

Related Products

AD402/600

Auto Drain Valve

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

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

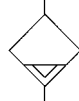


AD402



AD600

JIS Symbol



Model/Specifications

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



Note 1) Use for air compressor with flow more than 400 l/min (ANR).

Optional Specifications

Metal case	AD402-□-2	-
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⚠ Precautions

Be sure to read before handling. Refer to p.0-26 and 0-27 for Safety Instructions and common precautions on the products mentioned in this catalogue, and refer to the text for more detailed precautions of every series.

Selection

⚠ Warning

- 1) Use the auto drain under the operating conditions indicated below. Failure to observe this precaution will lead to malfunctions.
 - 1) Operate the compressor above 3.7kw (400 l/min (ANR)).
 - 2) Use AD402 at an operating pressure above 0.1MPa and AD600 above 0.3MPa.

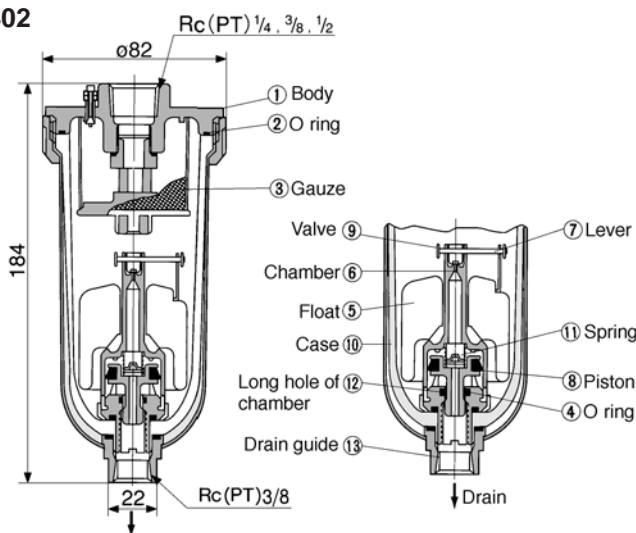
Piping

⚠ Warning

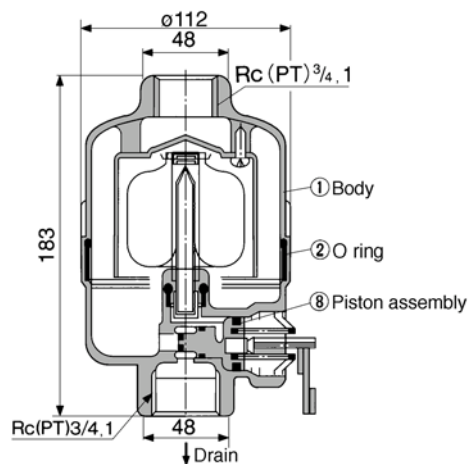
- 1) Connect piping to the auto drain under the conditions indicated below. Failure to observe this precaution could cause malfunctions. To connect a drain discharge pipe, use a pipe with a minimum bore of ø10, and a maximum length of 5m. Avoid using a riser pipe.

Construction/Dimension

AD402



AD600



•Operation principle (AD402)

When no pressure is applied internally to case 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 be discharged.

•When pressure is applied internally to the case:

When pressure is greater than 1MPa, it overcomes the force of spring 11, allowing piston 8 to ascend, and comes in contact with O ring 4. Thus, the inside of case 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 cast

Replacement Parts

No.	Description	Material	Model	
			AD402	AD600
②	O ring	NBR	113136	JIS B2401G-100
③	Gauze	SUS	20062	-
Note1)	Internal assembly	-	AD34PA	-
⑧	Piston assembly	-	-	20025A

Note 1) Internal assembly: Assembly for parts ④ to ⑫ except ⑩

Note 2) Part No. of case assembly: AD34

HA□

ID□

AMG

AFF

AM□

FQ1

Related products

Related Products

ADH4000

Heavy Duty Auto Drain

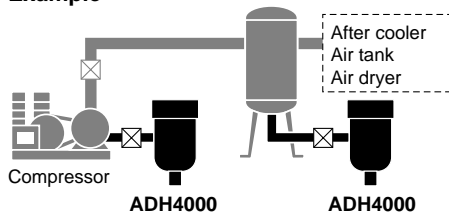
Easy maintenance

It is possible to maintain without changing existing piping.

No need for electric power and no waste of air.

Float style drain allows automatic drain discharge without electric power.

