Doc. No. AC∗-OMQ0008-D

# Operation Manual

PRODUCT NAME

## *AIR COMBINATION*

MODEL/ Series

***AC10(A,B)-※-A***
***AC20(A,B,C,D)-※-A***
***AC25(B,C)-※-A***
***AC30(A,B,C,D)-※-A***
***AC40(A,B,C,D)-※-A***

**SMC Corporation**

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# AIR COMBINATION
# Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage.
These instructions indicate the level of potential hazard with the labels of “Caution,” “Warning” or “Danger.”
They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC), Japan Industrial Standards (JIS)[*1)] and other safety regulations[*2)].

∗1) ISO 4414: Pneumatic fluid power -- General rules relating to systems
ISO 4413: Hydraulic fluid power -- General rules relating to systems
IEC 60204-1: Safety of machinery -- Electrical equipment of machines (Part 1: General requirements)
ISO 10218-1992: Manipulating industrial robots -- Safety
JIS B 8370: General rules for pneumatic equipment.
JIS B 8361: General rules for hydraulic equipment.
JIS B 9960-1: Safety of machinery – Electrical equipment for machines. (Part 1: General requirements)
JIS B 8433-1993: Manipulating industrial robots - Safety. etc.

∗2) Labor Safety and Sanitation Law, etc.

| | |
|---|---|
| **Caution** | Operator error could result in injury or equipment damage. |
| **Warning** | Operator error could result in serious injury or loss of life. |
| **Danger** | In extreme conditions, there is a possibility of serious injury or loss of life. |

## Warning

**1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.**

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results.

The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product.

This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

**2. Only personnel with appropriate training should operate machinery and equipment.**

The product specified here may become unsafe if handled incorrectly.

The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

**3. Do not service or attempt to remove product and machinery/equipment until safety is confirmed.**

The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.

When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.

Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

**4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.**

1) Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.

2) Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalog.

3) An application which could have negative effects on people, property, or animals requiring special safety analysis.

4) Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

# AIR COMBINATION Safety Instructions

**⚠ Caution**

**The product is provided for use in manufacturing industries.**
The product herein described is basically provided for peaceful use in manufacturing industries.
If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.
If anything is unclear, contact your nearest sales branch.

## Limited warranty and Disclaimer / Compliance Requirements

The product used is subject to the following “Limited warranty and Disclaimer” and “Compliance Requirements”.
Read and accept them before using the product.

### Limited warranty and Disclaimer

**The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.**
**Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.**

**For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.**
**This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.**

**Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.**

### Compliance Requirements

The use of SMC products with production equipment for the manufacture of weapons of mass destruction(WMD) or any other weapon is strictly prohibited.
The exports of SMC products or technology from one country to another are govemed by the relevant security laws and regulation of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules goveming that export are known and followed.

## Precautions for design

### ⚠ WARNING

**○ Air combination**

① Consult SMC if no leakage is allowed due to the environment, or operating fluid is not air.

② External parts including the bonnet (material: polyacetal), bowl, sight dome (material: polycarbonate) are made of resin. Organic solvents including synthetic fluid, chemicals including acetone, alcohol, ethylene chloride, sulphuric acid, nitrate, hydrochrolic acid, cutting oil, kerosene, gasoline, lock material of screw are harmful. Do not use the products where containing those.

Effects organic solvents and chemicals, and where these elements are likely to adhere to the equipment.
Chemical data for substances causing degradation (Reference)

| Type | Chemical name | Application examples | Material | |
|---|---|---|---|---|
| | | | Polycarbonate | Nylon |
| Acid | Hydrochloric acid<br>Sulphuric acid, Phosphoric acid<br>Chromic acid | Acid washing liquid for metals | △ | × |
| Alkaline | Sodium hydroxide (Caustic soda)<br>Potash<br>Calcium hydroxide (Slack lime)<br>Ammonia water<br>Carbonate of soda | Degreasing of metals<br>Industrial salts<br>Water-soluble cutting oil | × | ○ |
| Inorganic salts | Sodium sulphide<br>Sulphate of potash<br>Sulphate of soda | — | × | △ |
| Chlorine solvents | Carbon tetrachloride<br>Chloroform<br>Ethylene chloride<br>Methylene chloride | Cleaning liquid for metals<br>Printing ink<br>Dilution | × | △ |
| Aromatic series | Benzene<br>Toluene<br>Paint thinner | Coatings<br>Dry cleaning | × | △ |
| Ketone | Acetone<br>Methyl ethyl ketone<br>Cyclohexane | Photographic film<br>Dry cleaning<br>Textile industries | × | × |
| Alcohol | Ethyl alcohol<br>IPA<br>Methyl alcohol | Antifreeze<br>Adhesives | △ | × |
| Oil | Gasoline<br>Kerosene | — | × | ○ |
| Ester | Phthalic acid dim ethyl<br>Phthalic acid diethyl<br>Acetic acid | Synthetic oil<br>Anti-rust additives | × | ○ |
| Ether | Methyl ether<br>Ethyl ether | Brake oil additives | × | ○ |
| Amino | Methyl amino | Cutting oil<br>Brake oil additives<br>Rubber accelerator | × | × |
| Other | Thread -lock fluid<br>Seawater<br>Leak tester | — | × | △ |
| ○ : Essentially safe. △ : Some effects may occur. × : Effects will occur. | | | | |

When the above factors are present, or there is some doubt, use a metal case for safety.

③ Protect from ultra violet ray and radiation heat by shield.

**○ Air filter, Lubricator, Filter-regulator and Mist separator**

① Avoid the application where charge and discharge of pressure to bowl is switched frequently. This may damage the bowl. A metal bowl is recommended in these cases.

**○ Regulator and Filter-regulator**

① A safety device needs to be installed if output pressure is exceeding the set pressure, otherwise this can cause the breakage of outlet device and equipment or malfunction.

### ⚠ CAUTION

**○ Air filter, Filter-regulator and Mist separator**

① AD17-A and AD27-A with auto drain may leak during exhaust of pressure. (This leakage is allowed in their constructions and not failure.) Be sure to connect piping for drain.

**○ Regulator and Filter-regulator**

① Air consumption from release port is 0.1L/min(ANR) or less.

## Selection

### ⚠ WARNING

**○ Air combination**

① Mineral grease used on internal surfaces and packing may leak to the outlet. Please contact SMC if this is a problem.

**○ Air filter, Filter-regulator and Mist separator**

① N.O type auto drain should be used under the following requirements to avoid operating failure.
Output of compressor: 0.75kW or more.
Discharged flow rate: 100L/ min (ANR) or more.
If multiple auto drains are used, confirm used compressor has capacity over the result of multiplying the above capacity and the number of used auto drains.
{For example, in case of two auto drain, the compressor need the capacity over 1.5kW [200L/ min (ANR)].}
Operating pressure: 0.1MPa or more at min..

② N.C. type auto drain should be used under the following requirements to avoid operating failure.
Operating pressure: 0.1MPa or more at min. for AD17-A and AD27-A, 0.15MPa or more at min. for AD37-A and AD47-A.

**○ Regulator and Filter-regulator**

① It is possible to exhaust the residual pressure to the inlet when releasing the inlet pressure, but the exhaust can fail at a set pressure of 0.15MPa or less.
When the backflow function is necessary at 0.15MPa or less, a regulator with backflow function is recommended.

② Long absence of operation or operation with outlet circuit sealed or balance circuit may cause pressure fluctuation in outlet set pressure. Please consult SMC if this is a problem.

③ Set pressure of outlet pressure shall be 85% or less of inlet pressure. Pressure over 85% makes operation susceptible to flow and inlet pressure which lead to cause unstable operation.

④ Maximum set pressure range in the spec. has margin. Pressure set may be higher than the maximum value.

⑤ If regulator is used with circuit which requires high exhaust sensitivity or set precision, please consult SMC.

**○ Lubricator**

① Consult SMC if using this product for purposes other than its primary use of lubricating air line equipment.

② The use at high frequency such as the use in press machine may damage internal components and cause operating failure of the equipment installed to secondary side. Contact SMC for such a use.

③ Small air consumption may prevent the oil from dropping. Confirm air flow necessary to produce the drops required for the correct amount of oil.

④ Do not supply the air from secondary side (reverse air flow). Otherwise, internal components may be damaged.

⑤ If piping is branched at inlet side, the oil may flow back. Avoid the reverse flow by installing a check valve (AKM series) to inlet side.

## Installation

### ⚠ WARNING

**○ Air combination**

① Connect the product ensuring the direction of "1" (IN) and "2" (OUT) for air direction or an arrow. Wrong connection may cause malfunction.

② Install with enough space around each assembly component to perform regular maintenance and operation. The required space is shown on 「11. Dimensions」(P20 to 24).

### ⚠ CAUTION

**○ Air combination**

① Do not drop or apply impact during transportation or installation. It will cause damage to the product or operation failure.

② Do not install in areas of high humidity or high temperature. The product cannot be used in the horizontal or upward directions outside of the specifications.

③ When using a hexagon socket head cap screw to wall mount an air combination, we recommend using a ballpoint screwdriver.

**○ Air filter, Filter-regulator and Mist separator**

① Install vertically so that outlet of drain would turned downward. Use with the outlet of drain turned horizontal or upward causes malfunction.

**○ Lubricator**

① Install the bowl vertically with bowl facing down. If it is inclined, dripping may not be confirmed.

## Adjustment

### ⚠ WARNING

**○ Regulator and Filter-regulator**

① Adjust the pressure adjusting handle ensuring correct inlet pressure and outlet pressure. Excessive rotation may cause damage to internal parts.

② Operate the pressure adjusting handle manually. Tools may break the handle.

**○ Lubricator**

① Adjustment of the oil adjustment valve should be carried out manually. The use of tools, etc. can result in damage to the unit. (AL20-A to AL40-A)

② Turning the oil adjustment valve counterclockwise increases the dripping amount, and turning it clockwise reduces the dripping amount. From the fully closed position, three rotations will bring it to the fully open position. Please do not rotate it any further than this.
Note that the numbered scale markings are guidelines for adjusting the position, and not indicators of the dripping amount. (AL20-A to AL40-A)

③ On AL10-A, some dripping may occur even when needle is fully opened.

### ⚠ CAUTION

**○ Regulator and Filter-regulator**

① Check inlet pressure before setting up.

② Be sure to unlock the handle before adjusting the pressure and lock it after setting the pressure. Failure to follow this procedure can damage the handle and the outlet pressure may fluctuate.
- Pull the pressure regulator handle to unlock. (You can visually verity this with the "orange mark" that appears in the gap.)
- Push the pressure regulator handle to lock. When the handle is not easily locked, turn it left and right a little and then push it. (When the handle is locked, the "orange mark", i.e., the gap will disappear.)

③ For the regulator with the pressure gauge, do not apply pressure exceeding the maximum scale of the pressure gauge in order to protect the gauge.

④ djust pressure incrementally. Pressure may become lower than set pressure if adjusted by decreasing the value. Rotate the handle clockwise to raise the set pressure. Counterclockwise to reduce the pressure. Moreover, please lock the handle after setting pressure.

⑤ Outlet pressure may rise if eliminate the inlet pressure after pressure setting and supply pressure again. The pressure becomes close to the set pressure after air is consumed in outlet.

⑥ Outlet pressure may change if filter regulator is used for long periods. Please confirm set pressure regularly.
⑦ When pressure difference between the inlet side and the outlet side is large, chattering may occur. In that case, please reduce and use pressure difference between the inlet side and the outlet side. Please consult SMC it chattering continues.

## Piping

### ⚠ WARNING

**○ Air combination**

① Blow out or clean piping before piping to eliminate swarf, cutting oil, solid foreign material. Contamination of piping may cause damage or malfunction.
② When installing piping, avoid chips and sealing materials from piping screws entering the inside of equipment. Or malfunction may occur. When use sealing tapes, leave 1.5～2 threads of the end of thread exposed.
③ Hold the female screw side and screw in piping with recommended tightening torque. Insufficient tightening torque lead to cause loose piping or sealing failure. Excessive torque may lead to cause screw breakage. Tightening without holding female screw side applies excessive force to the piping bracket which lead to cause breakage.

Recommended torque unit: N·m

| Screw | 1/8 | 1/4 | 3/8 | 1/2 | 3/4 |
|---|---|---|---|---|---|
| Torque | 3～5 | 8～12 | 15～20 | 20～25 | 28～30 |

∗For port size M5: After tightening fitting, tighten approx. 1/6 more by using tool.

④ Do not apply any torsional moment, or bending moment except the weight of the filter regulator itself. External piping needs to be supported separately. Hard piping like steel tube is susceptible to excessive moment load or vibration. Insert the flexible tube to cancel the influence.

**○ Air filter, Filter-regulator and Mist separator**

① Drain guide is not equipped with valve function. Be sure to connect piping for drain. No piping for drain allows the drain and compressed air to exhaust freely. Also, the piping should be performed with drain guide held by spanner to prevent breakage of bowl.
② The piping for drain from auto drain should be connected under the following requirements to avoid operating failure.
AD17, 27-A: I.D. ϕ2.5 (ϕ3/32") at min., Length 5m (200") at max.
AD37, 47(N)-A: I.D. ϕ4 (ϕ3/16") at min., Length 5m (200") at max.
AD38, 48(N)-A: I.D. ϕ6.5 (ϕ1/4") at min., Length 5m (200") at max.

### ⚠ CAUTION

**○ Lubricator**

① Avoid rising piping and piping branches on secondary side. Otherwise, lubricating failure may be caused.

## Air Source

### ⚠ WARNING

**○ Air combination**

① Use clean air. Compressed air containing chemicals, organic solvent, synthetic oil or corrosive gas may lead to cause breakage of parts or malfunction.
② Air containing too much moisture may cause malfunction. Install the air drier or the aftercooler before the air combination.

## Maintenance

### ⚠ WARNING

**○ Air combination**

① Maintenance and checks should be done by following the procedure in the operation manual. Incorrect handling of the product may cause breakage or malfunction of the equipment or device.

