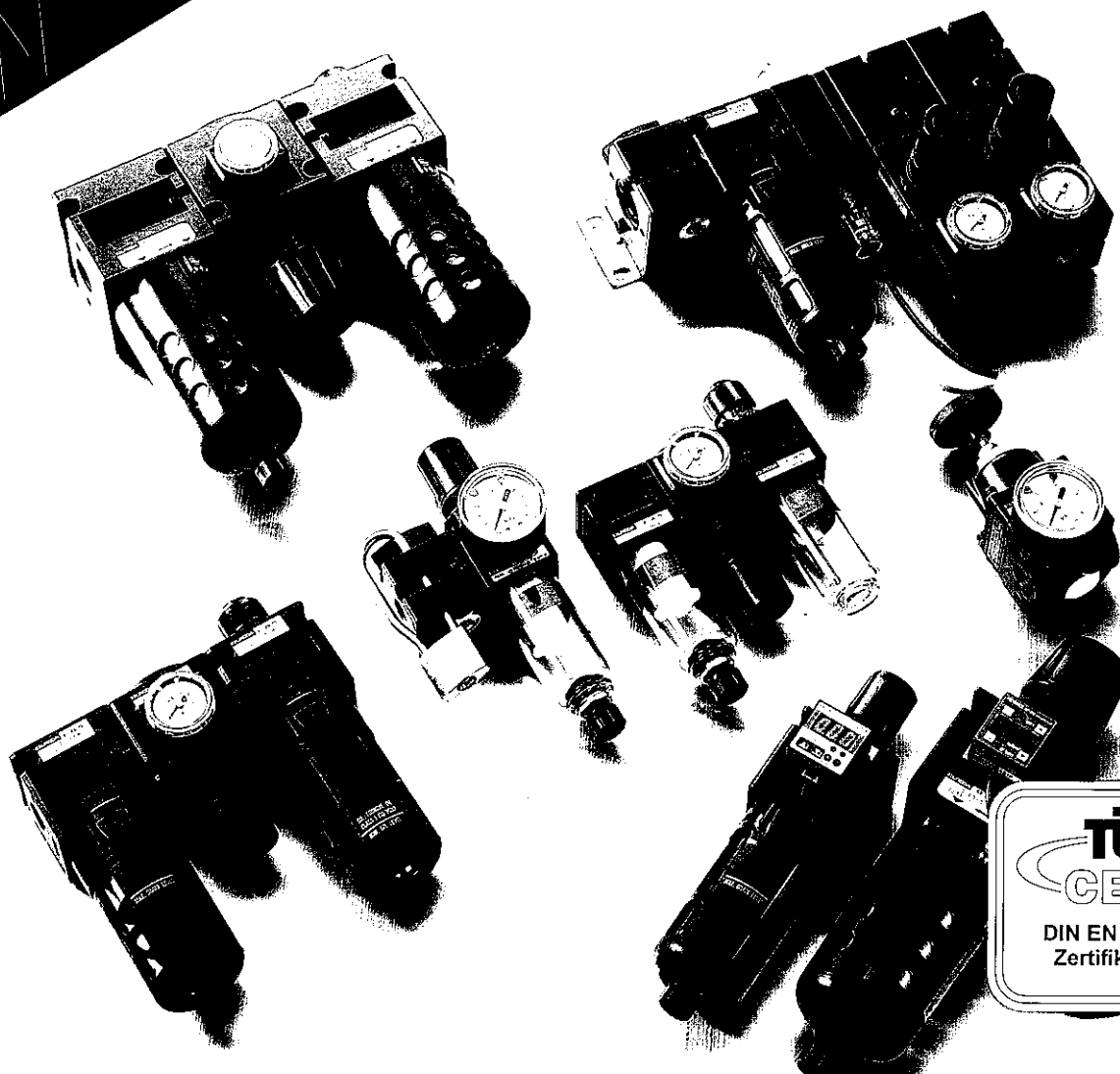


KURODA

AIR CLEANING EQUIPMENT

QUBE-SYSTEM UNIT SERIES



Combination flexibility

Conventional pipe fittings...tee, elbow, cross, nipple...are modularized.

Make your F.R.L.combination units for your pneumatic system as you like it using various options such as SHUT OFF VALVE, PRESSURE SWITCH, etc.

QUBE SYSTEM UNITS save the space necessary for piping and can drastically reduce the piping work manpower.

Integral mounting slots

Grooves in the body permit the QUBE to be wall mounted without the need for extra brackets.

(Bracket is optionally available if necessary.)

Strong joint by bolting

(PAT.No. 1805706)

Direct body-to-body bolting results in no deflection nor play in the joint.

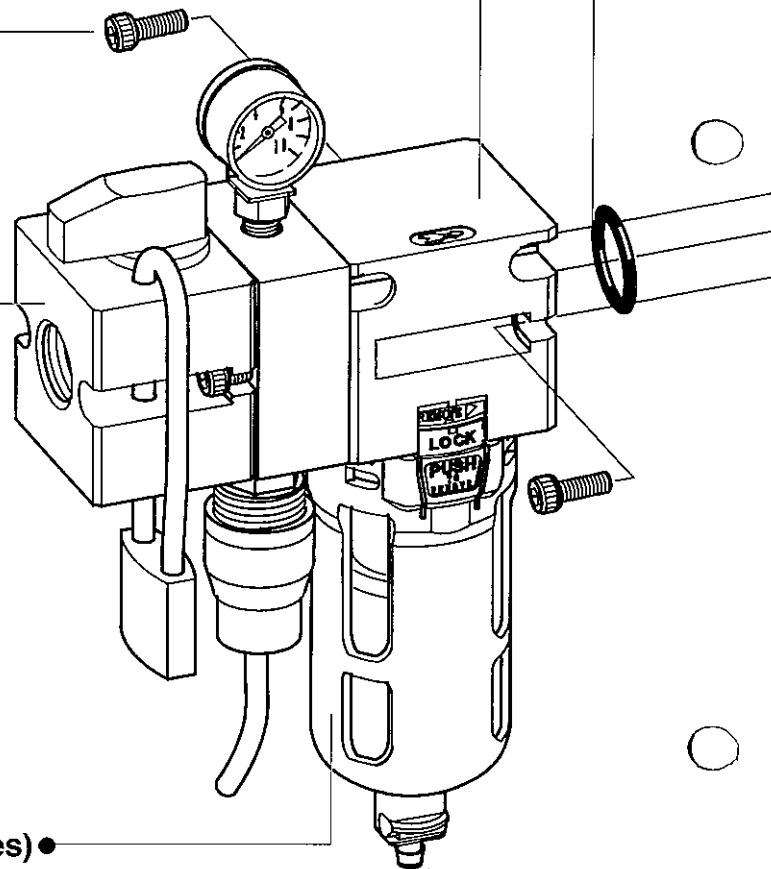
SHUT OFF VALVE incorporating safety mechanism

Conforming to ISO4414, OSHA and "SUPPLY SHUT OFF VALVE" given in JIS B8370 "RULE FOR PNEUMATIC SYSTEM".

— JIS B8370 "RULE FOR PNEUMATIC SYSTEM"

SUPPLY SHUT OFF VALVE :

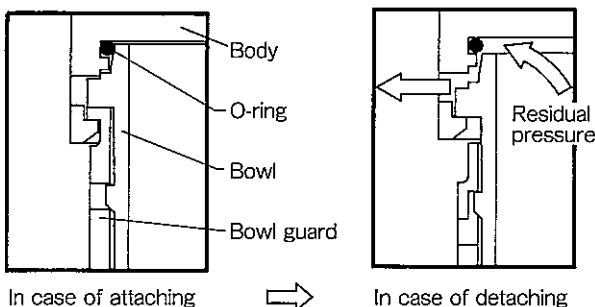
Systems shall be provided with a main pipe line shut-off valve for pressure release. This valve shall have locking mechanism in pressure release position and shall be able to vent safely all circuit pressure. However, circuits for measurement of 160kPa {1.6kgf/cm²} or under are excluded.



Easily detachable bowl (65 series)

Although the bowl is detached easily, it will not suddenly spring out even if residual pressure remains in the bowl, due to the safety structure.

Structure proof against residual pressure



When detaching the bowl, rotate the bowl guard. The bowl guard alone is rotated by the bowl stopper so that, even when the flange of the bowl guard is removed from the body, the bowl flange is caught, thus relieving residual pressure to the outside.

- **Secure sealing with O-ring**

As no sealant is used, cuttings of a seal tape, dust, etc. will not occur.

- **Compact**

Modularized construction saves the space required for F.R.L. units to a great extent.

- **Save the piping work manpower**

With the provided modular attachments, units may be manifolded allowing tremendous design flexibility as well as significant cost savings.
(Refer to page 28~31)

- **Accurate mounting size**

Any dimensional error caused by the degree of tightening the piping between components can be eliminated, making a design for installation easier.

- **Directly mountable pressure gauge**

(With limit pointer and conforming to SI unit.)

A compact bourdon tube is used. The MPa scale is colored by black and the kgf/cm² scale by red for easy readability.

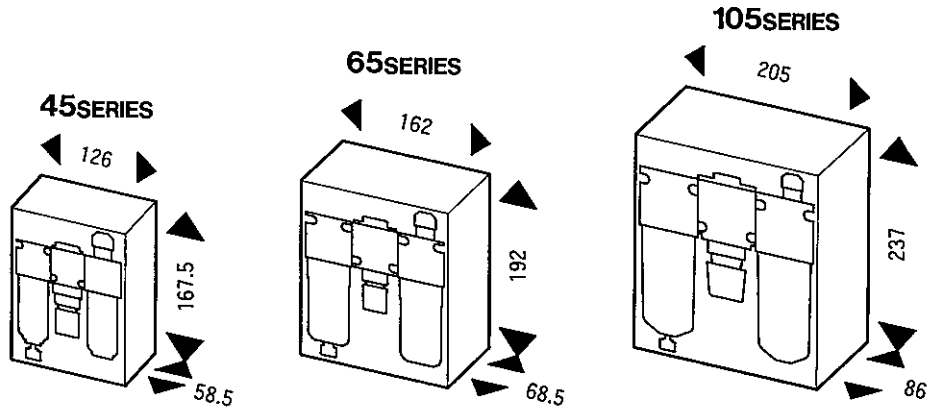
The thickness is halved or less as compared with the usual pressure gauge made by KURODA.

- **One-push drain/Combination drain (PAT.PEND)**

Bowl is drained out only pressing the drain lever.
(Option)

Compact

QUBE SERIES is so designed that components are directly connected each other, resulting in a great reduction of the occupied space. No extra size other than the total size of combined components is required.



Depth is a dimension required when a DIRECT MOUNT PRESSURE GAUGE is mounted.

Piping

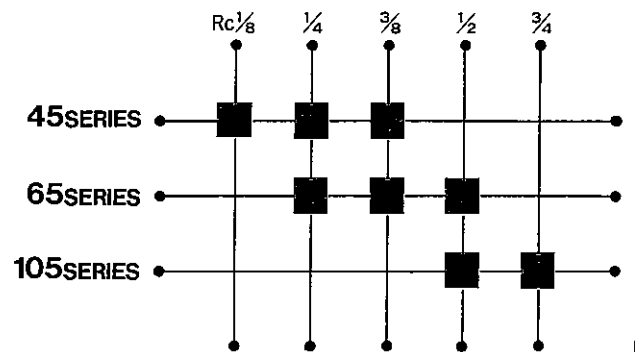
Various port sizes available

Body size of 3 series and port size of Rc $\frac{1}{8}$ to Rc $\frac{3}{4}$ are available for QUBE SERIES.

So you can select the optimum combination according to flow rate and piping.

Oversize port

It covers a port which is larger by one size than required for usual flow and body size. Therefore, selecting a series which is smaller by one size according to flow rate will lead to cost reduction.



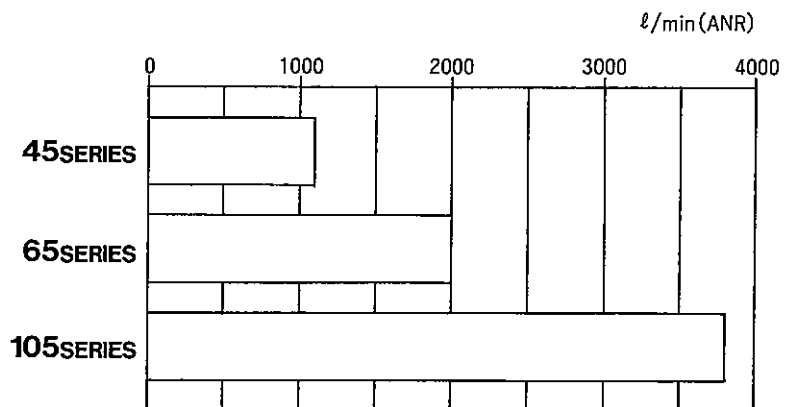
Flow rate

As any unit of different series can be connected each other, you can select the optimum series of combination according to the flow rate of each branch, when extending to a system unit.

(Note)

ANR : Standard reference atmospheric condition to present the air flow converted symbol to standard air, follows the expression of the quantity like as m³/min, on the pneumatic circuit diagram, technical documentation & catalogue etc.