Example



Specifications

Auto drain type	Float type
Auto drain valve type	N.O. (Normally open: open in case of pressure loss)
Proof pressure	2.5MPa
Max. operating pressure	1.6MPa
Operating pressure range ⁽¹⁾	0.05 to 1.6MPa
Fluid	Compressed air
Ambient and fluid temperature	5 to 60°C (No condensation) (Corrosive gas, flammable gas and organic solvent are not allowed.)
Max. drain discharge	400cc/min (Pressure 0.7MPa, in case of water)
Weight	1.2kg (With bracket: 1.3kg)
Paint colour	Light grey



Note 1) Use for air compressor with flow more than 50ℓ/min (ANR).

Accessories (Optional)

Name	Part No.	Content
Bracket set	BM58	Bracket 1 pc. M6 X 10ℓ (Hex. bolt) 2 pcs.
Ball valve piping set	ADH-C400	Ball valve/Rc(PT) 1/2 1 pc. Barrel nipple/R(PT) 1/2 2 pcs. Elbow/Rc(PT) 1/2 1 pc.

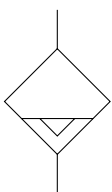


Note) Accessories (optional) are shipped unassembled but packed in the same box.



With bracket set

JIS Symbol



How to Order

ADH4000— 04

Heavy duty
auto drain

Body size

Thread

—	Rc(PT)
F	G(PF)
N	NPT

Port size

04	1/2 (Female thread)
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Accessories (Optional)*

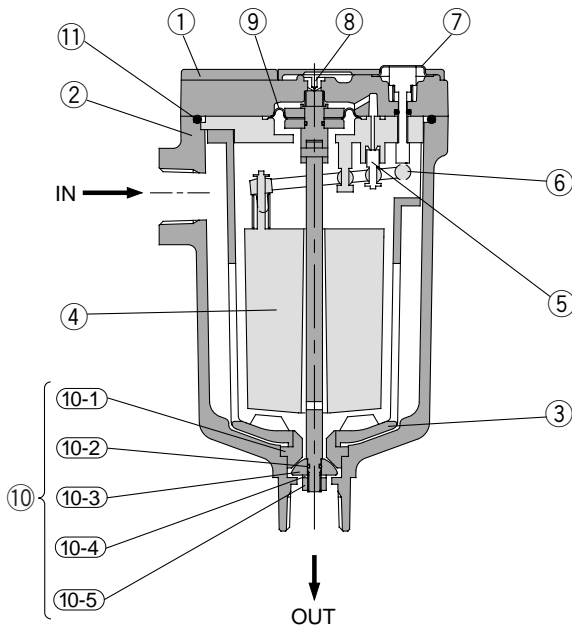
—	No option (Standard)
B	Bracket set
C	Ball valve piping set

*Notes

- When more than one option is desired, list in alphabetical order.
- Accessories are not factory assembled.
- Refer to each drawing for details of dimensions and mounting methods.
- Accessory "C" is available only with Rc(PT) thread.

Heavy Duty Auto Drain *ADH4000*

Construction



Component Parts

No.	Part name	Material	Note
①	Body	Aluminum alloy	Baking finish
②	Housing	Aluminum alloy	Baking finish
③	Drain guard	Aluminum alloy	Baking finish
④	Float	Foam rubber	
⑤	Pilot valve	Stainless steel + Rubber	
⑥	Lever	Resin	
⑦	Flushing button	Brass	
⑧	Orifice		
⑨	Diaphragm	Rubber	

Replacement Parts

No.	Part name	Part No.	Note
⑩	Repair kit for main valve	ADH-D400	Kit includes parts from (10-1) to (10-5).
⑪	O ring	G85 (B)	Material: NBR

Note) When changing parts, follow the instruction manual.
Do not disassemble other parts.

⚠ Precautions

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Design

⚠ Caution

- ① **Operate this product in an area in which the air pressure does not exceed 1.6MPa.**
If this value is exceeded, it could lead to an accident or malfunction.
- ② **An air pressure of 0.05MPa and an air compressor's discharge flow rates higher than 50 ℓ/min (ANR) are required.**
Below these values, the air will continue to be discharged from the drainage discharge port.
- ③ **Keep the compressed air temperature and the ambient temperature of the location in which this product is installed within the range of 5 to 60°C.** Exceeding this range could lead to failure or malfunction.
- ④ **Avoid operating this product in an area in which corrosive gases, flammable gases or organic solvents are contained in the compressed air or in the surrounding air.**

Selection

⚠ Caution

- ① **The maximum dischargeable drainage rate is 400cc/min.**
If the product is operated in excess of this value, there is a risk of causing the drainage to flow out to the secondary side.