**○ Air filter, Lubricator, Filter-regulator and Mist separator**

① Perform periodical check to find cracks, flaw or other deterioration on the resin parts such as bowl or sight dome. If any of these are seen, a malfunction has occured, replace with new parts. Investigate and review the operating conditions if necessary.

② Check for dirt in resin bowl periodically. If any dirt is seen, replace with new bowl. And if removing off the dirt by washing instead of using a replacement, never use washing material other than neutral detergent. Otherwise, the bowl is damaged.

③ Open and close drain cock manually. Open and close too much may damage the drain cock.

**○ Air filter, Filter-regulator and Mist separator**

① Replace the element before 2 years passed since purchase or pressure drop from initial outlet pressure reaches 0.1MPa. Or the element is broken.

② Drain the bowl by opening drain cock before the drain level in the bowl reaches baffle.

**○ Regulator**

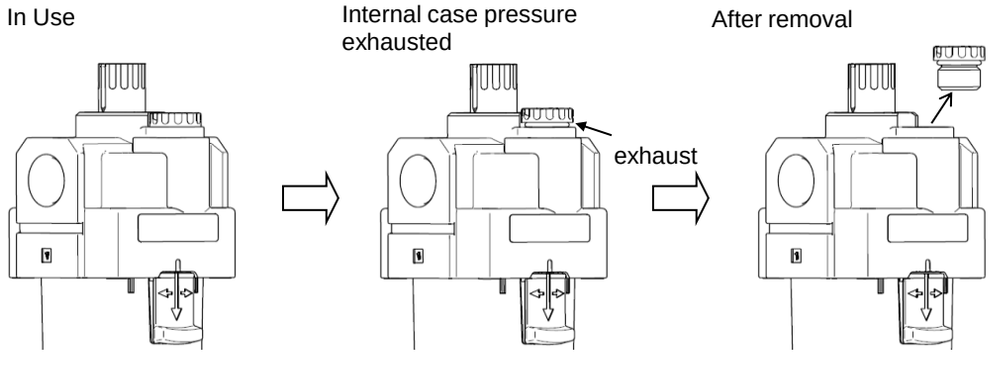
① When using the regulator and filter regulator with backflow function between a solenoid valve and an actuator, check the pressure gauge periodically.
Sudden pressure fluctuations may shorten the durability of the pressure gauge. A digital pressure gauge is recommended for such situation or as deemed necessary.

**○ Lubricator**

① Use class 1 turbine oil (without additives) ISO VG32. Using other lubricant can cause damage to devices and result in malfunction.

② In AL10-A and AL20-A series, lubrication during pressurization is not possible.
Exhaust the inlet pressure and check that there is no pressure within the product. Supply oil after removing the oil supply plug.

③ The AL30-A and AL40-A have a slight leak from the inside of the case to the oil supply orifice. Loosen the oil supply plug one turn and wait a short time for pressure to release then remove the oil supply plug. As there is a slight leak from inside the case to the oil supply orifice, set the oil supply to “Max Level” slowly, while ensuring an oil film is not created over the oil supply orifice.
When removing the oil supply plug, pressure within the case will be released, so ensure that protective goggles are equipped.
After oil is supplied, after ensuring that it is correctly positioned, the oil supply “O” ring can be returned to its previous state by gently screwing it in.
(For tightening torque, see Operation Manual of Lubricator)



## ⚠ CAUTION

**○ Regulator and Filter-regulator**

① If the first operation is performed and defective setting and the exhaust leakage is found, it is likely there is foreign object in an internal valve seat part. Failure to remove these parts may cause damage to internal parts.

**○ Air filter, Filter-regulator and Mist separator**

① Rotate the handle counterclockwise (O←direction) to exhaust the condensate of the C1SF-A and C2SF(-C)-A.
Press the push button to exhaust the condensate of the C3SF(-W)-A and C4SF(-W)-A.

② Check the element periodically and replace it with a new one if necessary. If it is found that outlet pressure drops or the flow is restricted, check the condition of the element.

③ The manual exhaust for emergency case can be performed by counterclockwise rotation of the handle in AD17-A and AD27-A. (O←direction)
For AD37-A, AD38-A, AD47-A and AD48-A, rotate the drain cock counterclockwise in that case. (O←direction)

**○ Lubricator**

① Check the dripping amount once a day. Dripping failure may cause damage to lubricated objects.

② Use clean oil to avoid dripping failure.

③ The lubricating amount should be less than the upper limit of oil level.

④ Discharge drain to avoid that drain exceeds the upper limit of the air filter. Excessive drain in the lubricator may cause dripping failure.

## 2. APPLICATION

This product is used in combination with components which aim to eliminate a certain amount of water vapour and solid foreign material in the air line, lubricating and pressure controlling pneumatic products or solenoid valves.

## 3. SPECIFICATIONS

| Model | | AC10∗-A | AC20∗-A | AC25∗-A | AC30∗-A | AC40∗-A | AC40∗-06-A |
|---|---|---|---|---|---|---|---|
| Port size | | M5X0.8 | 1/8, 1/4 | 1/4, 3/8 | | 1/4, 3/8, 1/2 | 3/4 |
| Gauge port size | | 1/16 | 1/8 | | | | |
| Fluid | | Air | | | | | |
| Ambient and fluid temperature | | -5 to 60℃ (Should be no freezing) | | | | | |
| Proof pressure | | 1.5 MPa | | | | | |
| Max. operating pressure | | 1.0 MPa | | | | | |
| Set pressure range | | 0.05 to 0.7 MPa | | | | | |
| Filtration / Air filter | | 5 μm | | | | | |
| Filtration / Mist separator | | — | 0.3 μm（Filtration efficiency 99.9%） | | | | |
| Oil mist density on the secondary side | | Note2）Note3） Max 1.0mg/m$^3$ (ANR) (≒0.8ppm） | | | | | |
| Note1） Rated flow {L/min(ANR)} | AC∗∗C-A | — | 200 | 450 | 450 | 1100 | 1100 |
| | AC∗∗D-A | — | 150 | — | 330 | 800 | 800 |
| Recommended lubricant | | Class 1 turbine oil (ISO VG32) | | | | | |
| Bowl material | | Polycarbonate | | | | | |
| Bowl guard | | — | Semi-standard （Steel plate） | Standard（Polycarbonate） | | | |
| Construction / Regulator | | Relieving type | | | | | |

Note1）Conditions: Mist separator inlet pressure: 0.7MPa(AC∗∗C-A), 0.5MPa(AC∗∗D-A). The rated flow varies depending on the inlet pressure.
Keep the air flow within the rated flow to prevent an outflow of lubricant to the outlet side
Note2）When compressor oil mist discharge concentration is 30mg/m$^3$ (ANR).
Note3）Bowl seal and other O-rings are slightly lubricated.

Mass（kg）

| ∗：Symbol / Model | Nil (AC10-A to AC40-06-A) | A (AC10A-A to AC40A-06-A) | B (AC10B-A to AC40B-06-A) | C (AC20C-A to AC40C-06-A) | D (AC20D-A to AC40D-06-A) |
|---|---|---|---|---|---|
| AC10∗-A | 0.27 | 0.20 | 0.16 | — | — |
| AC20∗-A | 0.40 | 0.34 | 0.28 | 0.39 | 0.33 |
| AC25∗-A | 0.68 | — | 0.43 | 0.67 | — |
| AC30∗-A | 0.83 | 0.67 | 0.58 | 0.82 | 0.66 |
| AC40∗-A | 1.53 | 1.24 | 1.05 | 1.53 | 1.24 |
| AC40∗-06-A | 1.66 | 1.35 | 1.12 | 1.66 | 1.35 |

# 4. SERIESMAP AND COMBINATION OF EQUIPMENT

× : None applicable model

| * : Symbol / Model | Nil (AC10-A to AC40-06-A) | A (AC10A-A to AC40A-06-A) | B (AC10B-A to AC40B-06-A) | C (AC20C-A to AC40C-06-A) | D (AC20D-A to AC40D-06-A) |
|---|---|---|---|---|---|
| AC10*-A | AC10-A<br>＋<br>AR10-A<br>＋<br>AL10-A | AW10-A<br>＋<br>AL10-A | AF10-A<br>＋<br>AR10-A | × | × |
| AC20*-A | AF20-A<br>＋<br>AR20-A<br>＋<br>AL20-A | AW20-A<br>＋<br>AL20-A | AF20-A<br>＋<br>AR20-A | AF20-A<br>＋<br>AFM20-A<br>＋<br>AR20-A | AW20-A<br>＋<br>AFM20-A |
| AC25*-A | AF30-A<br>＋<br>AR25-A<br>＋<br>AL30-A | × | AF30-A<br>＋<br>AR25-A | AF30-A<br>＋<br>AFM30-A<br>＋<br>AR25-A | × |
| AC30*-A | AF30-A<br>＋<br>AR30-A<br>＋<br>AL30-A | AW30-A<br>＋<br>AL30-A | AF30-A<br>＋<br>AR30-A | AF30-A<br>＋<br>AFM30-A<br>＋<br>AR30-A | AW30-A<br>＋<br>AFM30-A |
| AC40*-A | AF40-A<br>＋<br>AR40-A<br>＋<br>AL40-A | AW40-A<br>＋<br>AL40-A | AF40-A<br>＋<br>AR40-A | AF40-A<br>＋<br>AFM40-A<br>＋<br>AR40-A | AW40-A<br>＋<br>AFM40-A |
| AC40*-06-A | AF40-06-A<br>＋<br>AR40-06-A<br>＋<br>AL40-06-A | AW40-06-A<br>＋<br>AL40-06-A | AF40-06-A<br>＋<br>AR40-06-A | AF40-06-A<br>＋<br>AFM40-06-A<br>＋<br>AR40-06-A | AW40-06-A<br>＋<br>AFM40-06-A |

# 5. HOW TO ORDER

AC 30 – F 03 DG – ☐ – ☐ – A

① ② ③ ④ ⑤ ⑥

・Option / Semi-standard : Select one each for **a** to **m**.
・Option / Attachment / Semi-standard symbol : When more than one specification is required, indicate in alphanumeric order.

Example）AC30-03DM-KSTV-13NR-A

| | | Symbol | Description | ① Body size 10 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| ② | Pipe thread type | **Nil** | Metric thread (M5) | ● | — | — | — | — |
| | | | Rc | — | ● | ● | ● | ● |
| | | N Note 1) | NPT | — | ● | ● | ● | ● |
| | | F Note 2) | G | — | ● | ● | ● | ● |
| ③ | Port size | M5 | M5 | ● | — | — | — | — |
| | | 01 | 1／8 | — | ● | — | — | — |
| | | 02 | 1／4 | — | ● | ● | ● | ● |
| | | 03 | 3／8 | — | — | ● | ● | ● |
| | | 04 | 1／2 | — | — | — | — | ● |
| | | 06 | 3／4 | — | — | — | — | ● |
| ④ Option Note 3) | a Float type auto drain | **Nil** | Without auto drain | ● | ● | ● | ● | ● |
| | | C Note 4) | N.C. (Normally closed) Drain port is closed when pressure is not applied. | ● | ● | ● | ● | ● |
| | | D Note 5) | N.O. (Normally open) Drain port is open when pressure is not applied. | — | — | ● | ● | ● |
| | b Pressure gauge Note 6) | **Nil** | Without pressure gauge | ● | ● | ● | ● | ● |
| | | G | Round type pressure gauge (without limit indicator) | ● | — | — | — | — |
| | | | Round type pressure gauge (with limit indicator) | — | ● | ● | ● | ● |
| | | M | Round type pressure gauge (with color zone) | — | ● | ● | ● | ● |
| ⑤ Attachment | c Check valve | **Nil** | Without attachment | ● | ● | ● | ● | ● |
| | | K | Mounting position：AF+AR+**K**+AL | — | ● | ● | ● | ● Note7) |
| | d Pressure switch | **Nil** | Without attachment | ● | ● | ● | ● | ● |
| | | S Note 8) | Mounting position：AF+AR+**S**+AL | — | ● | ● | ● | ● |
| | e T-spacer | **Nil** | Without attachment | ● | ● | ● | ● | ● |
| | | T Note 8) | Mounting position：AF+**T**+AR+AL | ● | ● | ● | ● | ● |
| | f Pressure relief 3 port valve | **Nil** | Without attachment | ● | ● | ● | ● | ● |
| | | V | Mounting position：AF+AR+AL+**V** | — | ● | ● | ● | ● |
| ⑥ Semi-standard | g Set pressure Note 9) | **Nil** | 0.05 to 0.7 MPa setting | ● | ● | ● | ● | ● |
| | | 1 | 0.02 to 0.2 MPa setting | ● | ● | ● | ● | ● |
| | h Bowl Note 10) | **Nil** | Polycarbonate bowl | ● | ● | ● | ● | ● |
| | | 2 | Metal bowl | ● | ● | ● | ● | ● |
| | | 6 | Nylon bowl | ● | ● | ● | ● | ● |
| | | 8 | Metal bowl with level gauge | — | — | ● | ● | ● |
| | | C | With bowl guard | — | ● | — Note11) | — Note11) | — Note11) |
| | | 6C | With bowl guard (Nylon bowl) | — | ● | — Note12) | — Note12) | — Note12) |
| | i Air filter drain port Note 13) | **Nil** | With drain cock | ● | ● | ● | ● | ● |
| | | J Note 14) | Drain guide 1/8 | — | ● | — | — | — |
| | | | Drain guide 1/4 | — | — | ● | ● | ● |
| | | W Note 15) | Drain cock with barb fitting (for φ 6 x φ 4 nylon tube) | — | — | ● | ● | ● |
| | j Lubricator lubricant exhaust port | **Nil** | Without drain cock | ● | ● | ● | ● | ● |
| | | 3 Note 16) | Lubricator with drain cock | ● | ● | ● | ● | ● |
| | k Exhaust mechanism | **Nil** | Relieving type | ● | ● | ● | ● | ● |
| | | N | Non-relieving type | ● | ● | ● | ● | ● |
| | l Flow direction | **Nil** | Flow direction：Left to right | ● | ● | ● | ● | ● |
| | | R | Flow direction：Right to left | ● | ● | ● | ● | ● |
| | m Pressure unit | **Nil** | Name plate and pressure gauge in imperial units：MPa | ● | ● | ● | ● | ● |
| | | Z Note 17) | Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F | ○ Note18) | ○ Note18) | ○ Note18) | ○ Note18) | ○ Note18) |

Note 1) Drain guide is NPT1/8 (applicable to the AC20-A) and NPT1/4 (applicable to the AC25-A to AC40-A). The auto drain port comes with ϕ3/8" One-touch fitting (applicable to the AC25-A to AC40-A).
Note 2) Drain guide is G1/8 (applicable to the AC20-A) and G1/4 (applicable to the AC25-A to AC40-A).
Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
Note 4) When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
Note 5) If the compressor is small (0.75 kW, discharge flow is less than 100 L/min[ANR]), air leakage from the drain cock may occur during start of operations. N.C. type is recommended.
Note 6) When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.7 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type (1.0 MPa pressure gauge only for the AC10-A).
Note 7) Not available with piping port size: 06
Note 8) The bracket position varies depending on the T-spacer or pressure switch mounting.
Note 9) Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
Note 10) Refer to Chemical data on page 3 for chemical resistance of the bowl.
Note 11) A bowl guard is provided as standard equipment (polycarbonate).
Note 12) A bowl guard is provided as standard equipment (nylon).
Note 13) Float type auto drain: The combination of C and D is not possible.
Note 14) Without a valve function
Note 15) The combination of metal bowl: 2 and 8 is not available.
Note 16) When choosing with W: Filter drain port, the drain cock of a lubricator will be with barb fittings.
Note 17) For pipe thread type: M5, NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) MPa and psi are shown together on the pressure unit. Cannot be used with M: Round pressure gauge (with color zone). Available by request for special.
Note 18) ○: For pipe thread type: M5, NPT only

AC 30 A – F 03 DG – ☐ – ☐ – A

(1) (2) (3) (4) (5) (6)

・Option / Semi-standard : Select one each for **a** to **l**.
・Option / Attachment / Semi-standard symbol : When more than one specification is required, indicate in alphanumeric order.

