

# 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 <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	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

Dimensions:  $\phi 82$ , 184, 22, Rc 1/4, 3/8, 1/2, Rc 3/8.

Parts: 1 Body, 2 O-ring, 3 Gauze, 4 O-ring, 5 Float, 6 Chamber, 7 Lever, 8 Piston, 9 Valve, 10 Case, 11 Spring, 12 Long hole of chamber, 13 Drain guide, 14 Valve assembly.

### AD600

Dimensions:  $\phi 112$ , 48, 183, Rc 3/4, 1, Rc 3/4, 1.

Parts: 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

- HA
- AT
- ID
- AMG
- AFF
- AM
- Misc.

## AUTO DRAIN SERIES (N)AD

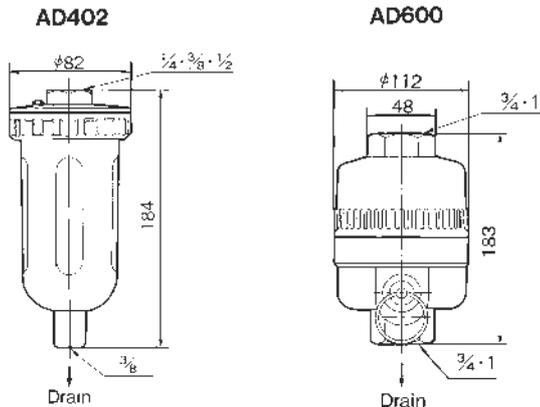
- ✓ Port Sizes 1/4~1
- ✓ Float Type Automatic Drain Valve



### TECHNICAL SPECIFICATIONS

Type	(N)AD402	(N)AD600
Operating Pressure	1.5~9.9 Bar 22~145PSI	3~9.9 Bar 45~145PSI
Max Supply Pressure	15 Bar / 220PSI	
Max Operating Pressure	9.9 Bar / 145PSI	
Ambient & Fluid Temperature	5 ~ 60°C / 40~140°F	
Port Size	1/2	3/4, 1
Drain Port	3/4	3/4, 1

### DIMENSIONS AD SERIES AUTO DRAINS



### SYMBOLS



### HOW TO ORDER

- AUTODRAIN SERIES AD
- AD402-02 (1/4) PT
  - AD402-03 (3/8) PT
  - AD402-04 (1/2) PT
  - AD600-06 (3/4) PT
  - AD600-10 (1) PT

FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT CONSULT SMC CUSTOMER SERVICE

### HOW TO ORDER

- AUTODRAIN SERIES NAD
- NAD402-N02 (1/4) NPT
  - NAD402-N03 (3/8) NPT
  - NAD402-N04 (1/2) NPT
  - NAD600-N06 (3/4) NPT
  - NAD600-N10 (1) NPT



FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT CONSULT SMC CUSTOMER SERVICE

## DIMENSIONS

