

Related Products: Auto Drain Valve AD402/600

Drainage is automatically discharged in a reliable manner, without requiring human operators.

Highly resistant to dust and corrosion, operates reliably, and a bowl guard is provided as standard equipment.



JIS Symbol



Model/Specifications

Model	AD402	AD600
Proof pressure	1.5 MPa	1.5 MPa
Max. operating pressure	1.0 MPa	1.0 MPa
Operating pressure range ^{Note)}	0.1 to 1.0 MPa	0.3 to 1.0 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)	-5 to 60°C (No freezing)
Port size	Rc 1/4, 3/8, 1/2	Rc 3/4, 1
Drain discharge port size	3/8	3/4, 1
Weight (g)	620	2100



Note) Use for air compressor with flow larger than 400 l/min (ANR).

Option Specifications

Metal bowl	AD402-□-2	—
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⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 14-14-6 to 8 for Precautions on every series.

Selection

⚠ Warning

- Use auto-drain under the following operating conditions, or it will lead to malfunctions.
 - Operate the compressor above 3.7 kw {400 l/min (ANR)}.
 - Use AD402 at an operating pressure above 0.1 MPa and AD600 above 0.3 MPa.

Piping

⚠ Warning

- Use auto-drain under the following operating conditions, or it will lead to malfunctions.

To connect a drain discharge pipe, use a pipe with a minimum bore of $\phi 10$, and a maximum length of 5 m. Avoid using a riser pipe.

Construction/Dimensions

AD402

⑭ Valve assembly

$\phi 82$ Rc 1/4, 3/8, 1/2

① Body

② O-ring

③ Gauze

Valve ⑨

Chamber ⑥

Float ⑤

Case ⑩

Long hole of chamber ⑫

Drain guide ⑬

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22 Rc 3/8

⑦ Lever

⑪ Spring

⑧ Piston

④ O-ring

Drain

AD600

$\phi 112$

48 Rc 3/4, 1

183

48 Rc 3/4, 1

① Body

② O-ring

⑧ Piston assembly

Working principle (AD402)

- When no pressure is applied internally to bowl ⑩, float ⑤ descends of its own weight and valve ⑨ closes chamber hole ⑥. Piston ⑧ is pushed down by spring ⑪, and the drainage passes through the chamber's elongated hole ⑫ to enter the housing and is discharged.
- When pressure is applied internally to the bowl: When pressure is larger than 1 MPa, it overcomes the force of spring ⑪, allowing piston ⑧ to ascend, and comes in contact with O-ring ④. Thus, the inside of bowl ⑩ is isolated from the outside.
- When drainage has accumulated: Float ⑤ ascends due to flotation and opens the chamber's hole ⑥, allowing the pressure to enter chamber ⑥. Piston ⑧ descends due to the force of the internal pressure and spring ⑪, and the accumulated drainage is discharged through drain guide ⑬.

Component Parts

No.	Description	Material
①	Body	Aluminum die-casted

Replacement Parts

No.	Description	Material	Model	
			AD402	AD600
②	O-ring	NBR	113136	JIS B 2401G-100
③	Gauze	Stainless steel	20062	—
(1)	Internal assembly	—	AD34PA	—
⑧	Piston assembly	—	—	20025A
⑭	Valve assembly	—	201037P	—

Note 1) Internal assembly: Assembly for parts ④ to ⑫ except ⑩.
 Note 2) Part no. for bowl assembly: AD34
 Note 3) Part no. for bowl ⑩: 201016

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