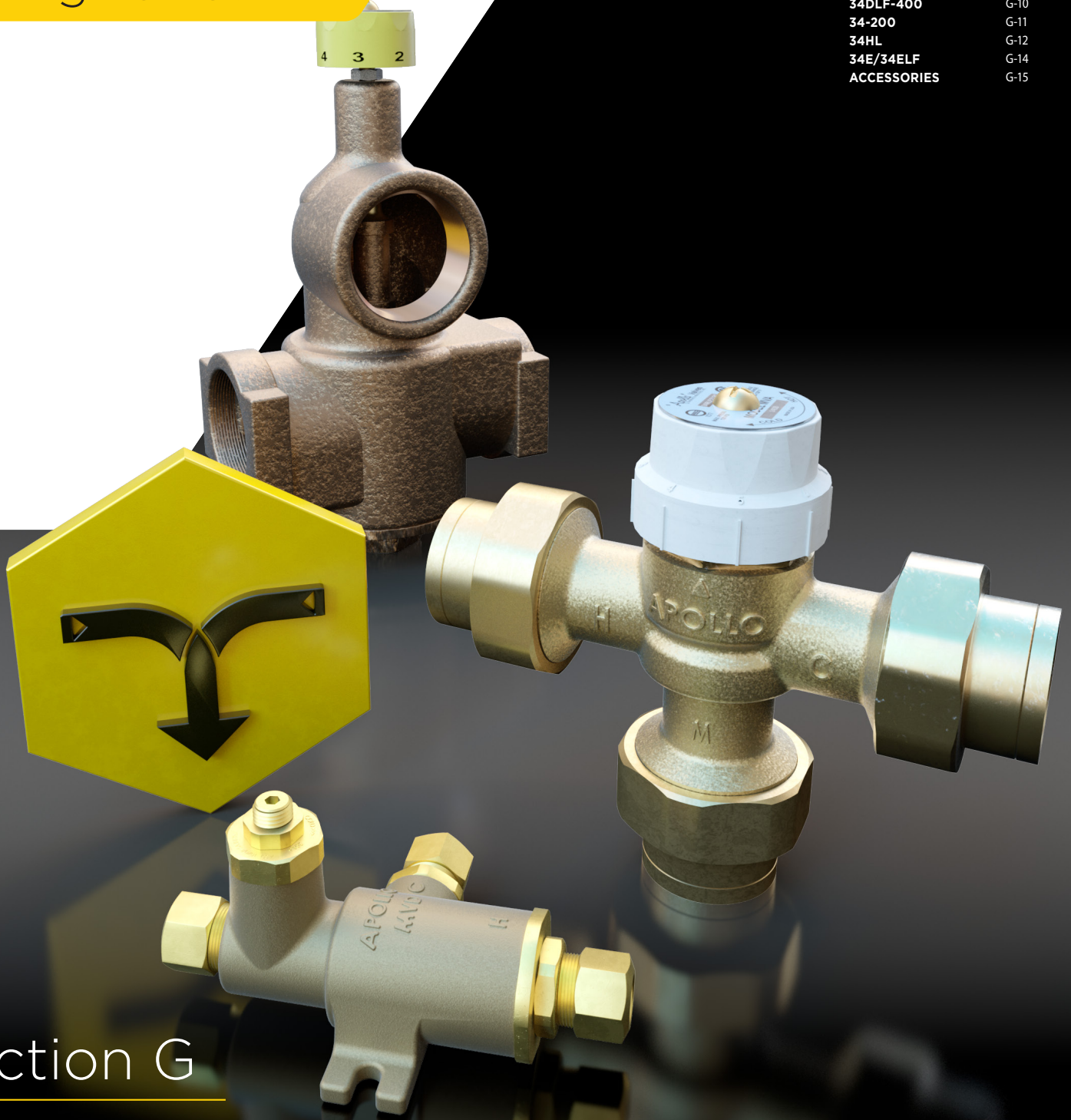


"Apollo" Valves

mixing valves

34ALF-200	G-4
34BLF-300	G-6
34C/34CLF	G-8
34DLF-400	G-10
34-200	G-11
34HL	G-12
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ACCESSORIES	G-15



section G

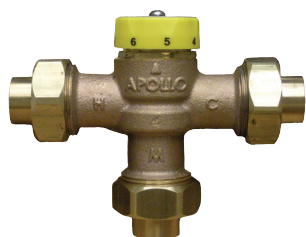
34-200 SERIES



Apollo 34 Series Mixing Valves help extend hot water supply and enhance the life and accuracy of hydronic thermostats in residential and small commercial systems. These valves may be used to increase draw capacity of automatic storage water heaters. They save hot water and energy by automatically regulating the mix of hot water with cold. Water temperatures can be adjusted by simply turning the yellow knob to the desired setting.

- Sizes 1/2", 3/4"; Solder
- Corrosion Resistant Bronze Body and Stainless Steel Spring
- Easy Installation
- For Tankless Coils, Water Heaters, Boilers and Solar Energy Systems
- Outlet Temperatures from 120° to 130°F (110° to 150°F Optional)

34A-LF SERIES



Apollo 34A-LF Series Mixing Valves provide thermostat control of temperatures in residential, commercial and non-potable hot water systems. They are ASSE 1017 certified and designed for use with water heaters and boilers. During operation, the valve redistributes and extends safe hot water from the heater to various sections of a building's water system. 34A-LF Series mixing valves offer integral checks to prevent cross-connection of temperatures. They also enable the contractor to direct mount the unit to the heater or boiler instead of heat trapping the valve.

- Sizes 1/2", 3/4", 1"
- Highest Flow Capacity in its Class
- Maximum Rated Working Pressure of 125 psig
- Easy Temperature Control From 85° to 140°F
- Corrosion Resistant Cast Bronze Body
- Integral Checks
- Union Tailpieces and Union Nuts Standard
- NPT, Solder, CPVC, Press, Push and PEX F1960* & PEX F1807 Connections
- Easily Accessible Internals Allow In-Line Servicing
- Glass-Filled Noryl® Shuttle

34ALF-H SERIES



Apollo 34ALF-H Series Mixing Valves are ideal for use with domestic and commercial boilers and all types of radiant systems. They are available in a variety of pipe end connections and are equipped with element over-travel protection. Also the 34ALF-H Series mixing valves offer integral checks to prevent cross-connection of temperatures.

- Sizes 1/2", 3/4", 1"
- Maximum Rated Working Pressure of 125 psig
- Mixed Temperature Range of 120° to 180°F
- Corrosion Resistant Cast Bronze Body
- Union Tailpieces and Union Nuts, Standard
- Designed to Make Maintenance Fast and Easy
- Glass-Filled Noryl® Shuttle
- Easily Accessible Internals Allow In-Line Servicing

34B-LF SERIES



Apollo 34B-LF Series thermostatic mixing valves are mixing valves are triple certified to ASSE 1017/1069/1070 for point-of-use or point-of-source applications and provide enough capacity to protect up to twelve separate fixtures while maintaining an accuracy of +/- 3°F. They offer easy adjustment of water temperatures. In accordance with ASSE 1070 standards, Series 34B valves come with maximum set point control features.

- Sizes 1/2", 3/4", 1"
- Controlled Temperatures from Full Cold up to 120°F.
- Corrosion Resistant Bronze Body
- Union Tailpieces and Nuts Standard
- NPT, Solder, Press, CPVC, Push, PEX F1960* & PEX F1807 Connections
- In-Line Repairable
- Glass-Filled Noryl® Shuttle
- Factory Equipped with Integral Checks and Strainers
- Locking Cap Feature

34C / 34CLF SERIES



Apollo 34C / 34CLF Series high capacity mixing valves are ASSE 1017 certified. Also available in a high temperature model, these large capacity valves are designed for use in large commercial and institutional hot water systems.