Standard air : Temperature 20°C {293K}
 Pressure 760mmHg {101.3kPa}
 Relative humidity 65%



Measured at supply pressure of 0.7MPa and reduced pressure of 0.6MPa of AIR COMBINATION UNIT.



PRECAUTIONS FOR HANDLING

When using pneumatic components, obey JIS B8370-1988 (ISO 4414) for General rule for pneumatic systems. Before Proceeding the works, you should first thoroughly read below mentioned precautions.



Installation

- Thoroughly flush the inside of air piping before installation.
- Turn down the drain cock and install it vertically.
- Provide sufficient space for conducting maintenance work and inspection.



Maintenance

- When washing the sight glass of the bowl and lubricator, be sure to use a detergent.
- Before detaching the bowl, be sure to relieve pressure.
- Drain out the filter periodically.
- Change the filter element before pressure drops below 0.05 MPa (filter) and 0.07MPa (Sludge filter, coalescing filter).
- Use turbine oil Class 1 (ISO VG32) or equivalent as a lubricant for LUBRICATOR.
- Do not use spindle oil and machine oil, because they may corrode the plastic parts and O-ring.
- L45 is filled by depressurizing the system before filling it.



Handling

- When using a filter with automatic drain, supply air at a flow of more than 50 l / min (ANR) at the start of raising pressure.
- When a sludge filter or coalescing filter is used at more than the prescribed air flow, oil mist cannot be separated. So, use it at lower than the prescribed air flow.
- A nylon tube (I.D. φ6) can be fitted to the drain port of a one-push drain or combination drain. When fitting a drain tube, be careful to prevent back pressure.
- A vinyl tube (I.D. φ7) can be fitted to the drain port other than that of a manual drain, one-push drain or combination drain. When fitting a drain tube, be careful to prevent back pressure.
- When the adjusting knob of a regulator and integral filter-regulator is turned clockwise, pressure rises. When this knob is turned counterclockwise, pressure drops. When setting pressure, do so in the direction of pressure rise.
- A direct mount pressure gauge can be removed using a hexagon wrench (2mm between opposite sides). Avoid using a ball-point type hexagon wrench. Otherwise, it will damage the hexagonal hole.
- If a pressure sensor with digital readout cannot be locally available, contact KURODA.
- When conducting maintenance work using a shut off valve, provide the locking hole with a key or take other safety means so that the handle may not easily rotate of itself.
- When a lubricator is located after the shut off valve, oil will drop in the air flowing backward in case of exhausting. To prevent such a state, loosen the fill plug of the lubricator and relieve air in the bowl.



Caution

As the transparent plastic parts (bowl, level gauge, sight glass) are made of polycarbonate, they cannot be used in the following working environments, chemicals or in an atmosphere, containing such chemicals.

When using them in such environments or atmosphere, contact KURODA.

- Places exposed to direct sunlight or under a strong wind or where may be affected by outdoor temperature.
- When phosphate ester or polyester is included in the compressor and it reaches the polycarbonate parts:
- Chemicals shown below:


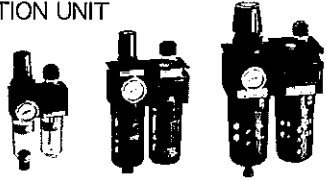




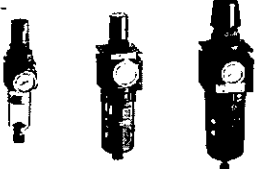


(For question about unknown chemicals, contact KURODA.)

Inorganic substances	Ammonia water, ammonium fluoride, ammonium sulfide, hydrochloric acid, phosphorous oxychloride, phosphorous trichloride, carbon bisulfide, caustic potash, nitric acid, sodium sulfide, sulfuric acid, fluoric acid, phosphoric acid, chromic acid, lime, sodium carbonate, sodium sulfide, potassium nitrate, potassium bichromate, sulfate of soda, etc. Pickling water, acid defatted liquid, film processing liquid, alkaline defatted liquid, etc.
Organic substances	Acetaldehyde, acetic acid, acetone, acrylonitrile, benzene, benzoic acid, benzyl alcohol, brom benzene, butyric acid, dimethyl formamido, dioxane, ethane tetrachloride, ethylamin, ethylenechloride, ethylene chlorohydrin, ethyl ether, formic acid, phenol, propionic acid, xylene, carbon tetrachloride, chlorobenzene, chloroform, cresol, cyclohexanon, cyclohexen, cyclohexanol, methanol, methyl methacrylate, methylene chloride, nitrobenzene, styrene, sulfuryl chloride, tetrahydrofuran, thiophene, toluene, athyl benzene, acethylene chloride, trichloroethylene, berklene, dichrolbenzene, benzene hexachloride, methyl alcohol, ethyl alcohol, carbolic acid, naphthol, methyl ether, methyl ethyl ether, methyl ethyl ketone, acetophenone, butyric acid, acrylic acid, phthalic acid, phthalic acid dimethyl, phthalic acid diethyl, phthalic dibutyl, phthalic diocutyl, glycolic acid, lactic acid, malic acid, citric acid, tartaric acid, nitromethane, nitroethane, nitroethylene, methyl amin, diethyl amin, anilin, acetanilid, acetnitril, acrylonitrile, benzonitrile, acetoinitril, etc. Thinner, organic solvent type detergent, agricultural chemicals, antifreezing mixture, antiseptic solution, brake fluid, aluminizing fluid, paint, synthetic fluid, rust-preventing oil, etc.
Mineral oil	Gasoline, solvent, naphtha, etc.
Others	Freon, clove oil, nutmeg oil, etc.

* The halftoned portion represents products using chemicals which may affect polycarbonate.

CONTENTS

COMPONENTS

Name	Model No.	Port size Rc	Filter rating μm	Reduced pressure range MPa(kgf/cm ²)	Page
AIR COMBINATION UNIT 	C45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	5 (20)	0.03~0.8 [0.3~8]	⑦
	C65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$	5 (40)		
	C105	$\frac{1}{2}, \frac{3}{4}$			
AIR COMBINATION UNIT 	U45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	5 (20)	0.03~0.8 [0.3~8]	⑨
	U65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$	5 (40)		
	U105	$\frac{1}{2}, \frac{3}{4}$			
AIR FILTER 	F45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	5 (20)	—	⑪
	F65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$	5 (40)		
	F105	$\frac{1}{2}, \frac{3}{4}$			
SLUDGE FILTER/COALESCING FILTER 	S45/M45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	0.3/0.01	—	⑬
	S65/M65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$			
	S105/M105	$\frac{1}{2}, \frac{3}{4}$			
AIR REGULATOR 	R45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	—	0.03~0.8 [0.3~8]	⑮
	R65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$			
	R105	$\frac{1}{2}, \frac{3}{4}$			
AIR LUBRICATOR 	L45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	—	—	⑰
	L65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$			
	L105	$\frac{1}{2}, \frac{3}{4}$			
INTEGRAL FILTER-REGULATOR 	B45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	5 (20)	0.03~0.8 [0.3~8]	⑲
	B65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$	5 (40)		
	B105	$\frac{1}{2}, \frac{3}{4}$			
PRECISION PRESSURE REGULATOR 	HP10	$\frac{1}{8}, \frac{1}{4}$	—	0.005~0.4 [0.05~4]	⑳
 SHUT-OFF VALVE  	V45	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}$	—	—	㉓
	V65	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$			
	V105	$\frac{1}{2}, \frac{3}{4}$			







Obsolete

OPTION

Page

Bowl	_____	②4
Drain cock	_____	②4
Pressure gauge	_____	②5
Pressure switch	_____	②6
Pressure sensor adaptor	_____	②6
Bracket, Panel mount ring	_____	②7

ATTACHMENT

Name	Model No.	Function	Page
Diverter 	D45	You can branch out and connect components simply by mounting components as necessary on the four sides (top, bottom, right and left) of this cube.	②8
	D65		
	D105		
Direction plate 	DP45	This plate is used for 90° directional shifting of the component connected to the diverter. It may also be used as an interface when connecting components or attachments of different size.	②9
	DP65		
	DP105		
Spacer plate 	SP45	When each component is connected each other with Woodruff key-seat, this spacer plate is used to prevent the joint bolt from coming off.	③0
	SP65		
	SP105		
Branch block 	BB45	You can branch out the air line simply by inserting this block between connected components. When it is mounted on both ends of a component in case of iron piping, the component can be easily attached and detached to facilitate maintenance work.	③1
	BB65		
	BB105		
Gauge base 	GB45	A block for connecting a pressure gauge. It is mainly used for a manifold regulator.	③2
	GB65		
	—		
Pressure switch block 	PST45	A one-piece block with pressure gauge and pressure switch.	③3
	PST65		
	PST105		

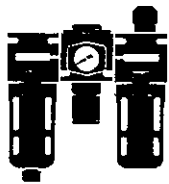
QUBE SYSTEM UNIT

Page

Example of combination	_____	③1
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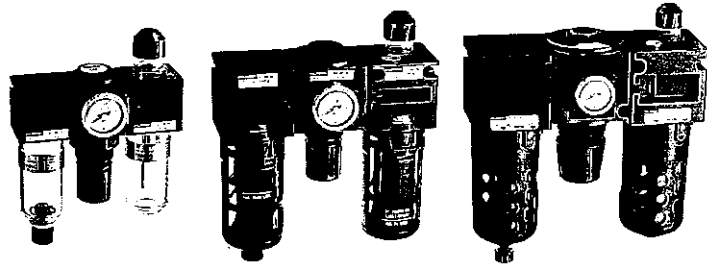
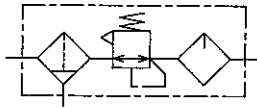
Others

QUBE55 series	_____	③2
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AIR COMBINATION UNIT/C45, C65, C105

JIS symbol



ORDERING INSTRUCTIONS

Pressure gauges shown by photograph are optionally available.

C 4 5 L D - 0 3 N Y G B S R T

Model No. _____

C45, C65, C105

Reduced pressure range

No mark : 0.03~0.8MPa

L : 0.02~0.42MPa

Material of bowl

No mark : Plastic bowl

D : Metal bowl without sight glass (Except C65)

W : Metal bowl encircled with sight glass (Except C65)

⊕D and W types are not available in C65. Select C55. (P.32)

Port size

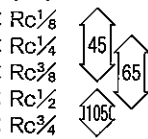
01 : Rc $\frac{1}{8}$

02 : Rc $\frac{1}{4}$

03 : Rc $\frac{3}{8}$

04 : Rc $\frac{1}{2}$

06 : Rc $\frac{3}{4}$



Filter rating

No mark : 5 μ m

N : 20 μ m (45)

J : 40 μ m (65, 105)

Direction of adjusting knob

No mark : Downward

T : Upward

Direction of air flow

No mark : Left→Right

R : Right→Left

Bracket

No mark : No bracket

BS : Direct mounting bolt

BM : Both sides supporting bracket

BF : Rear side supporting bracket

Pressure gauge

No mark : No pressure gauge

G : G10-41

GD : G10-3D

⊕Pressure gauge for C45L, C65L and C105L is G05-* *.

Drain cock

No mark : Manual drain

Q : One-push drain

Y : Spring drain

C : Combination drain

S : Drainmaster (45)

M : Automatic drain (65, 105)

SPECIFICATIONS

Model No.	Unit	C45	C65	C105
Port size		Rc $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	Rc $\frac{1}{2}$, $\frac{3}{4}$
Pressure gauge connecting port		Rc $\frac{1}{8}$		
Filter rating	μ m	5 (N : 20)	5 (J : 40)	
Reduced pressure range	MPa[kgf/cm ²]	0.03~0.8(0.3~8) (L : 0.02~0.42(0.2~4.2))		
Max. operating pressure	MPa[kgf/cm ²]	1[10] (W : 1.2[12] D : 1.4[14])		
Surrounding or fluid temperature range	°C	5~50 (D : 5~65)		
Filter bowl capacity (Storable liquids)	cm ³	22	45	140
Lubricator bowl capacity (Oil)	cm ³	43	75	240
Min. flow rate for charging	ℓ /min(ANR)	50	50	80
Weight	kg	0.60	0.88	1.77
Recommended oil		Turbine oil, Class 1 (ISO VG32)		