Example）AC30A-03DM-KSV-13NR-A

| | | Symbol | Description | ① Body size 10 | 20 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| ② | Pipe thread type | **Nil** | Metric thread (M5) | ● | — | — | — |
| | | | Rc | — | ● | ● | ● |
| | | **N** Note 1) | NPT | — | ● | ● | ● |
| | | **F** Note 2) | G | — | ● | ● | ● |
| ③ | Port size | **M5** | M5 | ● | — | — | — |
| | | **01** | 1／8 | — | ● | — | — |
| | | **02** | 1／4 | — | ● | ● | ● |
| | | **03** | 3／8 | — | — | ● | ● |
| | | **04** | 1／2 | — | — | — | ● |
| | | **06** | 3／4 | — | — | — | ● |
| ④ Option (Note 3) | **a** Float type auto drain | **Nil** | Without auto drain | ● | ● | ● | ● |
| | | **C** Note 4) | N.C. (Normally closed) Drain port is closed when pressure is not applied. | ● | ● | ● | ● |
| | | **D** Note 5) | N.O. (Normally open) Drain port is open when pressure is not applied. | — | — | ● | ● |
| | **b** Pressure gauge (Note 6) | **Nil** | Without pressure gauge | ● | ● | ● | ● |
| | | **G** | Round type pressure gauge (without limit indicator) | ● | — | — | — |
| | | | Round type pressure gauge (with limit indicator) | — | ● | ● | ● |
| | | **M** | Round type pressure gauge (with color zone) | — | ● | ● | ● |
| ⑤ Attachment | **c** Check valve | **Nil** | Without attachments | ● | ● | ● | ● |
| | | **K** | Mounting position：AW+**K**+AL | — | ● | ● | ● Note7) |
| | **d** Pressure switch | **Nil** | Without attachments | ● | ● | ● | ● |
| | | **S** Note 8) | Mounting position：AW+**S**+AL | — | ● | ● | ● |
| | **e** Pressure relief 3 port valve | **Nil** | Without attachments | ● | ● | ● | ● |
| | | **V** | Mounting position：AW+AL+**V** | — | ● | ● | ● |
| ⑥ Semi-standard | **f** Set pressure (Note 9) | **Nil** | 0.05 to 0.7 MPa setting | ● | ● | ● | ● |
| | | **1** | 0.02 to 0.2 MPa setting | ● | ● | ● | ● |
| | **g** Bowl (Note 10) | **Nil** | Polycarbonate bowl | ● | ● | ● | ● |
| | | **2** | Metal bowl | ● | ● | ● | ● |
| | | **6** | Nylon bowl | ● | ● | ● | ● |
| | | **8** | Metal bowl with level gauge | — | — | ● | ● |
| | | **C** | With bowl guard | — | ● | — Note11) | — Note11) |
| | | **6C** | With bowl guard (Nylon bowl) | — | ● | — Note12) | — Note12) |
| | **h** Filter regulator drain port (Note 13) | **Nil** | With drain cock | ● | ● | ● | ● |
| | | **J** Note 14) | Drain guide 1/8 | — | ● | — | — |
| | | | Drain guide 1/4 | — | — | ● | ● |
| | | **W** Note 15) | Drain cock with barb fitting (for φ 6 x φ 4 nylon tube) | — | — | ● | ● |
| | **i** Lubricator lubricant exhaust port | **Nil** | Without drain cock | ● | ● | ● | ● |
| | | **3** Note 16) | Lubricator with drain cock | ● | ● | ● | ● |
| | **j** Exhaust mechanism | **Nil** | Relieving type | ● | ● | ● | ● |
| | | **N** | Non-relieving type | ● | ● | ● | ● |
| | **k** Flow direction | **Nil** | Flow direction： Left to right | ● | ● | ● | ● |
| | | **R** | Flow direction： Right to left | ● | ● | ● | ● |
| | **l** Pressure unit | **Nil** | Name plate and pressure gauge in imperial units：MPa | ● | ● | ● | ● |
| | | **Z** Note 17) | Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F | ○ Note18) | ○ Note18) | ○ Note18) | ○ Note18) |

Note 1) Drain guide is NPT1/8 (applicable to the AC20A-A) and NPT1/4 (applicable to the AC30A-A to AC40A-A). The auto drain port comes with ϕ3/8" One-touch fitting (applicable to the AC30A-A to AC40A-A).
Note 2) Drain guide is G1/8 (applicable to the AC20A-A) and G1/4 (applicable to the AC30A-A to AC40A-A).
Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
Note 4) When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl.
Releasing the residual condensate before ending operations for the day is recommended.
Note 5) If the compressor is small (0.75 kW, discharge flow is less than 100 L/min[ANR]), air leakage from the drain cock may occur during start of operations. N.C. type is recommended.
Note 6) When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.7 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type (1.0 MPa pressure gauge only for the AC10A-A).
Note 7) Not available with piping port size: 06
Note 8) The bracket position varies depending on the pressure switch mounting.
Note 9) Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
Note 10) Refer to Chemical data on page 3 for chemical resistance of the bowl.
Note 11) A bowl guard is provided as standard equipment (polycarbonate).
Note 12) A bowl guard is provided as standard equipment (nylon).
Note 13) Float type auto drain: The combination of C and D is not possible.
Note 14) Without a valve function
Note 15) The combination of metal bowl: 2 and 8 is not available.
Note 16) When choosing with W: Filter drain port, the drain cock of a lubricator will be with barb fittings.
Note 17) For pipe thread type: M5, NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) MPa and psi are shown together on the pressure unit. Cannot be used with M: Round pressure gauge (with color zone). Available by request for special.
Note 18) ○: For pipe thread type: M5, NPT only

AC 30 B – F 03 DG – ☐ – ☐ – A

(1) (2) (3) (4) (5) (6)

・Option / Semi-standard : Select one each for **a** to **j**.
・Option / Attachment / Semi-standard symbol : When more than one specification is required, indicate in alphanumeric order.

Example）AC30B-03DM-SV-1NR-A

| | | Symbol | Description | ① Body size 10 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| ② | Pipe thread type | **Nil** | Metric thread (M5) | ● | — | — | — | — |
| | | | Rc | — | ● | ● | ● | ● |
| | | **N** Note 1) | NPT | — | ● | ● | ● | ● |
| | | **F** Note 2) | G | — | ● | ● | ● | ● |
| ③ | Port size | **M5** | M5 | ● | — | — | — | — |
| | | **01** | 1／8 | — | ● | — | — | — |
| | | **02** | 1／4 | — | ● | ● | ● | ● |
| | | **03** | 3／8 | — | — | ● | ● | ● |
| | | **04** | 1／2 | — | — | — | — | ● |
| | | **06** | 3／4 | — | — | — | — | ● |
| ④ Note 3) Option | **a** Float type auto drain | **Nil** | Without auto drain | ● | ● | ● | ● | ● |
| | | **C** Note 4) | N.C. (Normally closed) Drain port is closed when pressure is not applied. | ● | ● | ● | ● | ● |
| | | **D** Note 5) | N.O. (Normally open) Drain port is open when pressure is not applied. | — | — | ● | ● | ● |
| | **b** Note 6) Pressure gauge | **Nil** | Without pressure gauge | ● | ● | ● | ● | ● |
| | | **G** | Round type pressure gauge (without limit indicator) | ● | — | — | — | — |
| | | | Round type pressure gauge (with limit indicator) | — | ● | ● | ● | ● |
| | | **M** | Round type pressure gauge (with color zone) | — | ● | ● | ● | ● |
| ⑤ Attachment | **c** Pressure switch | **Nil** | Without attachments | ● | ● | ● | ● | ● |
| | | **S** Note 7) | Mounting position：AF+**S**+AR | — | ● | ● | ● | ● |
| | T-spacer | **T** Note 7) | Mounting position：AF+**T**+AR | ● | ● | ● | ● | ● |
| | **d** Pressure relief 3 port valve | **Nil** | Without attachments | ● | ● | ● | ● | ● |
| | | **V** | Mounting position：AF+AR+**V** | — | ● | ● | ● | ● |
| | | **V1** Note 8) | Mounting position：**V**+AF+AR | — | ● | ● | ● | ● |
| ⑥ Semi-standard | **e** Note 9) Set pressure | **Nil** | 0.05 to 0.7 MPa setting | ● | ● | ● | ● | ● |
| | | **1** | 0.02 to 0.2 MPa setting | ● | ● | ● | ● | ● |
| | **f** Note 10) Bowl | **Nil** | Polycarbonate bowl | ● | ● | ● | ● | ● |
| | | **2** | Metal bowl | ● | ● | ● | ● | ● |
| | | **6** | Nylon bowl | ● | ● | ● | ● | ● |
| | | **8** | Metal bowl with level gauge | — | — | ● | ● | ● |
| | | **C** | With bowl guard | — | ● | — Note11) | — Note11) | — Note11) |
| | | **6C** | With bowl guard (Nylon bowl) | — | ● | — Note12) | — Note12) | — Note12) |
| | **g** Note 13) Air filter drain port | **Nil** | With drain cock | ● | ● | ● | ● | ● |
| | | **J** Note 14) | Drain guide 1/8 | — | ● | — | — | — |
| | | | Drain guide 1/4 | — | — | ● | ● | ● |
| | | **W** Note 15) | Drain cock with barb fitting (for φ 6 x φ 4 nylon tube) | — | — | ● | ● | ● |
| | **h** Exhaust mechanism | **Nil** | Relieving type | ● | ● | ● | ● | ● |
| | | **N** | Non-relieving type | ● | ● | ● | ● | ● |
| | **i** Flow direction | **Nil** | Flow direction：Left to right | ● | ● | ● | ● | ● |
| | | **R** | Flow direction：Right to left | ● | ● | ● | ● | ● |
| | **j** Pressure unit | **Nil** | Name plate and pressure gauge in imperial units：MPa | ● | ● | ● | ● | ● |
| | | **Z** Note 16) | Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F | ○ Note17) | ○ Note17) | ○ Note17) | ○ Note17) | ○ Note17) |

Note 1) Drain guide is NPT1/8 (applicable to the AC20B-A) andV NPT1/4 (applicable to the AC25B-A to AC40B-A). The auto drain port comes with ϕ3/8" One-touch fitting (applicable to the AC25B-A to AC40B-A).
Note 2) Drain guide is G1/8 (applicable to the AC20B-A) and G1/4 (applicable to the AC25B-A to AC40B-A).
Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
Note 4) When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl.Releasing the residual condensate before ending operations for the day is recommended.
Note 5) If the compressor is small (0.75 kW, discharge flow is less than 100 L/min[ANR]), air leakage from the drain cock may occur during start of operations. N.C. type is recommended.
Note 6) When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.7 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type (1.0 MPa pressure gauge only for the AC10B-A).
Note 7) The bracket position varies depending on the T-spacer or pressure switch mounting.
Note 8) Make sure that the outlet pressure is released to atmospheric pressure using a pressure gauge. For V1 specification, use the regulatorwith a set pressure of 0.15 MPa or more to ensure the pressure release.
Note 9) Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
Note 10) Refer to Chemical data on page 3 for chemical resistance of the bowl.
Note 11) A bowl guard is provided as standard equipment (polycarbonate).
Note 12) A bowl guard is provided as standard equipment (nylon).
Note 13) Float type auto drain: The combination of C and D is not possible.
Note 14) Without a valve function
Note 15) The combination of metal bowl: 2 and 8 is not available.
Note 16) For pipe thread type: M5, NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) MPa and psi are shown together on the pressure unit. Cannot be used with M: Round pressure gauge (with color zone). Available by request for special.
Note 17) ○: For pipe thread type: M5, NPT only

AC 30 C – F 03 DG – ☐ – ☐ – A

(1) (2) (3) (4) (5) (6)

・Option / Semi-standard : Select one each for **a** to **j**.
・Option / Attachment / Semi-standard symbol : When more than one specification is required, indicate in alphanumeric order.

