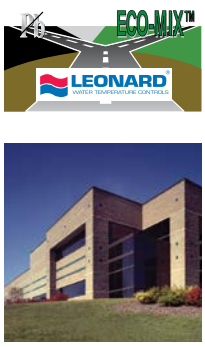
LEONARD®
WATER TEMPERATURE CONTROLS

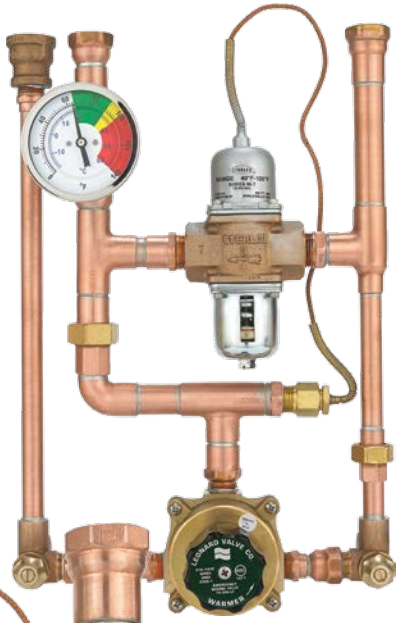
Emergency Mixing Valves



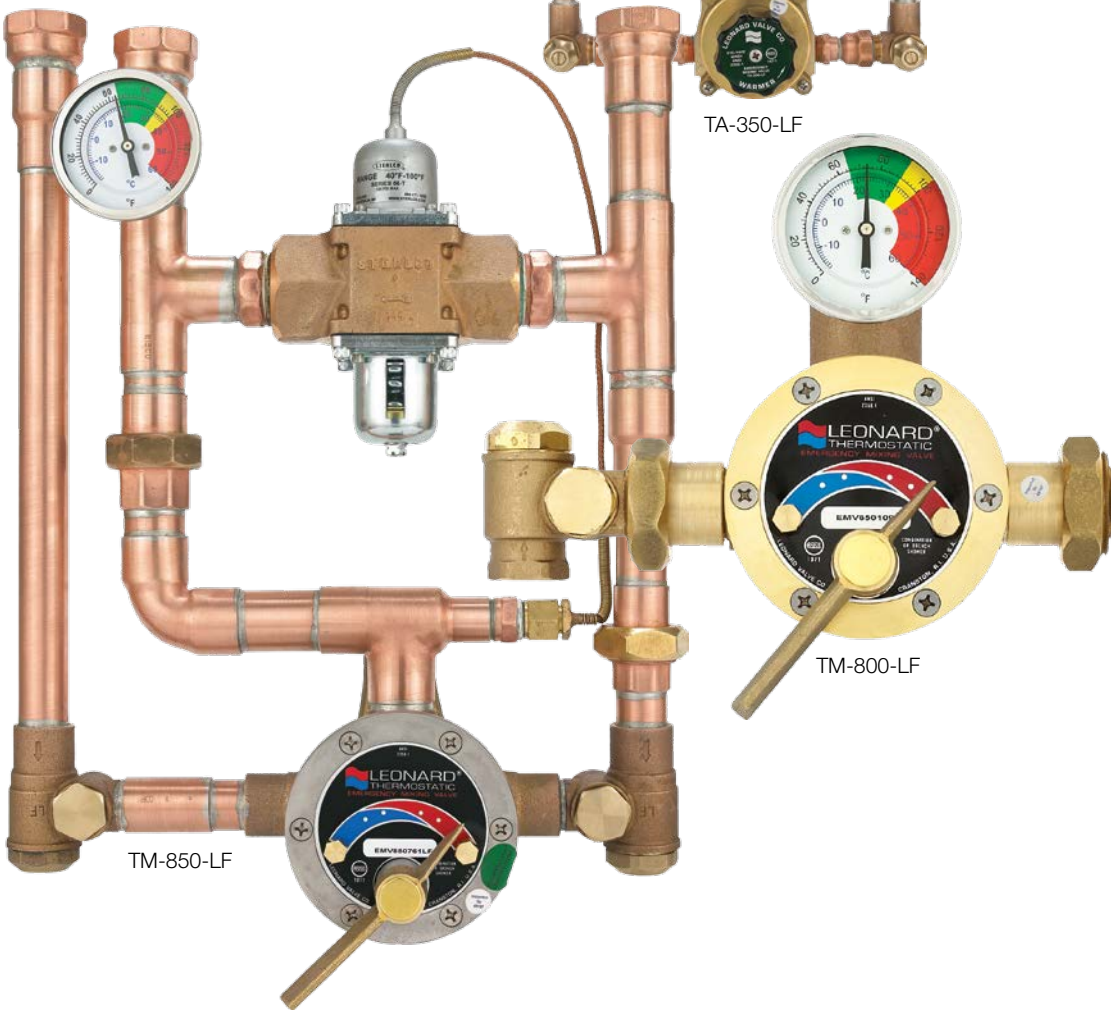
Leonard Thermostatic Water Mixing Valves

