

COMPLETE WATER TEMPERATURE CONTROL STATION

Submittal Data Sheet S-5099Z1-LF
March 2024

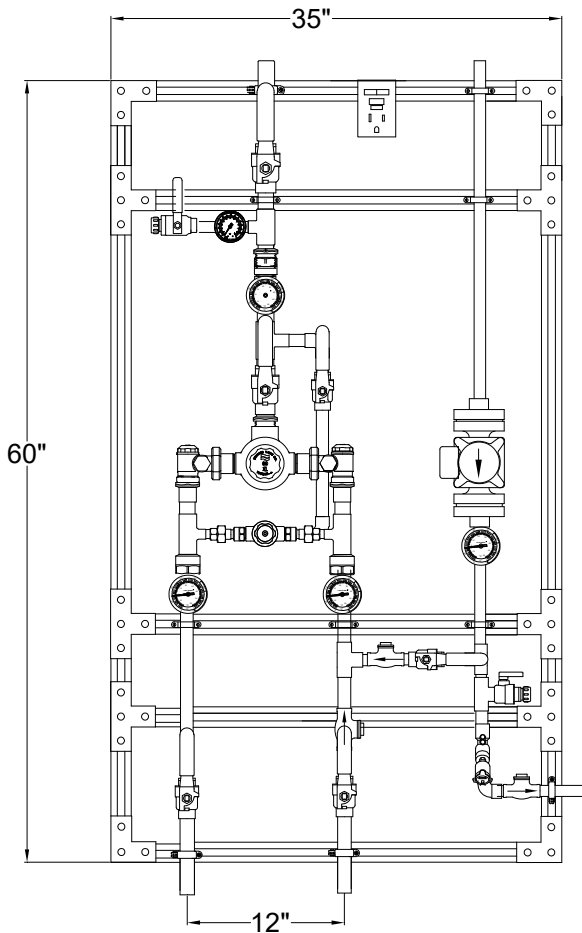
ASSE 1069 CERTIFIED



CSA CERTIFIED



NOTE: This product is not for potable use



ECO-MIX™ MEGATRON® MODEL XL-690-LF

MODEL XL-690-LF

MATERIALS:

- High Low Thermostatic Water Mixing Valve with 0.5 GPM (1.9 l/min) minimum flow capacity, 1.0 GPM (3.8 l/min) to ASSE 1069
- 1" inlets, 1-1/4" outlet (25mm x 32 mm)
- Integral combination check-stops with strainers and wall support
- 125 PSI (8.6 BAR) maximum operating pressure.
- Copper encapsulated thermostatic element assemblies with Teflon coated shuttle
- Temperature adjustment range, 90-140°F (32-60°C) **
- Internal parts of stainless steel
- Rough bronze finish
- Full port ball valve mounted downstream of test connection on mixed water outlet of the system
- Inlet piping with full port ball valves and dial thermometers (20 to 240°F, -7 to 116°C on hot supply, 0 to 140°F, -10 to 60°C on cold supply) on hot and cold supply inlets
- Return piping, 3/4", circulator TACO 0034E PLUS, dial thermometer (0 to 140°F, -10 to 60°C), balancing valve (with positive shutoff) to balance system, and check valve.
- Bypass piping, 3/4" with check valve and isolation ball valve to cold inlet of mixing valve
- System mounted on strut, galvanized. Strut shall be assembled with three hole flange angle plate on corners, four hole tee plates or two hole flat plate connectors on all other support pieces Factory pre-assembled and tested as a complete system
- All electrical connections to be completed by Electrical Contractor
- Taco 0034E PLUS standard pump included and installed



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

Valve assembly is certified to meet 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.

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

+NOTE: The valve will maintain temperature with 0.5GPM flow from the domestic hot water loop when properly installed near the hot water source with a continuously operating recirculation pump.