Example）AC30C-03DM-SV-1NR-A

| | | Symbol | Description | ① Body size 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| ② | Pipe thread type | **Nil** | Rc | ● | ● | ● | ● |
| | | **N** Note 1) | NPT | ● | ● | ● | ● |
| | | **F** Note 2) | G | ● | ● | ● | ● |
| ③ | Port size | **01** | 1／8 | ● | — | — | — |
| | | **02** | 1／4 | ● | ● | ● | ● |
| | | **03** | 3／8 | — | ● | ● | ● |
| | | **04** | 1／2 | — | — | — | ● |
| | | **06** | 3／4 | — | — | — | ● |
| ④ Option Note 3) | **a** Float type auto drain | **Nil** | Without auto drain | ● | ● | ● | ● |
| | | **C** Note 4) | N.C. (Normally closed) Drain port is closed when pressure is not applied. | ● | ● | ● | ● |
| | | **D** Note 5) | N.O. (Normally open) Drain port is open when pressure is not applied. | — | ● | ● | ● |
| | **b** Note 6) Pressure gauge | **Nil** | Without pressure gauge | ● | ● | ● | ● |
| | | **G** | Round type pressure gauge (with limit indicator) | ● | ● | ● | ● |
| | | **M** | Round type pressure gauge (with color zone) | ● | ● | ● | ● |
| ⑤ Attachment | **c** Pressure switch | **Nil** | Without attachments | ● | ● | ● | ● |
| | | **S** Note 7) | Mounting position：AF+AFM+**S**+AR | ● | ● | ● | ● |
| | T-spacer | **T** Note 7) | Mounting position：AF+AFM+**T**+AR | ● | ● | ● | ● |
| | **d** Pressure relief 3 port valve | **Nil** | Without attachments | ● | ● | ● | ● |
| | | **V** | Mounting position：AF+AFM+AR+**V** | ● | ● | ● | ● |
| | | **V1** Note 8) | Mounting position：**V**+AF+AFM+AR | ● | ● | ● | ● |
| ⑥ Semi-standard | **e** Note 9) Set pressure | **Nil** | 0.05 to 0.7 MPa setting | ● | ● | ● | ● |
| | | **1** | 0.02 to 0.2 MPa setting | ● | ● | ● | ● |
| | **f** Note 10) Bowl | **Nil** | Polycarbonate bowl | ● | ● | ● | ● |
| | | **2** | Metal bowl | ● | ● | ● | ● |
| | | **6** | Nylon bowl | ● | ● | ● | ● |
| | | **8** | Metal bowl with level gauge | — | ● | ● | ● |
| | | **C** | With bowl guard | ● | — Note11) | — Note11) | — Note11) |
| | | **6C** | With bowl guard (Nylon bowl) | ● | — Note12) | — Note12) | — Note12) |
| | **g** Note 13) Air filter Mist separator drain port | **Nil** | With drain cock | ● | ● | ● | ● |
| | | **J** Note 14) | Drain guide 1/8 | ● | — | — | — |
| | | | Drain guide 1/4 | — | ● | ● | ● |
| | | **W** Note 15) | Drain cock with barb fitting (for φ 6 x φ 4 nylon tube) | — | ● | ● | ● |
| | **h** Exhaust mechanism | **Nil** | Relieving type | ● | ● | ● | ● |
| | | **N** | Non-relieving type | ● | ● | ● | ● |
| | **i** Flow direction | **Nil** | Flow direction：Left to right | ● | ● | ● | ● |
| | | **R** | Flow direction：Right to left | ● | ● | ● | ● |
| | **j** Pressure unit | **Nil** | Name plate and pressure gauge in imperial units：MPa | ● | ● | ● | ● |
| | | **Z** Note 16) | Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F | ○ Note17) | ○ Note17) | ○ Note17) | ○ Note17) |

Note 1) Drain guide is NPT1/8 (applicable to the AC20C-A) and NPT1/4 (applicable to the AC25C-A to AC40C-A). The auto drain port comes with ϕ3/8" One-touch fitting (applicable to the AC25C-A to AC40C-A).
Note 2) Drain guide is G1/8 (applicable to the AC20C-A) and G1/4 (applicable to the AC25C-A to AC40C-A).
Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
Note 4) When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl.
Releasing the residual condensate before ending operations for the day is recommended.
Note 5) If the compressor is small (0.75 kW, discharge flow is less than 100 L/min[ANR]), air leakage from the drain cock may occur during start of operations. N.C. type
Note 6) When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.7 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
Note 7) The bracket position varies depending on the T-spacer or pressure switch mounting.
Note 8) Make sure that the outlet pressure is released to atmospheric pressure using a pressure gauge.
For V1 specification, use the regulator with a set pressure of 0.15 MPa or more to ensure the pressure release.
Note 9) Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
Note 10) Refer to Chemical data on page 3 for chemical resistance of the bowl.
Note 11) A bowl guard is provided as standard equipment (polycarbonate).
Note 12) A bowl guard is provided as standard equipment (nylon).
Note 13) Float type auto drain: The combination of C and D is not possible.
Note 14) Without a valve function
Note 15) The combination of metal bowl: 2 and 8 is not available.
Note 16) For pipe thread type: NPT.
This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)
MPa and psi are shown together on the pressure unit.
Cannot be used with M: Round pressure gauge (with color zone).
Available by request for special.
Note 17) ○: For pipe thread type: NPT only

AC 30 D – F 03 DG – □ – □ – A

(1) (2) (3) (4) (5) (6)

・Option / Semi-standard : Select one each for **a** to **j**.
・Option / Attachment / Semi-standard symbol : When more than one specification is required, indicate in alphanumeric order.

Example）AC30D-03DM-SV-1NR-A

| | | Symbol | Description | ① Body size 20 | ① Body size 30 | ① Body size 40 |
|---|---|---|---|---|---|---|
| ② | Pipe thread type | **Nil** | Rc | ● | ● | ● |
| | | **N** Note 1) | NPT | ● | ● | ● |
| | | **F** Note 2) | G | ● | ● | ● |
| ③ | Port size | **01** | 1／8 | ● | — | — |
| | | **02** | 1／4 | ● | ● | ● |
| | | **03** | 3／8 | — | ● | ● |
| | | **04** | 1／2 | — | — | ● |
| | | **06** | 3／4 | — | — | ● |
| ④ Option Note 3) | **a** Float type auto drain | **Nil** | Without auto drain | ● | ● | ● |
| | | **C** Note 4) | N.C. (Normally closed) Drain port is closed when pressure is not applied. | ● | ● | ● |
| | | **D** Note 5) | N.O. (Normally open) Drain port is open when pressure is not applied. | — | ● | ● |
| | **b** Note 6) Pressure gauge | **Nil** | Without pressure gauge | ● | ● | ● |
| | | **G** | Round type pressure gauge (with limit indicator) | ● | ● | ● |
| | | **M** | Round type pressure gauge (with color zone) | ● | ● | ● |
| ⑤ Attachment | **c** Pressure switch | **Nil** | Without attachments | ● | ● | ● |
| | | **S** Note 7) | Mounting position：AW+**S**+AFM | ● | ● | ● |
| | **d** Pressure relief 3 port valve | **Nil** | Without attachments | ● | ● | ● |
| | | **V** | Mounting position：AW+AFM+**V** | ● | ● | ● |
| | | **V1** Note 8) | Mounting position：**V**+AW+AFM | ● | ● | ● |
| ⑥ Semi-standard | **e** Note 9) Set pressure | **Nil** | 0.05 to 0.7 MPa setting | ● | ● | ● |
| | | **1** | 0.02 to 0.2 MPa setting | ● | ● | ● |
| | **f** Note 10) Bowl | **Nil** | Polycarbonate bowl | ● | ● | ● |
| | | **2** | Metal bowl | ● | ● | ● |
| | | **6** | Nylon bowl | ● | ● | ● |
| | | **8** | Metal bowl with level gauge | — | ● | ● |
| | | **C** | With bowl guard | ● | — Note11) | — Note11) |
| | | **6C** | With bowl guard (Nylon bowl) | ● | — Note12) | — Note12) |
| | **g** Note 13) Filter regulator Mist separator drain port | **Nil** | With drain cock | ● | ● | ● |
| | | **J** Note 14) | Drain guide 1/8 | ● | — | — |
| | | | Drain guide 1/4 | — | ● | ● |
| | | **W** Note 15) | Drain cock with barb fitting (for φ 6 x φ 4 nylon tube) | — | ● | ● |
| | **h** Exhaust mechanism | **Nil** | Relieving type | ● | ● | ● |
| | | **N** | Non-relieving type | ● | ● | ● |
| | **i** Flow direction | **Nil** | Flow direction：Left to right | ● | ● | ● |
| | | **R** | Flow direction：Right to left | ● | ● | ● |
| | **j** Pressure unit | **Nil** | Name plate and pressure gauge in imperial units ： MPa | ● | ● | ● |
| | | **Z** Note 16) | Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F | ○ Note17) | ○ Note17) | ○ Note17) |

Note 1) Drain guide is NPT1/8 (applicable to the AC20D-A) and NPT1/4 (applicable to the AC30D-A and AC40D-A). The auto drain port comes with ϕ3/8" One-touch fitting (applicable to the AC30D-A and AC40D-A).
Note 2) Drain guide is G1/8 (applicable to the AC20D-A) and G1/4 (applicable to the AC30D-A and AC40D-A).
Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
Note 4) When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
Note 5) If the compressor is small (0.75 kW, discharge flow is less than 100 L/min[ANR]), air leakage from the drain cock may occur during start of operations. N.C. type is recommended.
Note 6) When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.7 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
Note 7) The bracket position varies depending on the pressure switch mounting.
Note 8) Make sure that the outlet pressure is released to atmospheric pressure using a pressure gauge. For V1 specification, use the regulator with a set pressure of 0.15 MPa or more to ensure the pressure release.
Note 9) Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
Note 10) Refer to Chemical data on page 3 for chemical resistance of the bowl.
Note 11) A bowl guard is provided as standard equipment (polycarbonate).
Note 12) A bowl guard is provided as standard equipment (nylon).
Note 13) Float type auto drain: The combination of C and D is not possible.
Note 14) Without a valve function
Note 15) The combination of metal bowl: 2 and 8 is not available.
Note 16) For pipe thread type: NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) MPa and psi are shown together on the pressure unit. Cannot be used with M: Round pressure gauge (with color zone). Available by request for special.
Note 17) ○: For pipe thread type: NPT only

## 6. ATTACHMENTS / ACCESSORIES（OPTIONS）PART NUMBER

| Section | Description \ Model | | | Attachments / Accessories (Options) part number | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | For AC10∗-A | For AC20∗-A | For AC25∗-A | For AC30∗-A | For AC40∗-A | For AC40∗-06-A |
| Option | Pressure gauge Note1) | Round type | Standard | G27-10-01 | G36-10-☐01 | | | G46-10-☐01 | |
| | | | 0.2 MPa setting | G27-10-01 Note2) | G36-4-☐01 | | | G46-4-☐01 | |
| | | Round type (with color zone) | Standard | — | G36-10-☐01-L | | | G46-10-☐01-L | |
| | | | 0.2 MPa setting | — | G36-4-☐01-L | | | G46-4-☐01-L | |
| | Float type auto drain Note3) | | N.C. | AD17-A | AD27-A | AD37☐-A | | AD47☐-A | |
| | | | N.O. | — | — | AD38☐-A | | AD48☐-A | |
| Attachment | Spacer | | | Y100-A | Y200-A | Y300-A | | Y400-A | Y500-A |
| | Spacer with bracket | | | Y100T-A | Y200T-A | Y300T-A | | Y400T-A | Y500T-A |
| | Check valve Note4) Note5) | | | — | AKM2000-☐01-A<br>AKM2000-(☐02)-A | AKM3000-(☐01)-A<br>AKM3000-☐02-A | | AKM4000-(☐02)-A<br>AKM4000-☐03-A | — |
| | Pressure switch Note5) | | | — | IS10M-20-A | IS10M-30-A | | IS10M-40-A | IS10M-50-A |
| | T-Spacer Note4) Note5) | | | Y110-M5-A | Y210-☐01-A<br>Y210-(☐02)-A | Y310-(☐01)-A<br>Y310-☐02-A | | Y410-(☐02)-A<br>Y410-☐03-A | Y510-(☐02)-A<br>Y510-☐03-A |
| | Pressure relief 3 port valve Note5) | | | — | VHS20-☐01A<br>VHS20-☐02A | VHS30-☐02A<br>VHS30-☐03A | | VHS40-☐02A<br>VHS40-☐03A<br>VHS40-☐04A | VHS40-☐06A |
| | Piping adapter Note5) | | | E100-M5-A | E200-☐01-A<br>E200-☐02-A<br>E200-☐03-A | E300-☐02-A<br>E300-☐03-A<br>E300-☐04-A | | E400-☐02-A<br>E400-☐03-A<br>E400-☐04-A<br>E400-☐06-A | E500-☐06-A |
| | Pressure switch with piping adapter Note5) | | | — | IS10E-20☐01-A<br>IS10E-20☐02-A<br>IS10E-20☐03-A | IS10E-30☐02-A<br>IS10E-30☐03-A<br>IS10E-30☐04-A | | IS10E-40☐02-A<br>IS10E-40☐03-A<br>IS10E-40☐04-A<br>IS10E-40☐06-A | — |
| | Cross spacer Note5) | | | Y14-M5-A | Y24-☐01-A<br>Y24-☐02-A | Y34-☐01-A<br>Y34-☐02-A | | Y44-☐02-A<br>Y44-☐03-A | Y54-☐03-A<br>Y54-☐04-A |

Note1) ☐ in part numbers for a round pressure gauge indicates a pipe thread type. Noindication is necessary for R; however, indicate N for NPT.
Please contact SMC regarding the pipe thread type NPT and the supply of pressure gauge with psi unit display specifications.
Note2) Standard pressure gauge
Note3) Minimum operating pressure: N.O. type–0.1 MPa; N.C. type–0.1 MPa (AD17-A, AD27-A) and 0.15 MPa (AD37-A, AD47-A).
☐ of float type auto drain product number shows the type of the outside diameter of the application tube. Indicate Nil for φ 10 and N for φ 3/8".
Please contact SMC for psi and ˚F unit specifications.
Note4) For F.R.L units, port sizes without ( ) are standard specifications.
Note5) Separate interfaces are required for modular unit.

