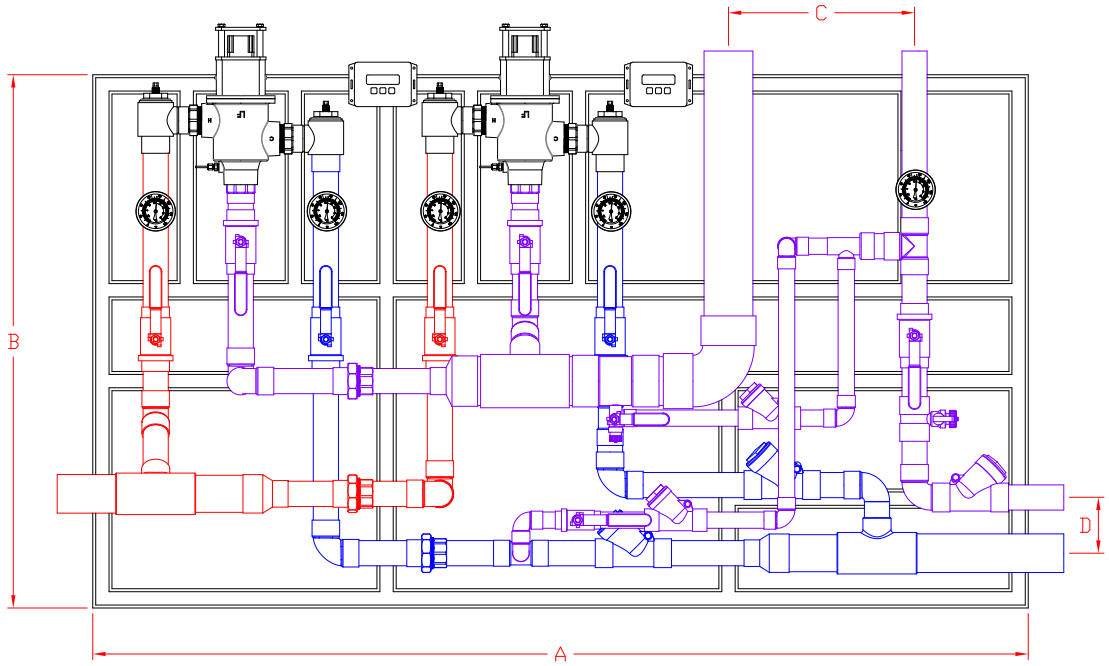
NUCLEUS®
DIGITALLY CONTROLLED MIXING VALVE

MEGATRON® MODEL M-PNV-200-LF-2PS-LC DIGITAL TEMPERATURE CONTROL STATION



APPROXIMATE DIMENSIONS
A = 6'-7" B = 3'-9" C = 1'-4" D = 5"
Image not to scale

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.Ca.gov

- Digital Mixing Valve with 2" inlet checkstop valves, 2" Outlet with ball valve and integral RTD Sensor per valve
- Manifold Assembly with 3" inlets, 4" outlet, 2" Return piping (101.6mm, 101.6mm, 50.8mm)
- 0.25 GPM** (0.95 L/min) minimum flow capacity per valve
- Controls water temperature to ± 2°F in accordance with ASSE 1017
- Controls water temperature to ± 2°F at the PNV-200-LF during times of low/no system demand
- Maximum operating pressure: 125 PSIG (860KPA)
- Automatic Hot/ Cold Water shutoff upon cold/ hot water inlet supply failure
- User programmable for on-site configuration
- User programmable set point range between 65°F and 180°F
- Displays outlet temperature
- UL Listed 120V plug in power supply with 6' cord (1 per valve)
  - Option for Backup Uninterruptable Power Supply in the event of primary power loss w/ approx. two hours run time
- Factory assembled and tested

STANDARD CONTROL BOX

Valve assembly is compliant with Low-Lead requirements of wetted surface area containing less than 0.25% lead by weight. All other fittings and components, the sum total of which comprise the wetted surface of this product contains less than one quarter of one percent of lead by weight.

****NOTE:** The valve will maintain temperature with 0.25 GPM flow from the domestic hot water loop when properly installed near the hot water source with a continuously operating recirculation pump.