Piping

⚠ Caution

- ① **Use piping of 1/2B bore size or large for drain inlet and allow for unobstructed flow-in for drain.**
- ② **Drain line should be 8mm or more and should be less than 10m long.** Do not have any upward angles in drain line. Be sure to fix exhaust port piping since drain is under pressure.

Installation

⚠ Caution

- ① **Install with "Out Port" down in a vertical position.**
Inclination from vertical should be less than $\pm 5^\circ$.
- ② **Install with at less 200mm of free space above unit to allow for maintenance.**
- ③ **To place this product near the air compressor, install in such a way that the vibrations will not be transmitted.**
- ④ **Install a valve to drain inlet so that maintenance is possible.**
Use a ball valve with a bore size of more than 15mm to ensure proper flow-in of drain. (Ball valve piping set is available as optional accessory.)

Maintenance

⚠ Caution

- ① **Check drain condition periodically (more than once a day).**
Then push flushing button to open exhaust valve.
- ② **Pilot air is exhausted from the exhaust port indicated in the "Dimensions" section.**
Do not cover this exhaust port. Clean exhaust port so that port is not blocked by dust, etc.

HA ☐

ID ☐

AMG ☐

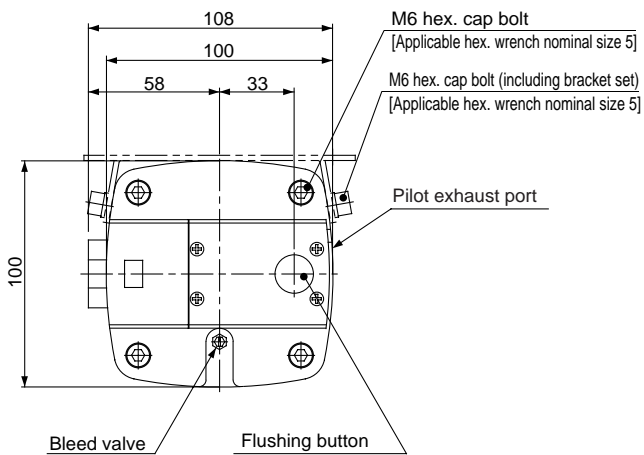
AFF ☐

AM ☐

FQ1 ☐

Related products

Dimensions



Related Products

GD40-2-01

Pressure Differential Gauge

The pressure differential at the inlet and the outlet of compressed air equipment can be viewed at a glance on the pressure differential gauge. It is ideal for the maintenance control of filters.

Compact and lightweight

It can be installed easily by merely providing a bypass circuit.

Provided with a protective cover to prevent hazards.

Model/Specifications

Model	GD40-2-01
Operating fluid	Compressed air
Max. operating pressure	1MPa
Proof pressure	1.5MPa
Ambient and operating fluid temperature	5 to 60°C
Port size Rc(PT)	1/8
Scale range	0 to 0.2MPa
Accuracy	±0.006MPa
Dial size	ø40
Weight (g)	300

Material of Main Parts

Case	Zinc die cast
Internal Part	Brass, Phosphor bronze
Window	Chloroethylene
Pointer scale	Stainless steel

Optional Accessories

Nylon tubing	T0425(0.5m)
Half union	H04-01(1 pc.)
Elbow union	DL04-01(1 pc.)



JIS Symbol



⚠ Precautions

Be sure to read before handling.

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Design

⚠ Caution

- ① This product cannot be operated in a location in which pulsations frequently occur.