## 7. TROUBLESHOOTING

○ Air combination（Connected part）

| Trouble | | Possible cause | Remedy |
|---|---|---|---|
| Section | Phenomenon | | |
| Leak | Air leakage from connected part | 1. Breakage of packing. | 1. Replace the packing. |
| | | 2. Retainer connection nut is loose. | Tighten connection nut to the specified torque.<br>(See "Assembly" of "9. HOW TO REPLACE" on page 17.) |

○For individual product troubleshooting, refer to the operation manual of each product.

## 8. SPARE PARTS LIST

○ Air combination（AC junction）

| Description | Spare parts part number | | | | | |
|---|---|---|---|---|---|---|
| | AC10∗-A | AC20∗-A | AC25∗-A | AC30∗-A | AC40∗-A | AC40∗-06-A |
| ①Seal | Y120P-050AS Note1) | Y220P-050S | Y320P-050S | | Y420P-050S | Y520P-050S |

Note1) Assembly of 2 O-rings

○For spare parts of each product, refer to the operation manual and catalog.

# 9. HOW TO REPLACE

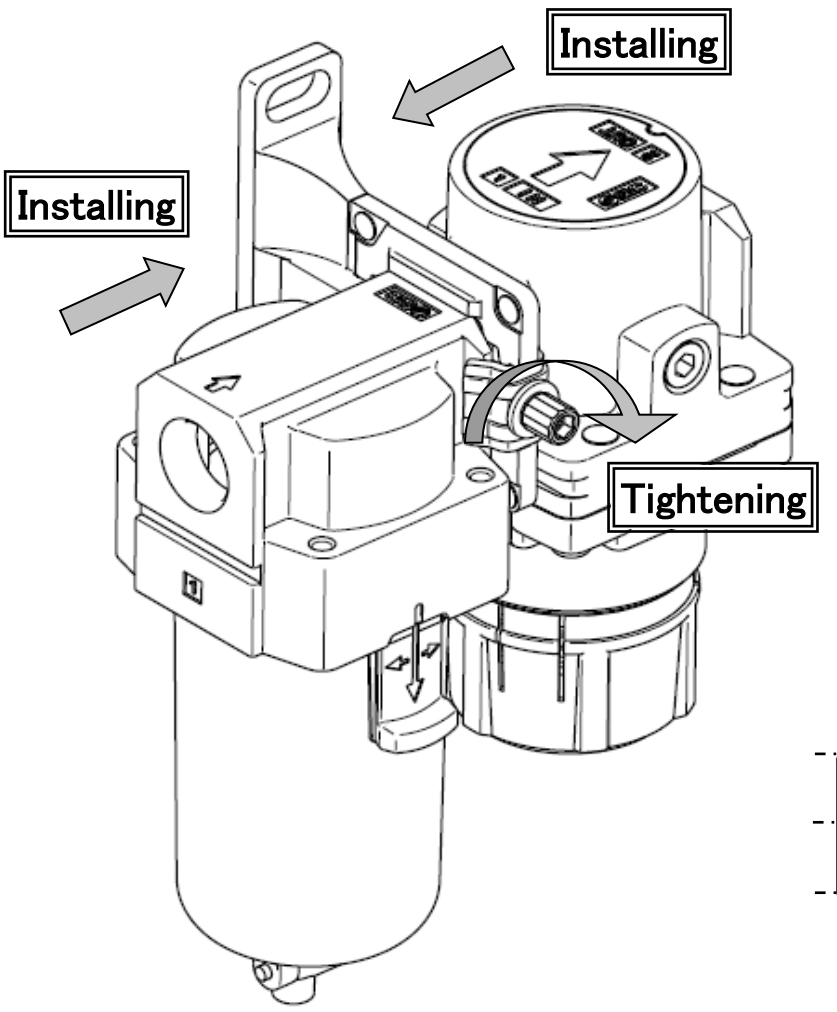
**⚠ WARNING**

・Before replacement, ensure that the air combination assembly is not pressurized.
・Rotate the pressure adjusting handle of the regulator and filter-regulator to zero.
・Replace refering to "10. DISASSEMBLY DRAWING"（P18 to P19）.
・After replacement, ensure that specified function is satisfied and external leakage is not found before starting operation.

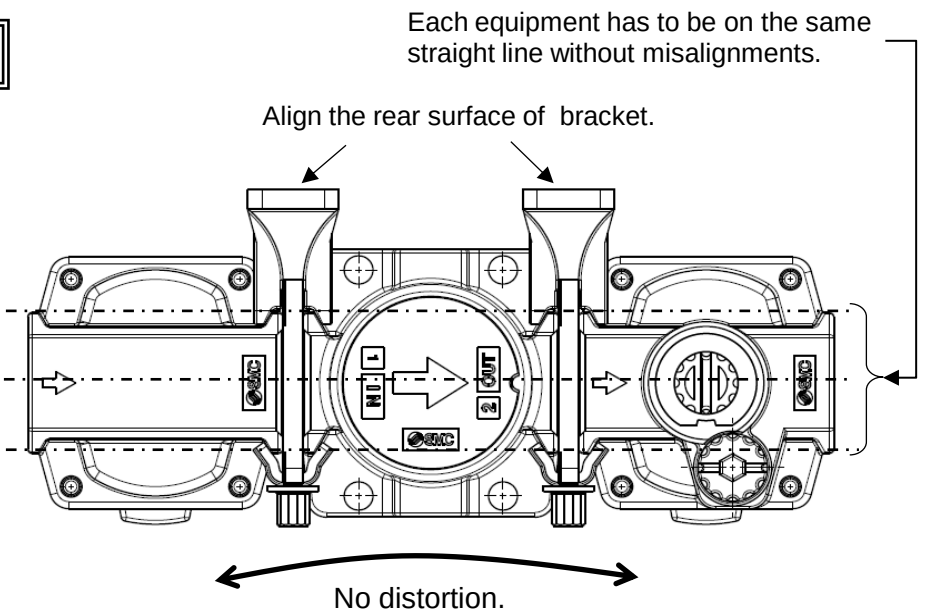
○ Air combination

| Process | Procedure | Tools | Check item |
|---|---|---|---|
| Disassembly | ① Remove the connected piping as necessary. | — | — |
| | ② Remove the nut and retainer.<br>Inset a hexagon wrench into the hexagon socket of the nut and rotate it anticlockwise to remove the nut and retainer.<br>Make sure to hold the parts removed by hand to prevent them from dropping. | Hexagon wrench<br>Nominal :<br>AC10,20-A: 3<br>AC25,30-A: 4<br>AC40(-06)-A: 5 | — |
| | ③ Remove the component. | — | — |
| Assembly | ④ Mount a spacer to the product.<br>Align the groove of the product with the raised part of the spacer.<br>Pay attention to the IN and OUT direction. | — | — |
| | ⑤ Mount the retainer to the spacer bolt and tighten them temporarily by rotating the nut clockwise while holding the product by hand. | — | — |
| | ⑥ Tighten the nut.<br>Insert a hexagon wrench into the hexagon socket of the nut and tighten the nut by rotating it clockwise.<br>The tightening torque of the lock nut is shown in the right side as a guide. | Hexagon wrench<br>Nominal :<br>AC10,20-A: 3<br>AC25,30-A: 4<br>AC40(-06)-A: 5 | Tightening torque :<br>AC10,20-A: 0.6±0.05 N・m<br>AC25,30-A: 1.5±0.05 N・m<br>AC40(-06)-A: 3.0±0.1 N・m |

【Modular connection ( Assembly ) 】



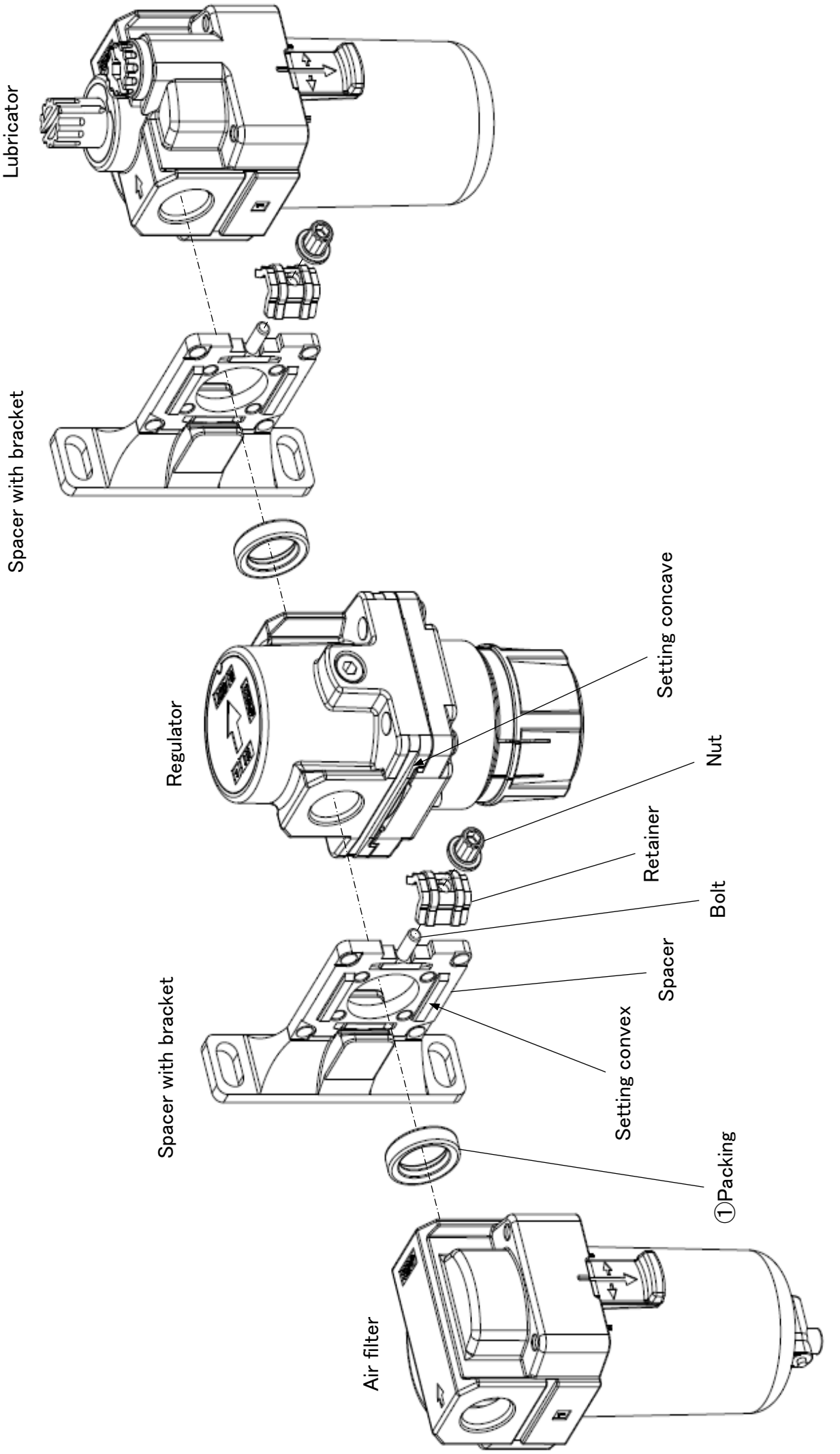

【Precautions for modular connection (Assembly)】



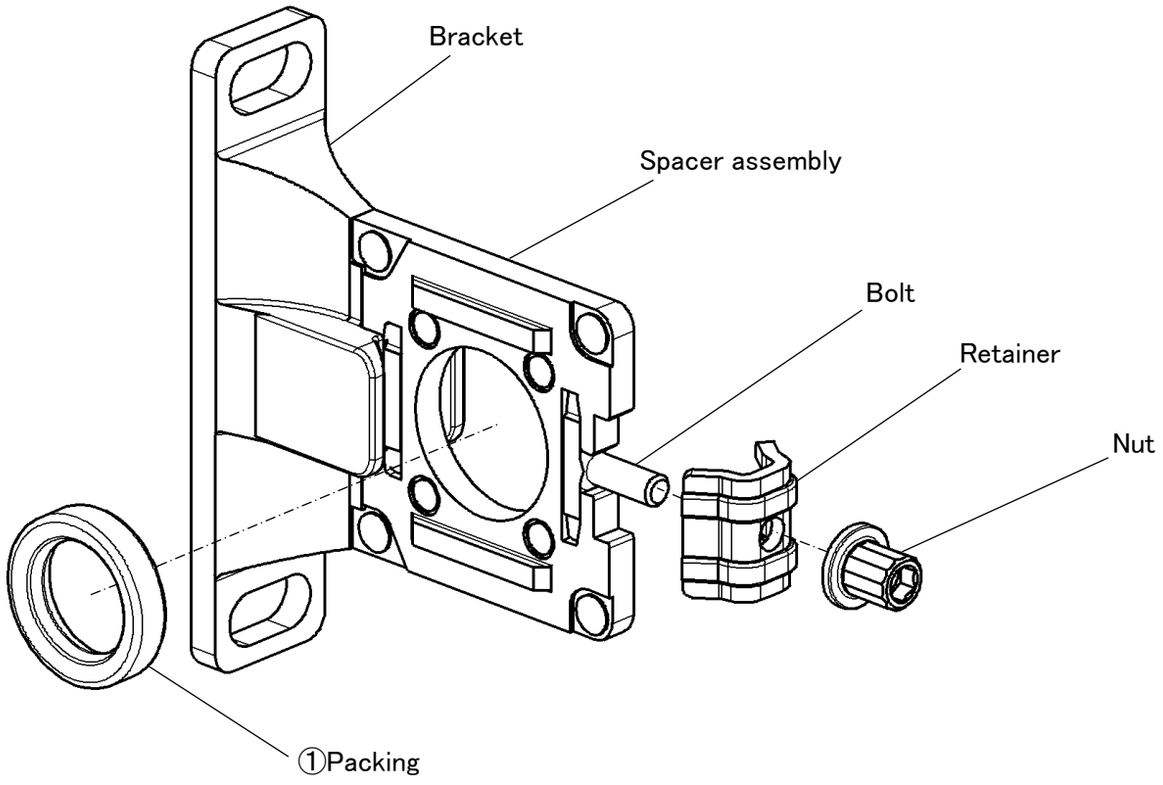

○For individual product troubleshooting, refer to the operation manual of each product.

