

DESCRIPTION

The Series 1430 HydroGuard HiLo thermostatically blends hot and cold water to deliver blended water at the desired temperature and reduces flow upon failure of either supply pressure. Model 1432 features a unique expandable restrictor which enables it to operate from maximum flow as low as 1.5 gpm, and still maintain precise control of outlet temperature; Model 1434 operates from maximum flow as low as 5.0 gpm. The valve is available in two finishes: rough bronze and polished chrome.

WARNING: TO ENSURE THE ACCURATE AND RELIABLE OPERATION OF THIS PRODUCT, IT IS ESSENTIAL TO:

- Properly size each valve based on the individual application.
- Properly design the recirculation system to minimize pressure and temperature variations.
- Conduct an annual maintenance program to insure proper operation of all critical components.

FAILURE TO COMPLY WITH PROPER INSTALLATION INSTRUCTIONS COULD CONTRIBUTE TO VALVE FAILURE, RESULTING IN INJURY OR DEATH.



1432 HydroGuard Valve
Patented

FUNCTION

The Series 1430 HydroGuard's advanced thermal actuator senses and adjusts the outlet water temperature to variations in temperature and/or pressure. Powers' exclusive expandable restrictor ensures precise temperature control at low flow rates. Model 1432's delivery temperature will hold to within $\pm 5^{\circ}\text{F}$ ($\pm 2.7^{\circ}\text{C}$) when tested according to ASSE 1017, while Model 1434's delivery temperature will hold within $\pm 7^{\circ}\text{F}$ ($\pm 3.8^{\circ}\text{C}$) when tested according to ASSE 1017.

The dirt and lime resistant poppet and seat design ensures minimal maintenance, while the union inlets allow a variety of piping schemes. Heavy duty combination strainer checkstops, included with each valve, prevent crossover and allow easy shutdown of the unit for removal or servicing, while self-aligning bronze trim and seats prevent binding. Finally, the valve features a tamper-resistant temperature adjustment control.

SPECIFICATIONS

Operating

| | |
|---|----------------------------|
| Maximum Pressure Differential | 100 psi (689 kPa) |
| Maximum Static Pressure. | 125 psi (861.25 kPa) |
| Maximum Hot Water Temperature | 200°F (93°C) |
| Minimum Hot Water Temperature. | 15°F (8°C) Above Set-Point |
| Minimum Flow: 1432 | 1.5 gpm * |
| 1434 | 5.0 gpm * |
| Temperature Adjustment Range* | 40°F (4°C) - 160°F (71°C) |
| Listed | CSA B125 |
| Compliance | ASSE 1017 |

Note: Low limit cannot be less than the cold water temperature. For best operation, hot water should be at least 15°F (8°C) above desired set point.
*Minimum flow at which valve will control to ASSE 1017 requirements.

SIZING

Tables A and B, Capacity Tables, present the HydroGuard discharge capacity in gpm and l/m for various pressure differentials (the difference between the lowest inlet pressure and the discharge pressure at the HydroGuard).

Figure 1 (refer to next page), Flow Rate in gpm, graphs the capacities with pressure drop across the valve shown in Table A, Capacity Table.

Table A Flow Capacity in US gpm at 50-50 Mixed Ratio

| Model | Min. Flow Rate* | Min. Flow to ASSE 1017 | Pressure Drop Across Valves in psi | | | | | | | |
|-------|-----------------|------------------------|------------------------------------|------|------|------|-------|-------|-------|-------|
| | | | 5 | 10 | 20 | 30 | 45 | 60 | 75 | 100 |
| 1432 | 0.5 gpm | 1.5 gpm | 13.5 | 18.0 | 27.0 | 32.0 | 40.0 | 47.0 | 52.0 | 60.0 |
| 1434 | 0.5 gpm | 5.0 gpm | 32.0 | 45.0 | 66.0 | 80.0 | 100.0 | 117.0 | 132.0 | 152.0 |