**NOTE: For temperatures outside of this valve's stated range, please see our line of bi-metal valves.

Job # _____	Engineer's Approval
Arch/Eng. _____	
Contractor _____	

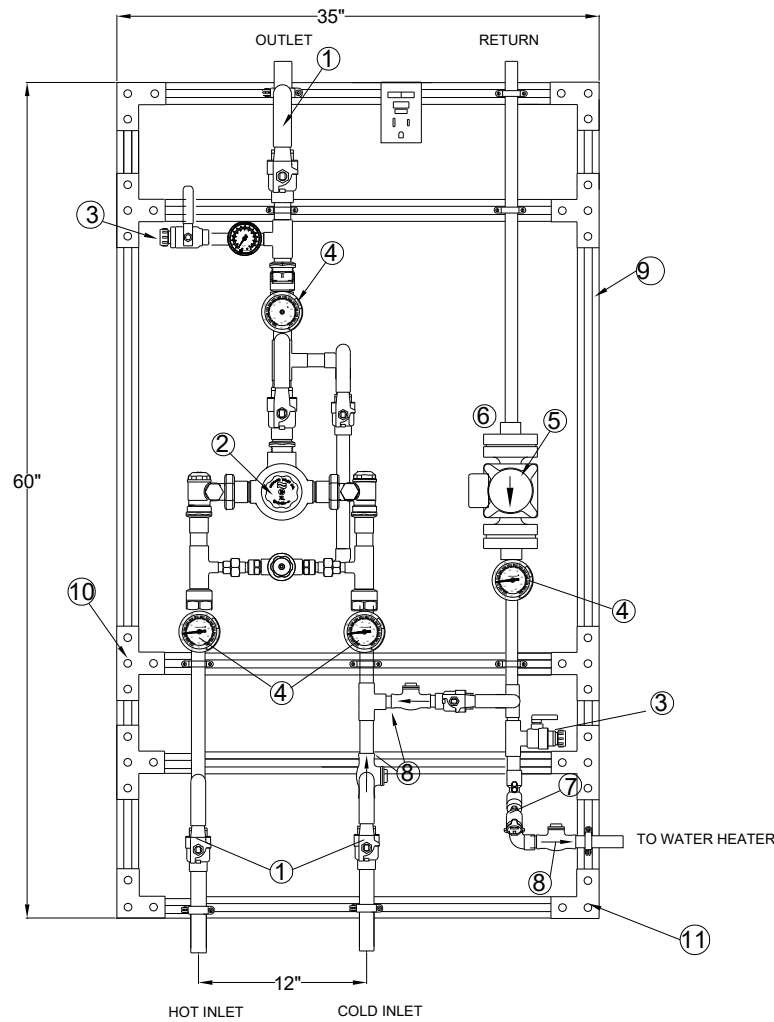


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MEGATRON® MODEL XL-690-LF



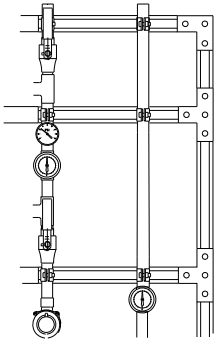
- | | | | |
|----|----------------------|-----|------------------|
| 1. | FULL PORT BALL VALVE | 7. | BALANCING VALVE |
| 2. | MIXING VALVE | 8. | FLAPPER CHECK |
| 3. | TEST CONNECTION | 9. | GALVANIZED STRUT |
| 4. | DIAL THERMOMETER | 10. | TEE BRACKET |
| 5. | CIRCULATOR | 11. | CORNER BRACKET |
| 6. | PUMP SHUT OFFS | | |

PRESSURE DROP													
MIN FLOW	5	10	15	20	25	30	35	40	45	50	55	60	PSI
	0.3	0.7	1	1.4	1.7	2.1	2.4	2.8	3.1	3.4	3.8	4.1	BAR
1	5	10	20	35	39	41	48	55	59	62	64	65	GPM
3.8	19	38	76	132	148	155	182	208	223	235	242	246	l/min

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.

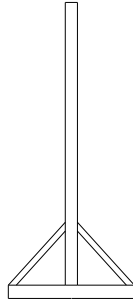
***NOTE:** A limit stop, set for 110°F (43°C), is simply a mechanical setting to prevent excessive handle rotation. If incoming water is hotter than 135°F (57°C), the temperature of the factory test, the valve when turned to full HOT may deliver water in excess of 110°F and the limit stop MUST BE RESET BY THE INSTALLER

OPTIONS



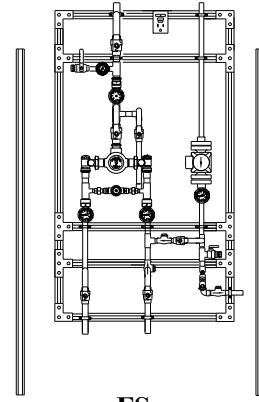
LC

Megatron® furnished without a circulator.



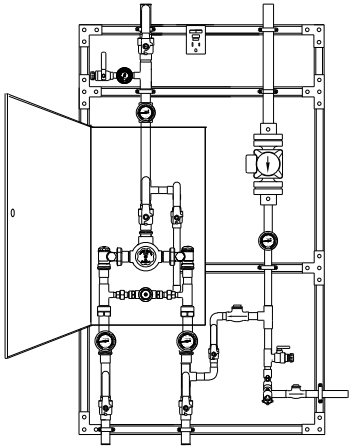
FM

Megatron® with 3 legs, 3 1/2" feet and 45 degree braces front and back for mounting to floor in center of room.