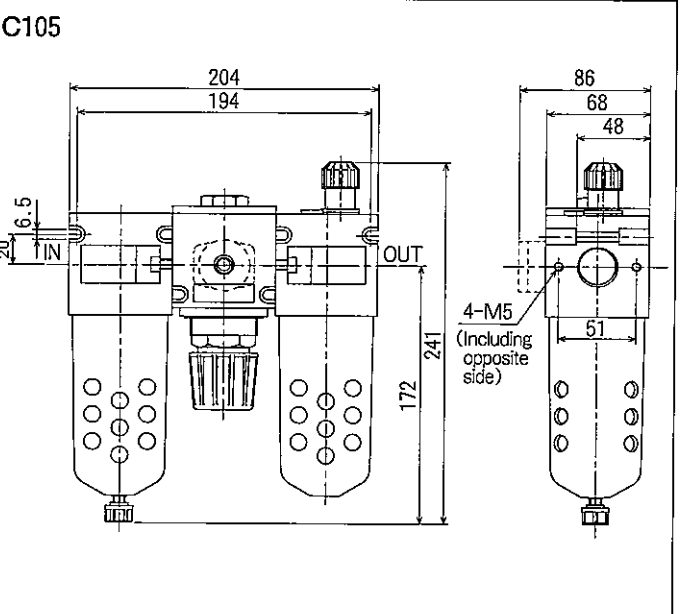
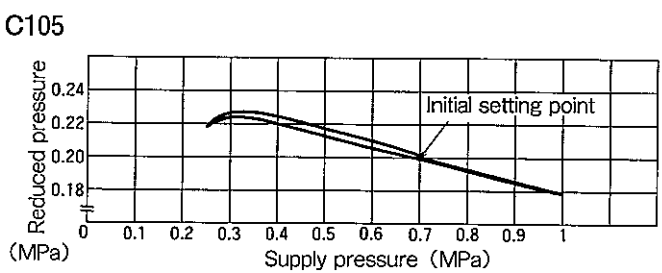
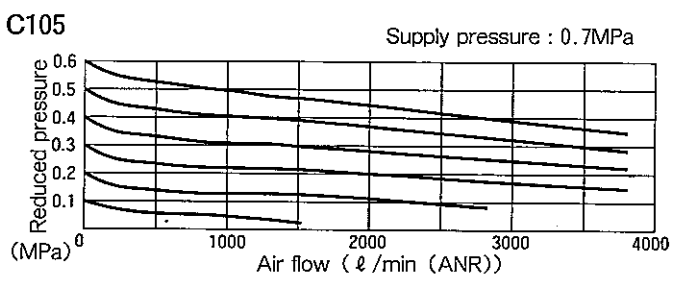
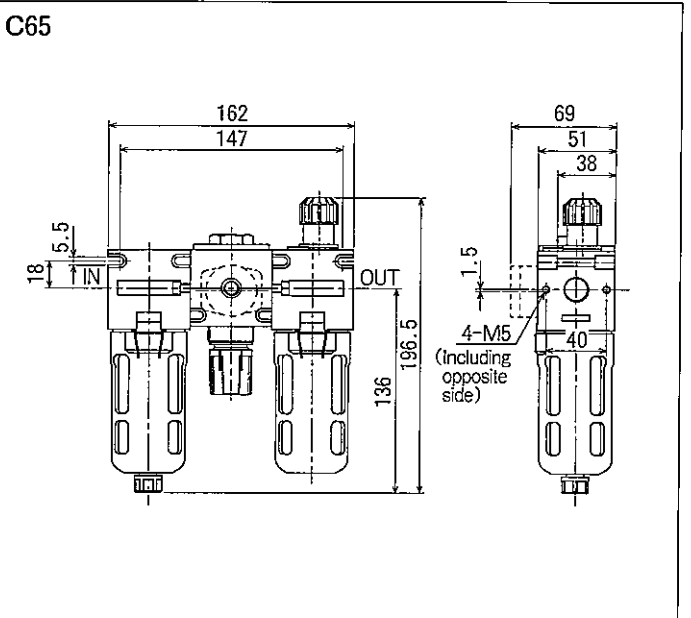
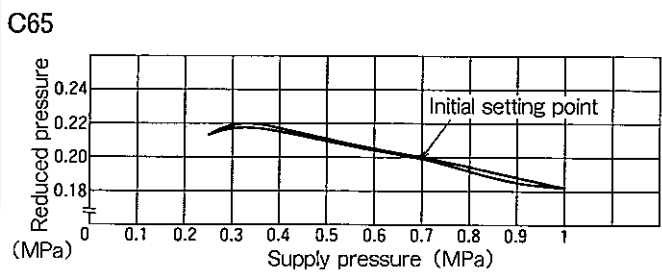
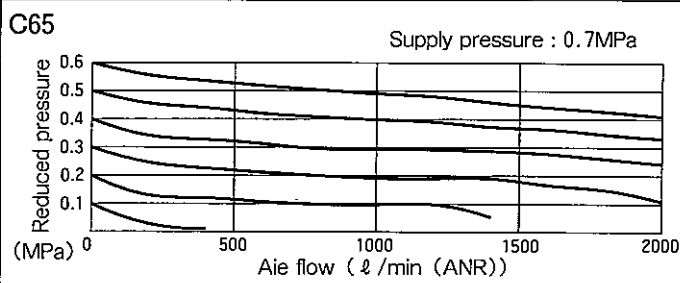
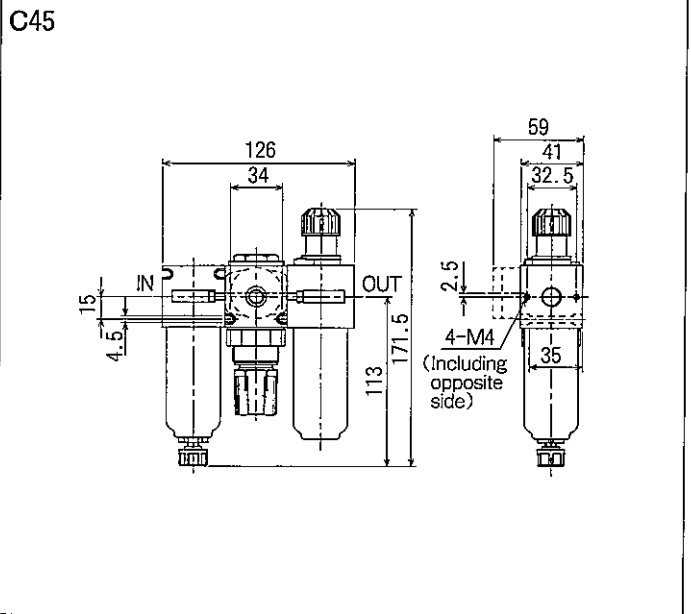
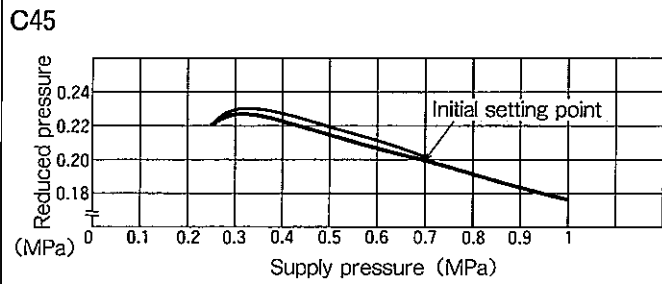
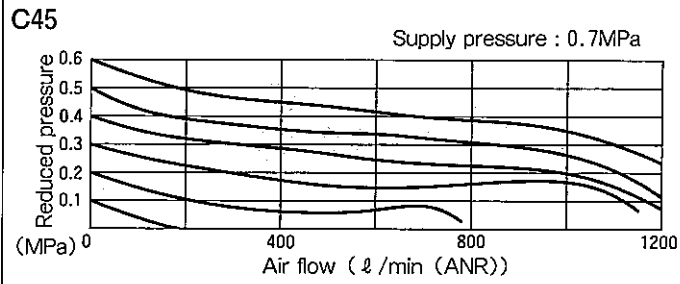
COMPONENTS AND PARTS

Name	Q'ty	C45	C65	C105	Material
Air filter	1	F45-01, 02, 03	F65-02, 03, 04	F105-04, 06	—
Air regulator	1	R45-01, 02, 03	R65-02, 03, 04	R105-04, 06	—
Air lubricator	1	L45-01, 02, 03	L65-02, 03, 04	L105-04, 06	—
Joint O-ring	2	AS568-017	JASO-1021	AS568-120	NBR
Joint bolt	4	M4×0.7×10	M5×0.8×12	M6×1.0×15	SC

FLOW CHARACTERISTICS(Upper stage)
PRESSURE CHARACTERISTICS(Lower stage)

DIMENSIONS

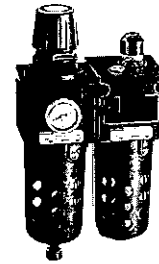
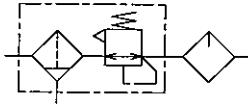
(Unit : mm)





AIR COMBINATION UNIT/U45, U65, U105

JIS symbol



ORDERING INSTRUCTIONS

Pressure gauges shown by photograph are optionally available.

U 4 5 L D - 0 3 N Y G B S R

Model No.

U45, U65, U105

Reduced pressure range

No mark : 0.03~0.8MPa

L : 0.02~0.42MPa

Material of bowl

No mark : Plastic bowl

D : Metal bowl without sight glass (Except U65)

W : Metal bowl encircled with sight glass (Except U65)

⊕D and W types are not available in U65. Select U55. (P.32)

Port size

01 : Rc $\frac{1}{8}$

02 : Rc $\frac{1}{4}$

03 : Rc $\frac{3}{8}$

04 : Rc $\frac{1}{2}$

06 : Rc $\frac{3}{4}$

Filter rating

No mark : 5 μ m

N : 20 μ m (45)

J : 40 μ m (65, 105)

Direction of air flow

No mark : Left→Right

R : Right→Left

Bracket

No mark : No bracket

BS : Direct mounting bolt

BM : Both sides supporting bracket

BF : Rear side supporting bracket

Pressure gauge

No mark : No pressure gauge

G : G10-41

GD : G10-3D

⊕Pressure gauge for U45L, U65L and U105L is G05-***.

Drain cock

No mark : Manual drain

Q : One-push drain

Y : Spring drain

C : Combination drain

S : Drainmaster (45)

M : Automatic drain (65, 105)

SPECIFICATIONS

Model No.	Unit	U45	U65	U105
Port size		Rc $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	Rc $\frac{1}{2}$, $\frac{3}{4}$
Pressure gauge connecting port		Rc $\frac{1}{4}$		
Filter rating	μ m	5 (N : 20)	5 (J : 40)	
Reduced pressure range	MPa(kgf/cm ²)	0.03~0.8(0.3~8) (L : 0.02~0.42(0.2~4.2))		
Max. operating pressure	MPa(kgf/cm ²)	1(10) (W : 1.2(12) D : 1.4(14))		
Surrounding or fluid temperature range	°C	5~50 (D : 5~65)		
Filter bowl capacity (Storable liquids)	cm ³	22	45	140
Lubricator bowl capacity (Oil)	cm ³	43	75	240
Min. flow rate for charging	ℓ /min(ANR)	50	50	80
Weight	kg	0.48	0.66	1.30
Recommended oil		Turbine oil, Class 1 (ISO VG32)		