- Sizes 3/4" - 2"
- Industry Leading Flow Rates
- Corrosion Resistant Cast Bronze Body
- Stainless Steel and Thermoplastic Internals
- Maximum Rated Pressure of 150 psig
- All Replaceable Parts Accessible from Single Point
- Controlled Temperature Range of 90° to 140°F (130° to 180°F Optional - "H" Model non-ASSE)
- In-Line Repairable
- Glass-Filled Noryl® Shuttle
- Optional Non Lead Free for Non-Potable Water

34D-LF SERIES



The Apollo 34DLF-400 Series Mini Thermostatic Mixing Valve is designed for the harmonized standard of ASSE1070/ ASME112.1070/CSA B125.70 "Point of Use" single fixture temperature control applications, using proven ASTM grade lead free materials. These valves will provide control to a desired temperature within $\pm 3^\circ\text{F}$.

- Compact, Space Saving Design
- 3/8" x 3/8" Compression Connections
- Factory Equipped with Integral Screens/Checks
- Corrosion Resistant Forged DZR Lead Free Brass Body
- Stainless and Thermoplastic Internals
- Bypass Tee Option for Cold Water Connection
- Chrome Plating Option
- Flow Rates: 0.25 - 3.3 GPM

34E/34E-LF SERIES



Apollo 34E Emergency Mixing Valves are designed to control the cold and hot water temperature to deliver tepid water at a predetermined temperature to emergency eyewash/facewash fixtures. The device provides a precise temperature and flow control in the event of cold water, hot water and thermostatic element failures. Complies with ANSI Z358.1 & ASSE 1071.

- Hot and Cold Water Supply Failure Protection Patented Design (US Patent 6,926,20 B2)
- Tepid Water Temperature Limit Control and Adjustment
- Tepid Water Temperature Adjustment Handle with Locking Mechanism for Tamper-Resistant Protection and Inadvertent Adjustment
- Integral Inlet Check Valves and Strainers to Provide Protection Against Cross-Flow And Foreign Particles
- Superior Thermostatic Element Technology for Optimum Reliability, Dependability and Accuracy
- Thermostatic Element Failure and Over-Travel Protection
- High Efficiency and Positive Shut-Off Check Valves
- In-Line Accessibility and Serviceability of Failure Protection Module and Mixing Valve Internal Components
- Meets the Requirements of the EPA Safe Drinking Water Act
- Corrosion Resistant Components
- Single Cartridge Design of Failure Protection Module for Easy Service and Maintenance

34HL SERIES



Apollo 34HL High/Low Mixing Valve is a single assembly that controls mixed water temperatures to multiple-outlet shower and sink installations. It's the ideal choice in new construction or retrofits in nursing homes, prisons, hospitals, schools, gymnasiums, airports and other facilities where constant safe water temperature needs to be maintained at several outlets without the use of independent ASSE 1016 shower valves.

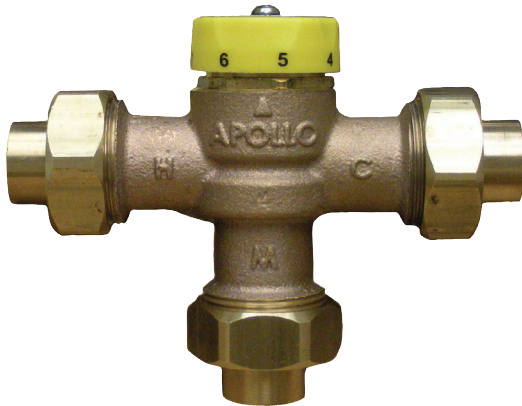
- Capable of Maintaining Safe, Consistent Temperature Control of Water at Low and High Flows to Within $\pm 3.6^\circ\text{F}$
- Provides Consistent Temperature Control at Flow Rates as High as 60 GPM and as Low as 1.5 GPM, Including Mid-Range Flow Between High and Low
- Does Not Require Recirculation Pumps Like Other Systems in Order to Achieve Low Flow Control
- Integral Strainers and Checks are Provided at the Hot and Cold Supply Inlets for Greater Reliability and Performance
- Units Can Be Mounted in Parallel for Extra Large Flow Requirements
- ASSE 1017/1069 Certified

34ALF SERIES

POINT OF SOURCE THERMOSTATIC MIXING VALVE



1017



Apollo 34ALF Thermostatic Master Mixing Valves are designed for ASSE 1017 "point of source" applications. They provide reliable hot water temperature control of potable and hydronic hot water distribution systems.

FEATURES

- Superior Thermostatic Element Technology For Optimal Performance, Reliability and Accuracy
- Integral Inlet Strainers and Check Valves are Standard to Protect Against Cross-Flow and Foreign Particles in the Piping System
- Thermostat Over-Temperature Control
- Maximum Temperature Limit Option
- Fingertip Temperature Control
- Cold or Hot Water Supply Failure Shut-Off Protection
- Multiple Connection Options to Fit Your Specific Needs
- High Temperature Version For Hydronic/Radiant Heating Applications
- Lead Free Construction Certified: 0.25% Lead max
- Proudly Made in the USA

OPTIONS

- **PEX F1960* F1960 Tailpieces NEW!**
 - (-B) Temperature Limit Stop (120° F max)
 - High Temp Range (H) Radiant Heat Application 120°F - 180°F (Not ASSE Certified)
- See 34ALF-H Submittal Sheet

APPROVALS

- ASSE 1017 - Temperature Actuated Mixing Valve for Hot Water Distribution Systems
- CSA B125.3 - Plumbing Supply Fittings
- NSF/ANSI/CAN 372 - Lead Free

STANDARD MATERIAL LIST

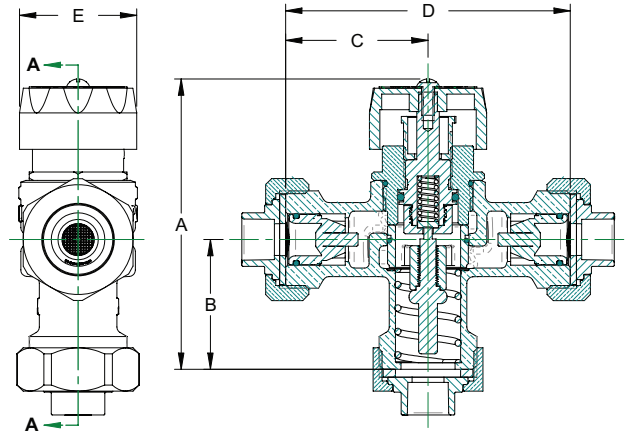
BODY	C89836 Lead Free Bronze
SHUTTLE	Noryl® Modified PPO (Polyphenylene Oxide)
SENSOR	Copper/Wax Filled
O-RING	Chloramine Resistant EPDM
SPRING	ASTM A313 Stainless Steel
CAP	ABS (Acrylonitrile Butadiene Styrene)