# 10. DISASSEMBLY DRAWING

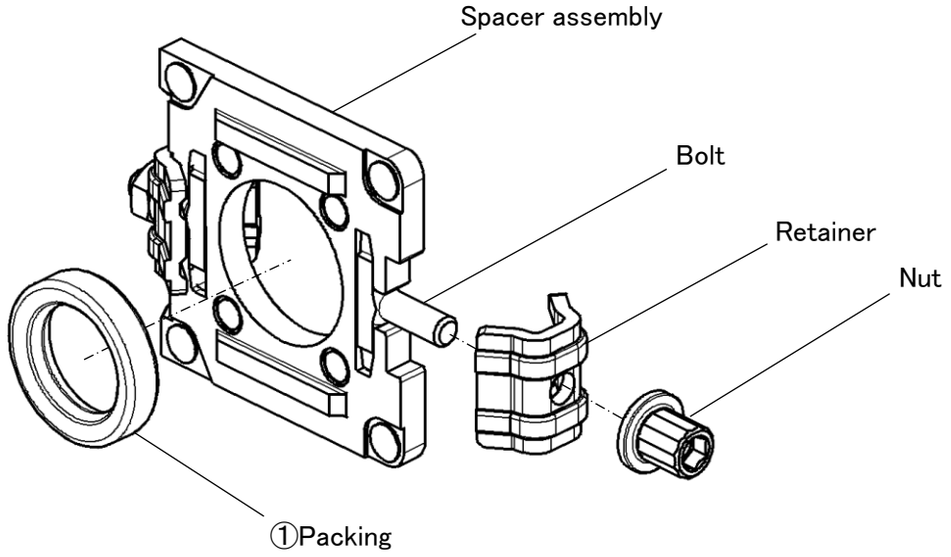
## 1) F. R. L Combination



## 2）Spacer with bracket



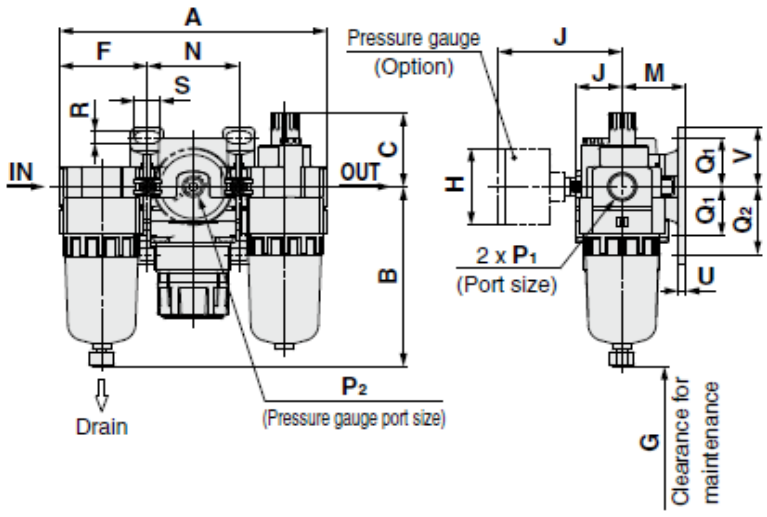

## 3）Spacer



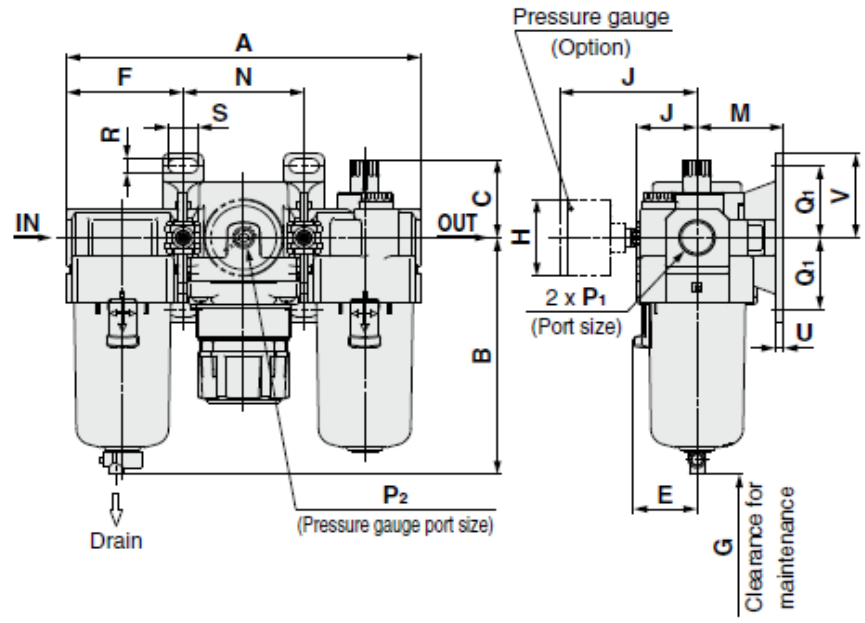
# 11. DIMENSIONS

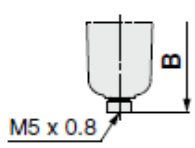
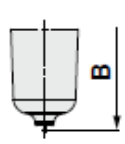
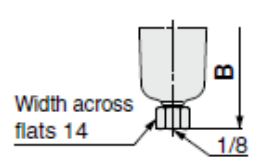
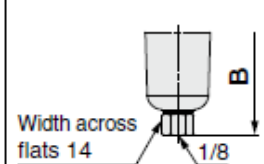
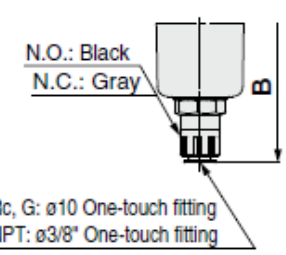
## 1) AC10−A to AC40−06−A

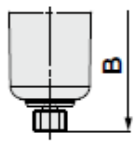
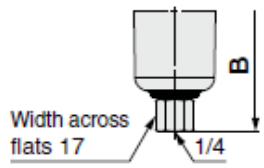
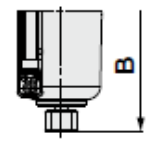
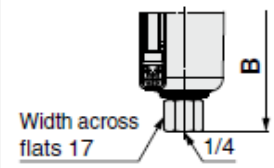
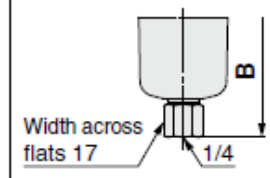
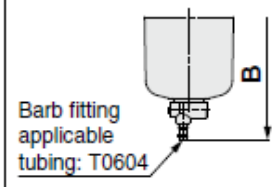
AC10−A·AC20−A




AC25−A to AC40−06−A




| Applicable model | AC10-A/AC20-A | | AC20-A | | AC25-A to AC40-06-A |
|---|---|---|---|---|---|
| Optional/Semi-standard specifications | With auto drain (N.C.) | Metal bowl | With drain guide | Metal bowl with drain guide | With auto drain (N.O./N.C.) |
| Dimensions |  |  |  |  |  |

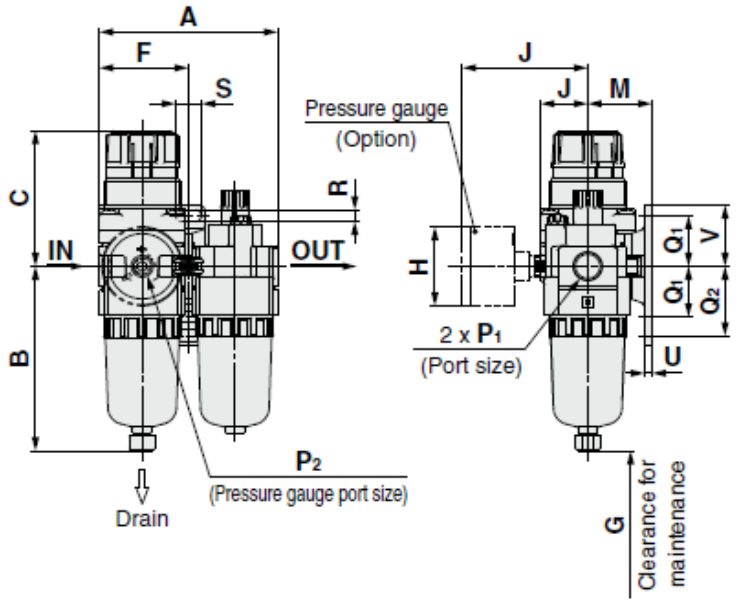
| Applicable model | AC25-A to AC40-06-A | | | | | |
|---|---|---|---|---|---|---|
| Optional/Semi-standard specifications | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge, with drain guide | With drain guide | Drain cock with barb fitting |
| Dimensions |  |  |  |  |  |  |

| Model | Standard specifications | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $P_1$ | $P_2$ | A | B | C | E | F | G | J | Bracket mount | | | | | | | |
| | | | | | | | | | | M | N | $Q_1$ | $Q_2$ | R | S | U | V |
| **AC10-A** | M5×0.8 | 1/16 | 87 | 59.9 | 25.5 | — | 28 | 35 | 12.5 | 25 | 31 | 20 | 27 | 4.5 | 6.8 | 3 | 24.5 |
| **AC20-A** | 1/8·1/4 | 1/8 | 126.4 | 87.6 | 35.9 | — | 41.6 | 60 | 23.4 | 30 | 43.2 | 24 | 33 | 5.5 | 12 | 3.5 | 29 |
| **AC25-A** | 1/4·3/8 | 1/8 | 167.4 | 115.1 | 38.1 | 30 | 55.1 | 80 | 30.5 | 41 | 57.2 | 35 | — | 7 | 14 | 4 | 41 |
| **AC30-A** | 1/4·3/8 | 1/8 | 167.4 | 115.1 | 38.1 | 30 | 55.1 | 80 | 30.5 | 41 | 57.2 | 35 | — | 7 | 14 | 4 | 41 |
| **AC40-A** | 1/4·3/8·1/2 | 1/8 | 220.4 | 147.1 | 39.8 | 38.4 | 72.6 | 110 | 36.1 | 50 | 75.2 | 40 | — | 9 | 18 | 5 | 48 |
| **AC40-06-A** | 3/4 | 1/8 | 235.4 | 149.1 | 37.8 | 38.4 | 77.6 | 110 | 39.6 | 50 | 80.2 | 40 | — | 9 | 18 | 5 | 48 |

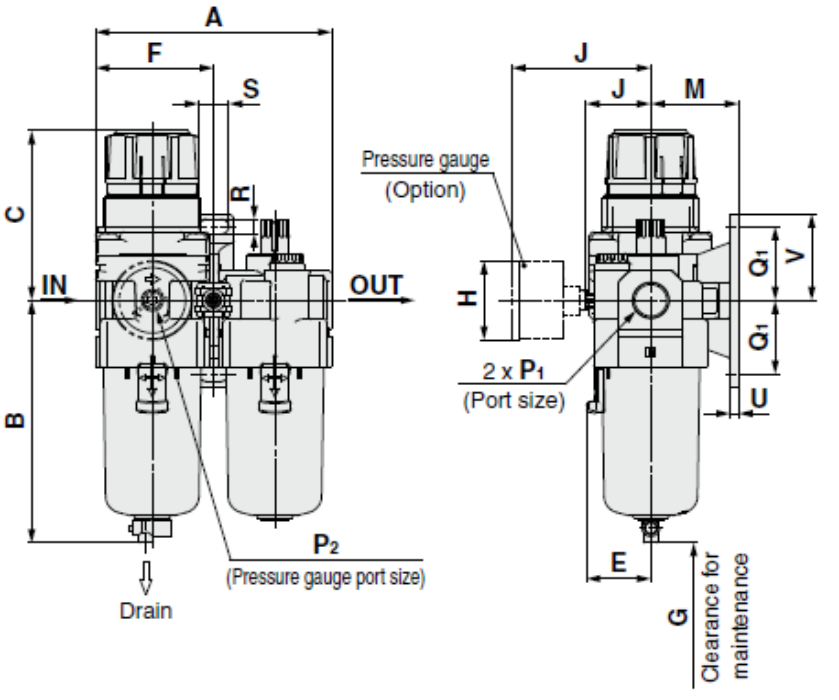
| Model | Optional specifications | | | | | Semi-standard specifications | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Round type pressure gauge | | Round type pressure gauge (with color zone) | | With auto drain | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge with drain guide | With barb fitting | With drain guide |
| | H | J | H | J | B | B | B | B | B | B | B |
| **AC10-A** | φ 26 | 26 | — | — | 77.9 | 59.3 | — | — | — | — | — |
| **AC20-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 104.9 | 87.4 | 93.9 | — | — | — | 91.4 |
| **AC25-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC30-A** | φ 37.5 | 65 | φ 37.5 | 66 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC40-A** | φ 42.5 | 72 | φ 42.5 | 72 | 186.9 | 149.6 | 154.1 | 169.6 | 174.1 | 155.6 | 153.9 |
| **AC40-06-A** | φ 42.5 | 72 | φ 42.5 | 72 | 188.9 | 151.6 | 156.1 | 171.6 | 176.1 | 157.6 | 155.9 |

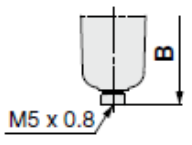
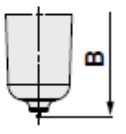
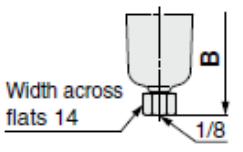
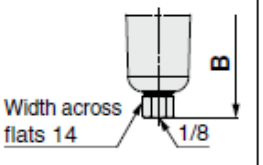
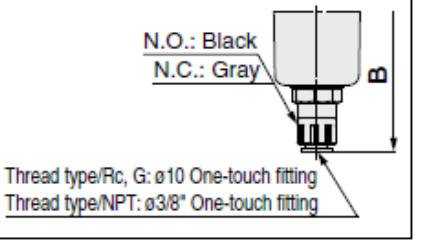
## 2) AC10A−A to AC40A−06−A

