



Water Temperature Control - Recirculation Systems

Digital



- +/- 2°F Water Temperature Control
- 2°F Minimum Inlet to Outlet Temperature Differential Requirement
- Self Diagnostic Display Messaging
- Integral Building Management System (BMS) Modbus Interface
- Serial Connection Point for BMS Interface (BACnet, LonWorks, Web)
- Programmable Thermal Disinfection
- Programmable Two Level Over Temperature Alert

Digital

Water Temperature Control - Digital features Digital Recirculating Valves (DRV) and Digital Mixing Centers (DMC) specifically designed for use in a continuously pumped recirculating hot water system.

Options

The Brain® - Digital Re-Circulating Valve

Model DRV40 is a Digital Re-Circulating Valve (DRV) designed for systems which experience diverse draw-off between 0 - 41 GPM* and is provided with 1.5" NPT connections.

Model DRV50 is a Digital Re-Circulating Valve (DRV) designed for systems which experience diverse draw-off between 0 - 73 GPM*. DRV50 is a model DRV80 provided with bushed down 2" NPT connections.

Model DRV80 is a Digital Re-Circulating Valve (DRV) designed for systems which experience diverse draw-off between 0 - 165 GPM* and is provided with 3" NPT connections.

The Brain® - Digital Re-Circulating Valve with pre-piped re-circulation manifold

Model DRV40R – As above with integral recirculation system return manifold assembly with 1.5" NPT connections.

Model DRV50R – As above with integral recirculation system return manifold assembly with 2" NPT connections.

Model DRV80R – As above with integral recirculation system return manifold assembly with 3" NPT connections.

The Brain® - Digital Mixing Centers (DMC)

Model DMC40 is a pre-piped Digital Mixing Center supplied with all requisite installation components. DMC40 is designed for systems which experience diverse draw-off between 0 - 41 GPM* and is provided with 1.5" union connections.

Model DMC40-40 is a pre-piped Digital Mixing Center supplied with all requisite installation components. DMC40-40 includes two DRV40 and is designed for systems which experience diverse draw-off between 0 - 115 GPM* or require DRV redundancy. DRV40-40 is provided with 2.5" union connections.

Model DMC50 is a pre-piped Digital Mixing Center supplied with all requisite installation components. DMC50 is designed for systems which experience diverse draw-off between 0 - 73 GPM* and is provided with 2" flanged connections.

Model DMC80 is a pre-piped Digital Mixing Center supplied with all requisite installation components. DMC80 is designed for systems which experience diverse draw-off between 0 - 165 GPM* and is provided with 3" flanged connections.

Model 80-80 is a pre-piped Digital Mixing Center including two DRV80 supplied with all requisite installation components. DMC 80-80 is designed for systems which experience diverse draw-off between 0 - 294 GPM* and is provided with 4" flanged connections.

Model DMC80-80-80 is a pre-piped Digital Mixing Center including three DRV80 supplied with all requisite installation components. DMC80-80-80 is designed for systems which experience diverse draw-off between 0 - 459 GPM* or require DRV redundancy and is provided with 5" flanged connections.

Connectivity

The Brain® – Digital Re-Circulating Valve (DRV) and all derivative assemblies are provided as standard with the following communication capabilities:

SPCO Relay Outputs – Relay which is energized during operation and switches from a normally open position upon the presentation of an error code. Can also be configured to activate upon a temperature alert condition. Relay may be used to connect to a remote alarm or solenoid valve.

LCD Display – Provides information on set point, delivered temperature with an option for C or F and displays all error codes and alert conditions.

RS485 Serial Port – Connects the DRV to either BrainScan® or Modbus.

BrainScan® an optionally selected control module which enables an interface with Building Automation Systems (BAS) which utilize Modbus, Bacnet™ or LonWorks™ protocols. BrainScan also has an ethernet port and operates as a web server for remote network access.