DIMENSIONS

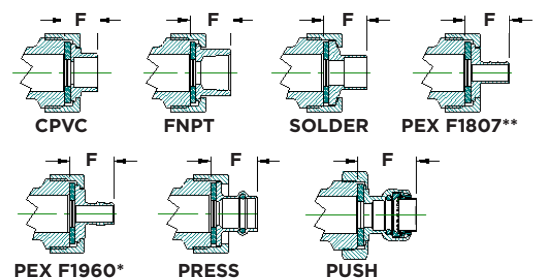
Series No.	Connection	Size (in.)	Dimensions (in.)						Unit Wt. (lb.)
			A	B	C	D	E	F	
34ALF213T	Thread - FNPT	1/2	3.73	2.11	2.28	4.56	1.87	0.95	2.75
34ALF213S	Solder		3.73	2.11	2.28	4.56	1.87	0.93	2.54
34ALF213C	CPVC		3.73	2.11	2.28	4.56	1.87	0.70	2.39
34ALF213X2	PEX F1960*		3.73	2.11	2.28	4.56	1.87	1.20	2.54
34ALF213X	PEX F1807**		3.73	2.11	2.28	4.56	1.87	1.02	2.54
34ALF213PR	Press		3.73	2.11	2.28	4.56	1.87	0.99	2.60
34ALF213P	Push		3.73	2.11	2.28	4.56	1.87	1.23	2.94
34ALF214T	Thread - FNPT	3/4	3.73	2.11	2.28	4.56	1.87	0.93	2.84
34ALF214S	Solder		3.73	2.11	2.28	4.56	1.87	0.93	2.60
34ALF214C	CPVC		3.73	2.11	2.28	4.56	1.87	0.92	2.42
34ALF214X2	PEX F1960*		3.73	2.11	2.28	4.56	1.87	1.20	2.60
34ALF214X	PEX F1807**		3.73	2.11	2.28	4.56	1.87	1.25	2.60
34ALF214PR	Press		3.73	2.11	2.28	4.56	1.87	1.14	2.65
34ALF214P	Push		3.73	2.11	2.28	4.56	1.87	1.78	3.08
34ALF215T	Thread - FNPT	1	3.73	2.11	2.28	4.56	1.87	1.06	2.93
34ALF215S	Solder		3.73	2.11	2.28	4.56	1.87	1.06	2.66
34ALF215C	CPVC		3.73	2.11	2.28	4.56	1.87	1.16	2.45
34ALF215X2	PEX F1960*		3.73	2.11	2.28	4.56	1.87	1.17	2.66
34ALF215X	PEX F1807**		3.73	2.11	2.28	4.56	1.87	1.55	2.66
34ALF215PR	Press		3.73	2.11	2.28	4.56	1.87	1.18	2.71
34ALF215P	Push		3.73	2.11	2.28	4.56	1.87	1.96	3.29

* PEX F1960* (ASTM F1960) Cold Expansion PEX

** PEX F1807** (ASTM F1807) Crimp PEX



TAILPIECES

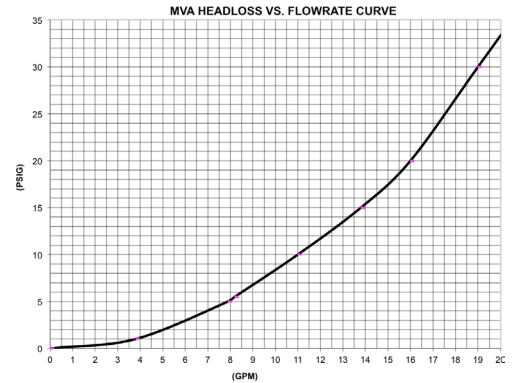


34ALF

POINT OF SOURCE THERMOSTATIC MIXING VALVE

PERFORMANCE RATING

- Maximum Working Pressure: 150 psig (1034 kPa)
- Maximum Working Temperature: 210°F (99°C)
- Cold Water Inlet Temperature Range: 39°-80°F (4° - 27°C)
- Hot Water Inlet Temperature Range: 120° - 200°F (49° - 82°C)
- Minimum Flow Rate: 1/2 gpm (1.9 lpm)
- Mixed Water Temp. Range - Standard: 85° - 120°F
- Mixed Water Temp. Range - High: 120° - 180°F
- Mixed Water Temperature Tolerance: ±5°F (1.7°C)
- Flow Rate at 30 psig (138 kPa): 19 gpm (64 lpm)
- Maximum Pressure Differential Between Hot & Cold: 25%



SIZE (IN.)	CONNECTION	PART NUMBER		
		STANDARD TEMP (85° - 140°F)	CAL. MAX. TEMP (120°F)	RADIANT HIGH TEMP (120° - 180°F)*
1/2"	Solder inlets x Solder outlet	34ALF213S	34ALF213BS	34ALF213HS
	FNPT inlets x FNPT outlet	34ALF213T	34ALF213BT	34ALF213HT
	CPVC inlets x CPVC outlet	34ALF213C	34ALF213BC	-
	PEX F1960* inlets x PEX F1960* outlet	34ALF213X2	34ALF213BX2	-
	PEX F1807** inlets x PEX F1807** outlet	34ALF213X	34ALF213BX	-
	PRESS inlets x PRESS outlet	34ALF213PR	34ALF213BPR	-
	PUSH inlets x PUSH outlet	34ALF213P	-	-
3/4"	Solder inlets x Solder outlet	34ALF214S	34ALF214BS	34ALF214HS
	FNPT inlets x FNPT outlet	34ALF214T	34ALF214BT	34ALF214HT
	CPVC inlets x CPVC outlet	34ALF214C	34ALF214BC	-
	PEX F1960* inlets x PEX F1960* outlet	34ALF214X2	34ALF214BX2	-
	PEX F1807** inlets x PEX F1807** outlet	34ALF214X	34ALF214BX	-
	PRESS inlets x PRESS outlet	34ALF214PR	34ALF214BPR	-
	PUSH inlets x PUSH outlet	34ALF214P	-	-
1"	Solder inlets x Solder outlet	34ALF215S	34ALF215BS	34ALF215HS
	FNPT inlets x FNPT outlet	34ALF215T	34ALF215BT	34ALF215HT
	CPVC inlets x CPVC outlet	34ALF215C	34ALF215BC	-
	PEX F1960* inlets x PEX F1960* outlets	34ALF215X2	34ALF215BX2	-
	PEX F1807** inlets x PEX F1807** outlets	34ALF215X	34ALF215BX	-
	PRESS inlets x PRESS outlet	34ALF215PR	34ALF215BPR	-
	PUSH inlets x PUSH outlet	34ALF215P	-	-

* High temperature models are not ASSE certified.

** PEX F1960* (ASTM F1960) Cold Expansion PEX

*** PEX F1807** (ASTM F1807) Crimp PEX

34BLF SERIES

POINT OF USE THERMOSTATIC MIXING VALVE



1017
1069
1070



Apollo 34B-LF Series Thermostatic Mixing Valves are designed to control and limit the volumes of cold and hot water required to deliver mixed water at a predetermined safe temperature either from the "point of source" or "point of use" application for single or multiple fixtures.

FEATURES

- **Now Triple Certified to Meet ASSE 1017/1069/1070 NEW!**
- Highest Capacity That Meets ASSE 1070
- Superior Thermostatic Element Technology for Optimum Reliability, Dependability and Accuracy
- Integral Strainers and Check Valves Provide Protection Against Cross-Flow and Foreign Particles
- Thermostat Over-Temperature Protection
- Tamper Resistant Locking Cap Feature
- Maximum Temperature Setting Adjustment
- Instantaneous Cold or Hot Water Supply Failure Shut-Off Protection
- Multiple Connection Options to Fit Your Specific Needs
- Lead Free Construction Certified: 0.25% Lead max
- **PEX F1960* Tailpieces Available NEW!**
- Proudly Made in the USA

APPROVALS

- ASSE 1017 - Temperature Actuated Mixing Valve for Hot Water Distribution Systems
- ASSE 1069 - Automatic Temperature Control Mixing Valves
- ASSE 1070/ASME A112.1070
- CSA B125.70-15
- NSF/ANSI/CAN 372 - Lead Free

PERFORMANCE RATING

- Maximum Supply Pressure: 150 psig (1034 kPa)
- Maximum Working Temperature: 210°F (99°C)
- Cold Water Inlet Temperature Range: 39° - 80°F
- Hot Water Inlet Temperature Range: 120° - 180°F (49° - 82°C)
- Mixed Water Temperature Range: 80° - 120°F (27° - 49°C)
- Mixed Water Temperature Tolerance: ± 3°F (1.7°C)
- **Minimum Flow Rate: 0.5 gpm (1.9 lpm) NEW!**
- Maximum Pressure Differential Between H/C: 25%
- Minimum Inlet/Outlet Temperature Differential: 10°F

STANDARD MATERIAL LIST

BODY	C89836 Lead Free Bronze
SHUTTLE	Noryl® Modified PPO (Polyphenylene Oxide)
SENSOR	Copper/Wax Filled
O-RING	Chloramine Resistant EPDM
SPRING	ASTM A313 Stainless Steel
CAP	ABS (Acrylonitrile Butadiene Styrene)

