Automatic Air Valve

DAV-P-A

The valve is designed for an efficient release of entrapped air from the pipeline, while the network is at normal working pressure.

Due to the relatively large orifice, compare to other Automatic valves in the market, it can also release the air through initial filling of a small-diameter pipe, or admit air into it while it is drained.

Properties:

An Automatic air valve, that enables the release of dissolved air that accumulate in the pipeline. The valve will release the air at normal operation pressures of the pipeline.

The Float is made of naturally-buoyant material (specific weight lower than 1).

The float activates a sealing stripe, that closes the outlet when the water will fill the valve body.

On accumulation of air in the valve, loss of buoyancy causes the float to drop and to pull the strip, thus opening of the air outlet.

The Hydraulic sealing of the orifice will provides a drip-tight closure at a pressure of 2mwc (3psi).

Operation:

Releasing entrained air from the pipeline. Small quantities of diluted air accumulate in high peaks of the pipeline and in the peak of the valve.

The pressurized air expels the water. The descending water level moves the main float with it. At a certain position the main float pulls down the small seal, that partially opens the nozzle.

The pressurized air can escape, the water level rises and the nozzle re- closes.



Technical Specifications:

- Operating pressure 0.1 bar / 1.5 psi to 16 bar / 230 psi
- Maximal water temp. for continuous operation: 60°C / 140°F
- Maximal water temp. for intermittent operation: $80^\circ\text{C}\,/\,175^\circ\text{F}$
- 1/2", 3/4", 1" BSP or NPT threaded base as per the customer's choice
- Structure materials: Cover - GRP (UV resistant) / Polypropylene Base - GRP / Polypropylene or Brass
- Internal parts: corrosion resistant, reinforced plastic materials and synthetic rubber
- The valve allows the discharge of 40 m³/h / 24 CFM of air at pipe pressure of 6 bar / 90 psi

Principle of operation:



Pipe is full of water



Dissolved air is accumulated in the valve, released when the float drops down



Pipe is aerated



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Parts list and specifications:

Part	Description	Material		
1	Base	Glass Reinforced Nylon		
		Optional: Brass, Polypropylene		
2	Bonnet	Glass Reinforced Nylon		
		Optional: Polypropylene		
3	Float	Foamed Polypropylene		
4	Seal	EPDM		
5	0 ring	NBR		
6	Drainage Elbow	Polypropylene		



Dimensions:

Valve	12 mm / 1/2"		20 mm / 3/4"		25 mm / 1″	
Dimension	SI	US	SI	US	SI	US
H - Height	147 mm	5 ³ / ₄ "	147 mm	5 ³ / ₄ "	147 mm	5 ³ / ₄ "
W - Width	86 mm	3 ¹ / ₃ "	86 mm	3 ¹ / ₃ "	86 mm	31/3"
D - Thread	1/2" BSP	¹ / ₂ " NPT	³ / ₄ " BSP	³ / ₄ " NPT	1" BSP	1" NPT
A - Nozzle Area	12.85 mm ²	0.02 in ²	12.85 mm ²	0.02 in ²	12.85 mm ²	0.02 in ²
L - Total Width	110 mm	4 ¹ / ₃ "	110 mm	4 ¹ / ₃ "	110 mm	4 ¹ / ₃ "
E - Drainage Diameter	1/4" BSP	¹ / ₄ " BSP	¹ / ₄ " BSP	1/4" BSP	¹ / ₄ " BSP	¹ / ₄ " BSP
Weight	400 g	0.88 lbs.	400 g	0.88 lbs.	400 g	0.88 lbs.

Performance:



