



S59-5000 Series Navigator® Digital Mixing Valve

- Adjustable set point within temperature range
- Accurate temperature control to within $\pm 3^{\circ}\text{F}$
- Easy installation and serviceability
- 4 programmable thermal disinfection options to kill Legionella
- 4 relays for alarms and recirculation controls
- Easy-to-use digital interface with data logging, alarming, and status indication
- Automatic anti-clog function
- Positive shutoff of flow in the event of cold supply line failure
- Valve Features:
 - Lead-free brass design
 - Low-lead brass, chrome-plated ball
 - EPDM hydraulic seals and PTFE seat ring
 - Factory assembled and tested
 - Check valves on inlets
 - Dirt and lime resistant
 - NPT thread connections
 - Dial thermometer gauge at the outlet
- Controller Features:
 - Daily ball rotation cycle to flush debris

Mounting

DIN bar and wall anchors provided for mounting the controller.

Product Compliance

Certified for compliance with the following standards:

- ASSE 1017 – Performance requirements for temperature actuated mixing valves for hot water
- CSA B125.3 – Plumbing fittings
- ANSI/NSF/CAN 372 – Drinking water system components - lead content



Valve Specifications

Maximum Operating Pressure

150 PSI (1030 kPA)

Maximum Inlet Temperature

212°F (100°C)

Adjustment Temperature Range

68–185°F (20–85°C)

Set Point

113°F (45°C)

Disinfection Temperature Range

104–185°F (40–85°C)

Ambient Temperature Range

33–120°F (1–50°C)

Hot Water Approach Temperature

2° from valve set point

Technical Specifications

Electric Supply

24 VAC, 50/60 Hz

Actuator Power Consumption

6VA

Consult local and national codes. Conformity and compliance to local and national codes is the responsibility of the installer.



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Flow Capacities – GPM¹

| Model | Min ² Flow | Pressure Drop – PSI | | | | | | | | |
|----------|--------------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | | CvΔP | 5 | 7.5 | 10 | 15 | 20 | 30 | 45 | 60 |
| S59-5075 | 2 | 9 | 20 | 25 | 29 | 35 | 41 | 50 | 61 | 70 |
| S59-5100 | 3 | 19 | 43 | 53 | 61 | 75 | 87 | 106 | 130 | 150 |
| S59-5125 | 4 | 24 | 53 | 65 | 75 | 91 | 106 | 129 | 158 | 183 |
| S59-5150 | 7 | 42 | 95 | 116 | 134 | 164 | 189 | 232 | 284 | 328 |
| S59-5200 | 9 | 46 | 102 | 125 | 145 | 177 | 204 | 250 | 307 | 354 |

Flow Capacities – L/Min¹

| Model | Min ² Flow | Pressure Drop – Bar | | | | | | | | |
|----------|--------------------------|---------------------|-----|-----|-----|-----|-----|-----|------|------|
| | | KvΔP | 0.3 | 0.5 | 0.7 | 1.0 | 1.4 | 2.1 | 3.1 | 4.1 |
| S59-5075 | 8 | 8 | 77 | 94 | 109 | 133 | 154 | 189 | 231 | 267 |
| S59-5100 | 12 | 17 | 164 | 201 | 232 | 284 | 328 | 402 | 493 | 569 |
| S59-5125 | 17 | 20 | 200 | 245 | 283 | 346 | 400 | 489 | 599 | 692 |
| S59-5150 | 25 | 37 | 358 | 439 | 506 | 620 | 716 | 877 | 1074 | 1240 |
| S59-5200 | 33 | 39 | 387 | 474 | 547 | 670 | 774 | 948 | 1160 | 1340 |

¹ Full Port

² Recirculation system only (refer to diagram on page 3). When properly installed near the hot water source with a continuously operating recirculation pump, the valve will maintain a set temperature with a 0 gpm draw from the plumbing system when the recirculation flow rate is greater than or equal to the valve size minimum flow rating.

