Auto Drain Valve
AD402/600 Series

Drain 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.

AD402

AD600

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	1/4, 3/8, 1/2	3/4, 1
Drain port size	3/8	3/4, 1
Weight (g)	590	1310

Note) 400 L/min (ANR) or more

⚠ Specific Product Precautions

Be sure to read this before handling the products.
Refer to page 9 for safety instructions and pages 10 to 12 for air preparation equipment precautions.

Selection

⚠Warning

Use the auto drain under the following operating conditions in order to prevent malfunction.
1) Operate the compressor above 3.7 kW {400 L/min (ANR)}.
2) Use the AD402 at an operating pressure above 0.1 MPa and AD600 above 0.3 MPa.

Piping

⚠Warning

Piping should be done under the following conditions in order to prevent malfunction.
For drain piping, use a pipe whose I.D. is not less than ø10 and length not more than 5 m.
Avoid riser piping.

How to Order

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Thread type

Nil	Rc
N	NPT
F	G

Port size

Symbol	IN	OUT
02	1/4	3/8
03	3/8	3/8
04	1/2	3/8

Option

Nil	—
2	Metal bowl

AD600 - [ ] 06

Thread type

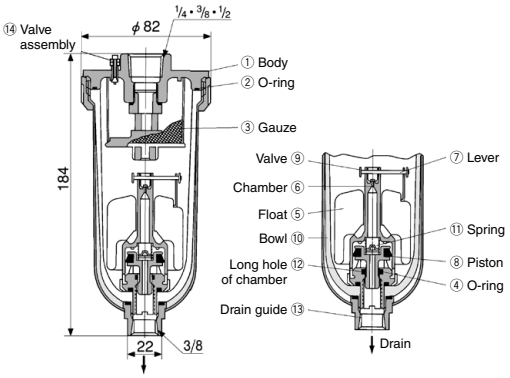
Nil	Rc
N	NPT
F	G

Port size

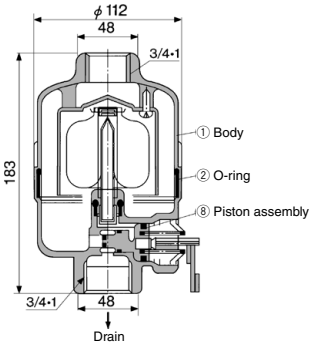
Symbol	IN	OUT
06	3/4	3/4
10	1	1

Construction/Dimensions

AD402



AD600



Working Principle (AD402)

- When no pressure is applied inside the bowl ⑩, float ⑤ descends of its own weight and valve ⑨ closes the chamber ⑥ hole. Piston ⑧ is pushed down by spring ⑪, and drain passes through the chamber's long hole ⑫ to enter the housing and is discharged.
- When pressure is applied inside the bowl:
  When pressure is 0.1 MPa or more, it overcomes the force of spring ⑪, allowing the piston ⑧ to ascend, and comes in contact with O-ring ④. Thus, the inside of the bowl ⑩ is isolated from the outside.
- When drain has accumulated:
  Float ⑤ ascends due to flotation and opens the chamber hole ⑥, allowing the pressure to enter the chamber ⑥. Piston ⑧ descends due to internal pressure and the force of spring ⑪, and the accumulated drain 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	KA00452
3	**Gauze**	Stainless steel	20062	—
Note 1)	**Internal assembly**	—	AD34PA	—
8	**Piston assembly**	—	—	20025A

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