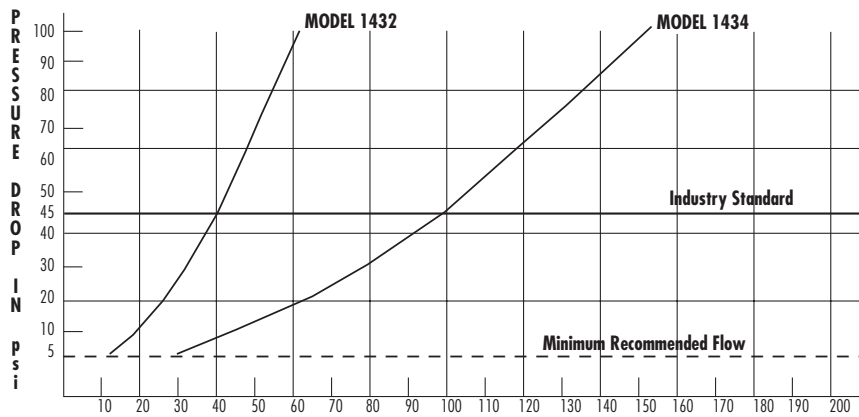
* Minimum flow when HydroGuard is installed at or near hot water source with recirculated tempered water with continuously operating recirculating pump.

Table B Flow Capacity in lpm at 50-50 Mixed Ratio

| Model | Min. Flow Rate* | Min. Flow to ASSE 1017 | Pressure Drop Across Valves in kPa | | | | | | | |
|-------|-----------------|------------------------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| | | | 34 | 69 | 138 | 207 | 310 | 414 | 517 | 690 |
| 1432 | 1.89 lpm | 5.68 lpm | 51 | 68 | 102 | 121 | 151 | 178 | 197 | 227 |
| 1434 | 1.89 lpm | 18.92 lpm | 121 | 170 | 250 | 302 | 378 | 442 | 500 | 575 |

* Minimum flow when HydroGuard is installed at or near hot water source with recirculated tempered water with continuously operating recirculating pump.

Figure 1 - Flow Rate* in GPM



* Flow rate based on 140°F (60°C) hot inlet, 60°F (16°C) cold inlet, and 100°F (38°C) delivery temperature. Valves were tested in the full open position, with strainer checkstops, and no outlet restrictions.

SERIES 1430 HYDROGUARD MODELS

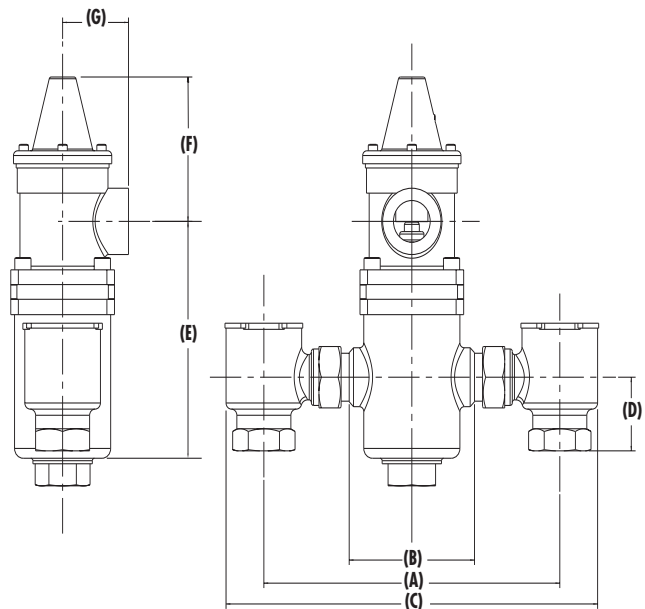
| | Inlet | Outlet | Weight | ROUGH BRONZE PART NO. | POLISHED CHROME PART NO. |
|-------------|--------|--------|-----------|--------------------------|-----------------------------|
| 1432 | 3/4" | 1" | 11.5 lbs | 1432 RB | 1432 PC |
| 1434 | 1-1/4" | 1-1/2" | 30.0 lbs. | 1434 RB | 1434 PC |

DIMENSIONS

| MODEL | NPT CONNECTION IN | NPT CONNECTION OUT | A | B | C | D | E | F | G |
|-------------|----------------------|-----------------------|---------|---------|---------|----------|---------|--------|---------|
| 1432 | 3/4" | 1" | 8-3/16" | 3-7/17" | 10-3/8" | 1-13/16" | 5-7/16" | 3-1/4" | 1-7/16" |
| | | | 208 mm | 87 mm | 264 mm | 46 mm | 142 mm | 102 mm | 49 mm |
| 1434 | 1-1/4" | 1-1/2" | 10-1/4" | 4-7/16" | 13-1/8" | 2-1/2" | 7-5/8" | 4-1/4" | 2-3/4" |
| | | | 260 mm | 113 mm | 335 mm | 64 mm | 97 mm | 54 mm | 70 mm |

APPLICATIONS

- Shower rooms and group showers.
- Domestic water for small buildings.
- Tempered water for light industrial processes.



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