

## Mixing Safety & Performance for Over 100 Years

# WATER TEMPERATURE CONTROL SYSTEMS







TM-2020B-LF-DT

TM-2020B-2PS-LF

**MEGATRON® 6NB-LF** 



ASSE 1017 | LOW LEAD CERTIFIED Made in the USA with Domestic and Imported Parts

1360 Elmwood Ave., Cranston, RI 02910 TF: 800.222.1208 | P: 401.461.1200 | F: 401.941.5310 www.leonardvalve.com

## WATER TEMPERATURE CONTROL SYSTEMS

## Leonard Megatron®

- Regulate water temperature for building hot water systems and other commercial, institutional and industrial applications.
- DURA-trol<sup>®</sup> solid bi-metal thermostatic control
- Adjustable high temperature limit stops set for 120°F
- Mixed water capacity from 1-678 GPM (3.7-2567 l/min)
- Simple installation, reduced setup costs
- All lead-free bronze, brass and stainless steel construction
- System mounted on strut with return piping and circulator
- Factory-preassembled and tested as a complete control station
- Toll-free technical support



Megatron<sup>®</sup> 8NB-LF-LC-FM

2-428 GPM (7.6-1620 l/min) 3" inlets/outlet, 1-1/2" return line

# Water Temperature DURA-trol<sup>®</sup> Bi-Metal Control System Selection Guide

### **Megatron**®

All valve assemblies are ASSE 1017 Listed and 3rd Party certified as Lead-Free

#### Models

models	
1NB-LF	3/4" inlets, 1" outlet, 1-42GPM (3.7-159 l/min)
2NB-LF	3/4" inlets, 1" outlet, 1-72 GPM (3.7-272 l/min)
3NB-LF	1" inlets, 1-1/4" outlet, 1-84 GPM (3.7-318 l/min)
4NB-LF	1-1/4" inlets and outlet, 1-103 GPM (3.7-390 l/min)
5NB-LF	1-1/4" inlets, 1-1/2" outlet, 1-158 GPM (3.7-598 l/min)
6NB-LF	2" inlets and outlet, 1-214 GPM (3.7-810 l/min)
7NB-LF	2" inlets and outlet, 2-316 GPM (7.6-1196 l/min)
8NB-LF	3" inlets and outlet, 2-428 GPM (7.6-1620 l/min)
10NB-LF	4" inlets and outlet, 3-642 GPM (11.4-2430 l/min)

#### Standard Megatron<sup>®</sup> Systems – Piping Methods

Method 2 (up to 8.0 GPM)	Models 1NB, 2NB, 3NB, 4NB
Method 5 (over 8.0 GPM)	Models 5NB, 6NB, 7NB, 8NB, 10NB

#### **Optional Piping**

M5	Method #5 piping for systems circulating over 8.0 GPM
RP 1	1" Return line size (M5)
RP 1-1/4"	1-1/4" Return line size (M5)
RP 1-1/2"	1-1/2" Return line size (M5)
RP 2	2" Return line size (M5)

#### Options

LMS-188-4P-BMS	Building Management System Interface
AU-3000	Audio Visual Alarm
FM	Floor Mounted
FS	Free Standing
sco	Solenoid Control Option
LC	Less Circulator
2 Pump H	High Temperature Recirculation loop with circulator
2 Pump R	Redundant Recirculation pump
RDU	Remote Display Unit

## Leonard Megatron®

- Regulate water temperature for building hot water systems and other commercial, institutional and industrial applications.
- Paraffin-based thermostatic control solutions
- Adjustable high temperature limit stops set for 120°F
- Mixed water capacity from 0.25-416 GPM (0.95-1575 l/min)
- Simple installation, reduced setup costs
- All lead-free bronze, brass and stainless steel construction
- System mounted on strut with return piping and circulator
- Factory-preassembled and tested as a complete control station
- Toll-free technical support



Megatron<sup>®</sup> XL-150-2P-LF-BMSI-FS

6.0 – 248 GPM (23 – 938 l/min) 2" inlets/outlet, 1-1/2" return line

## Water Temperature Paraffin Wax Control System Selection Guide Megatron®

#### Models

Models	
270-LF	1/2" inlets and outlet, 0.25-11 GPM (0.95-42 l/min)
370-LF	3/4" inlets and outlet , 0.25-12.5 GPM (0.95-47 l/min)
XL-32A-LF	3/4" inlets and outlet, 1-32 GPM (3.7-121 l/min)
XL-82-LF	1" inlets, 1-1/4" outlet, 1-58 GPM (3.7-219 l/min)
XL-150-LF	1-1/4" inlets, 1-1/2" outlet, 3-124 GPM (11.4-469 l/min)
XL-200-LF	2" inlets and outlet, 5.0 - 198 GPM (18.9 - 750 l/min)
XL-150-2P-LF	2" inlets and outlet, 6-248 GPM (22.7-939 l/min)
XL-200-SW-2P-LF	3" inlets and outlet, 5-198 GPM (18.9-750 l/min)