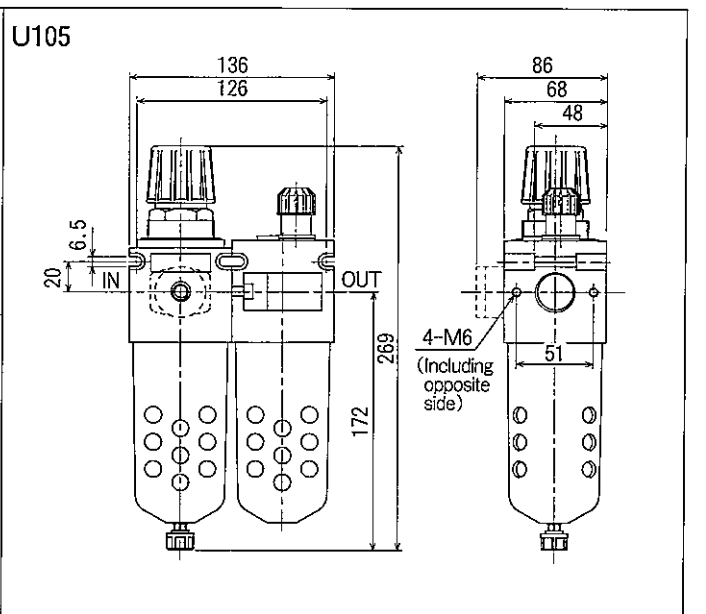
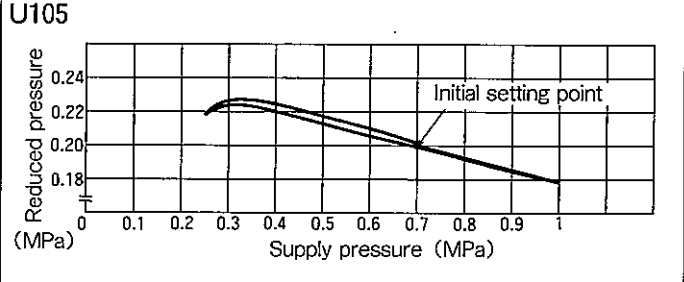
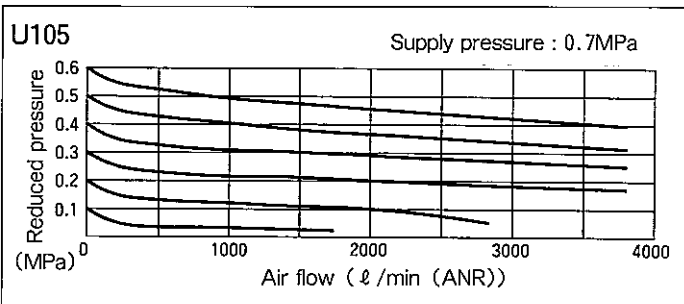
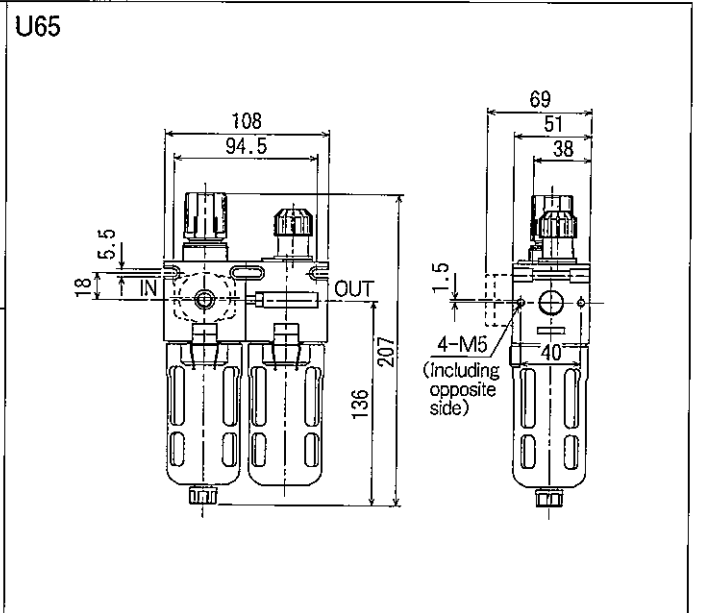
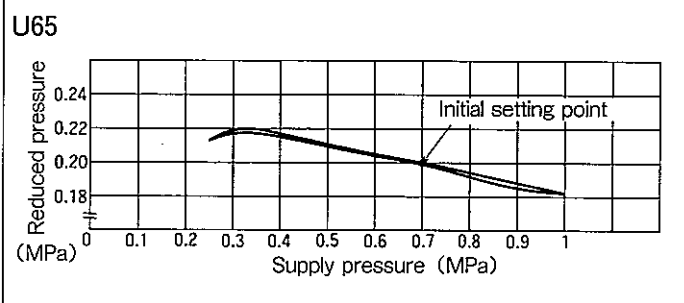
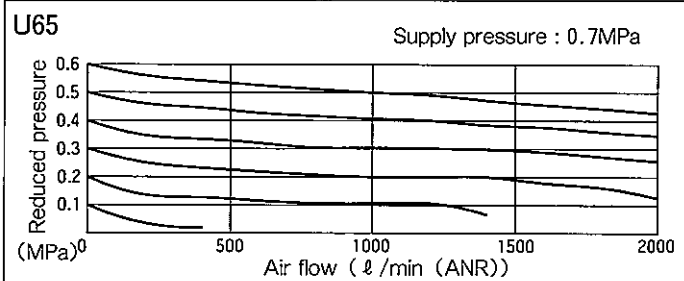
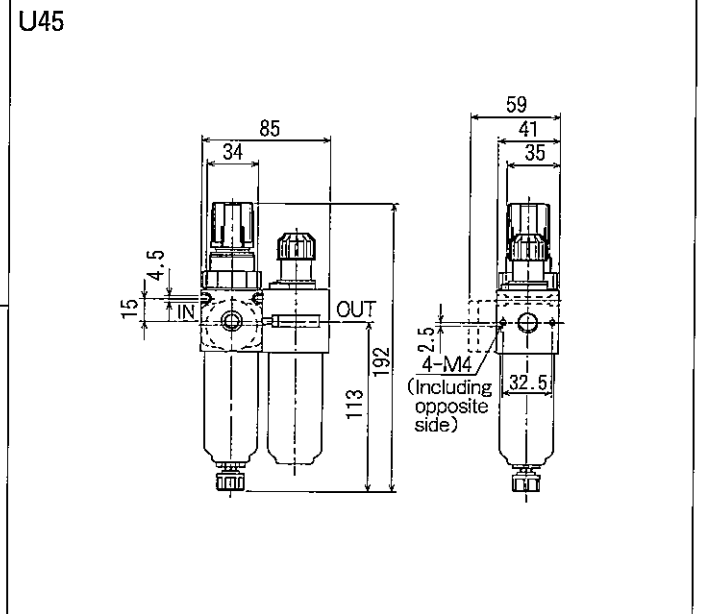
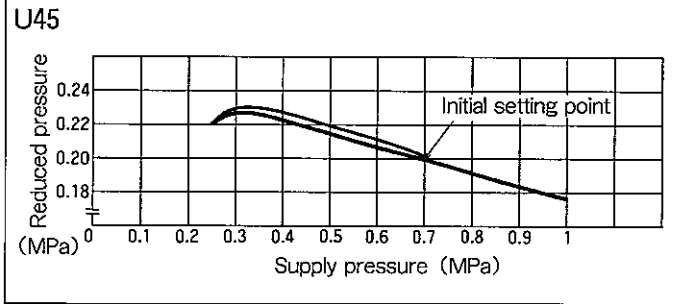
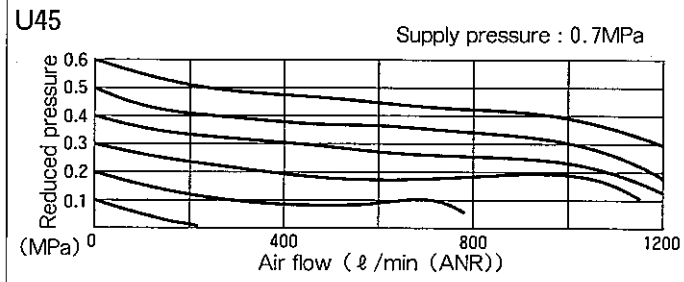
COMPONENTS AND PARTS

Name	Q'ty	U45	U65	U105	Material
Integral filter-regulator	1	B45-01, 02, 03	B65-02, 03, 04	B105-04, 06	—
Air lubricator	1	L45-01, 02, 03	L65-02, 03, 04	L105-04, 06	---
Joint O-ring	1	AS568-017	JASO-1021	AS568-120	NBR
Joint bolt	2	M4×0.7×10	M5×0.8×12	M6×1.0×15	SC

FLOW CHARACTERISTICS(Upper stage)
PRESSURE CHARACTERISTICS(Lower stage)

DIMENSIONS

(Unit : mm)

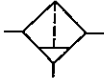




AIR FILTER/F45, F65, F105



JIS symbol



ORDERING INSTRUCTIONS

F 4 5 D - 0 3 N Y B S R

Model No.

F45, F65, F105

Material of bowl

No mark : Plastic bowl

D : Metal bowl without sight glass (Except F65)

W : Metal bowl encircled with sight glass (Except F65)

⊕D and W types are not available in F65. Select F55. (P.32)

Port size

01 : Rc $\frac{1}{8}$

02 : Rc $\frac{1}{4}$

03 : Rc $\frac{3}{8}$

04 : Rc $\frac{1}{2}$

06 : Rc $\frac{3}{4}$



Direction of air flow

No mark : Left→Right

R : Right→Left

Bracket

No mark : No bracket

BS : Direct mounting bolt

BM : Both sides supporting bracket

BF : Rear side supporting bracket

Drain cock

No mark : Manual drain

Q : One-push drain

Y : Spring drain

C : Combination drain

S : Drainmaster (45)

M : Automatic drain (65, 105)

Filter rating

No mark : 5 μ m

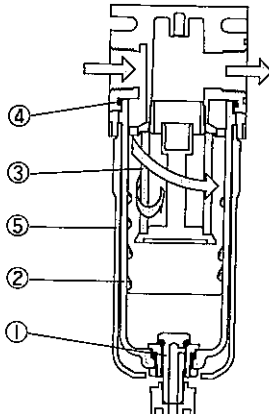
N : 20 μ m (45)

J : 40 μ m (65, 105)

SPECIFICATIONS

Model No.	Unit	F45	F65	F105
Port size		Rc $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	Rc $\frac{1}{2}$, $\frac{3}{4}$
Filter rating	μ m	5 (N : 20)	5 (J : 40)	
Max. operating pressure	MPa[kgf/cm ²]	1[10] (W : 1.2[12] D : 1.4[14])		
Surrounding or fluid temperature range	°C	5~50 (D : 5~65)		
Filter bowl capacity (Storable liquids)	cm ³	22	45	140
Weight	kg	0.16	0.29	0.55

STRUCTURE



MODEL No. OF MAIN PARTS

No.	Name	F45	F65	F105	Material	
①	Drain cock	SAF10Y7			POM	
②	Plastic bowl *1	SAF30-0031	SAF65-0034	SAF105-0033	PC	
③	Filter element	5 μ m	504Z77-5	F55-0772P	F100-0771P	PP
		20, 40 μ m	504Z77-20	F55-0774	F100-0773P	PP
④	Bowl gasket	504Z101	F65-1011	F105-1015	NBR	
⑤	Bowl guard	—	(※2)	SAF105-0052	PE(PA)	

(Note)※1 : ①, ②, and ④ is included in bowl set of F45 and F105.

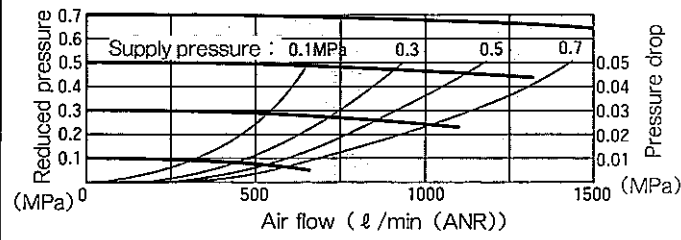
※2 : ①, ②, ④, and ⑤ is included in bowl set of F65.

FLOW CHARACTERISTICS

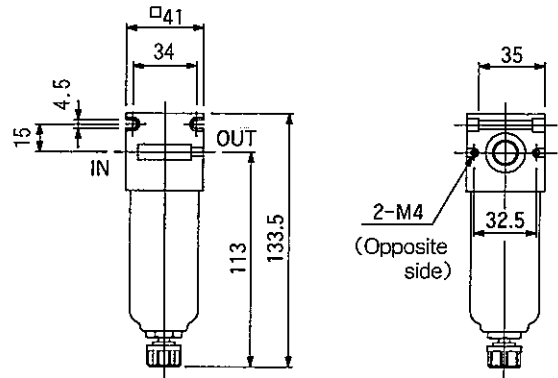
DIMENSIONS

(Unit : mm)

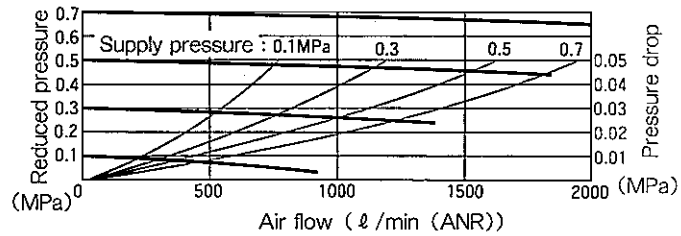
F45



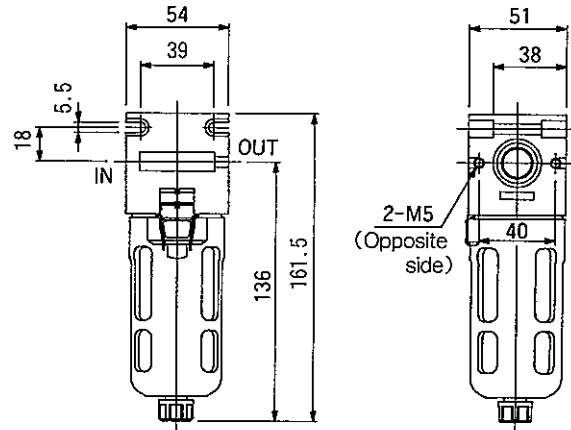
F45



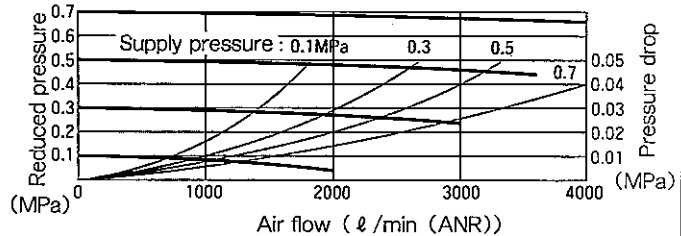
F65



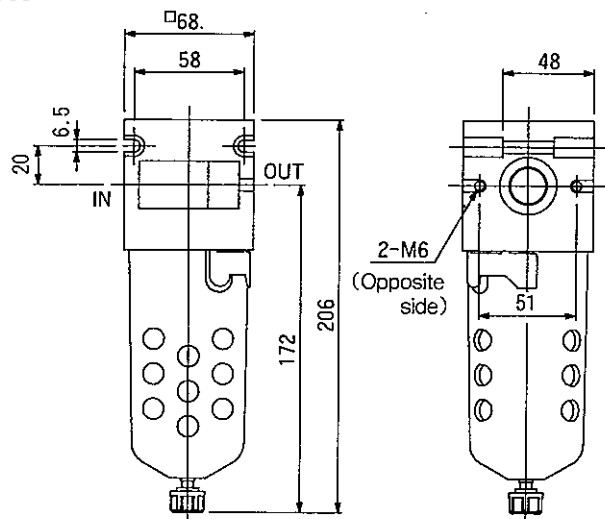
F65



F105

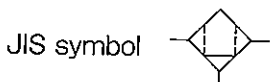


F105





SLUDGE FILTER/S45, S65, S105 COALESCING FILTER/M45, M65, M105



ORDERING INSTRUCTIONS

S 4 5 D - 0 3 Y B S R

Model No.