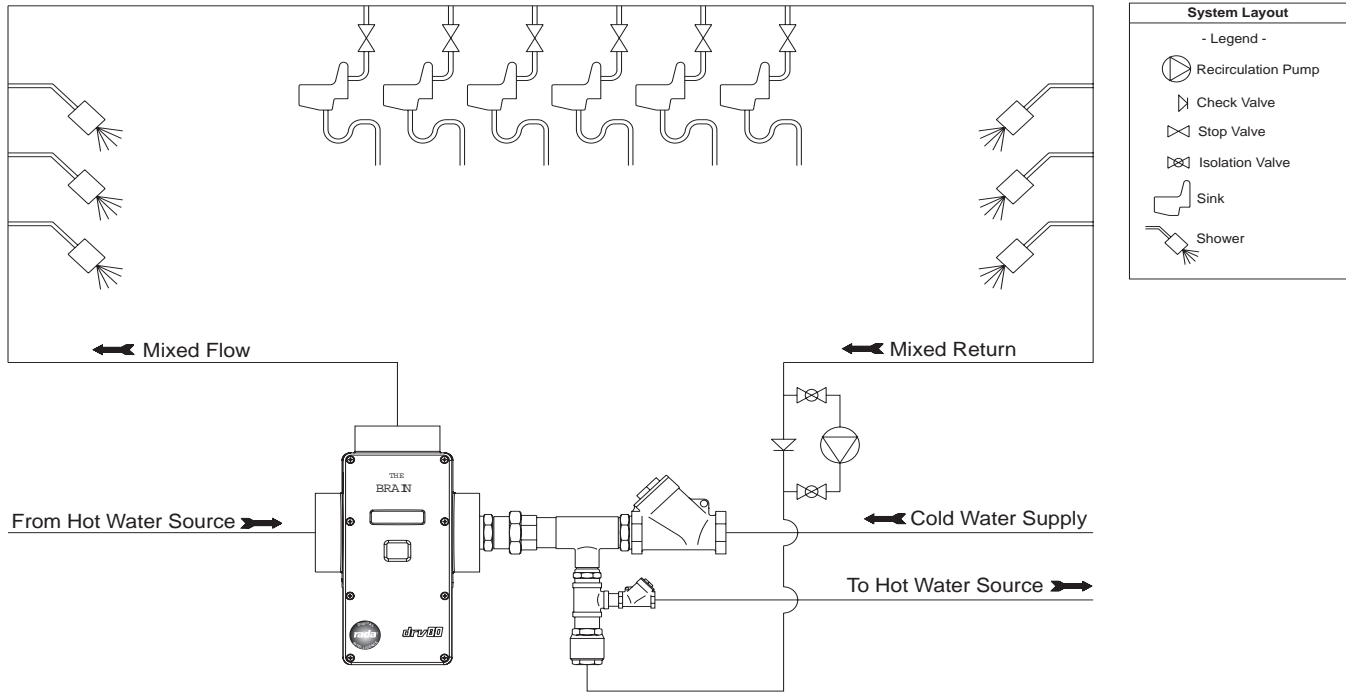
Modbus – DRV can be configured to communicate directly with Building Automation Systems which use Modbus protocols. When configured for Modbus the DRV becomes a Remote Terminal Unit (RTU).

Further information on DRV connectivity specific to BrainScan and Modbus is available on page 42.



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Digital



Recirculation Systems - Digital (gpm)							
Model	Pressure Drop (psi)				Minimum System Draw-Off	Maximum Flow @7.5 ft/sec.	C _v
	5	10	15	20			
DRV40/R	48	70	85	98	0	41	22
DMC40	48	70	85	98	0	41	22
DMC40-40	96	140	170	196	0	115	44
DRV50/R	94	133	163	188	0	73	42
DMC50	94	133	163	188	0	73	42
DRV80/R	94	133	163	188	0	165	42
DMC80	94	133	163	188	0	165	42
DMC80-80	188	266	326	376	0	294	84
DMC80-80-80	282	399	489	564	0	459	126

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.