Control water temperature to provide tepid water for emergency showers, eyewash and eye/face wash units

TA-300-LF



TA-350-LF



TM-800-LF

TM-850-LF

Emergency Mixing Valves

Leonard Thermostatic Water Mixing Valves

- DURA-trol® solid bi-metal thermostatic control
- Locked temperature regulator set for 85°F (29°C)
- High temperature limit stop set for 90°F (32°C)
- Internal cold water bypass on failure of hot water supply standard on all models
- ANSI/ISEA Z358.1-2014 requires water to emergency equipment to be "tepid"
- Optional systems with temperature override protection available
- All systems factory tested before shipment
- Toll free technical support

ASSE Standard 1071 listed and 3rd Party certified as Lead Free models available

ANSI/ISEA Standard Z358.1-2014 & ASSE Standard 1071-2012

- ANSI/ISEA Standard Z358.1-2014 addresses the minimum performance requirements for emergency eyewash and shower equipment. The Standard mandates that water supplied by emergency equipment shall be "tepid," which is generally assumed to be between 60°F and 100°F (16°C and 37°C), "moderately warm or lukewarm"
- ASSE Standard 1071-2012 establishes the minimum performance requirements for temperature activated mixing valves used in conjunction with emergency equipment. The standard states that upon hot water failure, the cold water shall continue to flow at the manufacturer's rated by-pass flow rate at 30.0 PSI 206.9 kPa) differential pressure
- In facilities where adequate hot and cold water is available at each emergency fixture, a single emergency mixing valve should be installed at the emergency unit. Where more than one emergency fixture is supplied by a single emergency mixing valve, it is the responsibility of the specifier, owner and safety professional to assure that there is an adequate flow of tepid water to each emergency fixture
- Depending upon the application, where there is the possibility that a chemical reaction can be accelerated by a certain water temperature, a medical advisor should be consulted to establish the proper water temperature setting

Selection/Specification Guide

Standard Systems w/Internal Cold Water By-Pass

TA-300-LF Eye/Face Wash, 1/2" inlets, 1/2" outlet 2.0-9.0 GPM (7.6-34 l/min)

TM-600-LF Single Drench or Combination Shower, 3/4" inlets, 1" outlet 3-51 GPM (11-193 l/min)

TM-800-LF Single or Multiple Drench or Combination Shower, 1" inlets, 1-1/4" outlet 3-56 GPM (11-212 l/min)

TM-5100-LF Multiple Drench or Combination Showers, 1-1/4" inlets, 1-1/2" outlet 3-126 GPM (11-477 l/min)

Finishes

– RF Rough Finish

– CP Chrome Plated*

*Standard Systems Only

Mountings

Exposed Assemblies include an integral wall mounting bracket Cabinet Assemblies:

TM-600-LF Single Drench or Combination Shower, 3/4" inlets, 1" outlet 3-58 GPM (11-220 l/min)

– STSTL-REC Recessed Stainless Steel Cabinet

– STSTL-EXP Exposed Stainless Steel Cabinet

– BWE-REC Recessed Baked White Steel Cabinet

– BWE-EXP Exposed Baked White Steel Cabinet

Options

– VIEW Viewport in Door

– IT Inlet Thermometers

– TOP Top Inlets (standard on Dual Systems)

Dual Systems with Internal Cold Water By-Pass and Temperature Override Protection

TA-350-LF Eye/Face Wash 3/4" inlets, 3/4" outlet 2.0-9.0 GPM (7.6-34 l/min)

