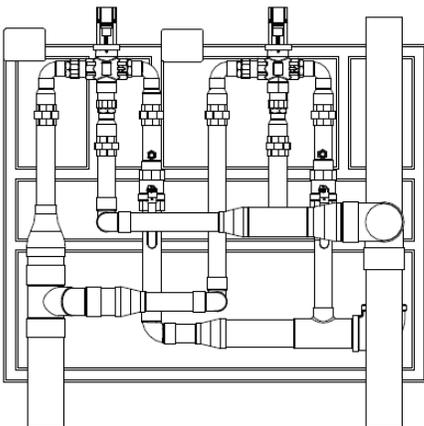


## Proton Plus Double Parallel Digital Mixing Valve

### 1. Proton Plus Double 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 Double 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
PPV075-LF-2PS	6 GPM	32	48	56	66	74	80	86	92	98	104
PPV100-LF-2PS	10 GPM	70	112	132	154	172	186	204	214	224	236
PPV125-LF-2PS	14 GPM	104	150	184	208	236	262	280	296	312	328
PPV150-LF-2PS	20 GPM	146	200	240	268	294	318	336	354	370	384
PPV200-LF-2PS	24 GPM	212	296	364	410	460	488	512	532	548	560
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											