



A WATTS Brand

# 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 – GPM<sup>1</sup>

Model	Min <sup>2</sup> Flow	Pressure Drop – PSI								
		Cv\ΔP	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

## Models (Must select one)

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

## Flow Capacities – L/Min<sup>1</sup>

Model	Min <sup>2</sup> Flow	Pressure Drop – Bar								
		Kv\ΔP	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

Engineer's Approval \_\_\_\_\_

<sup>1</sup> Full Port

<sup>2</sup> 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.

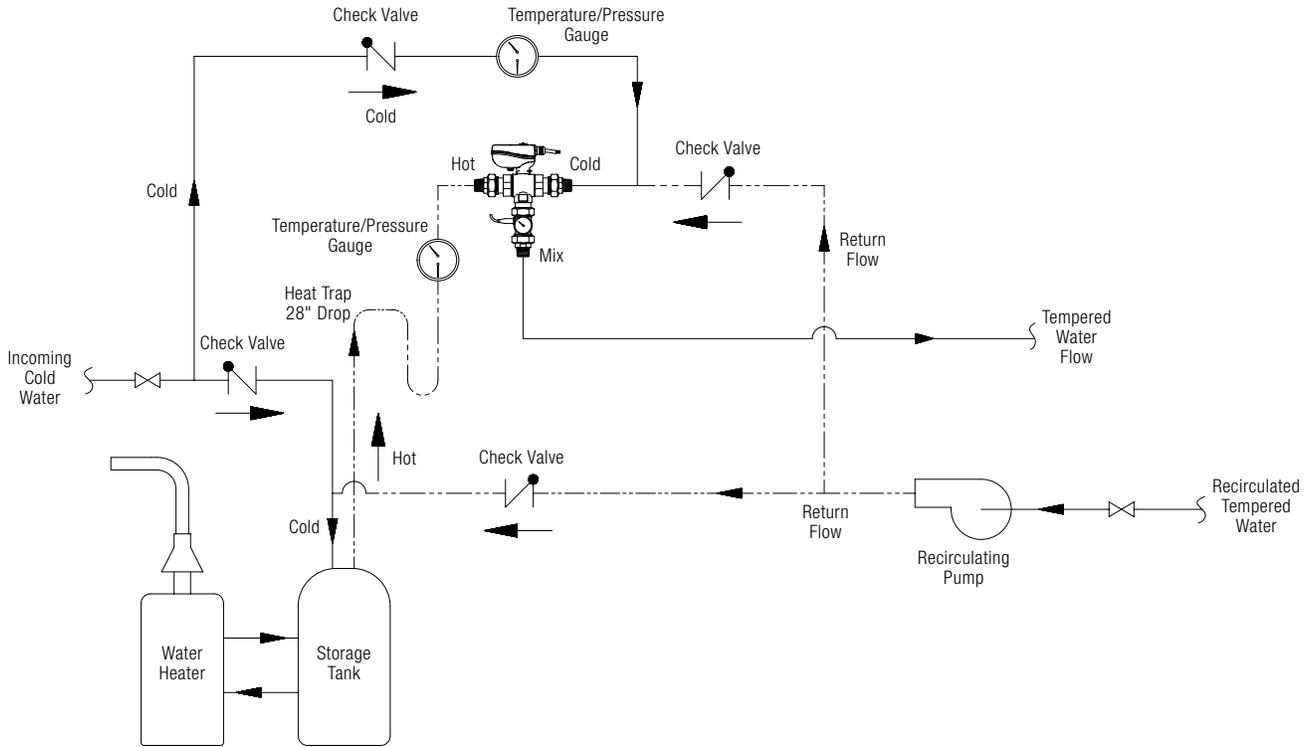
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## Plumbing Diagram



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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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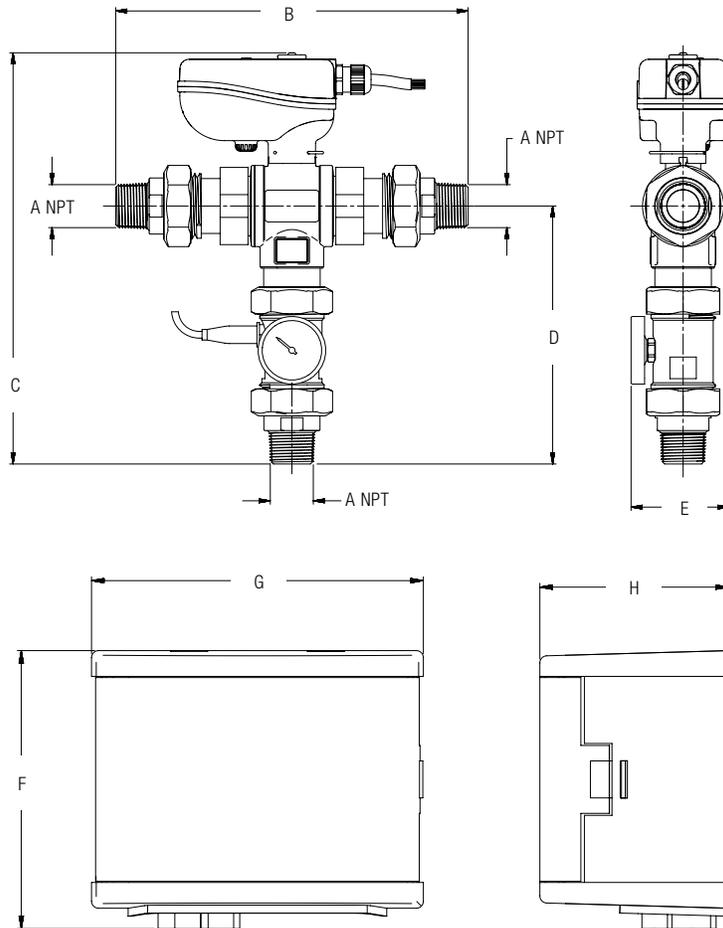


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## Mounting Dimensions

Model	Inlets/Outlet	Dimensions - Inches (mm)							Weight <sup>1</sup> 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)

<sup>1</sup> Includes controller weight—2.7 lb (1.22 kg) and actuator weight—1.5 lb (0.68 kg)



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