TM-850-LF Single or Multiple Drench or Combination Shower, 1-1/4" inlets,1-1/4" outlet 3-56 GPM (11-212 l/min)

TM-5125-LF Multiple Drench or Combination Showers, 1-1/4" inlets, 1-1/2" outlet 3-126 GPM (11-477 l/min)

TA-300-LF Standard System Single Eyewash or Eye/Face Wash

TA-300-LF Emergency Mixing Valve to provide tepid water to eyewash or eye/face wash unit

Thermostatic Control: DURA-trol® solid bi-metal element not subject to rupture or fatigue controls water at 85°F (29°C). High temperature limit stop set for 90°F (32°C). Outlet dial thermometer, color coded, to view temperature.

Performance: On failure of hot water supply, internal cold water by-pass delivers cold water to the emergency fixture, minimum of 4 GPM @ 30 PSI. On failure of cold water supply, hot water is shut down.

Supply Conditions: Minimum hot water supply temperature: 140°F (60°C). Minimum hot and cold supply pressure: 30 PSI (per ANSI/ISEA Z358.1-2014). Maximum supply pressure is 125 PSI. 1/2" inlets (copper) with check and stop valves, 1/2" outlet (NPT).

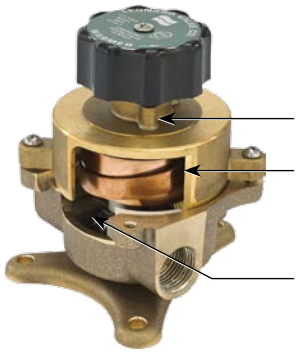
Installation: TA-300-LF has an integral wall mounting bracket. TA-300-LF-STSTL-REC is mounted in a recessed stainless steel cabinet. TA-300-LF-STSTL-EXP is mounted in an exposed stainless steel cabinet. All are factory-preassembled (cabinet units) and tested.

Finish: Rough bronze finish.

TA-300-LF

TA-300-LF-STSTL-EXP

TA-300-LF-STSTL-REC



Flow Capacities

Minimum Flow GPM	Internal Cold water By-Pass Minimum	PRESSURE DROP									
		5	10	15	20	25	30	35	40	45	PSI
L/MIN		0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	BAR
2.0	4	2.0	2.7	3.5	4.5	5.5	6.5	7.5	8.5	9.0	GPM
7.6	15	7.6	10	13	17	21	25	28	32	34	L/MIN
ASSE Standard 1071 listed and 3rd party certified as lead free		MAXIMUM FLOW CAPACITY									

Options

– CP	Chrome Plated Finish
– IT	Inlet Thermometers
– BWE-EXP	Exposed Baked White Steel Cabinet
– BWE-REC	Recessed Baked White Steel Cabinet
– VIEW	Viewport in door
– TOP	Top Inlets

CAUTION: Thermostatic water mixing valves have limitations. They will not provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart to be certain the flow requirement is within the flow capacity and supply pressure limits shown.

IMPORTANT: According to ANSI/ISEA Z358.1-2014, emergency equipment must be used and maintained regularly. Thermostatic mixing valves should also be cycled and maintained on a regular basis. At installation, the mixing valve's temperature settings may have to be adjusted based upon the incoming hot water supply temperature.

Emergency Mixing Valves

TA-350-LF Dual System with Temperature Override Protection for Single Eyewash or Eye/Face Wash

TA-350-LF Emergency Mixing Valve to provide tepid water to eyewash or eye/face wash unit

Thermostatic Control: DURA-trol® solid bi-metal element not subject to rupture or fatigue controls water at 85°F (29°C). High temperature limit stop set for 90°F (32°C). Outlet dial thermometer, color coded, to view temperature.

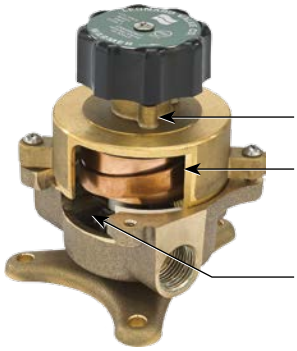
Temperature Override Protection: A redundant thermostatic control valve on the outlet opens on temperature rise over 90°F (32°C) to introduce cold water and maintain tepid flow to the fixture.