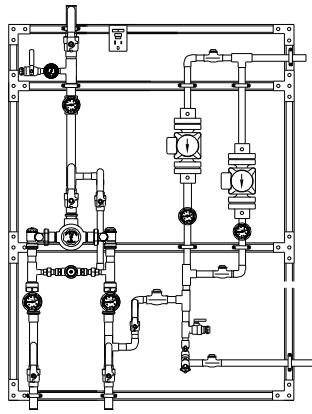
FS

Megatron® with separate legs to floor to support the unit without hangers.



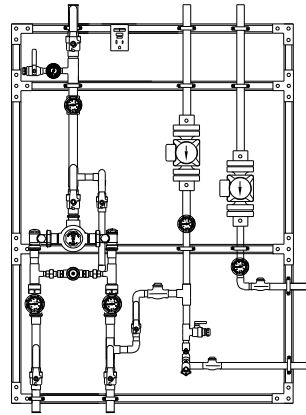
CAB

Megatron® with SS cabinet around mixing valve



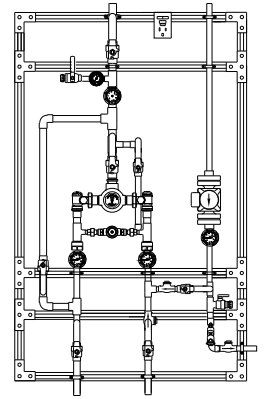
2 PUMPS R

Redundant recirculation pump



2 PUMPS H

High temperature loop recirculation pump



HBP

High temperature by-pass flush with locking ball valve

OPTIONS *

OPTIONS (shown on next page) *

PIPING OPTIONS *

- LC Less circulator
- FM Floor mount
- FS Free standing
- CAB Cabinet around mixing valve
- 2 PUMP R Redundant recirculator pump
- 2 PUMP H High temperature loop recirculator pump
- HBP High temperature by-pass flush
- 265-1 Timer, Analog, 24 hour
- 265-3 Timer, Digital, 7 day
- HOA HOA switch

- AL Audio Visual Alarm
- RDU Remote Display Unit
- LMS-188-4P Monitoring System
- LMS-188-4P-BMS with BMS
- DA Digital Aquastat
- DG Digital Gauges
- User chosen pump (specify on next page)

- RP 1 1" Return line size
- RP 1-1/4 1-1/4" Return line size
- RP 1-1/2 1-1/2" Return line size

* Any option chosen will alter pricing



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OPTION AL: Leonard Single Probe Digital Temperature Alarm

- Single Point Temperature Probe - Range: -148°F to 212°F Resolution: 1°F
- User adjustable high / low set points, initial alarm delay period, audible & visual alarms
- Remote alarm contacts (SPDT) with adjustable relay delay period
- AL option replaces analog outlet dial thermometer with a single digital display



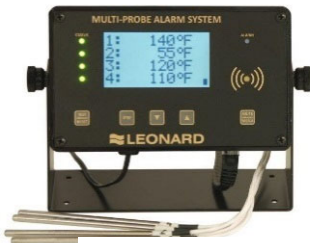
OPTION RDU: Leonard Remote Display Unit

- Activation by Primary Alarm's (pictured above) remote alarm contacts
- Alarm Delay Module with yellow, red, green LED indicators
- Recommended maximum distance from controller to RDU is 500'



OPTION LMS-188-4P: Leonard 4 Point Digital Monitoring with Alarm

- Four (4) Temperature Probes - Range: -148°F to 212°F Resolution: 1°F
- User adjustable high / low set points, initial alarm delay period, audible & visual alarms
- Remote alarm contacts (SPDT) with adjustable relay delay period
- 10/100 Ethernet Connection, Web Server Interface for Setup & Commissioning
- Unit can send an E-mail of alarms / temperatures for up to 8 contacts daily
- LMS-188-4P option replaces analog dial thermometers with a single digital display for all 4 temperatures, incoming hot, incoming cold, outlet and return



OPTION LMS-188-4P-BMS: Leonard 4 Point Digital Monitoring System with Alarm & Enhanced Protocol Communication Interface Module

Primary Alarm Box includes:

- Same as above

ProtoNode Accessory Box includes:

- Interface Module to connect LMS-188-4P-BMS to Building Management System (-BMS) Network, Complete Protocol Package
- Supported protocols include BACnet MS/TP, BACnet IP, Modbus RTU, Modbus TCP/IP, SNMP, JC N2, available simply by selecting the proper DIP switches
- LMS-188-4P-BMS option replaces analog dial thermometers with a single digital display for all 4 temperatures, incoming hot, incoming cold, outlet and return



OPTION DA: Digital Aquastat

- Electronic digital aquastat with Nema 1 case and SPDT Relay Output



OPTION DG: Digital Gauges

- Replaces all analog gauges with digital gauges, inlet hot, inlet cold, outlet and return temperature

OPTION USER CHOSEN PUMP

Standard pump is TACO 0034E PLUS, if another manufacturer is preferred please specify, but note that ANY change from standard pump will result in a **PRICE INCREASE**