S45, S65, S105
M45, M65, M105

Material of bowl

No mark : Plastic bowl
D : Metal bowl without
sight glass (Except S65, M65)
W : Metal bowl encircled with
sight glass (Except S65, M65)

⊕D and W types are not available in S65, M65.
Select S55, M55. (P.32)

Port size

01 : Rc $\frac{1}{8}$
02 : Rc $\frac{1}{4}$
03 : Rc $\frac{3}{8}$
04 : Rc $\frac{1}{2}$
06 : Rc $\frac{3}{4}$



Direction of air flow
No mark : Left→Right
R : Right→Left

Bracket

No mark : No bracket
BS : Direct mounting bolt
BM : Both sides supporting bracket
BF : Rear side supporting bracket

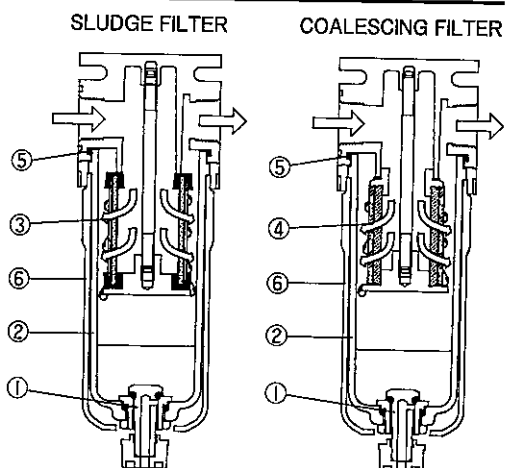
Drain cock

No mark : Manual drain
Q : One-push drain
Y : Spring drain
C : Combination drain
S : Drainmaster (45)
M : Automatic drain (65, 105)

SPECIFICATIONS

Model No.	Unit	S45	M45	S65	M65	S105	M105
Port size		Rc $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$		Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$		Rc $\frac{1}{2}$, $\frac{3}{4}$	
Filter rating	μm	0.3	0.01	0.3	0.01	0.3	0.01
Max. operating pressure	MPa(kgf/cm 2)	1[10] (W : 1.2[12] D : 1.4[14])					
Surrounding or fluid temperature range	$^{\circ}\text{C}$	5~50 (D : 5~65)					
Filter bowl capacity (Storable liquids)	cm 3	22		45		100	
Reduced max. flow	ℓ /min(ANR)	250	200	340		750	
Weight	kg	0.17		0.29		0.61	

STRUCTURE



MODEL No. OF MAIN PARTS

No.	Name	S45/M45	S65/M65	S105/M105	Material
①	Drain cock	SAF10Y7			POM
②	Plastic bowl ^{※1}	SAF30-0031	SAF65-0034	SAF105-0033	PC
③	Element(0.3 μm)	F507-0771	S604Y77	SA250A77	—
④	Element(0.01 μm)	F31-0771	F71-0771	F101-C3-0772	—
⑤	Bowl gasket	504Z101	F65-1011	F105-1015	NBR
⑥	Bowl guard	—	(※2)	SAF105-0052	PE(PA)

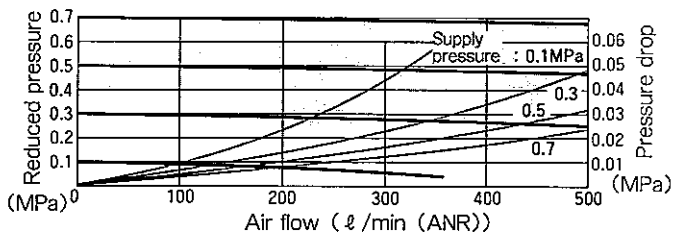
(Note)※1 : ①, ② and ⑤ is including in bowl set of S45, M45 and S105, M105.
※2 : ①, ②, ⑤ and ⑥ is including in bowl set of S65 and M65.

FLOW CHARACTERISTICS

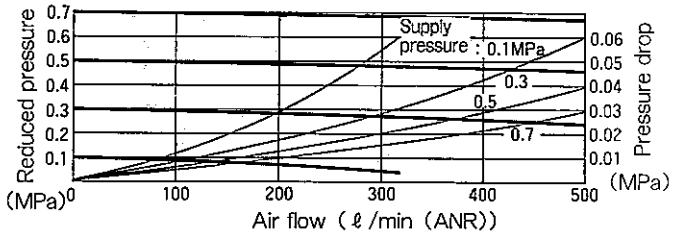
DIMENSIONS

(Unit : mm)

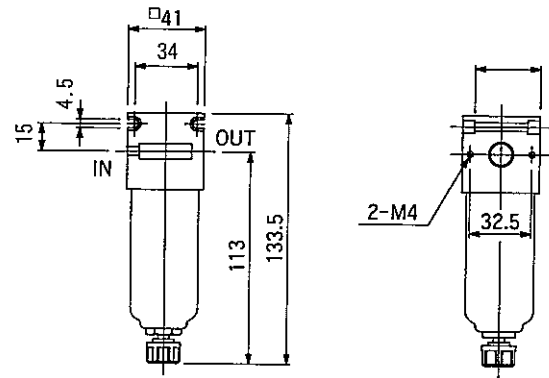
S45



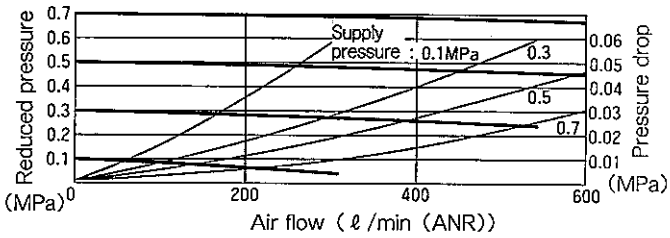
M45



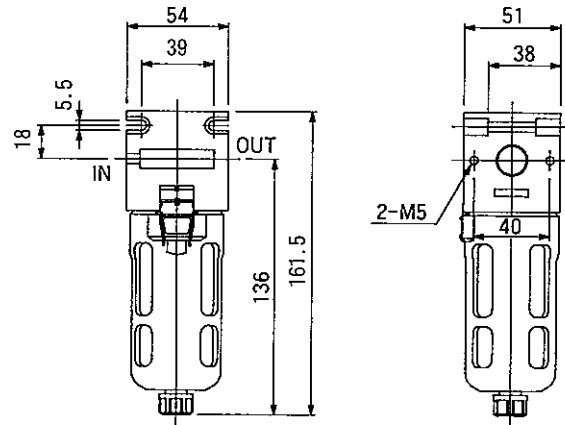
S45/M45



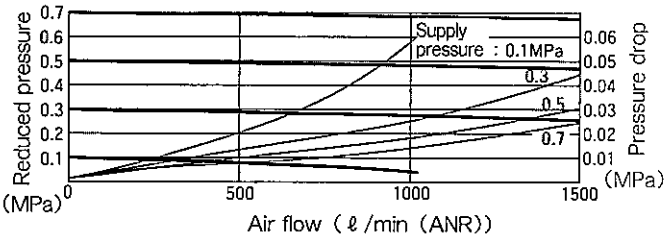
S65/M65



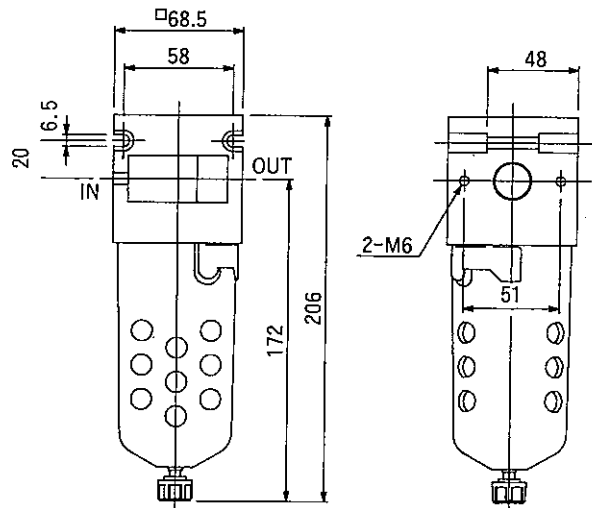
S65/M65



S105/M105

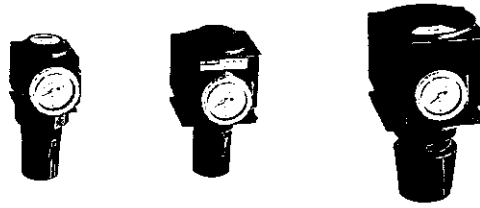
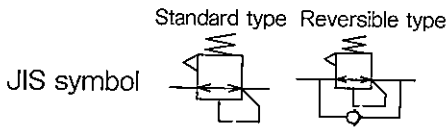


S105/M105





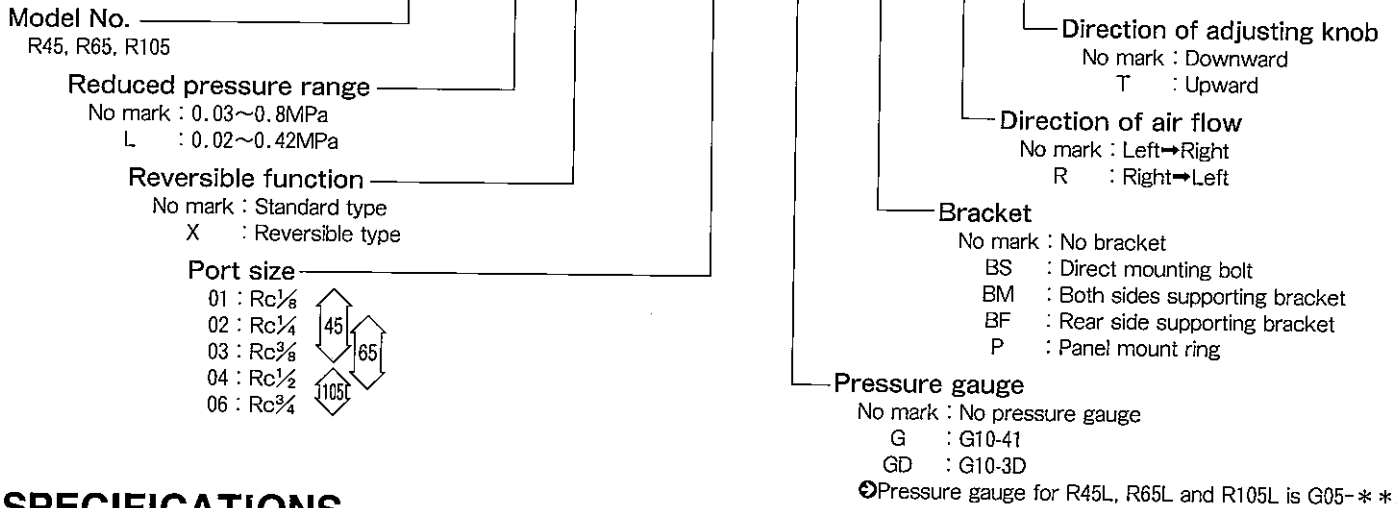
AIR REGULATOR/R45, R65, R105



ORDERING INSTRUCTIONS

Pressure gauges shown by photograph are optionally available.

R 4 5 L X - 0 3 G B S R T



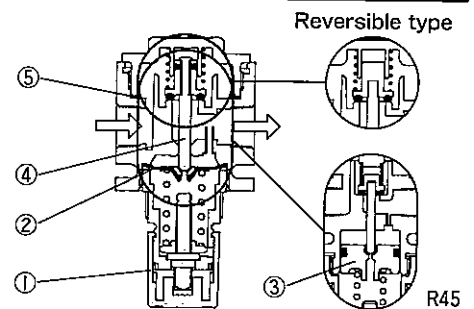
SPECIFICATIONS

Model No.	Unit	R45	R65	R105
Port size		Rc $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	Rc $\frac{1}{2}$, $\frac{3}{4}$
Pressure gauge connecting port		Rc $\frac{1}{8}$		
Reduced pressure range	MPa[kgf/cm ²]	0.03~0.8(0.3~8)(L : 0.02~0.42(0.2~4.2))		
Max. operating pressure	MPa[kgf/cm ²]	1.4[14]		
Surrounding or fluid temperature range	°C	5~65		
Weight	kg	0.19	0.30	0.64

MODEL No. OF MAIN PARTS

No.	Name	R45	R65	R105	Material
①	Adjusting knob	R55Y54		R105-0542P	PPO
②	Diaphragm assembly	—	SAR55-0201	SAR10-0201	C3604 NBR
③	Piston assembly	SAR05Y12	—	—	POM NBR
④	Disc assembly	SAR30-0371	SA118Y37	SAR105-0371	C3604 NBR
⑤	Bottom gasket	504Z101	F55-1011	F105-1015	NBR

STRUCTURE

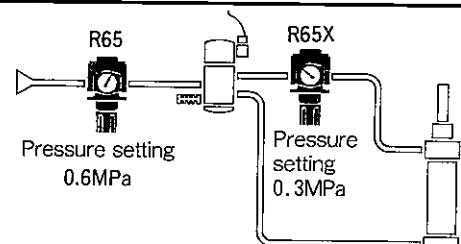


AN EXAMPLE USE OF THE REVERSIBLE REGULATOR

Thrust force adjustment for push side and pull side of air cylinder

Usual air regulator uses a balanced disc for improving pressure characteristics. Therefore, air cannot easily flow from the reduced side to the supply side, so that the air cylinder will not smoothly operate and proper thrust force cannot be obtained.