See Page 3 for Specification Detail, Page 5 for Piping Method Detail & Flow Capacity Chart, Pages 6 and 7 for Options

NEW "ENHANCED FEATURE SET" CONTROL BOX

SEE SELECTABLE OPTIONS PAGE 2

Valves are ASSE 1017 Certified

Valves are CSA Certified

Valve electronics are UL Certified

c UL us LISTED

This product meets Low Lead requirements of wetted surface area containing less than 0.25% lead by weight

Product is non-cancellable and non-returnable from date from order with factory. Signed submittal required with purchase order.

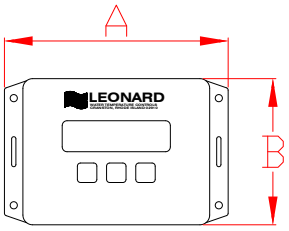
LEONARD®
WATER TEMPERATURE CONTROLS

1360 Elmwood Avenue, Cranston, RI 02910 USA
Phone: 401.461.1200 Fax: 401.941.5310
Email: info@leonardvalve.com
Web Site: http://www.leonardvalve.com

PNV-CONTROLLER OPTIONS

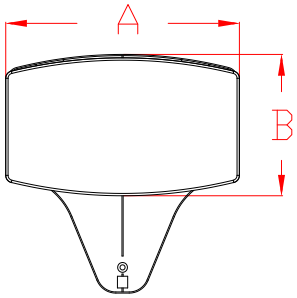
Standard Controller 1.0 Version

A = 6” **B** = 4”
Depth = 1-3/4”



Enhanced Controller 2.0, 2.5, 3.0 Versions

A = 8” **B** = 4-3/4”
Depth = 1-1/4”



STANDARD CONTROLLER:

_____ **1.0** – See PAGE 1 for info

ENHANCED CONTROLLER OPTIONS:

_____ **2.0** – Enhanced Proton Controller with Programable Disinfection Mode

Options:

_____**3T**– Three Additional Temperature Sensors for Monitoring of Inlet Hot, Inlet Cold, and Return Temperatures

_____ **REL** – 5 Relay Contacts that Switch during Alarm State

- Helpful for Remote Alerts Within Building to Assist Maintenance and Service Personnel
- 5 Unique States:
  - Loss of Power
  - Broken Temperature Probe
  - “Out of Range” Temperature (±10°F)
  - Motor Connectivity and Operation
  - Maintenance (Service Required) @ <90%Full travel

_____ **2.5** – Enhanced Proton Controller including all of 2.0 as well as BACnet MS/TP Connection which provides ability to serve up all data to BMS system

Options:

_____**3T** – Three Additional Temperature Sensors for Monitoring of Inlet Hot, Inlet Cold, and Return Temperatures

_____ **REL** – 5 Relay Contacts that Switch during Alarm State (as shown above)

_____ **3.0** – Enhanced Proton Controller including all of 2.5 as well as all items below as standard,

- WiFi – Wifi enabled
- 3T - 3 Additional Temperature Sensors for Monitoring of Inlet Hot, Inlet Cold and Return Temperatures
- REL - 5 Relay Contacts that Switch during Alarm State

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LEONARD MEGATRON® MODEL M-PNV-200-LF-2PS-LC DIGITAL TEMPERATURE CONTROL STATION