SIZE (IN.)	CONNECTION	SERIES NO.
1/2"	Solder inlets x Solder outlet	34BLF313S
	FNPT inlets x FNPT outlet	34BLF313T
	CPVC inlets x CPVC outlet	34BLF313C
	PEX F1960* inlets x PEX F1960* outlet	34BLF313X2
	PEX F1807** inlets x PEX F1807** outlet	34BLF313X
	PRESS inlets x PRESS outlet	34BLF313PR
	PUSH inlets x PUSH outlet	34BLF313P

SIZE (IN.)	CONNECTION	SERIES NO.
3/4"	Solder inlets x Solder outlet	34BLF314S
	FNPT inlets x FNPT outlet	34BLF314T
	CPVC inlets x CPVC outlet	34BLF314C
	PEX F1960* inlets x PEX F1960* outlet	34BLF314X2
	PEX F1807** inlets x PEX F1807** outlet	34BLF314X
	PRESS inlets x PRESS outlet	34BLF314PR
	PUSH inlets x PUSH outlet	34BLF314P

SIZE (IN.)	CONNECTION	SERIES NO.
1"	Solder inlets x Solder outlet	34BLF315S
	FNPT inlets x FNPT outlet	34BLF315T
	PEX F1960* inlets x PEX F1960* outlets	34BLF315X2
	PEX F1807** inlets x PEX F1807** outlets	34BLF315X
	PRESS inlets x PRESS outlet	34BLF315PR
	PUSH inlets x PUSH outlet	34BLF315P

* PEX F1960* (ASTM F1960) Cold Expansion PEX
** PEX F1807** (ASTM F1807) Crimp PEX

34BLF SERIES

POINT OF USE THERMOSTATIC MIXING VALVE

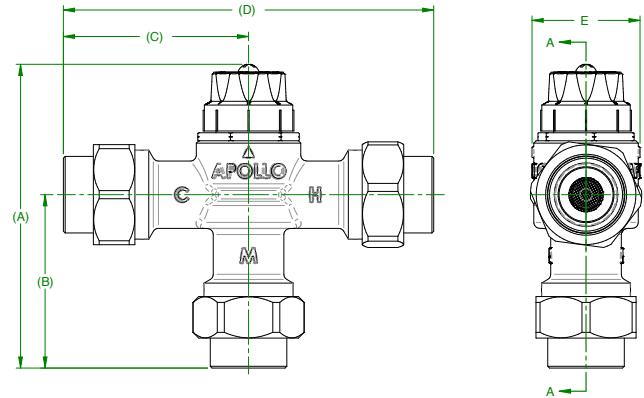
DIMENSIONS

Series No.	Connection	Size (in.)	Dimensions (in.)						Weight (lb.)
			A	B	C	D	E	F	
34BLF313T	Thread - FNPT	1/2	5.04	2.85	3.05	6.09	1.87	0.95	2.70
34BLF313S	Solder		5.12	2.93	3.13	6.25	1.87	0.93	2.54
34BLF313C	CPVC		4.89	2.70	2.90	5.79	1.87	0.70	2.42
34BLF313X2	PEX F1960*		5.14	4.24	4.44	8.87	1.87	1.20	2.60
34BLF313X	PEX F1807**		5.14	2.95	3.15	6.29	1.87	1.02	2.60
34BLF313PR	Press		5.19	2.99	3.19	6.37	1.87	0.99	2.65
34BLF313P	Push		6.43	4.24	4.44	8.87	1.87	1.23	3.45
34BLF314T	Thread - FNPT	3/4	5.12	2.93	3.13	6.25	1.87	0.93	2.80
34BLF314S	Solder		5.12	2.93	3.13	6.25	1.87	0.93	2.60
34BLF314C	CPVC		5.18	2.99	3.18	6.37	1.87	0.92	2.40
34BLF314X2	PEX F1960*		6.43	4.24	4.44	6.37	1.87	1.20	2.60
34BLF314X	PEX F1807**		5.14	2.95	3.15	6.29	1.87	1.25	2.60
34BLF314PR	Press		5.33	3.13	3.33	6.65	1.87	1.14	2.70
34BLF314P	Push		5.95	3.76	4.44	8.87	1.87	1.78	3.20
34BLF315T	Thread - FNPT	1	5.25	3.02	3.22	6.43	2.12	1.06	3.58
34BLF315S	Solder		5.25	3.02	3.22	6.43	2.12	1.06	3.34
34BLF315C	CPVC		5.38	3.15	3.35	6.69	2.12	1.16	3.31
34BLF315X2	PEX F1960*		5.75	3.55	3.75	7.48	2.12	1.17	3.70
34BLF315X	PEX F1807**		5.36	3.13	3.33	6.65	2.12	1.55	3.39
34BLF315PR	Press		5.37	3.14	3.37	6.74	2.12	1.18	3.31
34BLF315P	Push		6.05	3.85	4.05	8.09	2.12	1.96	4.50

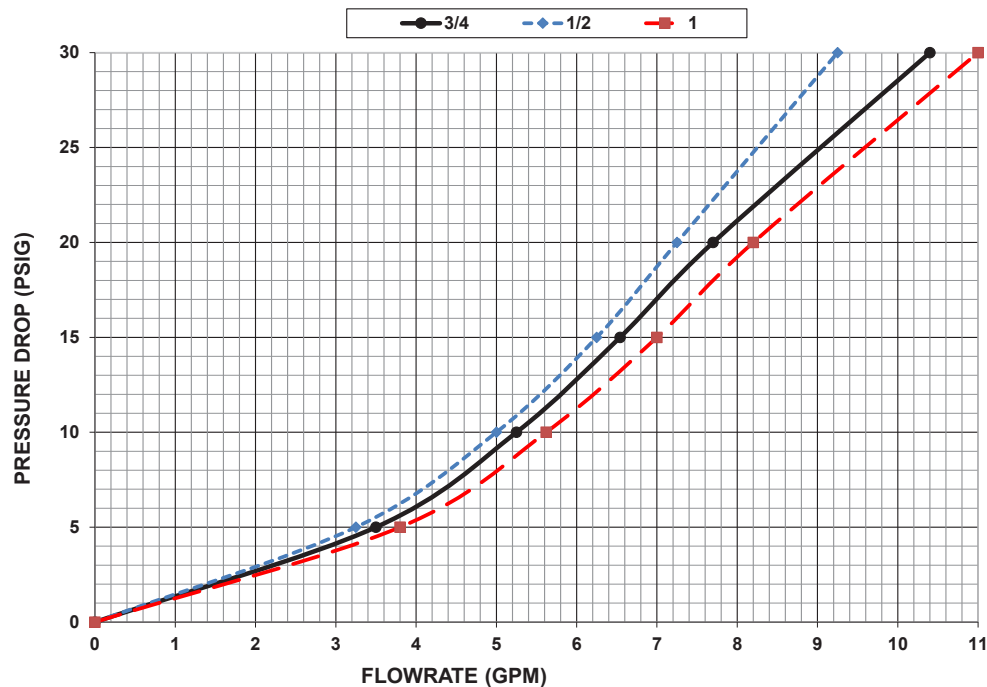
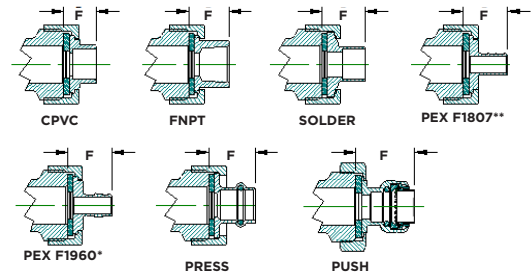
* PEX F1960* (ASTM F1960) Cold Expansion PEX