Models (Must select one)

| Model | Description |
|----------|--|
| S59-5075 | Digital Valve with 3/4" NPT Thread Connections |
| S59-5100 | Digital Valve with 1" NPT Thread Connections |
| S59-5125 | Digital Valve with 1-1/4" NPT Thread Connections |
| S59-5150 | Digital Valve with 1-1/2" NPT Thread Connections |
| S59-5200 | Digital Valve with 2" NPT Thread Connections |



Non-cancelable/Non-returnable!

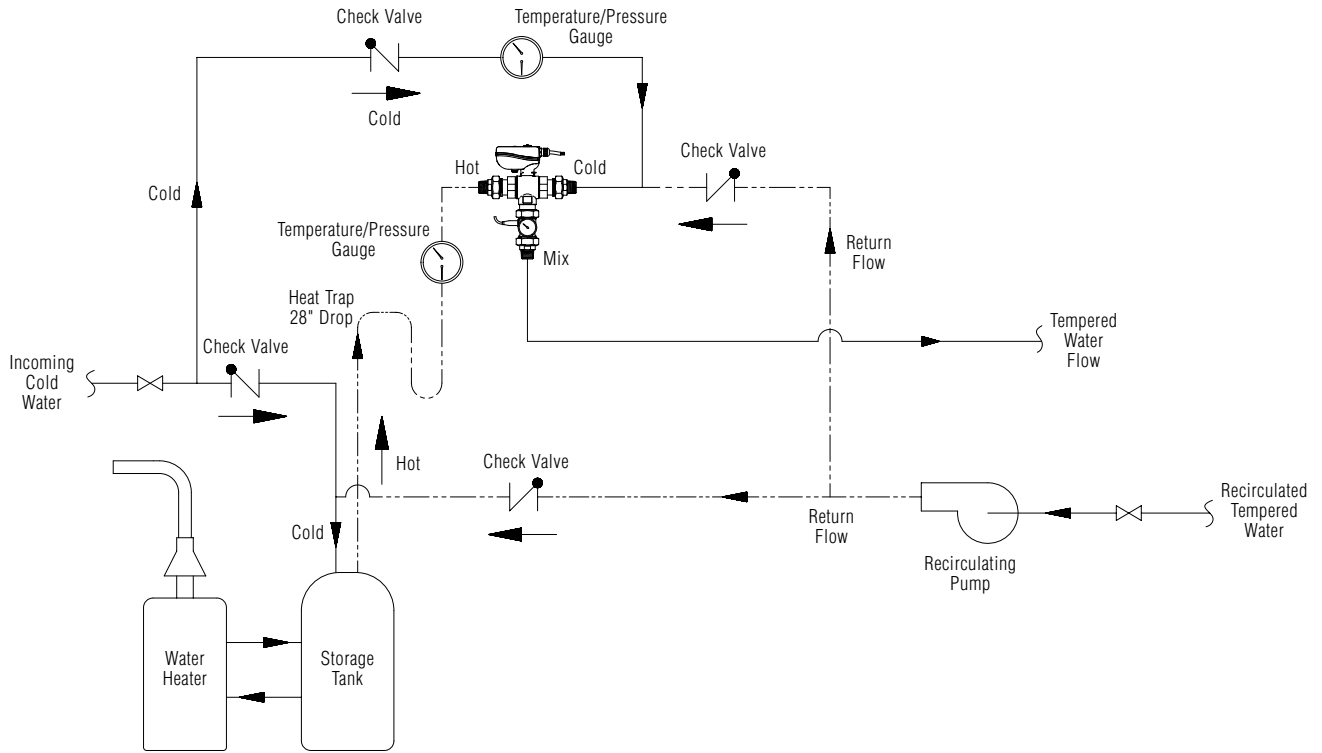
Engineer's Approval _____

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Plumbing Diagram



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Page 3 of 4

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This information is subject to change without notice.
Bradley_DMV_S59-5000Series