#### Standard Megatron<sup>®</sup> Systems - Piping Method

Method W (wax and electronic only)

#### **Optional Piping**

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
RP 2	2" Return line size

#### Options

IMC 100 AD DMC	Puilding Management System Interface
LIVIS-100-4F-DIVIS	Building Management System Interface
AU-3000	Audio Visual Alarm
FM	Floor Mounted
FS	Free Standing
SCO	Solenoid Control Option
LC	Less Circulator
2 Pump H	High Temperature Recirculation loop with circulator
2 Pump R	Redundant Recirculation pump
RDU	Remote Display Unit

## Leonard High Capacity Manifold Systems

- Designed specifically for convention hotels, large apartments or condominiums and large prisons
- Regulate water temperature over a wide range of flows for large commercial and institutional applications.
- Thermostatic water mixing valves, DURA-trol<sup>®</sup> solid bi-metal thermostatic control and paraffinbased thermostatic control solutions
- Ten-Year Limited Thermostat WarrantyAdjustable high-temperature limit
- stops set for 120°F (49°C)
- Mixed water capacities up to 678 GPM
- Factory-preassembled and tested systems
- Toll-free technical support

## High Capacity Manifold Systems Selection Guide

#### Models

XL-150-2PS-LF	2" inlets/outlet, 6-248 GPM (22.7-939 l/min)
TM-1520B-2PS-LF	2" inlets/outlet, 2-316 GPM (7.6-1196 l/min)
XL-200-2PS-LF	3" inlets/outlet, 10-396 GPM (37.9-1499 l/min)
TM-2020B-2PS-LF	3" inlets/outlet, 2-428 GPM (7.6-1620 l/min)
TM-2020B-3PS-LF	4" inlets/outlet, 3-642 GPM (11.4-2340 l/min)

#### Enclosures

STSTL REC	Stainless Steel Recessed Cabinet*
STSTL EXP	Stainless Steel Exposed Cabinet*
*Available on co	lacted models, contact Loopard

\*Available on selected models, contact Leonard

#### Options

SUFFIX TC	Test Connection Piping on Outlet (2" Models Only, contact Leonard)
SUFFIX IT	Inlet Thermometers



TM-2020B-2PS-LF-STSTL-REC





TM-2020B-3PS-LF

XL-150-2PS-LF

## Leonard Next Generation High-Low Systems

- Control water temperature for domestic hot water systems, shower rooms and other commercial, institutional and industrial applications
- Dual thermostatic water mixing valves in a simple piping arrangement provide precise water temperature control of both high and low mixed water flow ranges
- DURA-trol<sup>®</sup> solid bi-metal thermostatic control (Ten-Year Limited Thermostat Warranty)
- Adjustable high-temperature limit stops set for 120°F (49°C)
- Mixed water capacities up to 226 GPM (856 l/min)
- All lead-free bronze, brass and stainless steel construction
- Factory-preassembled and tested systems
- Toll-free technical support

## Next Generation System Selection Guide

#### Models

TM-420B-LF-DT	3/4" inlets, 1" outlet, 1-49 GPM (3.8-185 l/min)
TM-520B-LF-DT	3/4" inlets, 1" outlet, 1-75 GPM (3.8-284 l/min)
TM-820B-LF-DT	1" inlets, 1-1/4" outlet, 1-89 GPM (3.8-337 l/min)
TM-920B-LF-DT	1-1/4" inlets and outlet, 1-115 GPM (3.8-435 l/min)
TM-1520B-LF-DT	1-1/4" inlets, 1-1/2" outlet, 1-165 GPM (3.8-625 l/min)
TM-2020B-LF-DT	2" inlets and outlet, 1- 226 GPM (3.8-856 l/min)
TM-920B-LF-DT TM-1520B-LF-DT	1-1/4" inlets and outlet, 1-115 GPM (3.8-435 l/min) 1-1/4" inlets, 1-1/2" outlet, 1-165 GPM (3.8-625 l/min)

