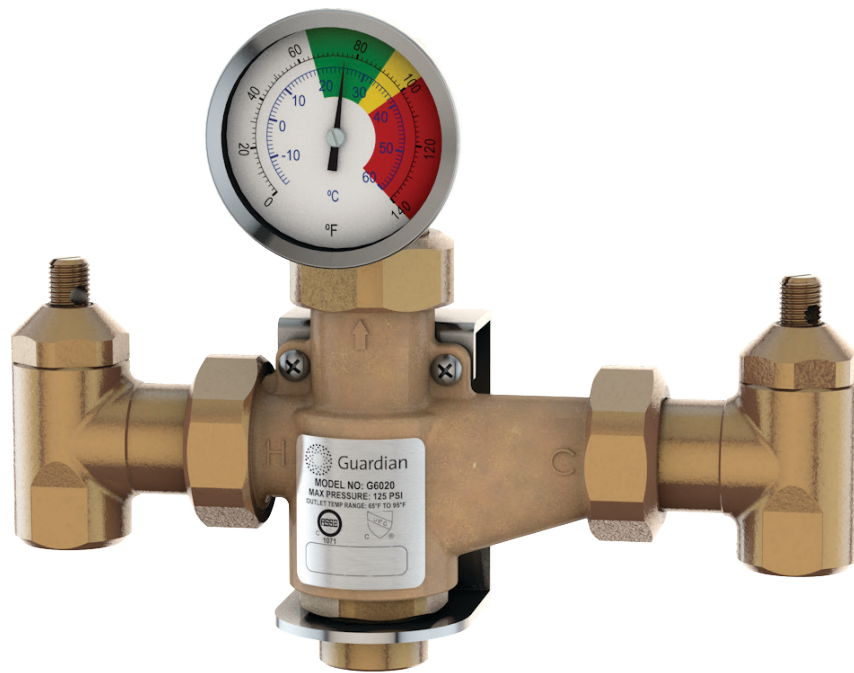## G6020 Thermostatic Mixing Valve, 13 Gallon/49 Liter Capacity

Application: Thermostatic mixing valve to blend hot and cold water to deliver tepid water. Valve has flow capacity of 13 gallons (49 liters) per minute at 30 PSI (2.1 bar) pressure drop. Valve can be used to supply emergency eyewash, eye/face wash or drench hose unit. Depending on water supply size and pressure, valve can supply multiple units.

Mounting: Valve inlets can be positioned on top, back or bottom of valve. Outlet can be on top or bottom. Valve can be configured in the field for any mounting position. Furnished with heavy duty stainless steel mounting bracket.

Temperature Control: Valve has precision thermal actuator that senses incoming water temperature and automatically blends water to preset temperature. Valve is factory set to deliver 85°F (29°C) water. Temperature of tepid water can be adjusted as required and then locked. Furnished with dial temperature gauge as standard to monitor temperature of tepid water.

Cold Water Bypass: If the supply of hot water is restricted or interrupted, an internal bypass allows the valve to deliver cold water only. In bypass mode, the valve delivers 9 GPM (34 L/min) at 30 PSI (2.1 bar) pressure drop.

Hot Water Shutoff: Valve has internal PTFE valve seat. If the supply of cold water is interrupted, the valve will close completely and *not deliver any water at all*, eliminating any possibility of scalding.

Flow Capacity: Refer to table below for flow capacity of valve at specified pressure drops.

Checkstops/Filters: Each inlet has a lockable shutoff valve for maintenance, internal check valve to prevent backflow and stainless steel basket filter to remove debris from the water flow.

Construction: Valve meets the requirements of the U.S. Safe Drinking Water Act as lead-free.

Inlet/Outlet: 1/2" NPT female inlets and outlet as standard.

Quality Assurance: Valve is ASSE certified under ANSI/ASSE 1071. Valve is fully assembled and factory tested prior to shipment.

Water Pressure/Temperature Requirements

Supply Pressure: Maximum incoming water pressure is 125 PSI (8.6 bar). Pressure of hot and cold water supplies can vary up to 25% and still deliver the flow and temperature required by ANSI/ASSE 1071.

Hot Water Supply Temperature: Incoming hot water temperature range is 120° - 180°F (49° - 82°C). Guardian recommends that the hot water temperature not exceed 140°F (60°C).