** PEX F1807** (ASTM F1807) Crimp PEX

34B-200/34BLF-200 available until depleted



TAILPIECES



34C/34CLF SERIES

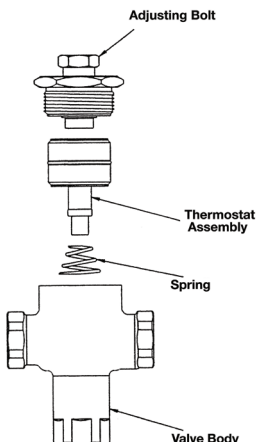
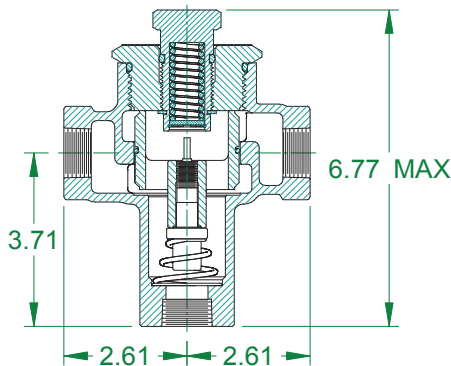
HIGH CAPACITY THERMOSTATIC MIXING VALVE



3/4" - 1"

STANDARD MATERIAL LIST

BODY	C89836 Lead Free Bronze
SHUTTLE	Glass Filled Noryl®
SENSOR	Copper/Wax Filled
STEM	ASTM B16 C3600 Brass
SPRING	Stainless Steel
RETAINER	ASTM B16 C3600 Brass



Apollo 34C-LF Series ASSE 1017 listed, High-Capacity Mixing Valves are thermostatically controlled regulating valves designed for use in large commercial and institutional "point of source" and hydronic hot water systems or applications. Simple adjustment of water temperature from 90°-140°F or 130°-180°F.

SPECIAL FEATURES

Apollo 34CLF mixing valves feature a two-piece shuttle with integral over-travel spring so they're smaller and easier to install than other high-capacity valves. Plus, their patented snap-fit element retainer and shuttle with special finger-grip pads assure easy removal and servicing without the need for special tools.

FEATURES

- Standard Temperature Range 90°-140°F (-01 suffix)
- High Temperature Range 130°-180°F (use suffix "H1") for Hydronic/Radiant Heating Systems
- Highest Flow Rates in its Class, Up to 165 gpm
- Threaded Connections
- All-Bronze and Stainless Steel Construction
- Patented Design for Easy In-Line Maintenance
- Supply Pressures to 150 psig
- U.S. Patent #6,328,219
- Lead Free Construction Certified: 0.25% Lead Max
- Proudly Made in the USA

OPTIONS

- (-01) Standard Temp 90° - 140°F
- (-H1) Hydronic High Temps/Non-ASSE 130° - 180°F
- Bronze Wye Strainer - See 59LF Series
- 34C Standard Bronze Construction for Radiant Applications

APPROVALS

- ASSE 1017 - Temperature Actuated Mixing Valve for Hot Water Distribution Systems
- CSA B125.3 - Plumbing Supply Fittings
- NSF/ANSI/CAN 372 - Lead Free

SIZE (IN.)	CONNECTION	PART NUMBER	
		STANDARD TEMP (90° - 140°F)	HIGH TEMP (130° - 180°F)*
3/4"	FNPT Inlets x FNPT Outlet	34C10401	34C104H1
		34CLF10401	34CLF104H1
1"		34C10501	34C105H1
		34CLF10501	34CLF105H1

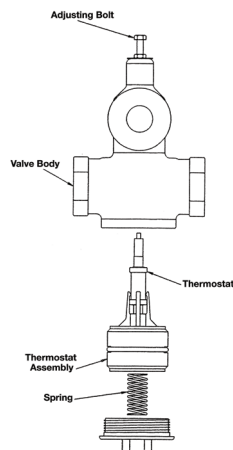
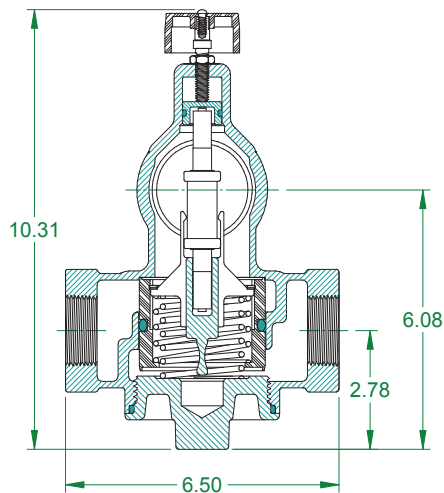
*High temperature models are not ASSE certified.

34C/34CLF SERIES

HIGH CAPACITY THERMOSTATIC MIXING VALVE



1-1/4" - 2"



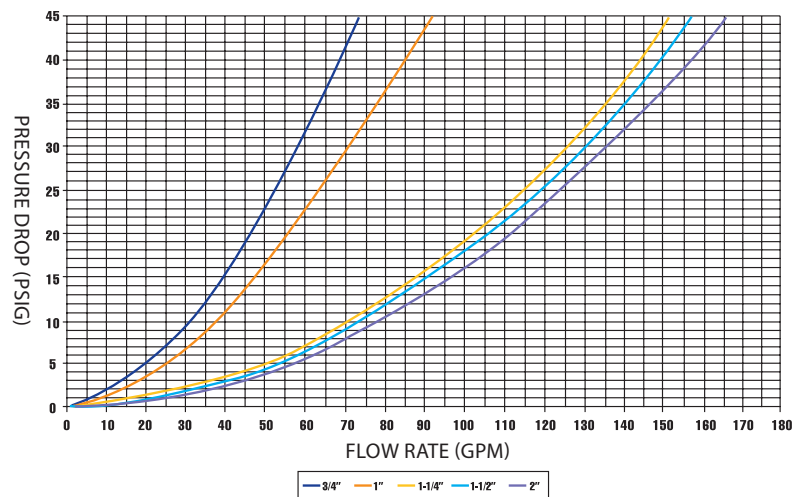
PERFORMANCE RATING

- Minimum Flow Rate: 1.0 gpm*
- Maximum Pressure: 150 psig
- Minimum Temperature: 200°F
- Cold Water Inlet Temperature Range: 39° - 80°F
- Hot Water Inlet Temperature Range: 120° - 200°F
- Mixed Water Temperature Range: 90° - 140°F
- Maximum Pressure Differential Between Hot & Cold: 25%

*when installed at/near hot water source w/ recirculated tempered water with a continuously operating pump

SIZE (IN.)	CONNECTION	PART NUMBER	
		STANDARD TEMP (90° - 140°F)	HIGH TEMP (130° - 180°F)*
1-1/4"	FNPT Inlets x FNPT Outlet	34C10601	34C106H1
		34CLF10601	34CLF106H1
1-1/2"		34C10701	34C107H1
		34CLF10701	34CLF107H1
2"		34C10801	34C108H1
		34CLF10801	34CLF108H1

*High temperature models are not ASSE certified.



34DLF SERIES

SINGLE FIXTURE THERMOSTATIC MIXING VALVE



The Apollo 34DLF-400 Series Mini Thermostatic Mixing Valve is designed for the harmonized standard of ASSE1070-2015/ASME112.1070-2015/CSA B125.70-2015 "Point of Use" single fixture temperature control applications, using proven ASTM grade lead free materials. These valves will provide control to a desired temperature within $\pm 3^{\circ}\text{F}$.

