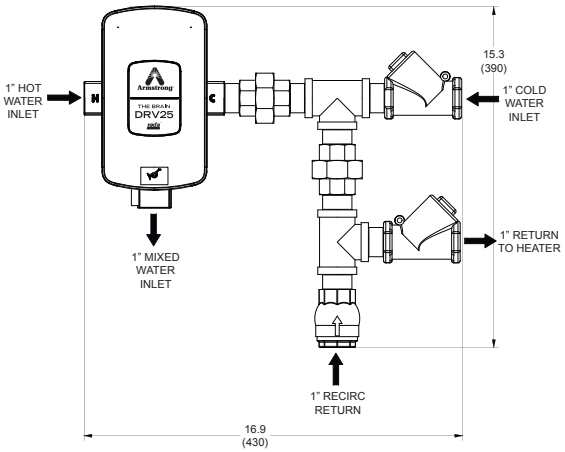


Operational Specifications (DRV25)

- 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

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 17 lbs (17.1 kg)



For a submittal drawing, refer to D112525.

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 DRV25RBS 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.

Recirculation Systems - Digital (GPM and PSIG)

Model DRV25R	Pressure Drop (PSIG)				Minimum System Draw-Off	C_V
	5	10	15	20		
GPM	22	31	39	45	0	9.8

Recirculation Systems - Digital (LPM and BARG)

Model DRV25R	Pressure Drop (BARG)				Minimum System Draw-Off	K_V
	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 **armstrong**international.com for up-to-date information.

Armstrong Hot Water Group, 221 Armstrong Blvd., Three Rivers, MI 49093 – USA Phone: 269-279-3602, Fax: 269-279-3130
armstronginternational.com