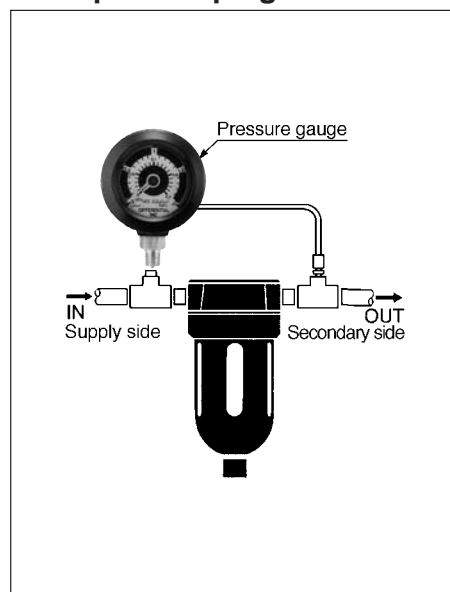
Mounting

⚠ Caution

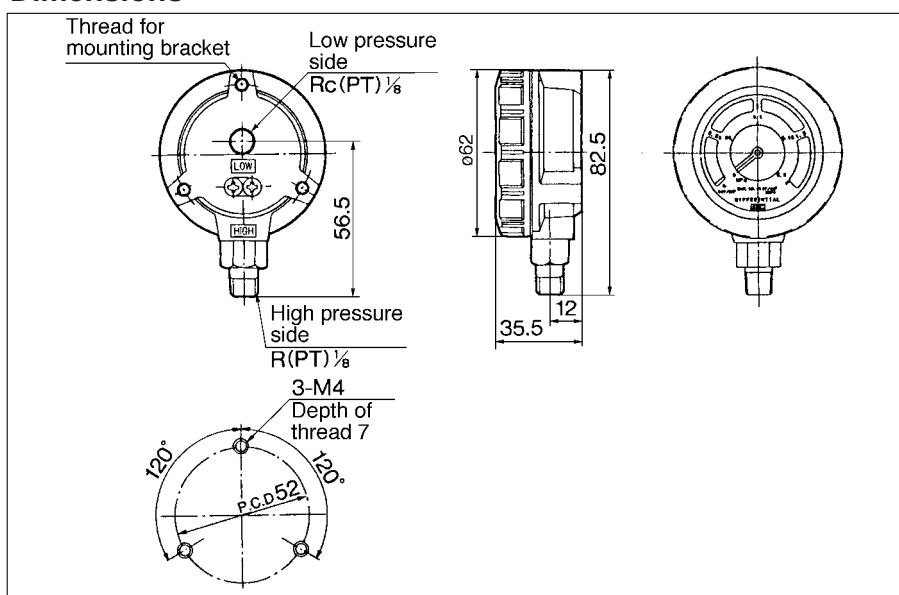
- ① Installation method

- 1) The HIGH and LOW marks on the back of the differential pressure gauge indicate the high pressure and low pressure sides, respectively. Connect the HIGH side to the primary side of the filter or other devices and the LOW side to their secondary side. Do not use the stop valve to prevent damage to the differential pressure gauge if the valve is inadvertently left open or closed.
- 2) Install the differential pressure gauge vertically.
- 3) The piping of the differential pressure gauge must be connected securely because it will break if it becomes detached.

Example of Piping



Dimensions



HA ☐

ID ☐

AMG ☐

AFF ☐

AM ☐

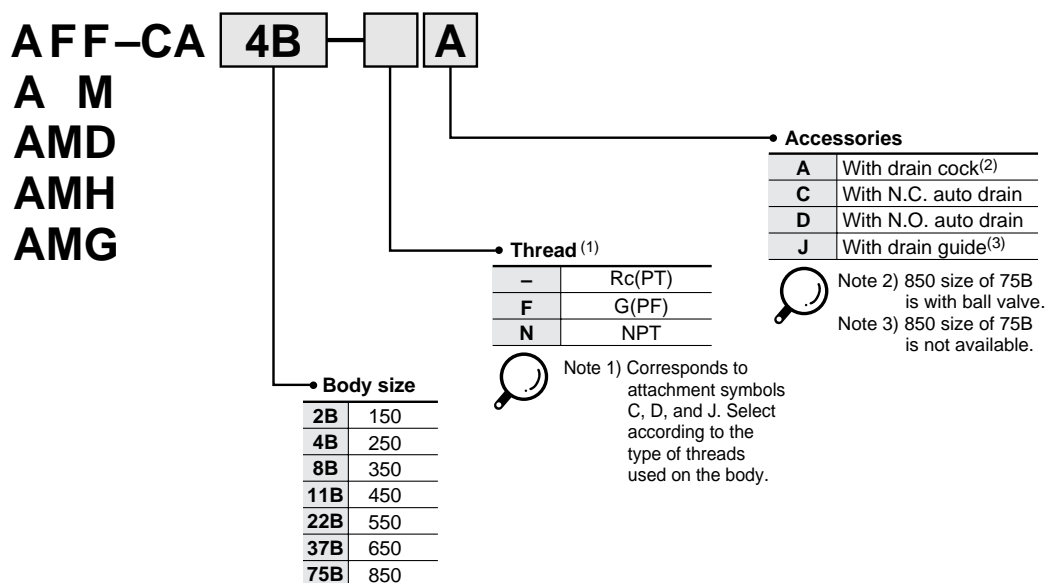
FQ1 ☐

Related products

Case Assembly How to Order

How to Order Case Assembly

■ Series AFF, AM, AMD, AMH, AMG



■ Series AME, AMF