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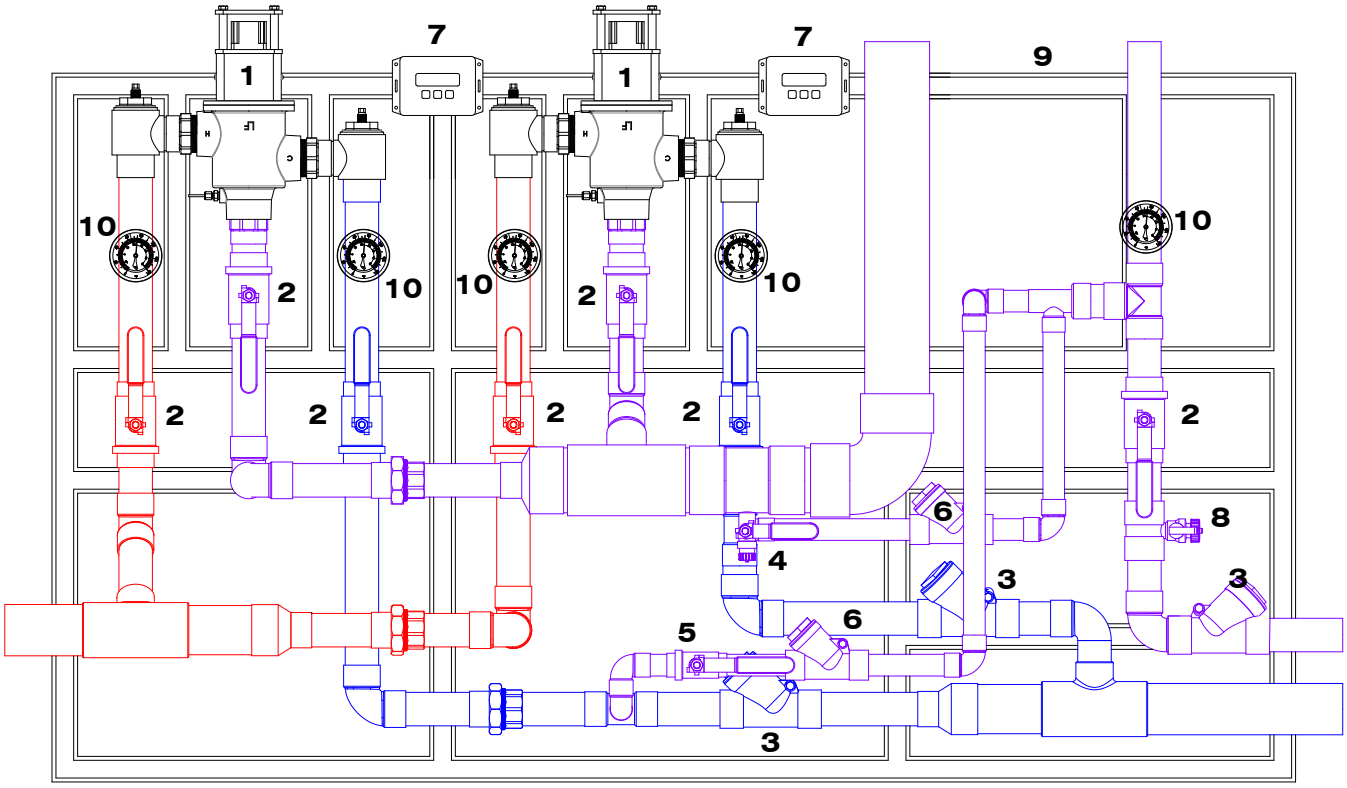

1. PNV-200-LF VALVE ASSEMBLY
2. 2" FULL PORT BALL VALVE
3. 2" CHECK VALVE
4. ¾" TEST CONNECTION
5. 1-1/4" FULL PORT BALL VALVE
6. 1-1/4" CHECK VALVE
7. PROTON BOX
8. BOILER DRAIN CONNECTION
9. STRUT
10. DIAL THERMOMETER