Performance: On failure of hot water supply, internal cold water by-pass delivers cold water to the emergency fixture, minimum of 4 GPM @ 30 PSI. On failure of cold water supply, hot water is shut down.

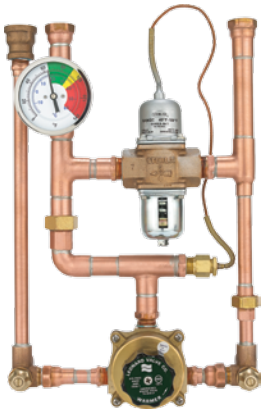
Supply Conditions: Minimum hot water supply temperature: 140°F (60°C). Minimum hot and cold supply pressure: 30 PSI (per ANSI/ISEA Z358.1-2014). Maximum supply pressure is 125 PSI. 3/4" inlets (NPT) with check and stop valves, 3/4" outlet (NPT).

Installation: TA-350-LF has an integral wall mounting bracket. TA-350-LF-STSTL-REC is mounted in a recessed stainless steel cabinet. TA-350-LF-STSTL-EXP is mounted in an exposed stainless steel cabinet. All are factory-preassembled (cabinet units) and tested.

Finish: Rough bronze finish.



TA-350-LF



TA-350-LF-STSTL-EXP

TA-350-LF-STSTL-REC

Flow Capacities

Minimum Flow GPM	Internal Coldwater By-Pass Minimum	PRESSURE DROP									
		5	10	15	20	25	30	35	40	45	PSI
L/MIN		0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	BAR
2.0	4	2.0	2.7	3.5	4.5	5.5	6.5	7.5	8.5	9.0	GPM
7.6	15	7.6	10	13	17	21	25	28	32	34	L/MIN
ASSE Standard 1071 listed and 3rd party certified as lead free		MAXIMUM FLOW CAPACITY									

Options

– BWE-EXP	Exposed Baked White Steel Cabinet
– BWE-REC	Recessed Baked White Steel Cabinet
– VIEW	Viewport in door

CAUTION: Thermostatic water mixing valves have limitations. They will not provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart to be certain the flow requirement is within the flow capacity and supply pressure limits shown.

IMPORTANT: According to ANSI/ISEA Z358.1-2014, emergency equipment must be used and maintained regularly. Thermostatic mixing valves should also be cycled and maintained on a regular basis. At installation, the mixing valve's temperature settings may have to be adjusted based upon the incoming hot water supply temperature.

TM-600-LF Standard System Single Drench or Combination Shower

TM-600-LF Emergency Mixing Valve to provide tepid water to single drench or combination shower

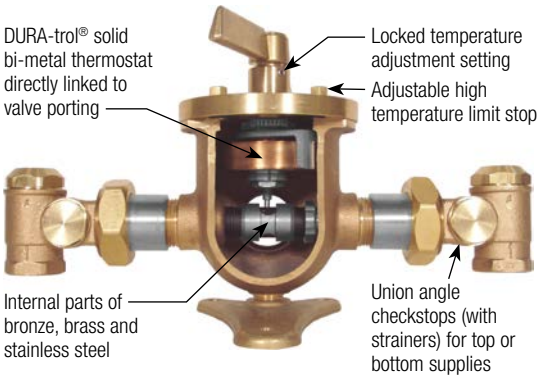
Thermostatic Control: DURA-trol® solid bi-metal element not subject to rupture or fatigue controls water at 85°F (29°C). High temperature limit stop set for 90°F (32°C). Outlet dial thermometer, color coded, to view temperature.

Performance: On failure of hot water supply, internal cold water by-pass delivers cold water to the emergency fixture, minimum of 20 GPM @ 30 PSI. On failure of cold water supply, hot water is shut down.

Supply Conditions: Minimum hot water supply temperature: 140°F (60°C). Minimum hot and cold supply pressure: 30 PSI (per ANSI/ISEA Z358.1-2014). Maximum supply pressure is 125 PSI. 3/4" inlets (NPT) with check and stop valves, 1" outlet (NPT).

Installation: TM-600-LF has an integral wall mounting bracket. TM-600-LF-STSTL-REC is mounted in a recessed stainless steel cabinet. TM-600-LF-STSTL-EXP is mounted in an exposed stainless steel cabinet. All are factory-preassembled (cabinet units) and tested.

