# **Engineering Specification**

| Job Name     | Contractor            |
|--------------|-----------------------|
| Job Location | Approval              |
| Engineer     | Contractor's P.O. No. |
| Approval     | Representative        |

# HydroGuard<sup>®</sup> Series e420

**Combination Tempering Valves** 

### Description

Concealed thermostatic water mixing valve for use on shower and tub/shower installations. Powerful advanced thermal actuator compensates for both temperature and pressure fluctuations. A built-in adjustable metal-to-metal temperature limit stop reduces chances of accidental scalding due to over adjustment of handle. Heavy cast-brass body, integral checkstops, durable brass faceplate, lever-type handle, and corrosion-resistant material ensure years of trouble-free service.

See reverse for complete specification codes for valve and additional accessories.

# Specifications, Dimensions and Flow Rate Curve

|                                      | . ½" NPT Inlets/Outlets and ½" Sweat Inlets/Outlets<br>.5.0 gpm [19.0 L/min]* (±.25 gpm [.90 L/min]) |
|--------------------------------------|--|
| Checkstops                           |  |
| Maximum Hot Water Supply Temperature | . 190°F [88°C]   |
| Minimum Hot Water Supply Temperature | . 10°F [6°C] above set point   |
| Maximum Operating Pressure           | . 125 psig [862 kPa]   |
| Temperature Ranges:                  |  |
| ASSE 1016 Type T                     | .65-115°F [18-46°C]  |
| ASSE 1016 Type T/P                   | .90-110°F [32-43°C]  |
| Temperature Limit Stop               | . Adjustable* (factory set at 110°F [43°C])  |
| Maximum Static Pressure              | . 125 psig [862 kPa]   |
| Minimum Flow                         | .1 gpm [3.79 L/min]  |
| Certification                        | .CSA B125  |
| Listed                               | ASSE 1016 Type T/P   |
| Shipping Weight                      | .5 lbs. [2.3 kg]   |





All Hydroguard Series e420 thermostatic mixing valves meet above performance specifications based on typical operating conditions as stated in ASSE 1016 (45 psi pressure differential, hot water supply between  $140^{\circ} - 180^{\circ}$ F [60 –  $82^{\circ}$ C], cold water supply less than  $70^{\circ}$ F [21 $^{\circ}$ C]). If your operating conditions vary from those stated in the standard, performance may vary as well. Consult your local sales representative or a Powers factory

engineer to discuss your specific application. All Powers thermostatic mixing valves perform to the requirements of standards ASSE 1016 and CSA B125. \* At 45 psi differential [310 kPa], with hot water supply between 140° – 180°F [60 – 82°C].

### e420 Rough-in Dimensions



Dimensions are in inches and millimeters

Powers product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Powers Technical Service. Powers reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Powers products previously or subsequently sold.



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| mensions e420  |   |
|--|---|
| Connections<br>½" NPT Inlets/OutletsT<br>½" Sweat Inlets/OutletsS  |   |
| Trim Plate<br>Color Coded1<br>Etched2  |   |
| Handle<br>Dome Lever (ADA Compliant) <b>2</b>  |   |
| Showerheads   Economizer, Chrome-Plated ABSJ   Standard, Chrome-Plated BrassK   Deluxe, Chrome-Plated BrassM   Low Flow (1.5 gpm), Chrome PlatedG   Low Flow (1.5 gpm), Chrome PlatedG   |   |
| Arm and Flange KitsStandard Arm and Flange1Deluxe Arm and Flange2Standard Arm/Flange & High Temp Shut-off4Deluxe Arm/Flange & High Temp Shut-off5  |   |
| Tub SpoutsDiverter, Chrome-Plated Brass, ¾" IPSQNon-Diverter, Chrome-Plated, ½" IPSRDiverter, Chrome-Plated, ½" IPSSDiverter, Chrome-Plated Brass, ½" IPSTDiverter, Chrome-Plated, ½" SlipfitU   |   |
| Hand Shower Systems24" Chrome ADA Wall Grab Bar System136" Chrome ADA Wall Grab Bar System2Deluxe, Metal Hose, 30" Slide Bar.3Professional, Vinyl Hose, 30" Slide Bar.4Standard, Metal Hose, Two Wall Hooks5Deluxe, Metal Hose, 24" Slide Bar.6Professional, Vinyl Hose, 24" Slide Bar.7Standard Plus, Metal Hose, 24" Slide Bar.8European, Metal Hose, 23" Slide Bar.9Low Flow (1.5gpm), Metal Hose, 30" Glide RailLProfessional, Metal Hose, 30" Glide RailN |   |
| Diverters<br>Concealed Diverting Valve, Metal Handle, ½" SweatY<br>Exposed Diverter, Shower Arm-Type, Chrome-PlatedZ<br>Diverter, Concealed, Deluxe, ABS Handle, ½" SweatB<br>Diverter, Concealed, Deluxe, Metal Handle, ½" SweatB<br>Vacuum Breakers  |   |
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