#### **Optional Finish**

СР	Chrome Plated
Enclosures	
STSTL REC	Stainless Steel Recessed Cabinet
STSTL EXP	Stainless Steel Exposed Cabinet
BWE REC	Baked White Enamel Recessed Cabinet
BWE EXP	Baked White Enamel Exposed Cabinet

#### Options

Options	
SUFFIX TC	Test Connection Piping on Outlet
LMS-188-4P-BMS	Building Management System Interface
SCO	Solenoid Control Option
SUFFIX IT	Inlet Thermometers
НТ	High Temperature Thermometer



#### TM-920B-LF-DT

#### TM-186-920B-LF-DT-STSTL-REC



## XL Series Thermostatic Mixing Valves

- Copper encapsulated thermostatic control (Ten-Year Limited Thermostat Warranty)
- Mixed water capacities up to 216 GPM (818 l/min)
- All lead-free bronze, brass, and stainless steel construction
- Integral combination checkstops on inlets
- Locking temperature regulator
- Integral wall support
- Factory-preassembled and tested
- CASPAK<sup>®</sup> Sizing Program
- Toll-free technical support

# Thermostatic High-Low Master Mixers Selection Guide

#### Models

XL-32A-LF	3/4" inlets/outlet, 1 – 33 GPM (3.8 – 125 l/min)
XL-82-LF	1" inlets, 1-1/4" outlet, 1 – 61 GPM (3.8 – 231 l/min)
XL-150-LF	1-1/4" inlets, 1-1/2" outlet, 3 – 130 GPM (11.4 – 492 l/min)
XL-200-SW-LF	2" inlets/outlet, 5 – 208 GPM (18.9 –787 l/min)

#### Enclosures

STSTL REC	Stainless Steel Recessed Cabinet
STSTL EXP	Stainless Steel Exposed Cabinet
BWE REC	Baked White Enamel Recessed Cabinet
BWE EXP	Baked White Enamel Exposed Cabinet

#### **Optional Finishes**

RF	Rough Bronze
СР	Chrome Plated (not available on XL-200-SW-LF)

#### Options

LWS	Less Wall Support
BDT	Ball Valve with Dial Thermometer on outlet
LMS-BMS	Building Management System Interface
AU-3000	Audio Visual Alarm



XL-32A-LF

## LV Series are furnished with factory-assembled and test with:

- Highly responsive copper encapsulated thermostat assembly to control the intake of hot and cold water and regulate mixed water temperature
- Integral check valves on hot and cold inlets, wall supports, and locking temperature regulators
- Maximum hot water supply temperature: 200°F (93° C)
- Maximum supply pressure: 125 PSI



### Thermostatic Master Mixers Selection Guide

#### Models

LV-981A-LF	3/4" inlets/outlet, 2.5 – 44 GPM (9 – 157 l/min)
LV-982-LF	1" inlets, 1-1/4" outlet , 3.0 – 66 GPM (11 – 250 l/min)
LV-983-LF	1-1/4" inlets/outlet , 5.0 – 126 GPM (19 – 477 l/min)
LV-984-LF	1-1/4" inlets, 1-1/2" outlet , 6.0 – 148 GPM (22.7 – 560 l/min)
LV-985-SW-LF	2" inlets/outlet, 10 – 216 GPM (37.9 – 818 l/min)

#### Enclosures

STSTL REC	Stainless Steel Recessed Cabinet
STSTL EXP	Stainless Steel Exposed Cabinet
BWE REC	Baked White Enamel Recessed Cabinet
BWE EXP	Baked White Enamel Exposed Cabinet

#### **Optional Finishes**

RF	Rough Bronze
СР	Chrome Plated (not available on LV-981A-LF or LV-985-SW-LF)

#### Options

options	
LWS	Less Wall Support
BDT	Ball Valve with Dial Thermometer on outlet
LMS-BMS	Building Management System Interface
AU-3000	Audio Visual Alarm



## ACCESSORIES



## LMS-188-4P-BMS

For those applications where it is desired to monitor temperature in the domestic hot water system, specify Leonard's Building Management System Interface. This LMS-188-4P is mounted in a cabinet, including an enclosure, temperature indication, a Type J thermocouple, a 9' power cord (plug in 120V) and an Ethernet category 5 connection for LMS-188-4P-BMS communication.

## Floor mounted (FM)

For those applications MEGATRON<sup>®</sup> with 2 legs, 3-1/2' and 45° braces front and back for mounting to floor in center of room.



### AU-3000

To ensure additional protection, specify Leonard AU-3000 Audio Visual High Temperature Alarm Systems.



## **Free Standing**

MEGATRON<sup>®</sup> with legs to floor to support the unit without hangers.



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