Finish: Rough bronze finish.



TM-600-LF

TM-600-LF-STSTL-EXP

TM-600-LF-STSTL-REC

Flow Capacities

Minimum Flow GPM	Internal Coldwater By-Pass Minimum	PRESSURE DROP									
		5	10	15	20	25	30	35	40	45	PSI
L/MIN		0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	BAR
3	20	14	19	25	28	30	33	38	44	51	GPM
11	76	53	72	95	106	114	125	144	167	193	L/MIN
ASSE Standard 1071 listed and 3rd party certified as lead free		MAXIMUM FLOW CAPACITY									

Options

– CP	Chrome Plated Finish
– IT	Inlet Thermometers
– BWE-EXP	Exposed Baked White Steel Cabinet
– BWE-REC	Recessed Baked White Steel Cabinet
– TOP	Top Inlets

CAUTION: Thermostatic water mixing valves have limitations. They will not provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart to be certain the flow requirement is within the flow capacity and supply pressure limits shown.

IMPORTANT: According to ANSI/ISEA Z358.1-2014, emergency equipment must be used and maintained regularly. Thermostatic mixing valves should also be cycled and maintained on a regular basis. At installation, the mixing valve's temperature settings may have to be adjusted based upon the incoming hot water supply temperature.

Emergency Mixing Valves

TM-800-LF Standard System Single or Multiple Drench or Combination Showers

TM-800-LF Emergency Mixing Valve to provide tepid water to single or multiple drench or combination showers

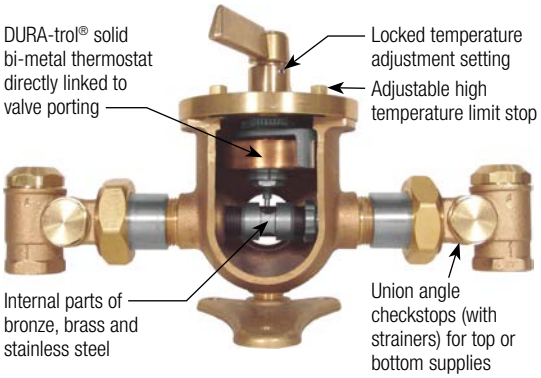
Thermostatic Control: DURA-trol® solid bi-metal element not subject to rupture or fatigue controls water at 85°F (29°C). High temperature limit stop set for 90°F (32°C). Outlet dial thermometer, color coded, to view temperature.

Performance: On failure of hot water supply, internal cold water by-pass delivers cold water to the emergency fixture, minimum of 20 GPM @ 30 PSI. On failure of cold water supply, hot water is shut down.

Supply Conditions: Minimum hot water supply temperature: 140°F (60°C). Minimum hot and cold supply pressure: 30 PSI (per ANSI/ISEA Z358.1-2014). Maximum supply pressure is 125 PSI. 1" inlets (NPT) with check and stop valves, 1-1/4" outlet (NPT).

Installation: TM-800-LF has an integral wall mounting bracket. TM-800-LF-STSTL-REC is mounted in a recessed stainless steel cabinet. TM-800-LF-STSTL-EXP is mounted in an exposed stainless steel cabinet. All are factory-preassembled (cabinet units) and tested.

Finish: Rough bronze finish.



TM-800-LF

TM-800-LF-STSTL-EXP

TM-800-LF-STSTL-REC

Flow Capacities

Minimum Flow GPM	Internal Coldwater By-Pass Minimum	PRESSURE DROP									
		5	10	15	20	25	30	35	40	45	PSI
L/MIN		0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	BAR
3	20	20	25	30	33	35	38	43	50	56	GPM
11	76	76	95	114	125	132	144	163	189	212	L/MIN
ASSE Standard 1071 listed and 3rd party certified as lead free		MAXIMUM FLOW CAPACITY									

Options

– CP	Chrome Plated Finish
– IT	Inlet Thermometers
– BWE-EXP	Exposed Baked White Steel Cabinet
– BWE-REC	Recessed Baked White Steel Cabinet
– TOP	Top Inlets

CAUTION: Thermostatic water mixing valves have limitations. They will not provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart to be certain the flow requirement is within the flow capacity and supply pressure limits shown.