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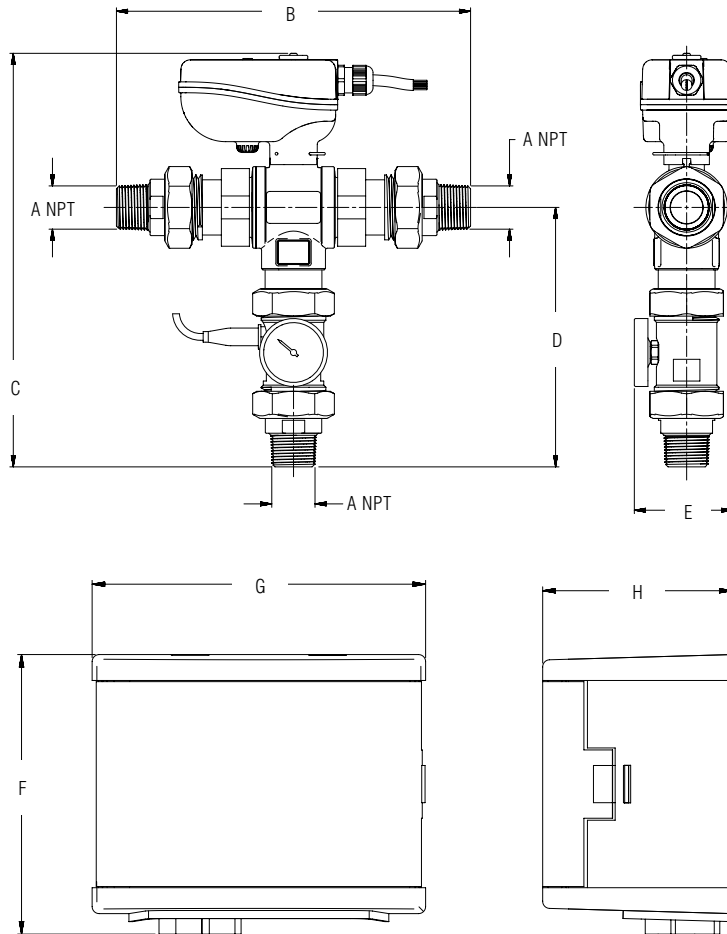


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Mounting Dimensions

| Model | Inlets/Outlet | Dimensions - Inches (mm) | | | | | | | Weight ¹ lb (kg) |
|----------|---------------|--------------------------|--------------------|-------------------|------------------|---------------|---------------|---------------|--------------------------------|
| | A NPT | B | C | D | E | F | G | H | |
| S59-5075 | 3/4 | 5-3/4" (146.1) | 9-5/8" (244.5) | 5-5/8" (142.9) | 2-7/8" (73) | 6" (152.4) | 7" (177.8) | 4" (101.6) | 7.2 (3.27) |
| S59-5100 | 1 | 10-1/4" (260.4) | 12" (304.8) | 7-1/2" (190.5) | 2-7/8" (73) | 6" (152.4) | 7" (177.8) | 4" (101.6) | 12.4 (5.62) |
| S59-5125 | 1-1/4 | 10-1/2" (266.7) | 12-1/8" (308) | 7-5/8" (193.7) | 2-7/8" (73) | 6" (152.4) | 7" (177.8) | 4" (101.6) | 12.4 (5.62) |
| S59-5150 | 1-1/2 | 14" (355.6) | 14-5/8" (371.5) | 9-3/4" (247.7) | 3-1/2" (88.9) | 6" (152.4) | 7" (177.8) | 4" (101.6) | 25.4 (11.52) |
| S59-5200 | 2 | 14-1/8" (358.8) | 14-3/4" (374.7) | 9-3/4" (247.7) | 3-1/2" (88.9) | 6" (152.4) | 7" (177.8) | 4" (101.6) | 26.4 (11.97) |

¹ Includes controller weight—2.7 lb (1.22 kg) and actuator weight—1.5 lb (0.68 kg)



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