

Proton Digital Mixing Valve

1. Proton Digital Mixing Valve

A. PNV models shall:

1. Have inlet and outlet NPT female connections
2. Have integral stop/check valves
3. Have 2-line, 16-character LED display
4. Have Integral RTD Sensor
5. Have maximum Operating Pressure no greater than 200 PSI
6. Maintain temperature with .25 GPM flow from the domestic hot water loop
7. Be certified to ASSE standard 1017 and CSA B125.3-18 and so certified and identified
8. Be cULus listed and identified

B. PNV 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 65-180°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. Maximum Operating Pressure shall be no greater than 125 PSI

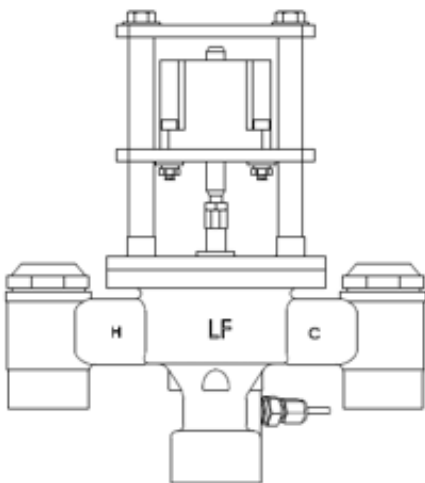
D. Disinfection Option with Proton Box 2.0

- a. Optional 3T (3 additional temperature probes for hot and cold inlet in addition to return)
- b. Optional REL (Connectivity for 5 relay states)

E. BMS connectivity available with Proton 2.5 box utilizing BACnet MS/TP connection in addition to including Disinfection

- a. Optional 3T (3 additional temperature probes for hot and cold inlet in addition to return)
- b. Optional REL (Connectivity for 5 relay states)

F. Wi-Fi Connectivity is available with Proton 3.0 box in addition to BACnet MS/TP connection, Disinfection, relay, and 3 additional temperature probes for hot and cold inlet in addition to return



		PRESSURE DROP (PSI)									
MODEL # Inlet/Outlet	Minimum Flow*	5 PSI	10 PSI	15 PSI	20 PSI	25 PSI	30 PSI	35 PSI	40 PSI	45 PSI	50 PSI
PNV100LF 3/4" x 1"	2.5 GPM	17	25	28	32	36	39	43	45	48	51
PNV125LF 1-1/4" x 1-1/4"	3 GPM	40	56	66	77	86	95	104	109	114	120
PNV150LF 1-1/4" x 1-1/2"	5 GPM	50	72	86	100	115	122	136	140	158	165
PNV200LF 2" x 2"	5 GPM	80	115	130	147	165	173	189	198	215	226
PNV300LF 3" x 3"	10 GPM	97	135	163	191	213	235	262	288	296	303
Flow in Gallons per Minute (GPM)											
Valves should be sized based on a 5 to 10 PSI pressure drop											