Where multiple emergency fixtures are supplied by a single emergency mixing valve, it is the responsibility of the specifier, owner, and safety professional to ensure there is sufficient flow of tepid water to each emergency fixture.

IMPORTANT: According to ANSI/ISEA Z358.1-2014, emergency equipment must be used and maintained regularly. Thermostatic mixing valves should also be cycled and maintained on a regular basis. At installation, the mixing valve's temperature settings may have to be adjusted based upon the incoming hot water supply temperature.

TM-850-LF Dual System with Temperature Override Protection for Single or Multiple Drench or Combination Showers

TM-850-LF Emergency Mixing Valve to provide tepid water to single or multiple drench or combination showers

Thermostatic Control: DURA-trol® solid bi-metal element not subject to rupture or fatigue controls water at 85°F (29°C). High temperature limit stop set for 90°F (32°C). Outlet dial thermometer, color coded, to view temperature.

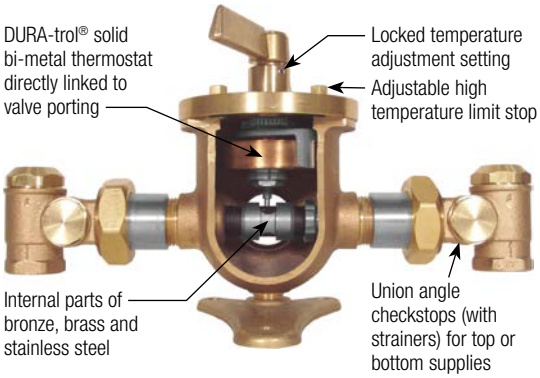
Temperature Override Protection: A redundant thermostatic control valve on the outlet opens on temperature rise over 90°F (32°C) to introduce cold water and maintain tepid flow to the fixture.

Performance: On failure of hot water supply, internal cold water by-pass delivers cold water to the emergency fixture, minimum of 20 GPM @ 30 PSI. On failure of cold water supply, hot water is shut down.

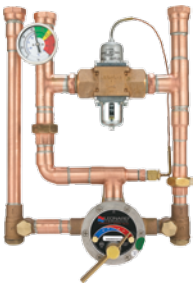
Supply Conditions: Minimum hot water supply temperature: 140°F (60°C). Minimum hot and cold supply pressure: 30 PSI (per ANSI/ISEA Z358.1-2014). Maximum supply pressure is 125 PSI. 1-1/4" inlets (NPT) with check and stop valves, 1-1/4" outlet (NPT).

Installation: TM-850-LF has an integral wall mounting bracket. TM-850-LF-STSTL-REC is mounted in a recessed stainless steel cabinet. TM-850-LF-STSTL-EXP is mounted in an exposed stainless steel cabinet. All are factory-preassembled (cabinet units) and tested.

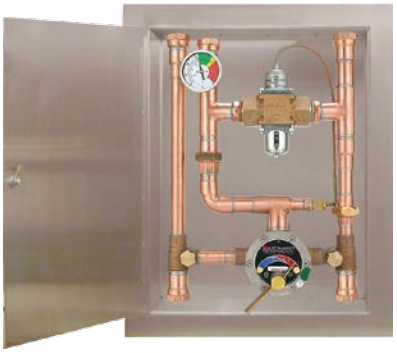
Finish: Rough bronze finish.



TM-850-LF



TM-850-LF-STSTL-EXP



TM-850-LF-STSTL-REC

Flow Capacities

Minimum Flow GPM	Internal Coldwater By-Pass Minimum	PRESSURE DROP									
		5	10	15	20	25	30	35	40	45	PSI
L/MIN		0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	BAR
3	20	20	25	30	33	35	38	43	50	56	GPM
11	76	76	95	114	125	132	144	163	189	212	L/MIN
ASSE Standard 1071 listed and 3rd party certified as lead free		MAXIMUM FLOW CAPACITY									

Options

– IT	Inlet Thermometer
– BWE-EXP	Exposed Baked White Steel Cabinet
– BWE-REC	Recessed Baked White Steel Cabinet
– VIEW	Viewport in door

CAUTION: Thermostatic water mixing valves have limitations. They will not provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart to be certain the flow requirement is within the flow capacity and supply pressure limits shown.

