

# Related Equipment: Auto Drain Valve

# Series AD402/600

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 <sup>Note)</sup>	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)	620	1310

Note) 400 L/min (ANR) or more

## ⚠ Specific Product Precautions

Be sure to read before handling.  
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

### Selection

### Piping

### ⚠ 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.

### ⚠ 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  $\phi 10$  and length not more than 5 m. Avoid riser piping.

## How to Order

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### Thread type

Nll	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

AD600 - [ ] 06

### Thread type

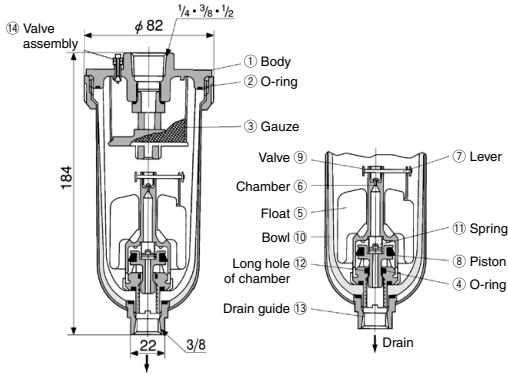
Nll	Rc
N	NPT
F	G

### Port size

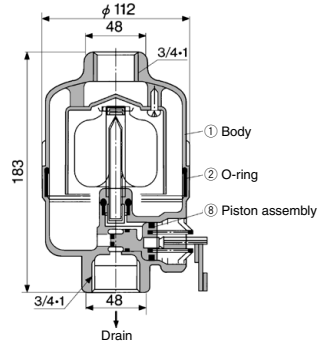
Symbol	IN	OUT
06	3/4	3/4
10	1	1

## 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	JIS B2401G-100
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

HAA  
HAW  
AT  
IDF  
IDU  
IDFA  
IDFB  
IDH  
ID  
IDG  
IDK  
AMG  
AFF  
AM  
AMD  
AMH  
AME  
AMF  
ZFC  
SF  
SFD  
LLB  
AD  
GD