Cold Water Supply Temperature: Incoming cold water temperature range is 40° - 70°F (4° - 21°C). Cold water temperature must be at least 10°F (5.6°C) less than the temperature of the delivered tepid water.

Tepid Water Temperature: Temperature of tepid water is adjustable within a range of 65° - 95°F (18° - 35°C) and then locks in position. High temperature limit stop is set at 90°F (32°C) to prevent misadjustment.

G6020 Thermostatic Mixing Valve, 13 Gallon/49 Liter Capacity

Pressure Drop (PSI)	1	5	10	15	20	25	30	35	40
Flow Rate (GPM)	3	5	7	8	10	11	13	13	14
Bypass Flow Rate (GPM)	3	4	5	6	7	8	9	9	10

Pressure Drop (Bar)	0.1	0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8
Flow Rate (L/min)	11	19	26	30	38	42	49	49	53
Bypass Flow Rate (L/min)	11	15	19	23	26	30	34	34	38

Ordering Information

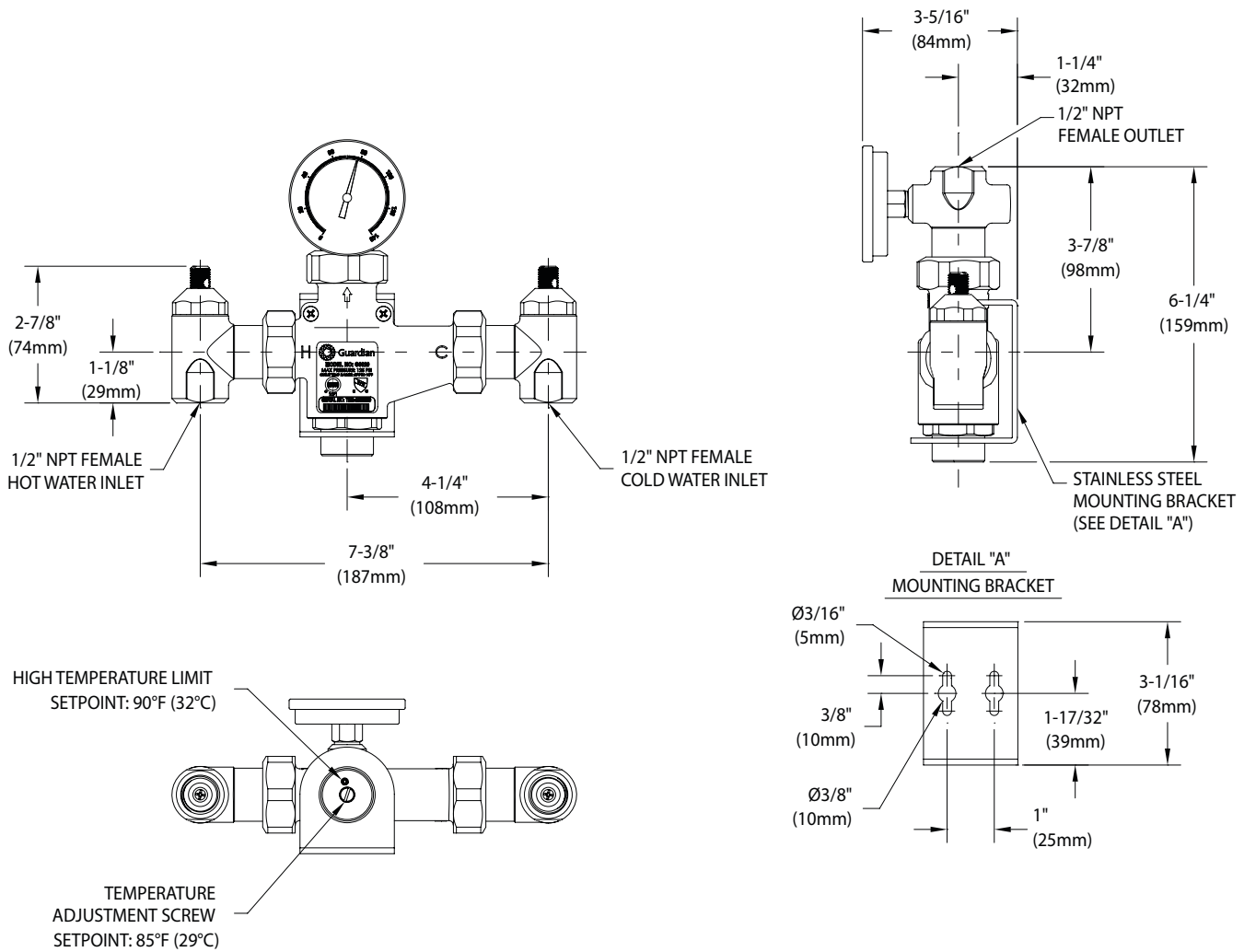### Models

☐	**G6020**	Thermostatic Mixing Valve, 13 Gallon/49 Liter Capacity
☐	**G6021-XXX**	G6020 valve installed in surface mounted powder coated steel cabinet
☐	**G6022-XXX**	G6020 valve installed in surface mounted stainless steel cabinet
☐	**G6023-XXX**	G6020 valve installed in recess mounted powder coated steel cabinet
☐	**G6024-XXX**	G6020 valve installed in recess mounted stainless steel cabinet

Available Options

☐	**Finish**	Chrome plated finish in place of raw brass (add suffix "CP")
☐	**Inlet/Outlet Threads**	G1/2 female thread on inlets and outlet (add suffix "G")
☐	**Temperature Gauges**	Temperature gauges on hot and cold water inlets (add suffix "IT")
☐	**Pressure Gauges**	Pressure gauges on hot and cold water inlets (add suffix "IP")
☐	**Temperature/Pressure Gauges**	Temperature and pressure gauges on hot and cold water inlets (add suffix "ITP")

Note: Installation of temperature and/or pressure gauges will change rough-in dimensions of valve. Contact factory for catalog drawing.

G6020 Thermostatic Mixing Valve, 13 Gallon/49 Liter Capacity

3-5/16"
(84mm)

1-1/4"
(32mm)

1/2" NPT
FEMALE OUTLET

3-7/8"
(98mm)

6-1/4"
(159mm)

STAINLESS STEEL
MOUNTING BRACKET
(SEE DETAIL "A")

2-7/8"
(74mm)

1-1/8"
(29mm)