Where multiple emergency fixtures are supplied by a single emergency mixing valve, it is the responsibility of the specifier, owner, and safety professional to ensure there is sufficient flow of tepid water to each emergency fixture.

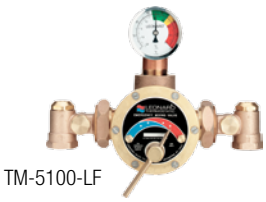
IMPORTANT: According to ANSI/ISEA Z358.1-2014, emergency equipment must be used and maintained regularly. Thermostatic mixing valves should also be cycled and maintained on a regular basis. At installation, the mixing valve's temperature settings may have to be adjusted based upon the incoming hot water supply temperature.

Emergency Mixing Valves

TM-5100-LF and TM-5125-LF Standard or Dual System Multiple Drench or Combination Showers

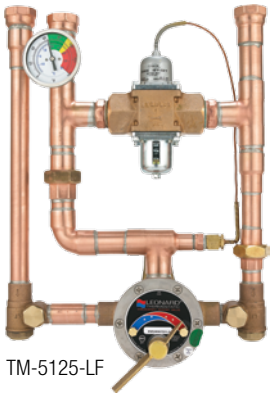
TM-5100-LF Emergency Mixing Valve to provide tepid water to multiple drench or combination showers

TM-5125-LF Emergency Mixing Valve to provide tepid water to single or multiple drench or combination showers

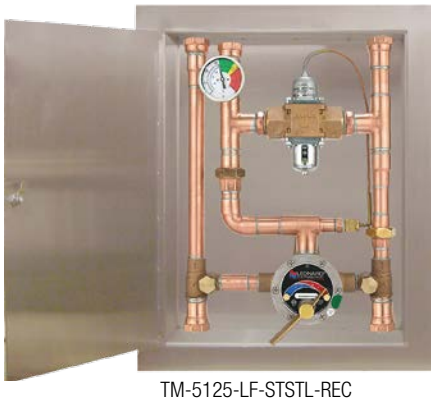


TM-5100-LF

TM-5100-LF-STSTL-REC



TM-5125-LF



TM-5125-LF-STSTL-REC

Temperature Override Protection (TM-5125-LF only): A redundant thermostatic control valve on the outlet opens on temperature rise over 90°F (32°C) to introduce cold water and maintain tepid flow to the fixture.

Thermostatic Control: DURA-trol® solid bi-metal element not subject to rupture or fatigue controls water at 85°F (29°C). High temperature limit stop set for 90°F (32°C). Outlet dial thermometer, color coded, to view temperature.

Performance: On failure of hot water supply, internal cold water by-pass delivers cold water to the emergency fixture, 40 GPM @ 30 PSI. On failure of cold water supply, hot water is shut down.

Supply Conditions: Minimum hot water supply temperature: 140°F (60°C). Minimum hot and cold supply pressure: 30 PSI (per ANSI/ISEA Z358.1-2014). Maximum supply pressure is 125 PSI. 1-1/4" inlets (NPT) with check and stop valves, 1-1/2" outlet (NPT).

Installation:
TM-5100-LF and TM-5125-LF have an integral wall mounting bracket.

TM-5100-LF-STSTL-REC, TM-5125-LF-STSTL-REC and TM-5125-LF-STSTL-EXP are mounted in a recessed stainless steel cabinet.

TM-5100-LF-STSTL-EXP is mounted in an exposed stainless steel cabinet. All are factory-preassembled (cabinet units) and tested.

Finish: Rough bronze finish.

Flow Capacities

Minimum Flow GPM	Internal Coldwater By-Pass Minimum	PRESSURE DROP									
		5	10	15	20	25	30	35	40	45	PSI
L/MIN		0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	BAR
3	40	53	64	72	81	90	99	108	117	126	GPM
11	151	76	242	273	307	341	374	409	443	477	L/MIN
		MAXIMUM FLOW CAPACITY									

Options

– CP	Chrome Plated Finish (Not available for TM-5125-LF)
– IT	Inlet Thermometers
– BWE-EXP	Exposed Baked White Steel Cabinet
– BWE-REC	Recessed Baked White Steel Cabinet
– VIEW	Viewport in door

Note: All specifications are subject to change without notice!

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WATER TEMPERATURE CONTROLS

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