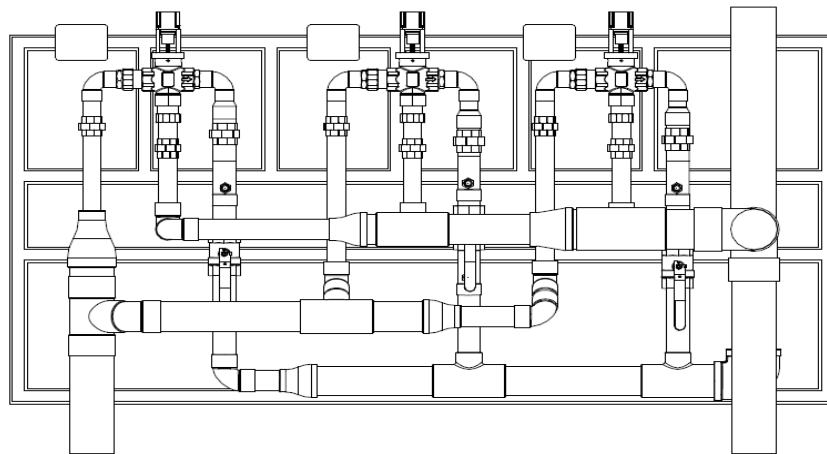


## Proton Plus Triple Parallel Digital Mixing Valve

## 1. Proton Plus Triple Parallel Digital Mixing Valve

- a. Proton Plus Triple Parallel Digital Mixing Valve models shall:
  - 1. Have inlet and outlet NPT female connections
  - 2. Be constructed of 100% stainless steel
  - 3. 2-line, 16-character LED display
  - 4. Integral RTD Sensor
  - 5. Maintain temperature with 0.0 GPM flow from the domestic hot water loop
  - 6. Have maximum Operating Pressure no greater than 200 PSI
  - 7. Be certified to ASSE standard 1017 and CSA B125.3-18 and so certified and identified
  - 8. Be cULus listed and identified
  - 9. Be NSF 61 Compliant
- b. Proton Plus Triple Parallel Digital Mixing Valve models shall have all the following operational capabilities:
  - 1. Daily shuttle sweep designed to prevent scale buildup on internal mechanical components
  - 2. +/- 2°F water temperature control at times of use and no demand
  - 3. Self-balancing and does not need to have recirculation balanced or adjusted
  - 4. Automatic shutoff of hot water upon cold water inlet supply failure
  - 5. Automatic shutoff of cold water upon hot water inlet supply failure
  - 6. Maintain last control position in the event of power failure or be equipped with UPS standby power for approximately 2 hour run time
  - 7. Programmable set point range of 95-180°F (18-82°C)
  - 8. Simple/intuitive user commissioning and setup
  - 9. ETL Listed control box and 120v plug in power supply with 6' cord
- c. Control Box shall have the following options:
  - 1. Disinfection Option standard
  - 2. BMS connectivity utilizing BACnet MS/TP connection or Modbus RTU standard
  - 3. Wi-Fi enabled standard
  - 4. Optional 3T (3 additional temperature probes for hot and cold inlet in addition to return)
  - 5. Optional REL (Connectivity for 5 relay states)
  - 6. Optional Back up Powers Supply for uninterruptable power supply for up to two hours run time in the event of primary power loss



|                                                                  |               | Pressure Drop (PSI) |        |        |        |        |        |        |        |        |        |
|------------------------------------------------------------------|---------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Model #                                                          | Minimum Flow* | 5 PSI               | 10 PSI | 15 PSI | 20 PSI | 25 PSI | 30 PSI | 35 PSI | 40 PSI | 45 PSI | 50 PSI |
| PPV150-LF-3PS                                                    | 30 GPM        | 312                 | 450    | 552    | 624    | 708    | 786    | 840    | 888    | 936    | 984    |
| PPV200-LF-3PS                                                    | 36 GPM        | 318                 | 444    | 546    | 615    | 690    | 732    | 768    | 798    | 822    | 840    |
| Flow in Gallons per Minute (GPM)                                 |               |                     |        |        |        |        |        |        |        |        |        |
| Valves should be sized based on a 5 to 10 PSI drop               |               |                     |        |        |        |        |        |        |        |        |        |
| Valve Size will most likely be less than inlet/outlet pipe sizes |               |                     |        |        |        |        |        |        |        |        |        |