FEATURES

- New Updated Design
- **Dezincification Resistant Forged Lead Free* Brass Body**
- Locking Control Knob
- 120°F Temperature Limit Stop
- **Integral Inlet Check Valves/Strainers**
- 3/8" Compression Tube/Braided Hose Connection
- Cross-Flow Protection
- Cold Water Supply Failure Protection
- **Integral Mounting Pad**
- Single Outlet design for Sensor Faucets
- Bypass Fitting Option for Dual Control Faucets
- Satin Chrome Plating Option
- Proudly Made in the USA

APPROVALS

- ASSE 1070/ASME A112.1070
- CSA B125.70-15
- NSF/ANSI/CAN 61 - Water Quality
- NSF/ANSI/CAN 372 - Lead Free

STANDARD MATERIALS LIST

BODY	LF DZR Brass
SHUTTLE	Modified PPO Noryl®
O-RING	Chloramine Resistant EPDM
THERMOSTAT	Copper/Wax Filled
SPRING	ASTM A313 Stainless Steel

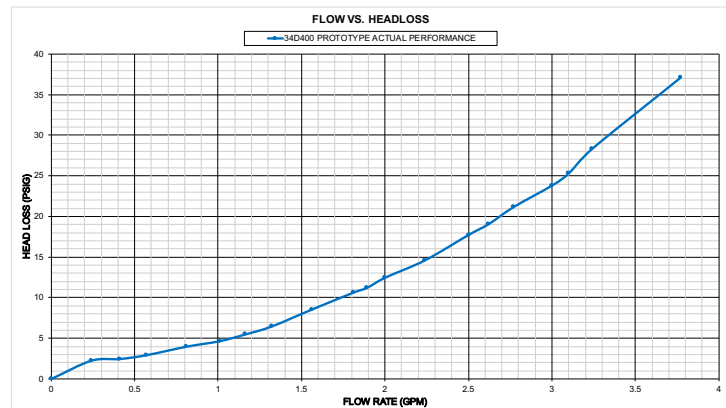
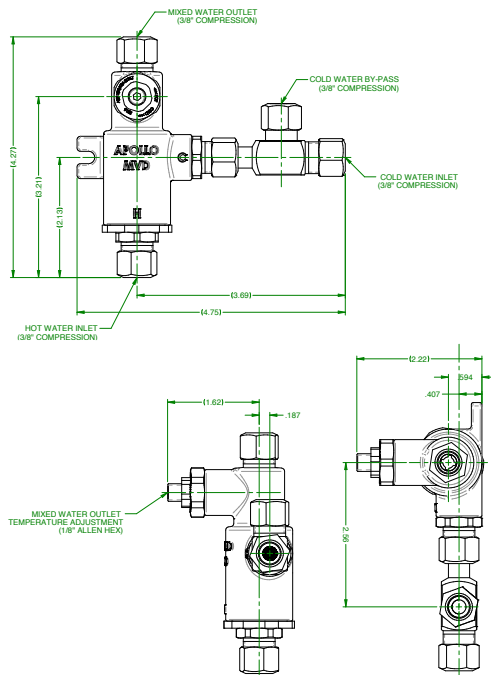
DIMENSIONS

PART NUMBER	DESCRIPTION	WEIGHT (LB.)
34DLF-402-01	3/8" Single Out Bronze	0.82
34DLF-402-17	3/8" Single Out Chrome	0.82
34DLF-402-B1	3/8" Double Out Bronze	1.0
34DLF-402-B17	3/8" Double Out Chrome	1.0

*34DLF-300 available until depleted

PERFORMANCE RATING

- **Minimum Supply Pressure:** 20psi (138 kPa)
- **Minimum HW Inlet/Outlet Temp. Differential:** 10°F
- **Maximum HW/CW Pressure Differential:** 20%
- **Hot Inlet Temperature:** 120°-180°F (49°-82°C)
- **Cold Inlet Temperature:** 38°-80°F (3°-27°C)
- **Outlet Temperature Control:** 80°-120°F (27°-49°C)
- **Maximum Pressure:** 125psi (862 kPa)
- **Flow Rates:** 0.25 – 3.3 GPM



34-200 SERIES HYDRONIC MIXING VALVE



The Apollo 34-200 Series Thermostatic Mixing Valve provides non-ASSE extension of water heater capacity and hot water temperature control in hydronic heating systems. Available in low or high temperature options for floor or baseboard applications.

FEATURES

- Stainless Steel Spring
- Corrosion Resistant Bronze Body
- Thermoplastic Shuttle Assembly
- Solder Connections are Standard
- In-Line Repairable
- Fingertip Temperature Control
- Proudly Made in the USA

*Not intended for potable water

DIMENSIONS

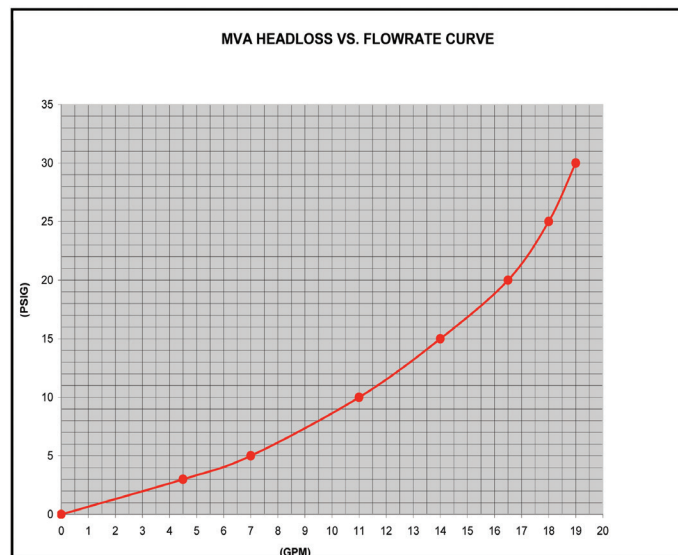
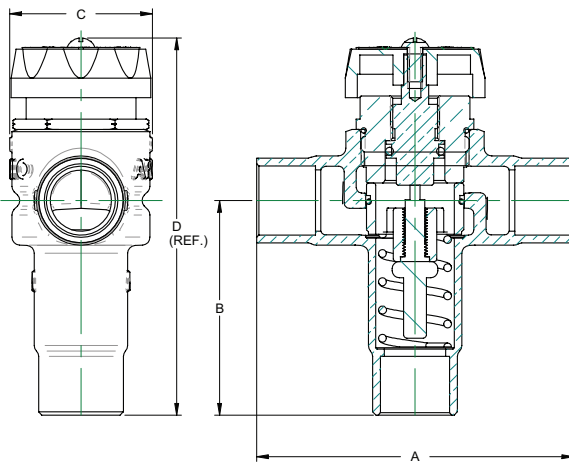
PART NUMBER		CONNECTION	SIZE (IN.)	DIMENSIONS (IN.)		WEIGHT (LB.)
LOW TEMP (85° - 120° F)	HIGH TEMP (120° - 180° F)			HEIGHT	WIDTH	
34203L1	3420301	Solder	1/2	4.45	3.75	1.4
34204L1	3420401	Solder	3/4	4.47	4.00	1.46

STANDARD MATERIAL LIST

BODY	C83600 Bronze
SHUTTLE	Scale Resistant Noryl® Polymer
SENSOR	Copper/Wax Filled
O-RING	Chloramine Resistant EPDM
SPRING	ASTM A313 Stainless Steel
CAP	ABS Thermoplastic

PERFORMANCE RATING

- Maximum Supply Pressure: 150 psi (1034 kpa)
- Minimum Inlet/Outlet Temperature Differential: 15°F
- Hot Inlet Temperature Range: 120° - 210°F (49° - 99°C)
- Cold Inlet temperature Range: 39° - 80°F (4° - 27°C)
- Outlet Temperature Control: 80° - 120°F (27° - 49°C)
- Outlet Temperature Control (Hydronic): 120° - 180°F
- Low Temperature (L1) Mix Range: 85° - 120°F (30° - 49°C)
- High Temperature (01) Mix Range: 120° - 180°F (49° - 82°C)
- Mixed Water Temperature Tolerance: +/- 7°F (1.7°C)



34HL SERIES US PATENT #6,929,188 B2 HIGH-LOW MIXING VALVE



The 34HL Mixing Valve uses proven Apollo thermostatic control to produce a consistent mix of water from low through high flow range. This single assembly controls mixed water temperatures to multiple-outlet shower and sink installations. It's the ideal choice in new construction or retrofits in nursing homes, prisons, hospitals, schools, gymnasiums, airports and other facilities where constant safe water temperature needs to be maintained at several outlets without the use of independent ASSE 1016 shower valves.

Standard bronze construction. Not intended for potable water applications.