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MEGATRON® MODEL M-PNV-200-LF-2PS-LC
2” RETURN PIPING METHOD W

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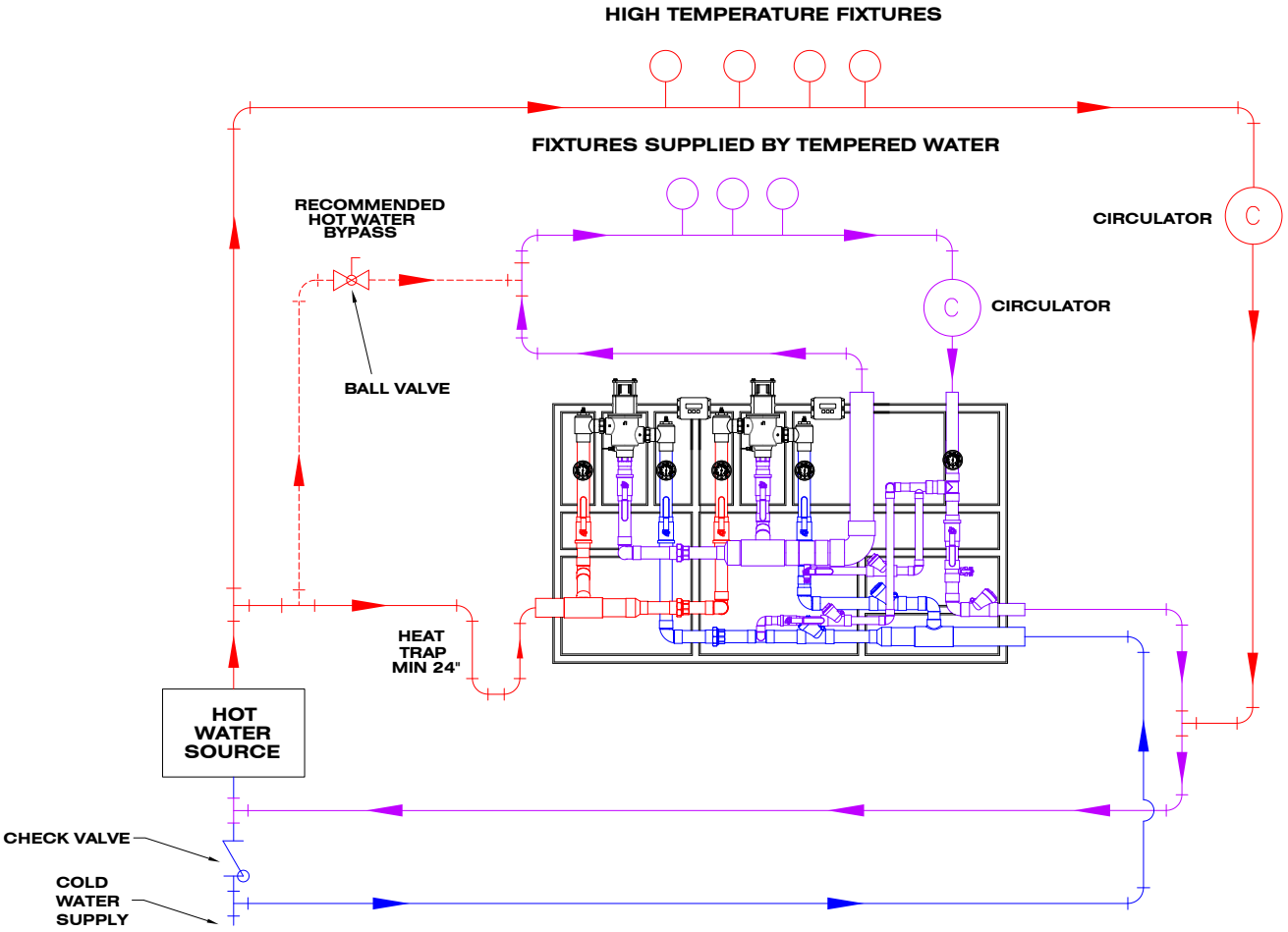

MODEL PNV-200-LF

Single Valve Flow Capacity

MINIMUM FLOW (GPM)	PRESSURE DROP										
	5	10	15	20	25	30	35	40	45	50	PSI
(l/min)	.3	.7	.97	1.4	1.7	2.1	2.4	2.8	3.1	3.4	BAR
0.25**	80	115	130	147	165	173	189	198	215	226	GPM
(.95)	303	435	492	556	625	655	715	750	814	856	l/min

NOTE: Flowrates will vary depending on existing field conditions. Leonard Valve Company always recommends using CASPAK® sizing software for proper valve sizing and model number applications.
Flow Chart MUST BE DOUBLED for 2 valve parallel assemblies

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OPTIONS AND ACCESSORIES

ANY OPTION CHOSEN WILL ALTER PRICING – CONTACT LEONARD VALVE COMPANY FACTORY

____BPS – Backup Power Supply

- Uninterruptable Power Supply with up to 2 hours run time in case of primary power loss

____RP3 – 3” Return piping

NOTE: Flow rates will vary depending on existing field conditions. Leonard Valve Company always recommends using CASPAK® sizing software for proper valve sizing and model number applications.
CAUTION! All thermostatic water mixing valves have limitations. They will NOT provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart and DO NOT OVERSIZE. Minimum flow must be no less than as indicated.
Note: The models shown represent Leonard Products which are believed to be equivalent in type and function to items specified. Leonard Valve Company is not responsible for errors or omissions due to differences in interpretations of information provided.

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Engineer's Approval	**Job #** _____ **Arch/Eng.** _____ **Contractor** _____
Product is non-cancellable and non-returnable from date from order with factory. Signed submittal required with purchase order.	

Note: Leonard Valve Company reserves the right of product, or design modifications without notice or obligation.

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