

K-010 PN 16 **K-012** PN 25

K-014 PN 40 **K-016** PN 64

K-100 PN 100



Air & Vacuum Valve

Description

The K-010 / K-012 / K-016 / K-100 Air & Vacuum Valves are designed to automatically discharge or admit large volumes of air during the filling or draining of a pipeline or piping system. This valve will open to relieve negative pressures valve at pump shut-off and at water column separation.

Applications

- Municipal and industrial water conveyance systems.

K-012 - K-100

- Water conveyance systems requiring high pressure valves.

Operation

The air & vacuum valve discharges air at high flow rates during the filling of the system and admits air at high flow rates during the drainage, pump shut-off or at water column separation.

High velocity air will not blow the float shut. Water entry will cause the sealing of the valve.

At any time during system operation, should internal pressure of the system fall below atmospheric pressure, air will enter the system.

The smooth discharge of air prevents pressure surges and other destructive phenomena.

The intake of air in response to negative pressure protects the system from destructive vacuum conditions and prevents damage caused by water column separation. Air entry is essential to efficiently drain the system.

As the system starts to fill, the valve functions according to the following stages:

1. Air is discharged by the valve.
2. The liquid enters the valve, lifting the float and sealing the valve.

When internal pressure falls below atmospheric pressure (negative pressure):

1. The float will drop down, immediately opening the air & vacuum orifice.
2. Air will enter the system.

Main Features

- Working pressure range: 0.2 - 100 bar.
- Testing Pressure: 1.5 times the working pressure of the air valve.
- Maximum working temperature: 60° C.

- Maximum intermittent temperature: 90° C.
- Reliable operation reduces water hammer incidents.
- Dynamic design allows for high capacity air discharge while preventing premature closure.
- Lightweight, small dimensions, simple and reliable structure.
- Special orifice seat design: combination of bronze and E.P.D.M. rubber assures long-term maintenance-free operation.
- The discharge outlet enables attachment of a vent/drain pipe (2" - 8").

Valve Selection

- K-010 (16 bar) / K-012 (25 bar) - available in sizes 2" - 12".
- K-014 (40 bar) available in sizes 2" - 10".
- K-016 (64 bar) / K-100 (100 bar) - available in sizes 2" - 8".
- These valves are manufactured with flanged ends to meet any requested standard.
- The 2" valve is also available with a threaded BSP or NPT connection.
- Valve coating: fusion bonded epoxy coating in accordance with Standard DIN 30677-2.
- Other coatings are available upon request.
- The K-010 series air & vacuum valve is also available as a combination air valve which includes an automatic air release valve.

Note

For best suitability, it is recommended to send the fluid chemical properties along with the valve request.

Upon ordering, please specify: model, size, working pressure, thread/flange standard and type of liquid.



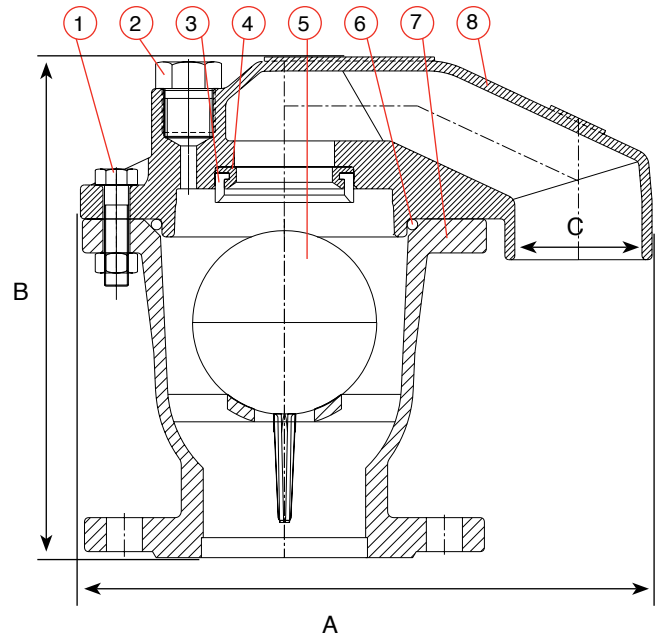
DIMENSIONS AND WEIGHTS

Nominal Size	Dimensions mm		Connection C	Weight Kg.	Orifice Area mm ²
	A	B			
2" (50mm) Threaded	149	217	1½" BSP Female	4.0	794
2" (50mm) Flanged	149	229	1½" BSP Female	6.1	794
3" (80mm) Threaded	160	266	2" BSP Female	9.6	1809
3" (80mm) Flanged	160	264	2" BSP Female	12.6	1809

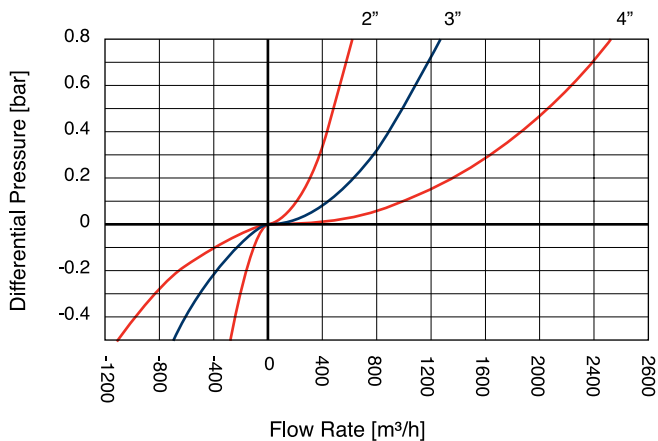
Nominal Size	Dimensions mm				Weight Kg.	Orifice Area mm ²
	A	B	internal C	external		
4" (100mm)	342	285	80	96	27	3317
6" (150mm)	400	334	90	124	43	7850
8" (200 mm)	553	530	124	140	116	17671
10" (250mm)	463	642	NA	NA	149	31415
12" (300mm)	586	789	NA	NA	163	49087

PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Bolt, Nut & Washer	Steel Zinc Cobalt Plated
2.	Plug	Brass ASTM B124
3.	Orifice Seal	E.P.D.M
4.	Orifice Seat	Bronze ASTM B-62 B271 C83600
5.	Float	Polycarbonate / Stainless Steel
6.	O-Ring	BUNA-N
7.	Body 16,25,40 bar	Ductile Iron ASTM A-536-60-40-18
	40,64,100 bar	Cast Steel ASTM A-216 WCB
8.	Cover 16,25,40 bar	Ductile Iron ASTM A-536-60-40-18
	40,64,100 bar	2",3",4" Cast Steel Din St.37 6"8" Cast Steel A148-115-95
*	Screen Cover 10"-12"	Polyethylene /Cast Iron ASTM A-48 CL35B /Ductile Iron ASTM A-536-60-40-18



AIR & VACUUM FLOW RATE



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