Reversible type regulator easily flows back air with a disc assembly unbalanced, making it possible to adjust the thrust force of the air cylinder smoothly.

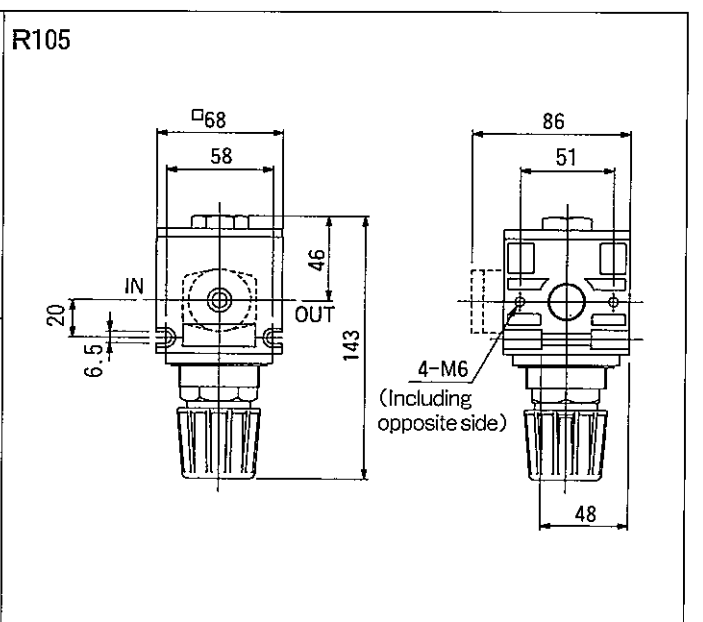
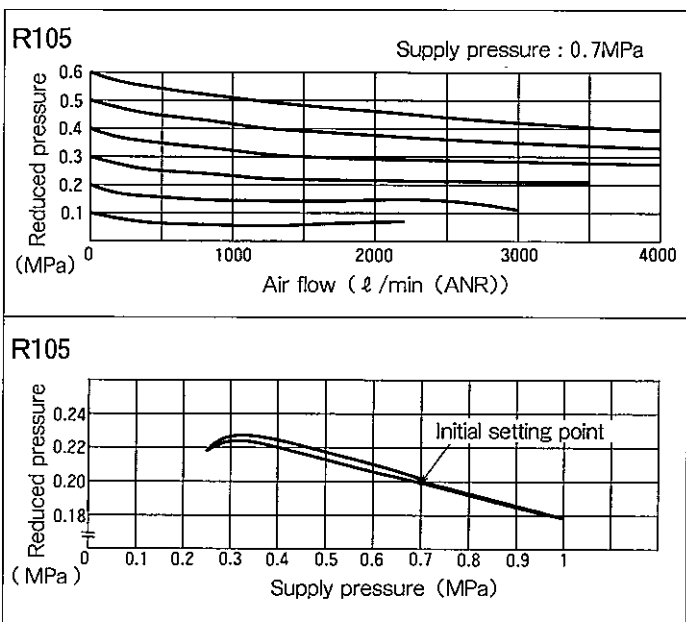
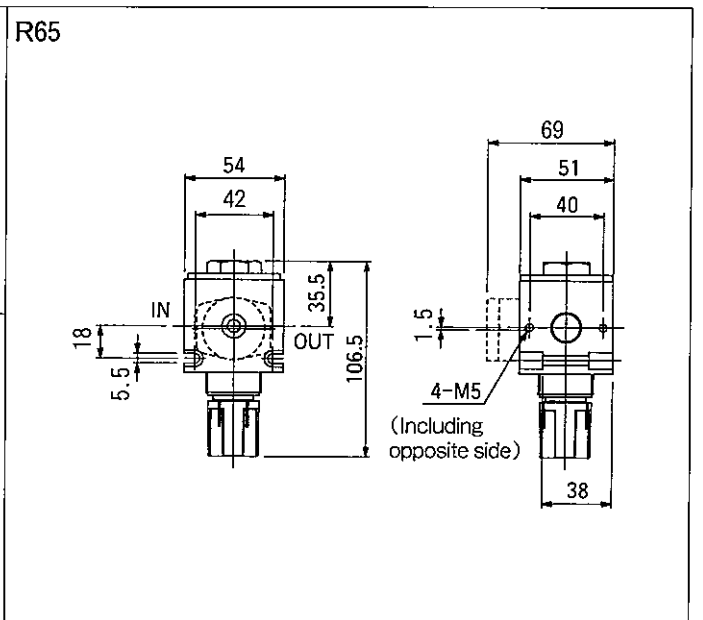
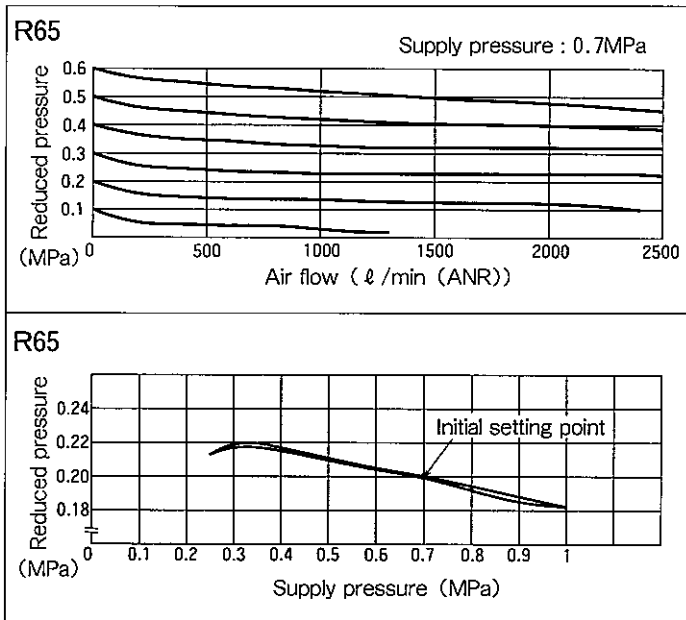
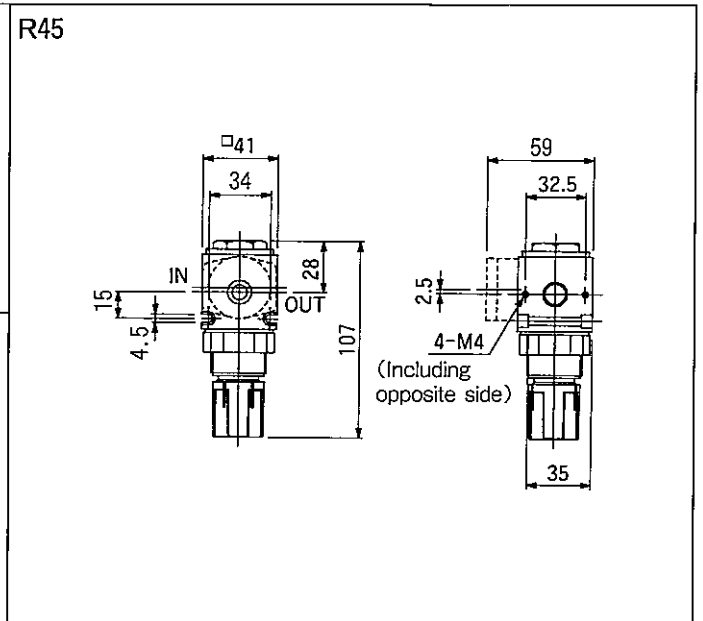
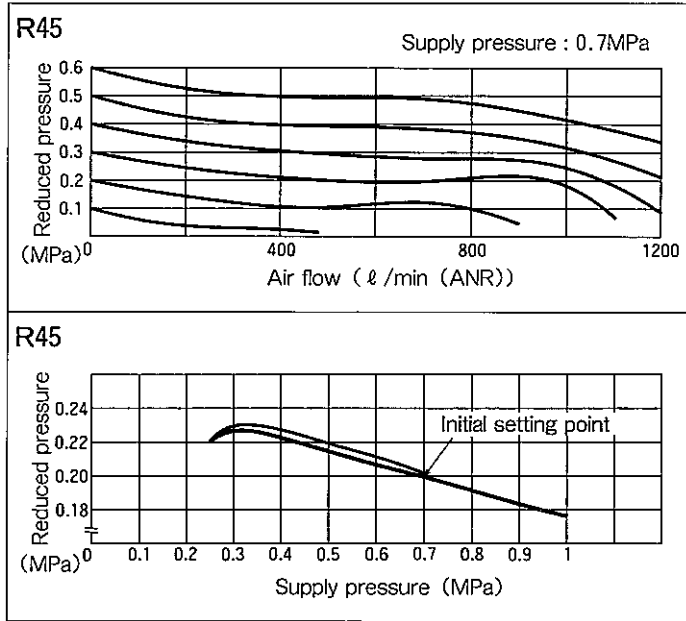


Example of high pressure setting on rod push side and low pressure setting on rod pull side

FLOW CHARACTERISTICS(Upper stage)
PRESSURE CHARACTERISTICS(Lower stage)

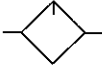
DIMENSIONS

(Unit : mm)





AIR LUBRICATOR/L45, L65, L105

JIS symbol 



ORDERING INSTRUCTIONS

L 4 5 D - 0 3 B M R

Model No.

L45, L65, L105

Material of bowl

No mark : Plastic bowl

D : Metal bowl without sight glass (Except L65)

W : Metal bowl encircled with sight glass (Except L65)

⊕D and W types are not available in L65. Select L55. (P.32)

Direction of air flow

No mark : Left→Right

R : Right→Left

Bracket

No mark : No bracket

BS : Direct mounting bolt (Except L45)

BM : Both sides supporting bracket

BF : Rear side supporting bracket

Port size

01 : Rc $\frac{1}{8}$

02 : Rc $\frac{1}{4}$

03 : Rc $\frac{3}{8}$

04 : Rc $\frac{1}{2}$

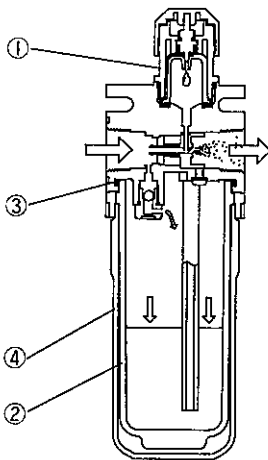
06 : Rc $\frac{3}{4}$



SPECIFICATIONS

Model No.	Unit	L45	L65	L105
Port size		Rc $\frac{1}{4}$, $\frac{1}{4}$, $\frac{3}{8}$	Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	Rc $\frac{1}{2}$, $\frac{3}{4}$
Max. operating pressure	MPa[kgf/cm ²]	1(10) (W : 1.2[12] D : 1.4[14])		
Surrounding or fluid temperature range	°C	5~50 (D : 5~65)		
Lubricator bowl capacity (Oil)	cm ³	43	75	240
Min. flow rate for charging	ℓ /min(ANR)	50	50	80
Weight	kg	0.25	0.29	0.58
Recommended oil		Turbine oil, Class 1 (ISO VG32)		

STRUCTURE



MODEL No. OF MAIN PARTS

No.	Name	L45	L65	L105	Material
①	Sight glass	SAL100-2033			PC
②	Plastic bowl ※1	SAL35-0031	SAL65-0034	SAL105-0033	PC
③	Bowl gasket	504Z101	F65-1011	F105-1015	NBR
④	Bowl guard	—	(※2)	SAF105-0052	PE(PA)

(Note)※1 : ② and ③ is included in bowl set of L45 and L105.

※2 : ②, ③ and ④ is included in bowl set of L105.

LIST OF RECOMMENDED OIL

Company name	Recommended oil
Shell	Shell Turbo Oil T32
Esso	Teresso 32
Mobil	Mobil DTE Oil Light



CAUTIONS

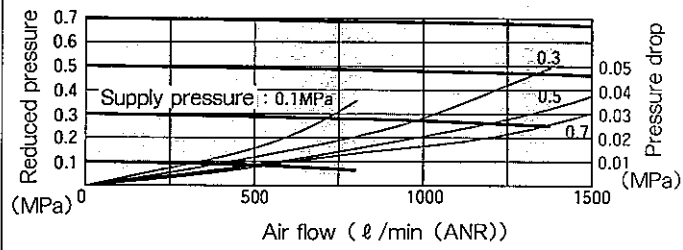
- Use turbine oil Class 1 (ISO VG32). Avoid using machine oil and spindle oil, because they may corrode the plastic and O-ring.
- L45 can't be filled while under pressure. Depressurize system before filling it.