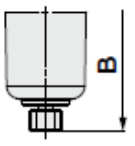
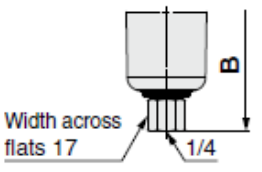
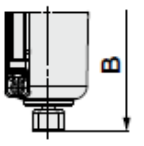
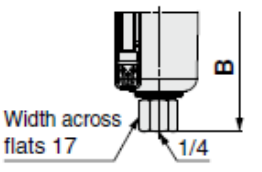
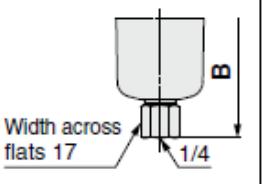
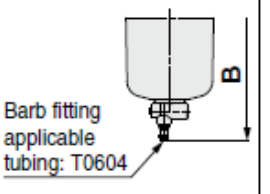
### AC10A−A・AC20A−A




### AC30A−A to AC40A−06−A




| Applicable model | AC10A-A/AC20A-A | | AC20A-A | | AC30A-A to AC40A-06-A |
|---|---|---|---|---|---|
| Optional/Semi-standard specifications | With auto drain (N.C.) | Metal bowl | With drain guide | Metal bowl with drain guide | With auto drain (N.O./N.C.) |
| Dimensions |   |   |   |   |   |

| Applicable model | AC30A-A to AC40A-06-A | | | | | |
|---|---|---|---|---|---|---|
| Optional/Semi-standard specifications | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge, with drain guide | With drain guide | Drain cock with barb fitting |
| Dimensions |   |   |   |   |   |   |

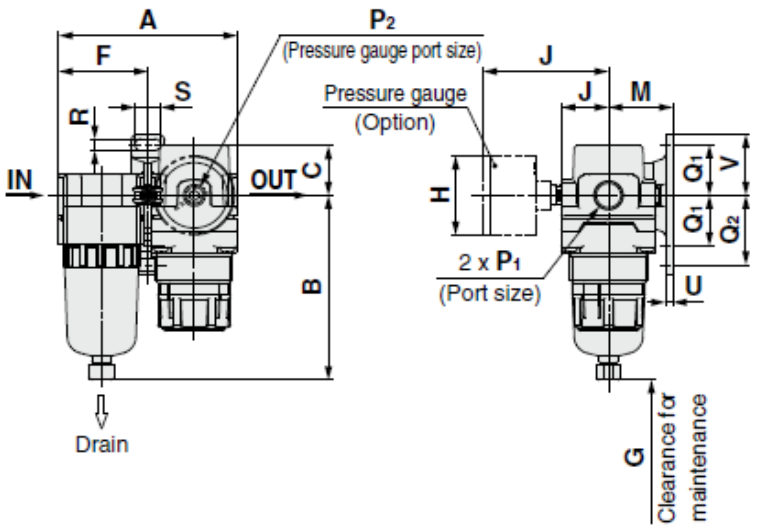
| Model | Standard specifications | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $P_1$ | $P_2$ | A | B | C Note) | E | F | G | J | Bracket mount | | | | | | |
| | | | | | | | | | | M | $Q_1$ | $Q_2$ | R | S | U | V |
| **AC10A-A** | M5×0.8 | 1/16 | 56 | 59.9 | 47.4 | — | 28 | 25 | 12.5 | 25 | 20 | 27 | 4.5 | 6.8 | 3 | 24.5 |
| **AC20A-A** | 1/8・1/4 | 1/8 | 83.2 | 87.6 | 67.4 | — | 41.6 | 60 | 23.4 | 30 | 24 | 33 | 5.5 | 12 | 3.5 | 29 |
| **AC30A-A** | 1/4・3/8 | 1/8 | 110.2 | 115.1 | 83.5 | 30 | 55.1 | 80 | 30.5 | 41 | 35 | — | 7 | 14 | 4 | 41 |
| **AC40A-A** | 1/4・3/8・1/2 | 1/8 | 145.2 | 147.1 | 100 | 38.4 | 72.6 | 110 | 36.1 | 50 | 40 | — | 9 | 18 | 5 | 48 |
| **AC40A-06-A** | 3/4 | 1/8 | 155.2 | 149.1 | 101.5 | 38.4 | 77.6 | 110 | 39.6 | 50 | 40 | — | 9 | 18 | 5 | 48 |

| Model | Optional specifications | | | | | Semi-standard specifications | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Round type pressure gauge | | Round type pressure gauge (with color zone) | | With auto drain | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge with drain guide | With barb fitting | With drain guide |
| | H | J | H | J | B | B | B | B | B | B | B |
| **AC10A-A** | φ 26 | 26 | — | — | 77.9 | 59.3 | — | — | — | — | — |
| **AC20A-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 104.9 | 87.4 | 93.9 | — | — | — | 91.4 |
| **AC30A-A** | φ 37.5 | 65 | φ 37.5 | 66 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC40A-A** | φ 42.5 | 72 | φ 42.5 | 72 | 186.9 | 149.6 | 154.1 | 169.6 | 174.1 | 155.6 | 153.9 |
| **AC40A-06-A** | φ 42.5 | 72 | φ 42.5 | 72 | 188.9 | 151.6 | 156.1 | 171.6 | 176.1 | 157.6 | 155.9 |

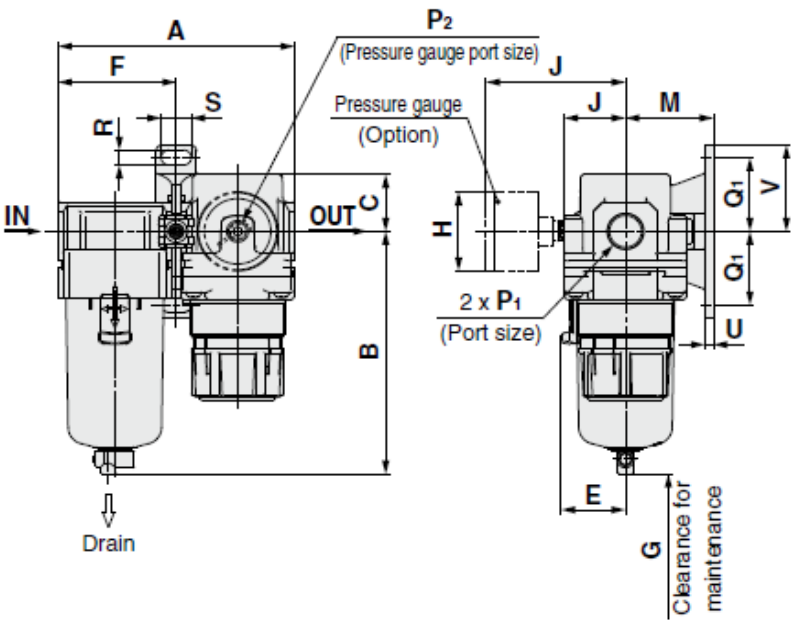
Note) The dimension of C is the length when the filter regulator knob is unlocked.

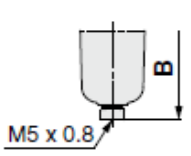
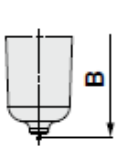
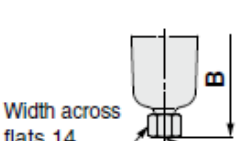
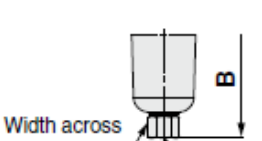
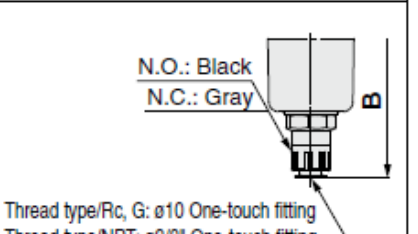
## 3) AC20B−A to AC40B−06−A

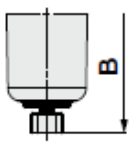
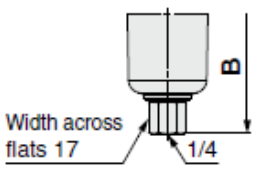
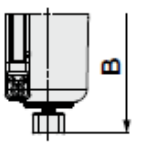
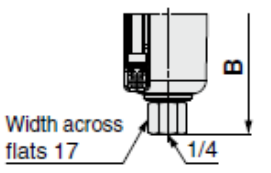
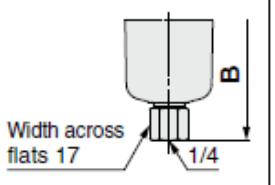
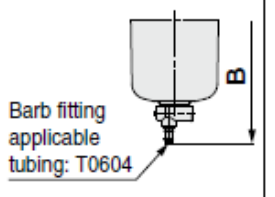
### AC10B−A·AC20B−A




### AC25B−A to AC40B−06−A




| Applicable model | AC10B-A/AC20B-A | | AC20B-A | | AC25B-A to AC40B-06-A |
|---|---|---|---|---|---|
| Optional/Semi-standard specifications | With auto drain (N.C.) | Metal bowl | With drain guide | Metal bowl with drain guide | With auto drain (N.O./N.C.) |
| Dimensions |  |  |  |  |  |

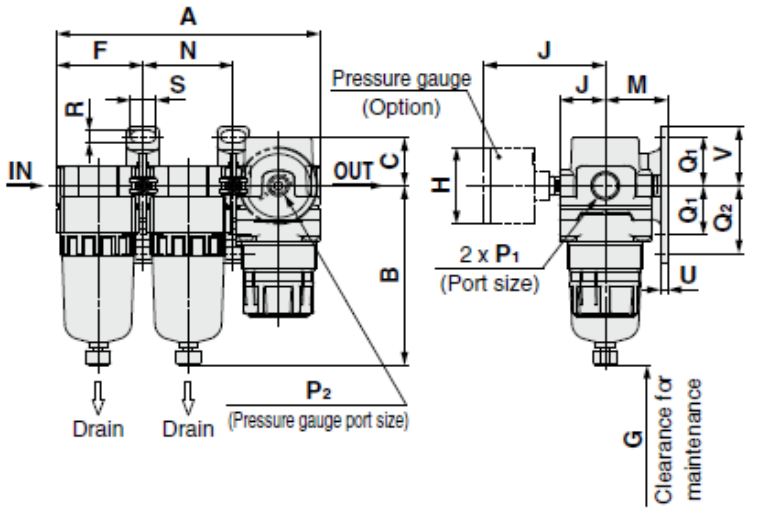
| Applicable model | AC25B-A to AC40B-06-A | | | | | |
|---|---|---|---|---|---|---|
| Optional/Semi-standard specifications | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge, with drain guide | With drain guide | Drain cock with barb fitting |
| Dimensions |  |  |  |  |  |  |

| Model | Standard specifications | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $P_1$ | $P_2$ | A | B | C | E | F | G | J | Bracket mount | | | | | | |
| | | | | | | | | | | M | $Q_1$ | $Q_2$ | R | S | U | V |
| **AC10B-A** | M5×0.8 | 1/16 | 56 | 59.9 | 11 | — | 28 | 25 | 12.5 | 25 | 20 | 27 | 4.5 | 6.8 | 3 | 24.5 |
| **AC20B-A** | 1/8・1/4 | 1/8 | 83.2 | 87.6 | 23.5 | — | 41.6 | 25 | 23.4 | 30 | 24 | 33 | 5.5 | 12 | 3.5 | 29 |
| **AC25B-A** | 1/4・3/8 | 1/8 | 110.2 | 115.1 | 23.5 | 30 | 55.1 | 35 | 30.5 | 41 | 35 | — | 7 | 14 | 4 | 41 |
| **AC30B-A** | 1/4・3/8 | 1/8 | 110.2 | 115.1 | 27 | 30 | 55.1 | 35 | 30.5 | 41 | 35 | — | 7 | 14 | 4 | 41 |
| **AC40B-A** | 1/4・3/8・1/2 | 1/8 | 145.2 | 147.1 | 33.5 | 38.4 | 72.6 | 40 | 36.1 | 50 | 40 | — | 9 | 18 | 5 | 48 |
| **AC40B-06-A** | 3/4 | 1/8 | 155.2 | 149.1 | 33.5 | 38.4 | 77.6 | 40 | 39.6 | 50 | 40 | — | 9 | 18 | 5 | 48 |

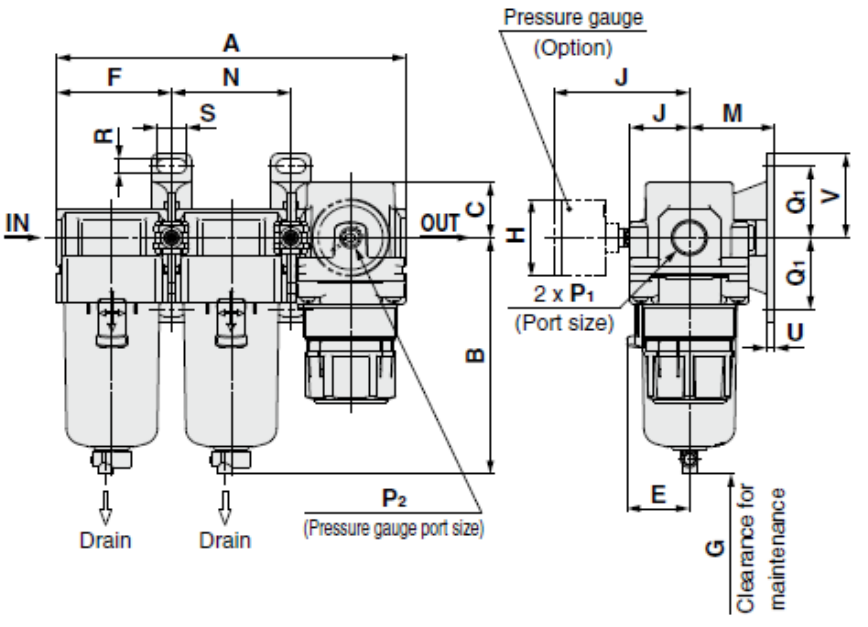
| Model | Optional specifications | | | | | Semi-standard specifications | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Round type pressure gauge | | Round type pressure gauge (with color zone) | | With auto drain | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge with drain guide | With barb fitting | With drain guide |
| | H | J | H | J | B | B | B | B | B | B | B |
| **AC10B-A** | φ 26 | 26 | — | — | 77.9 | 59.3 | — | — | — | — | — |
| **AC20B-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 104.9 | 87.4 | 93.9 | — | — | — | 91.4 |
| **AC25B-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC30B-A** | φ 37.5 | 65 | φ 37.5 | 66 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC40B-A** | φ 42.5 | 72 | φ 42.5 | 72 | 186.9 | 149.6 | 154.1 | 169.6 | 174.1 | 155.6 | 153.9 |
| **AC40B-06-A** | φ 42.5 | 72 | φ 42.5 | 72 | 188.9 | 151.6 | 156.1 | 171.6 | 176.1 | 157.6 | 155.9 |