FEATURES

- Capable of maintaining safe, consistent temperature control of water at low and high flows to within $\pm 3.6^\circ\text{F}$.
- Provides consistent temperature control at flow rates as high as 60 GPM and as low as 1.5 GPM, including mid-range flow between high and low.
- Does not require recirculation pumps like other systems for low flow control.
- Integral strainers and checks are provided at the hot and cold supply inlets for greater reliability and performance.
- Proudly Made in the USA

OPERATION

- Patented design with a variable fluid flow assembly and dual thermal actuated controls for either low or high flow conditions.
- The passages are calibrated to control water temperature during all flow conditions without a "dead zone" between low and high flow.
- Provides fluid shutoff as required by ASSE 1069 in the case that either the hot or cold supply lines fail (or are shut off for any reason to prevent scalding).
- The valve can be tamper-resistant to limit the water temperature from exceeding safe conditions as required by ASSE 1069.
- The valve also meets the requirements of ASSE 1017 for Point of Source Applications.

STANDARD APPROVALS

ASSE 1069 - Automatic Temperature Control Mixing Valves

- This device will control outlet water temperature to individual or multiple fixtures within 3.6°F to reduce the risk of scalding or thermal shock. This device is intended to be installed where the bather has no access to the temperature adjustment, and where no further mixing occurs downstream of the device. The Apollo 34HL ATC will meet the performance requirements of ASSE 1069 at flow as low as 1.5 GPM up through maximum flow rate.

ASSE 1017 - Temperature Actuated Mixing Valves for Hot Water Distribution Systems

- This device will control outlet set water temperature to hot water distribution systems near the hot water source within 3°F below 2 GPM and within 5°F above 5 GPM.

OPTIONS

- 34HL10517 Nickel Plated Automatic Temperature Controller
- 34HLBOX02 Cabinet, Flush Mount, CS, Powder Coat
- 34HLBOX03 Cabinet, Wall Mount, SS
- 34HLBOX04 Cabinet, Wall Mount, CS, Powder Coat

SPECIFICATIONS

MAXIMUM STATIC PRESSURE	150 psig (1034 kpa)
MAXIMUM WATER TEMPERATURE	200° F (93° C)
MINIMUM FLOW ASSE 1069 & 1017	1.5 gpm (5.7 lpm)
TEMPERATURE ADJUSTMENT RANGE	90° - 140° F
MAXIMUM INLET PRESSURE DIFFERENTIAL	30 psi (207kpa)
INLET CONNECTION	1" NPT
OUTLET CONNECTION	1-1/4" NPT
TEMPERATURE GAUGE (1)	0-200°F
PRESSURE GAUGE (3)	0-160 psi
SHIPPING WEIGHT	36 lb

This device will service end use fixture fittings, including but not limited to, gang showers and sitz baths, by supplying tempered water at a preset temperature through a single supply pipe and will meet ASSE standard 1069-2005. ASSE 1069 devices are designed to reduce the risk of scalding and thermal shock during changes in hot or cold water supply pressure or temperature, or loss of cold water supply.

34HL SERIES

HIGH-LOW MIXING VALVE

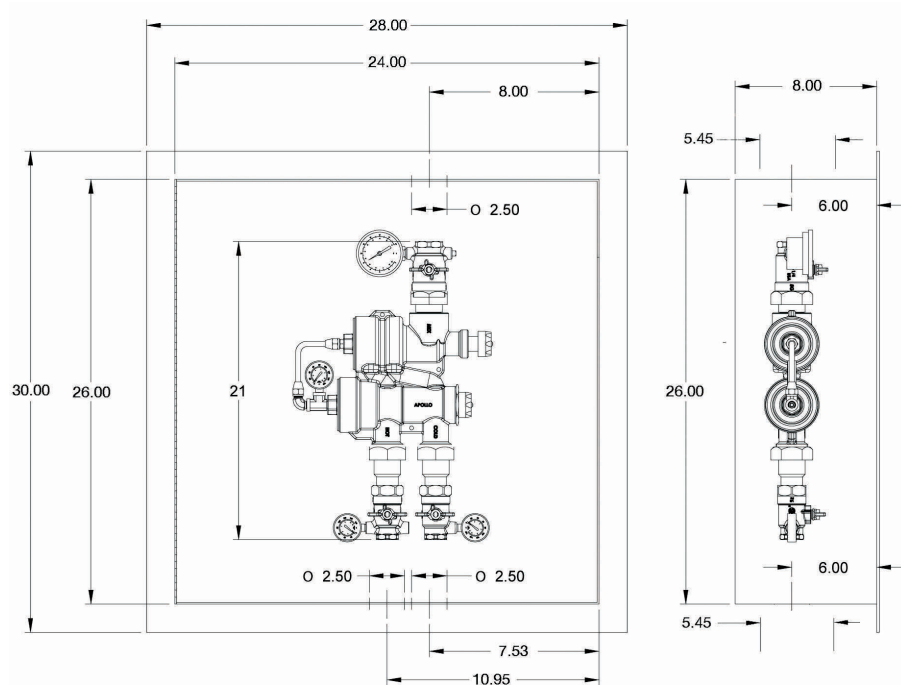


Figure 1: Typical Valve Dimensions with Stainless Steel Recessed Cabinet Option

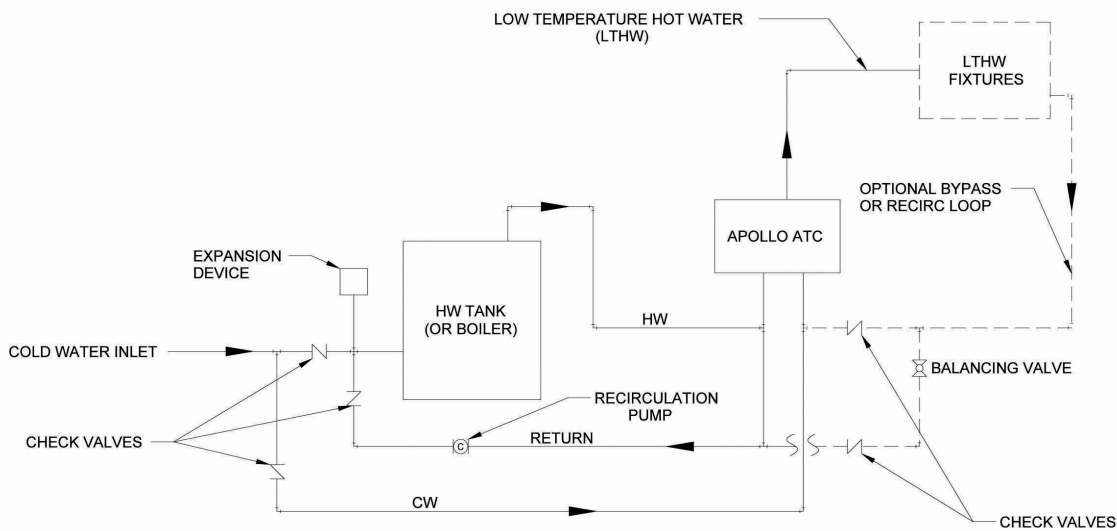


Figure 2: Typical Installation with Optional Recirculation loop

PART NUMBER	MIN. FLOW TO ASSE 1069	PRESSURE DROP ACROSS VALVE			
		10 PSI (69 KPA)	20 PSI (138 KPA)	30 PSI (207 KPA)	45 PSI (310 KPA)
34HL10501	1.5 gpm	22 gpm	42 gpm	52 gpm	60 gpm
	6 lpm	83 lpm	159 lpm	197 lpm	227 lpm

34E/34ELF SERIES

EMERGENCY EYE WASH MIXING VALVE



Apollo 34E Series Emergency Mixing Valves are designed to control the cold and hot water temperature to deliver tepid water at a predetermined temperature to emergency eyewash/facewash fixtures. The device provides a precise temperature and flow control in the event of cold water, hot water and thermostatic element failures.