FLOW CHARACTERISTICS

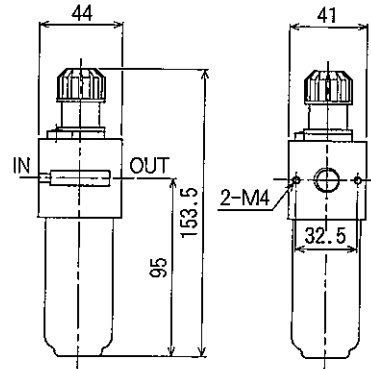
DIMENSIONS

(Unit : mm)

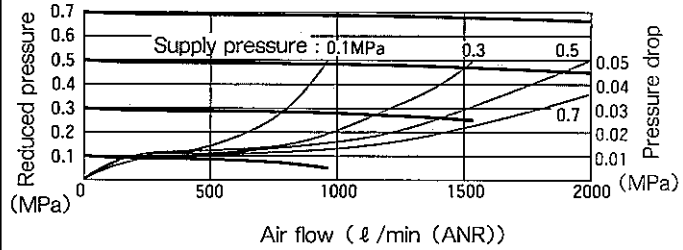
L45



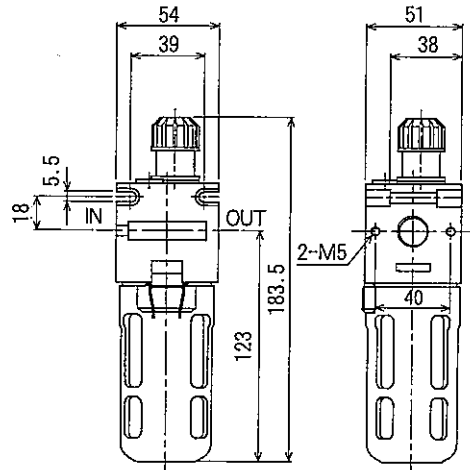
L45



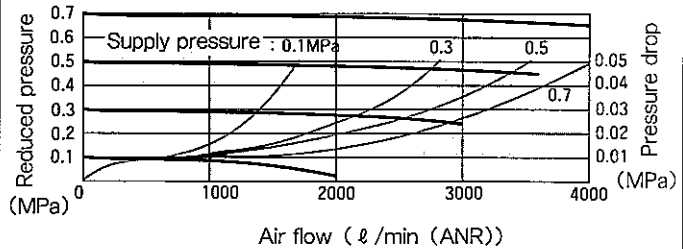
L65



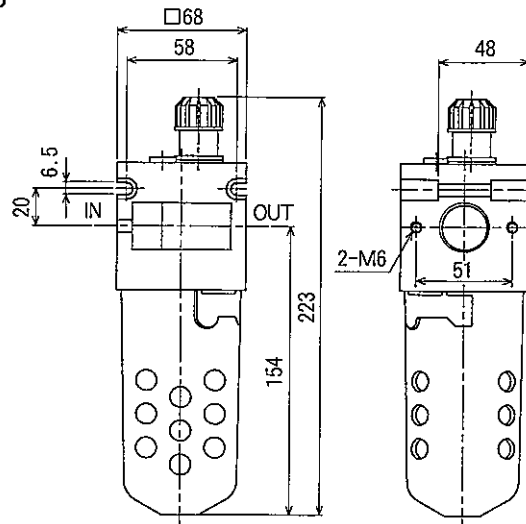
L65



L105



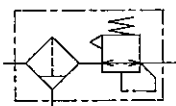
L105



INTEGRAL FILTER-REGULATOR/B45, B65, B105



JIS symbol



Pressure gauges shown by photograph are optionally available.

ORDERING INSTRUCTIONS

B 4 5 L D - 0 3 N Y G B S R

Model No.

B45, B65, B105

Reduced pressure range

No mark : 0.03~0.8MPa

L : 0.02~0.42MPa

Material of bowl

No mark : Plastic bowl

D : Metal bowl without sight glass (Except B65)

W : Metal bowl encircled with sight glass (Except B65)

⊕D and W types are not available in B65.

Select B55. (P.32)

Port size

01 : Rc $\frac{1}{8}$

02 : Rc $\frac{1}{4}$

03 : Rc $\frac{3}{8}$

04 : Rc $\frac{1}{2}$

06 : Rc $\frac{3}{4}$



Filter rating

No mark : 5 μ m

N : 20 μ m (45)

J : 40 μ m (65, 105)

Direction of air flow

No mark : Left→Right

R : Right→Left

Bracket

No mark : No bracket

BS : Direct mounting bolt

BM : Both sides supporting bracket

BF : Rear side supporting bracket

P : Panel mount ring

Pressure gauge

No mark : No pressure gauge

G : G10-41

GD : G10-3D

⊕ Pressure gauge for B45L, B65L and B105L is G05-**.

Drain cock

No mark : Manual drain

Q : One-push drain

Y : Spring drain

C : Combination drain

S : Drainmaster(45)

M : Automatic drain(65, 105)

SPECIFICATIONS

Model No.	Unit	B45	B65	B105
Port size		Rc $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	Rc $\frac{1}{2}$, $\frac{3}{4}$
Pressure gauge connecting port		Rc $\frac{1}{8}$		
Filter rating	μ m	5 (N : 20)	5 (J : 40)	
Reduced pressure range	MPa(kgf/cm ²)	0.03~0.8(0.3~8)(L : 0.02~0.42(0.2~4.2))		
Max. operating pressure	MPa(kgf/cm ²)	1(10) (W : 1.2(12) D : 1.4(14))		
Surrounding or fluid temperature range	°C	5~50 (D : 5~65)		
Filter bowl capacity (Storable liquids)	cm ³	22	45	140
Weight	kg	0.23	0.37	0.72

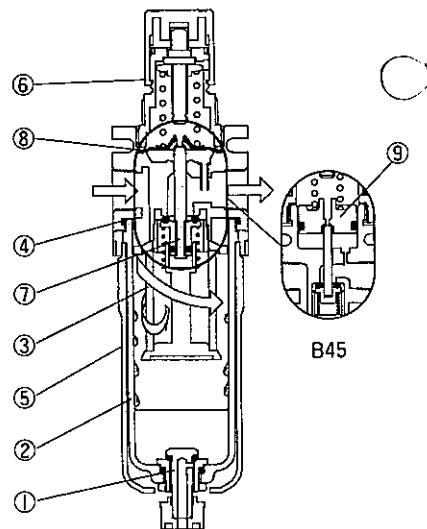
MODEL No. OF MAIN PARTS

No.	Name	B45	B65	B105	Material	
①	Drain cock	SAF10Y7			POM	
②	Plastic bowl ※1	SAF30-0031	SAF65-0034	SAF105-0033	PC	
③	Filter element	5 μ m	504Z77-5	F55-0772P	F100-0771P	PP
		20, 40 μ m	504Z77-20	F55-0774	F100-0773P	PP
④	Bowl gasket	504Z101	F65-1011	F105-1015	NBR	
⑤	Bowl guard	—	※2	SAF105-0052	PE(PA)	
⑥	Adjusting knob	R55Y54			R105-0542P	PPO
⑦	Disc assembly	SAR30-0371	SA118Y37	SAR105-0371	C3604, NBR	
⑧	Diaphragm assembly	—	SAR55-0201	SAR10-0201	C3604, NBR	
⑨	Piston assembly	SAR05Y12	—	—	POM, NBR	

(Note) ※1 : ①, ② and ④ is included in bowl set of B45 and B105.

※2 : ①, ②, ④ and ⑤ is included in bowl set of B65.

STRUCTURE



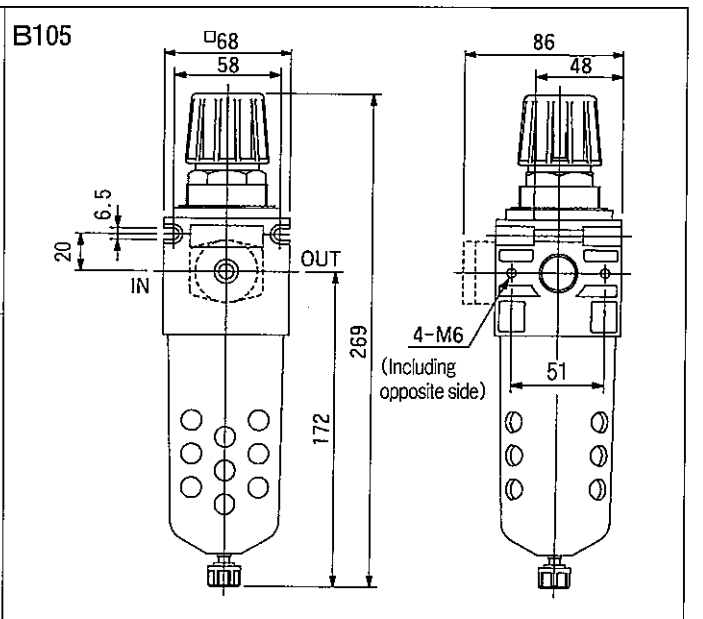
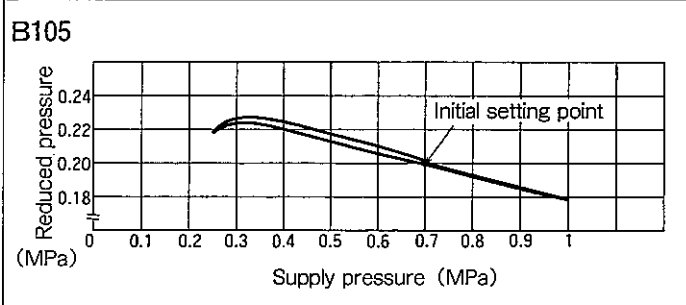
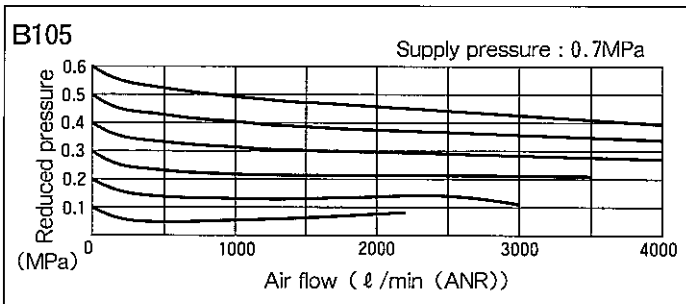
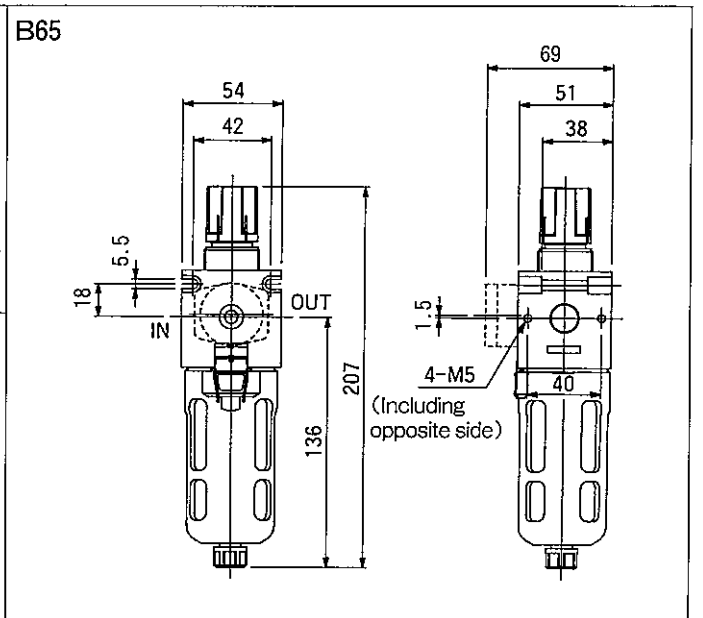
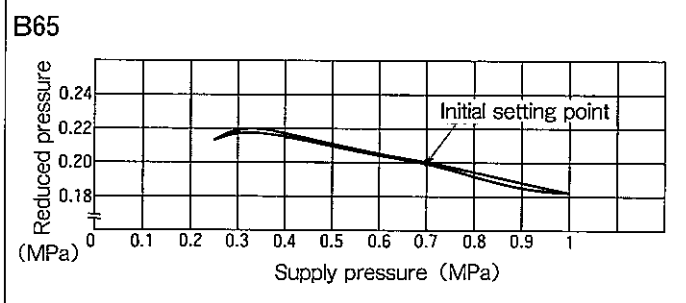
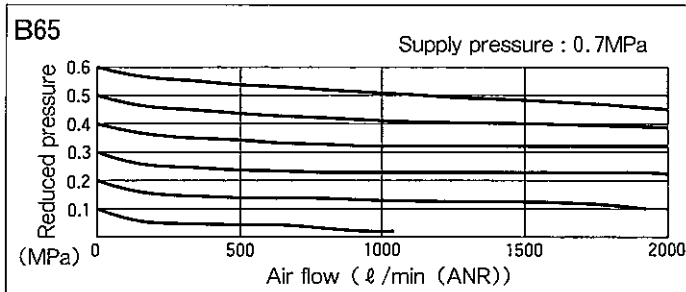
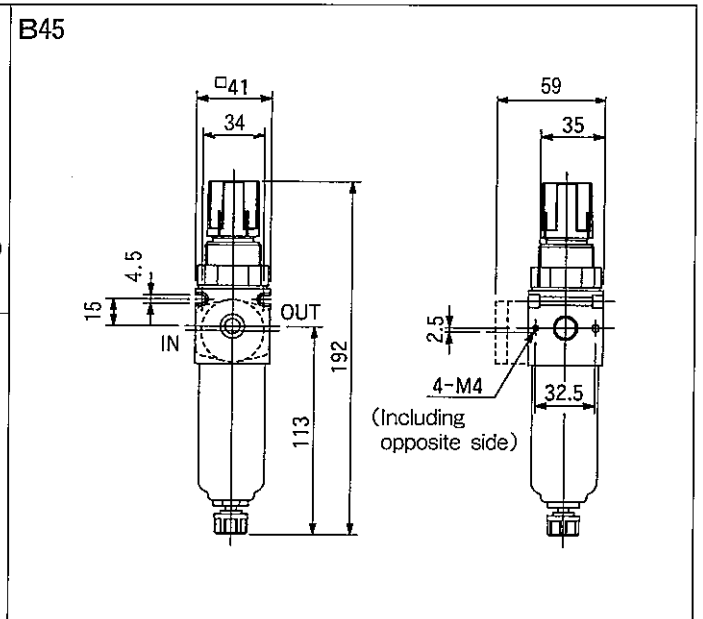
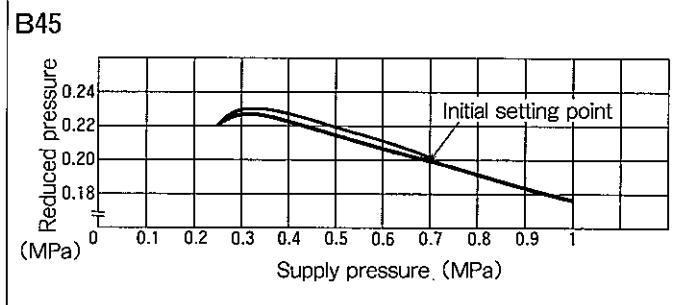
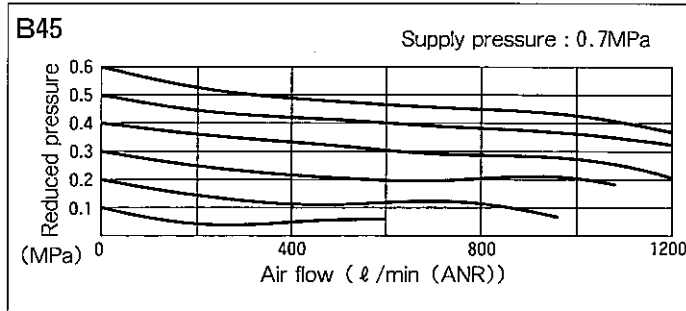
B45