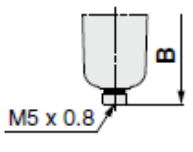
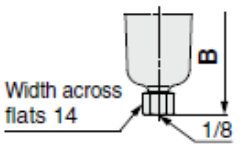
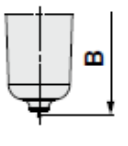
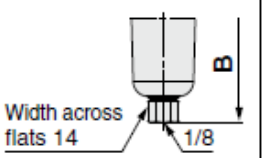
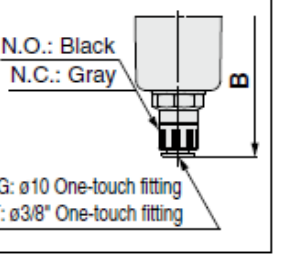
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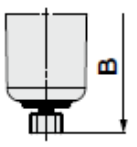
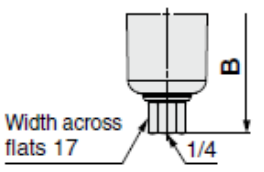
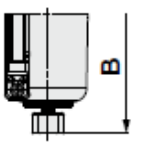
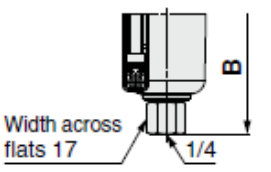
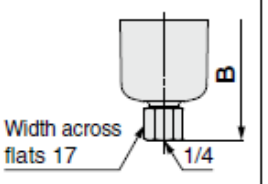
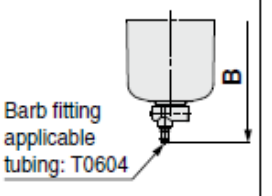
### AC20C−A




### AC25C−A to AC40C−06−A




| Applicable model | AC20C-A | | | | AC25C-A to AC40C-06-A |
|---|---|---|---|---|---|
| Optional/Semi-standard specifications | With auto drain (N.C.) | With drain guide | Metal bowl | Metal bowl with drain guide | With auto drain (N.O./N.C.) |
| Dimensions |  |  |  |  |  |

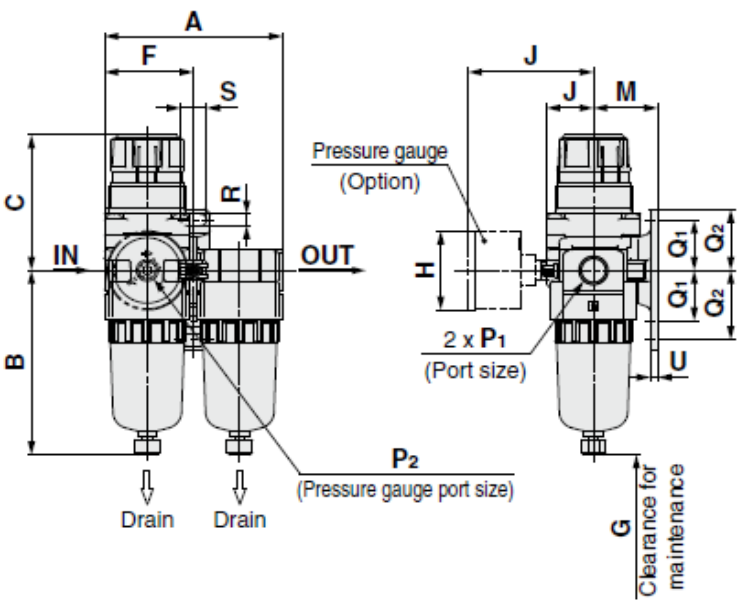
| Applicable model | AC25C-A to AC40C-06-A | | | | | |
|---|---|---|---|---|---|---|
| Optional/Semi-standard specifications | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge, with drain guide | With drain guide | Drain cock with barb fitting |
| Dimensions |  |  |  |  |  |  |

| Model | Standard specifications | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $P_1$ | $P_2$ | A | B | C | E | F | G | J | Bracket mount | | | | | | | |
| | | | | | | | | | | M | N | $Q_1$ | $Q_2$ | R | S | U | V |
| **AC20C-A** | 1/8・1/4 | 1/8 | 126.4 | 87.6 | 23.5 | — | 41.6 | 40 | 23.4 | 30 | 43.2 | 24 | 33 | 5.5 | 12 | 3.5 | 29 |
| **AC25C-A** | 1/4・3/8 | 1/8 | 167.4 | 115.1 | 23.5 | 30 | 55.1 | 50 | 30.5 | 41 | 57.2 | 35 | — | 7 | 14 | 4 | 41 |
| **AC30C-A** | 1/4・3/8 | 1/8 | 167.4 | 115.1 | 27 | 30 | 55.1 | 50 | 30.5 | 41 | 57.2 | 35 | — | 7 | 14 | 4 | 41 |
| **AC40C-A** | 1/4・3/8・1/2 | 1/8 | 220.4 | 147.1 | 33.5 | 38.4 | 72.6 | 75 | 36.1 | 50 | 75.2 | 40 | — | 9 | 18 | 5 | 48 |
| **AC40C-06-A** | 3/4 | 1/8 | 235.4 | 149.1 | 33.5 | 38.4 | 77.6 | 75 | 39.6 | 50 | 80.2 | 40 | — | 9 | 18 | 5 | 48 |

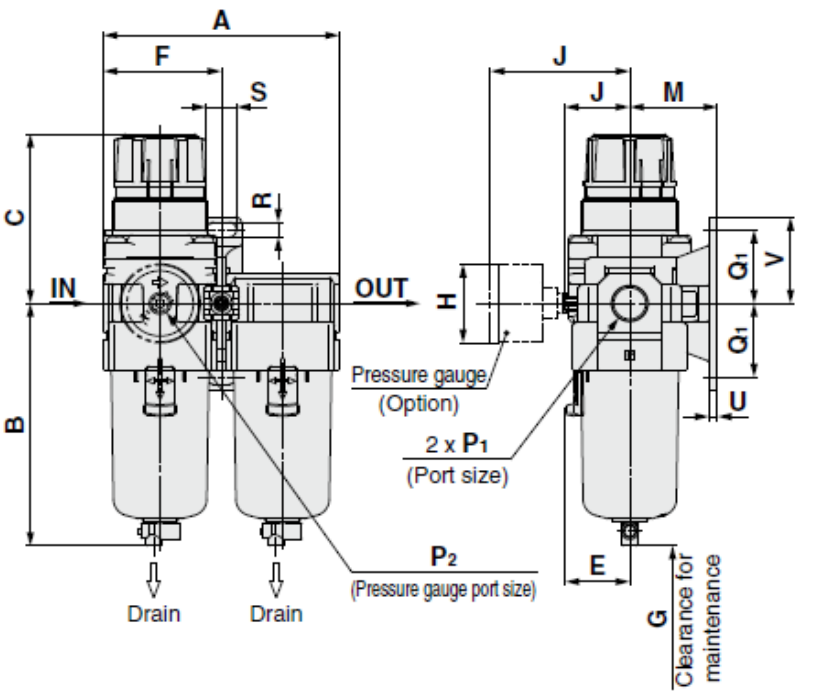
| Model | Optional specifications | | | | | Semi-standard specifications | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Round type pressure gauge | | Round type pressure gauge (with color zone) | | With auto drain | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge with drain guide | With barb fitting | With drain guide |
| | H | J | H | J | B | B | B | B | B | B | B |
| **AC20C-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 104.9 | 87.4 | 93.9 | — | — | — | 91.4 |
| **AC25C-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC30C-A** | φ 37.5 | 65 | φ 37.5 | 66 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC40C-A** | φ 42.5 | 72 | φ 42.5 | 72 | 186.9 | 149.6 | 154.1 | 169.6 | 174.1 | 155.6 | 153.9 |
| **AC40C-06-A** | φ 42.5 | 72 | φ 42.5 | 72 | 188.9 | 151.6 | 156.1 | 171.6 | 176.1 | 157.6 | 155.9 |

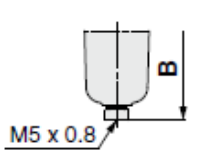
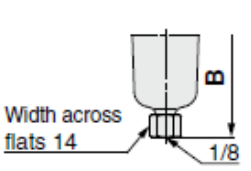
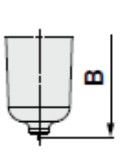
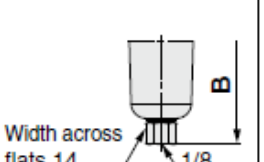
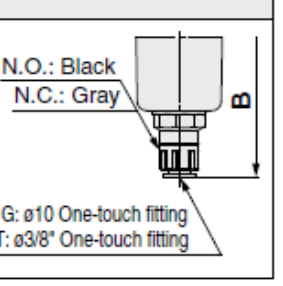
## 5) AC20D−A to AC40D−06−A

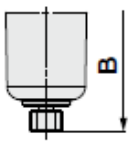
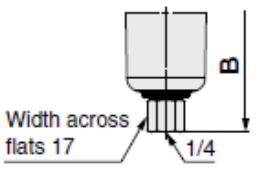
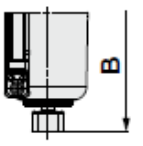
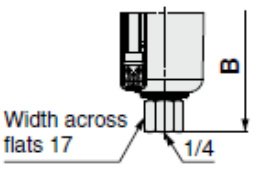
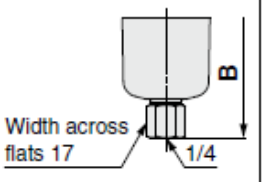
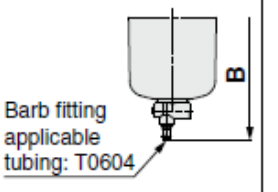
### AC20D−A




### AC30D−A to AC40D−06−A




| Applicable model | AC20D-A | | | | AC30D-A to AC40D-06-A |
|---|---|---|---|---|---|
| Optional/Semi-standard specifications | With auto drain (N.C.) | With drain guide | Metal bowl | Metal bowl with drain guide | With auto drain (N.O./N.C.) |
| Dimensions |  |  |  |  |  |

| Applicable model | AC30D-A to AC40D-06-A | | | | | |
|---|---|---|---|---|---|---|
| Optional/Semi-standard specifications | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge, with drain guide | With drain guide | Drain cock with barb fitting |
| Dimensions |  |  |  |  |  |  |

| Model | Standard specifications | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $P_1$ | $P_2$ | A | B | C Note) | E | F | G | J | Bracket mount | | | | | | |
| | | | | | | | | | | M | $Q_1$ | $Q_2$ | R | S | U | V |
| **AC20D-A** | 1/8・1/4 | 1/8 | 83.2 | 87.6 | 67.4 | — | 41.6 | 60 | 23.4 | 30 | 24 | 33 | 5.5 | 12 | 3.5 | 29 |
| **AC30D-A** | 1/4・3/8 | 1/8 | 110.2 | 115.1 | 83.5 | 30 | 55.1 | 80 | 30.5 | 41 | 35 | — | 7 | 14 | 4 | 41 |
| **AC40D-A** | 1/4・3/8・1/2 | 1/8 | 145.2 | 147.1 | 100 | 38.4 | 72.6 | 110 | 36.1 | 50 | 40 | — | 9 | 18 | 5 | 48 |
| **AC40D-06-A** | 3/4 | 1/8 | 155.2 | 149.1 | 101.5 | 38.4 | 77.6 | 110 | 39.6 | 50 | 40 | — | 9 | 18 | 5 | 48 |

| Model | Optional specifications | | | | | Semi-standard specifications | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Round type pressure gauge | | Round type pressure gauge (with color zone) | | With auto drain | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge with drain guide | With barb fitting | With drain guide |
| | H | J | H | J | B | B | B | B | B | B | B |
| **AC20D-A** | φ 37.5 | 58.5 | φ 37.5 | 59.5 | 104.9 | 87.4 | 93.9 | — | — | — | 91.4 |
| **AC30D-A** | φ 37.5 | 65 | φ 37.5 | 66 | 156.8 | 117.6 | 122.1 | 137.6 | 142.1 | 123.6 | 121.9 |
| **AC40D-A** | φ 42.5 | 72 | φ 42.5 | 72 | 186.9 | 149.6 | 154.1 | 169.6 | 174.1 | 155.6 | 153.9 |
| **AC40D-06-A** | φ 42.5 | 72 | φ 42.5 | 72 | 188.9 | 151.6 | 156.1 | 171.6 | 176.1 | 157.6 | 155.9 |

Note) The dimension of C is the length when the filter regulator knob is unlocked.

Revision history

A P16 9.HOW TO REPLACE
【Precautions for modular connection (Assembly)】is added. Jan 2013

B Addition : Nylon bowl, Metal bowl, AC10-A
The shape of spacer changed. June 2015

C P5 Installation CAUTION Air combination
③ is added. July 2018

D correction of errors (P16) March 2019


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Note: Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.
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