FEATURES

- Hot And Cold Water Supply Failure Protection Patented Design (US Patent 6,926,20 B2)
- Tepid Water Temperature Limit Control and Adjustment
- Tepid Water Temperature Adjustment Handle with Locking Mechanism for Tamper-Resistant Protection and Inadvertent Adjustment
- Integral Inlet Check Valves and Strainers to Provide Protection Against Cross-Flow and Foreign Particles
- Superior Thermostatic Element Technology for Optimum Reliability, Dependability and Accuracy
- Thermostatic Element Failure and Over-Travel Protection
- High Efficiency and Positive Shut-Off Check Valves
- In-Line Accessibility and Serviceability of Failure Protection Module and Mixing Valve Internal Components
- Meets the Requirements of the EPA Safe Drinking Water Act
- Corrosion Resistant Components
- Single Cartridge Design of Failure Protection Module for Easy Service and Maintenance
- Integral Hot Water Bypass
- Positive Shutoff of Hot Supply When Cold Supply is Lost
- Lead Free Construction Certified: 0.25% Lead Max - Specify 34ELF
- Proudly Made in the USA

APPROVALS

- ASSE 1071 - Temperature Actuated Mixing Valves for Plumbed Emergency Equipment
- ANSI/ISEA Z358.1 Emergency Eyewash & Shower Equipment
- NSF/ANSI/CAN 61 - Water Quality (34ELF)
- NSF/ANSI/CAN 372 - Lead Free (34ELF)

PERFORMANCE RATING

- Maximum Working Pressure: 150 psig (1034 kPa)
- Hot Water inlet Temperature Range: 120° - 180°F (49° - 82°C)
- Cold Water inlet Temperature Range: 40° - 70°F (4.4° - 21°C)
- Tepid Water Temperature Adjustment Range: 65° - 95°F (18.3° - 35°C)
- Mixed Water Temperature Tolerance: ± 5°F (2.8°C)
- Flow Rate @ 30 psig (206.9 kPa) Differential: 15 gpm (56.8 lpm)
- Cold Bypass @ 30 psi (207 kPa) Differential: 13.5 gpm (51 lpm)

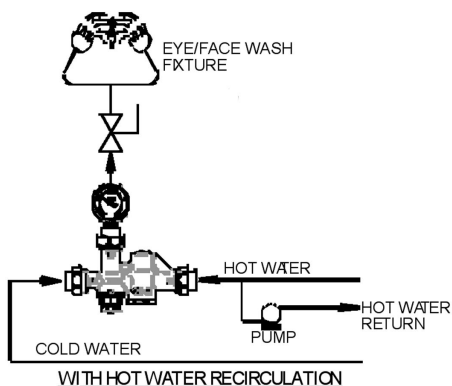
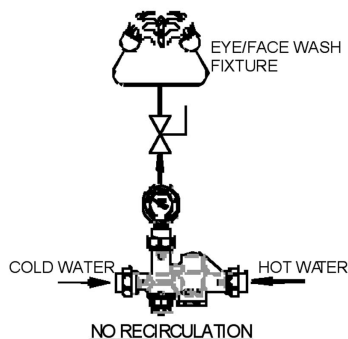
Note: The cold water supply shall be at least 20°F (-6.7°C) lower than the outlet water temperature setting

TYPICAL INSTALLATIONS

- Piping and installation of the device must be in accordance to federal, state, and local plumbing codes.
- If the valve is some distance from the hot water source, recirculation is required to keep the hot water supply temperature within the required operational limits.

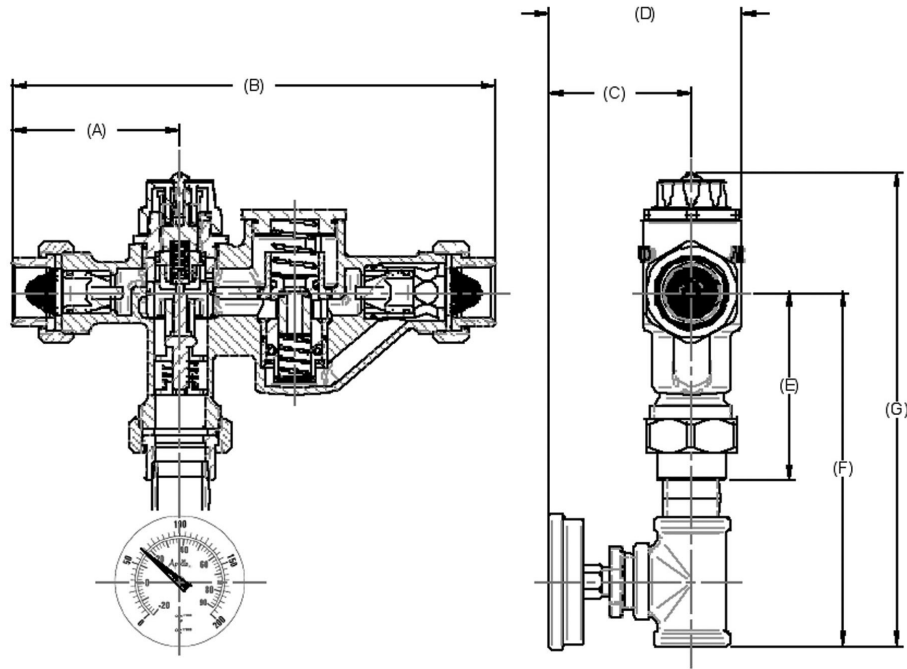
OPTIONS

- 34ELF - Lead Free

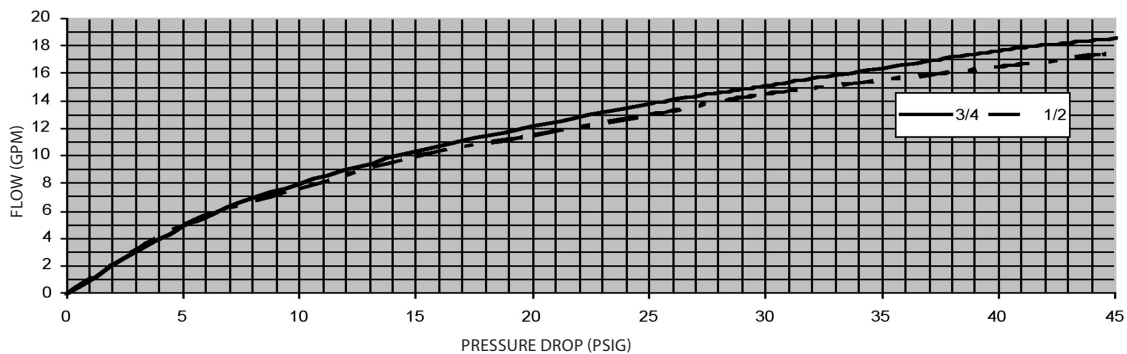


34E SERIES

EMERGENCY EYE WASH MIXING VALVE



CONNECTION SIZE		1/2" THREADED	1/2" SOLDER	3/4" THREADED	3/4" SOLDER
INCLUDES OUTLET TEMPERATURE GAUGE	PART NUMBER	34E113T	34E113S	34E114T	34E114S
LEAD FREE BASIC VALVE	PART NUMBER	34ELF103T	34ELF103S	34ELF104T	34ELF104S
DIMENSIONS (IN.) & WEIGHT (LB.)					
	A	3.09	3.22	3.09	3.10
	B	8.90	9.15	8.90	8.90
	C	2.66	2.66	2.67	2.67
	D	3.60	3.60	3.60	3.60
	E	3.45	3.45	3.45	3.45
	F	5.77	5.77	6.32	6.32
	G	7.83	7.83	8.39	8.39
	Unit Wt.	3.94	3.73	5.13	5.07



TEMPERATURE GAUGE



The Apollo Temperature Gauge accessory is used to easily measure the mixed water temperature from a mixing valve. The gauge can be used on the Apollo 34ALF & 34BLF Series Mixing Valves sizes 1/2" & 3/4", is lead free and complies with NSF/ANSI 372 requirements.

PERFORMANCE RATING

- Maximum Working Pressure: 150 psig
- Gauge Temperature Range: 32° - 210°F

PART NUMBERS

PART NUMBER	SIZE
W339800	1/2"
W339900	3/4"

STANDARD MATERIAL LIST

BODY	DZR Brass
GAUGE SHELL	Stainless Steel
NUT	DZR Brass
WASHER	EPDM