1/2" NPT FEMALE
HOT WATER INLET

1/2" NPT FEMALE
COLD WATER INLET

4-1/4"
(108mm)

7-3/8"
(187mm)

DETAIL "A"
MOUNTING BRACKET

Ø3/16"
(5mm)

3/8"
(10mm)

Ø3/8"
(10mm)

3-1/16"
(78mm)

1-17/32"
(39mm)

1"
(25mm)

HIGH TEMPERATURE LIMIT
SETPOINT: 90°F (32°C)

TEMPERATURE
ADJUSTMENT SCREW
SETPOINT: 85°F (29°C)

Notes:
1. ANSI Z358.1-2014 states that the water temperature delivered by emergency equipment should be "tepid". Tepid is defined as 60°F - 100°F (16°C - 38°C). However, in circumstances where a chemical reaction can be accelerated by water temperature, a medical professional should be consulted to determine the optimum water temperature for the application.
2. For thermostatic mixing valves to deliver the required water temperature and volume, the water system must be sized correctly. Please refer to the flow capacity, pressure and temperature requirements herein when designing the tepid water system.
3. Valve is factory set to deliver 85°F (29°C) tepid water. Depending on pressure and temperature of the incoming water supplies, this setting may require adjustment in the field. The adjustment screw is locked in position after adjusting.
4. Thermostatic mixing valves, like all emergency equipment, must be installed in accordance with the manufacturer's instructions and maintained on a regular basis. Per ANSI Z358.1-2014, all emergency equipment should be activated weekly and inspected at least annually. Thermostatic mixing valves should be treated the same.
5. Per ANSI Z358.1-2014, plumbed emergency equipment must be connected to a potable water supply. This valve meets the requirements of the U.S. Safe Drinking Water Act as lead-free and is safe for use with potable water.
6. This valve is supplied with shutoff valves. Per ANSI Z358.1-2014, if shutoff valves are installed on the water supply to emergency equipment, the valves must be lockable to prevent unauthorized shutoff. Accordingly, each shutoff valve stem on this valve has a hole for installing a lock to secure the stem in the open position.

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