FLOW CHARACTERISTICS(Upper stage)

PRESSURE CHARACTERISTICS(Lower stage)

DIMENSIONS

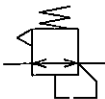
(Unit : mm)





PRECISION PRESSURE REGULATOR/HP10

JIS symbol



Pressure gauges shown by photograph are optionally available.

ORDERING INSTRUCTIONS

HP10 - 01 G BM

Model No.
HP10

Port size
01 : Rc $\frac{1}{8}$
02 : Rc $\frac{1}{4}$

Bracket

No mark : No bracket

BM : Both sides supporting bracket

Pressure gauge

No mark : No pressure gauge

G : G05-41 (Accuracy : $\pm 1.5\%$ FS)

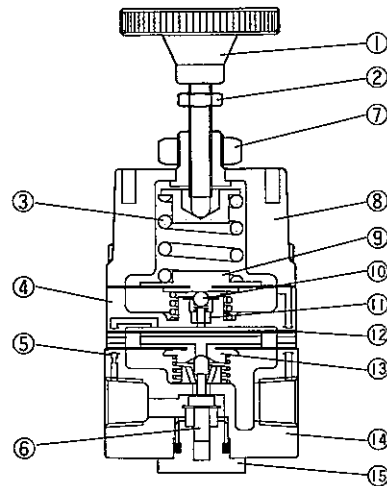
SPECIFICATIONS

Model No.	Unit	HP10
Port size		Rc $\frac{1}{8}$, $\frac{1}{4}$
Pressure gauge connecting port		Rc $\frac{1}{8}$
Reduced pressure range	MPa(kgf/cm 2)	0.005~0.4(0.05~4)
Max. operating pressure	MPa(kgf/cm 2)	0.7(7)
Flow consumption	ℓ /min(ANR)	Less than 3
Sensibility of relieving pressure	MPa(kgf/cm 2)	0.0001(0.001)
Surrounding or fluid temperature range	°C	5~50
Weight	kg	0.38

MAIN PARTS

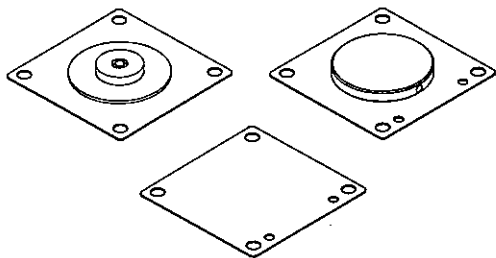
No.	Name	No.	Name
①	Adjusting knob	⑨	Diaphragm A
②	Lock nut	⑩	Flapper ball
③	Adjusting spring	⑪	Nozzle
④	Nozzle housing	⑫	Diaphragm B
⑤	Orifice	⑬	Diaphragm C
⑥	Disc assembly	⑭	Body
⑦	Panel mount nut	⑮	Bottom plug
⑧	Spring cage		

STRUCTURE

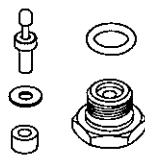


REPAIR PARTS

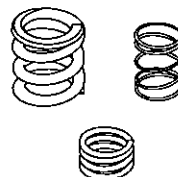
● Diaphragm kit
DKHP10



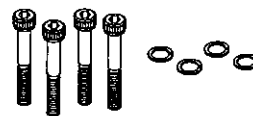
● Disc kit
VKHP10



● Spring kit
SKHP10



● Assembly screw kit
AKHP10



● Orifice kit
OKHP10

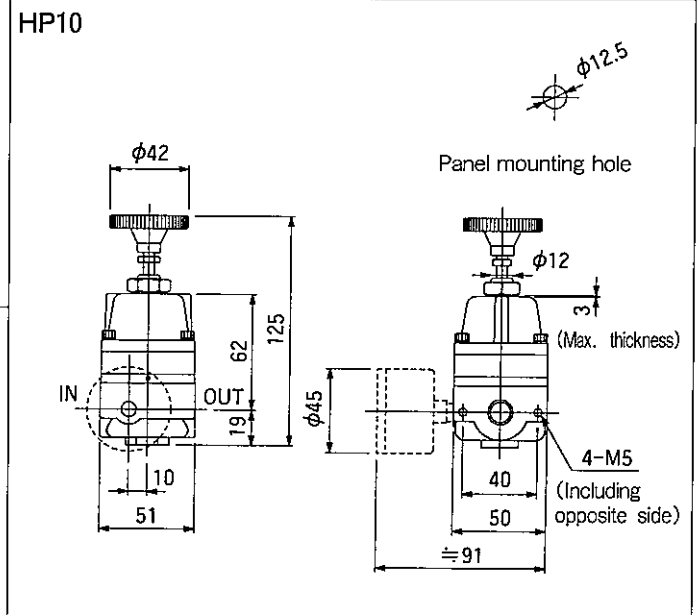
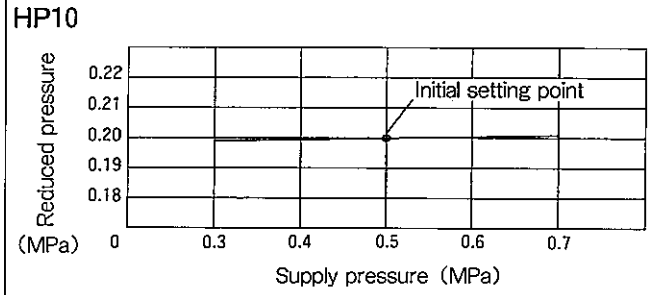
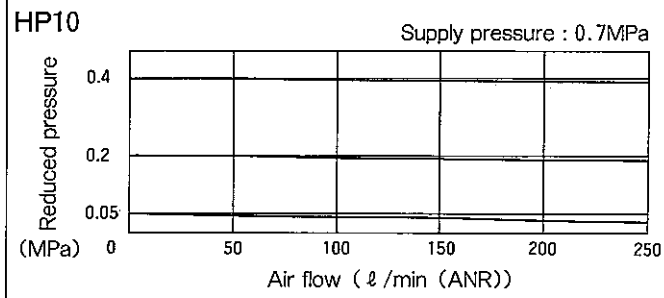


FLOW CHARACTERISTICS(Upper stage)

PRESSURE CHARACTERISTICS(Lower stage)

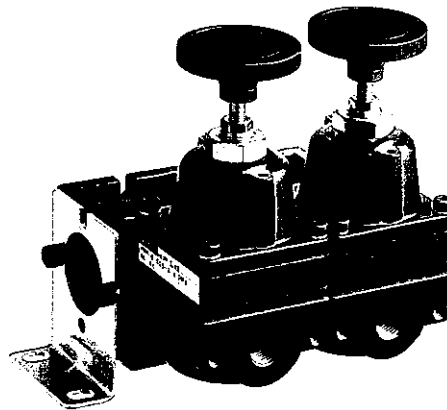
DIMENSIONS

(Unit : mm)



HANDLING

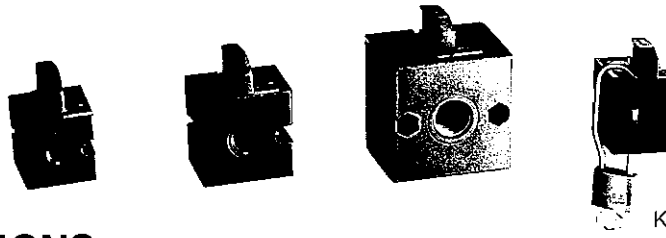
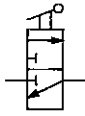
- In order to prevent a trouble, supply clean compressed air free from dust, moisture and oil to PRECISION PRESSURE REGULATOR.
- Connecting a COALESCING FILTER (Rated filtration : $0.01\mu\text{m}$) is recommended.



SHUT OFF VALVE/V45, V65, V105

Obsolete

JIS Symbol



Keys shown by photograph are optionally available.

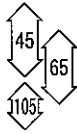
ORDERING INSTRUCTIONS

V 4 5 - 0 3 R A

Model No.
V45, V65, V105

Port size

- 01 : Rc $\frac{1}{8}$
- 02 : Rc $\frac{1}{4}$
- 03 : Rc $\frac{3}{8}$
- 04 : Rc $\frac{1}{2}$
- 06 : Rc $\frac{3}{4}$



Option

No mark : Without key

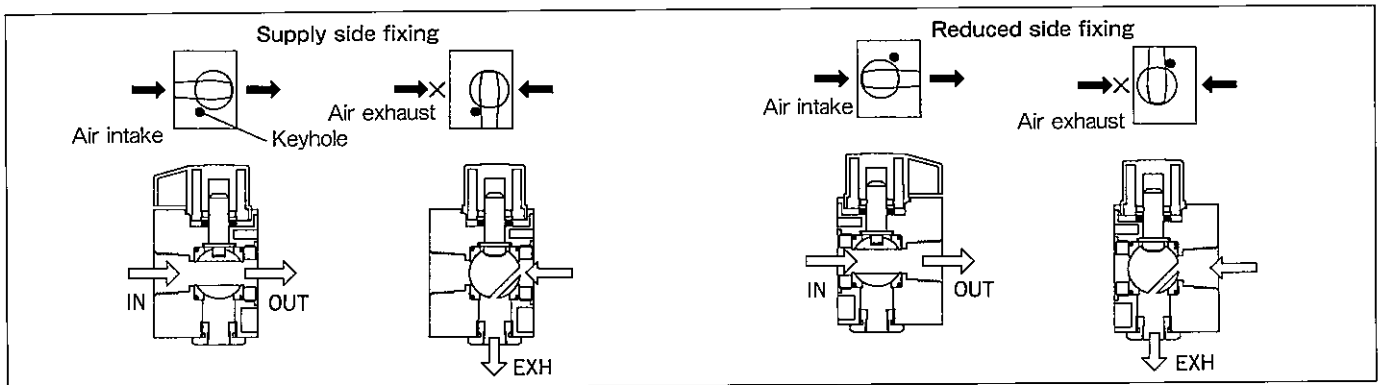
A : With key (Conforming to ISO 4414, OSHA and JIS B8370)

Direction of fixing

No mark : Supply side

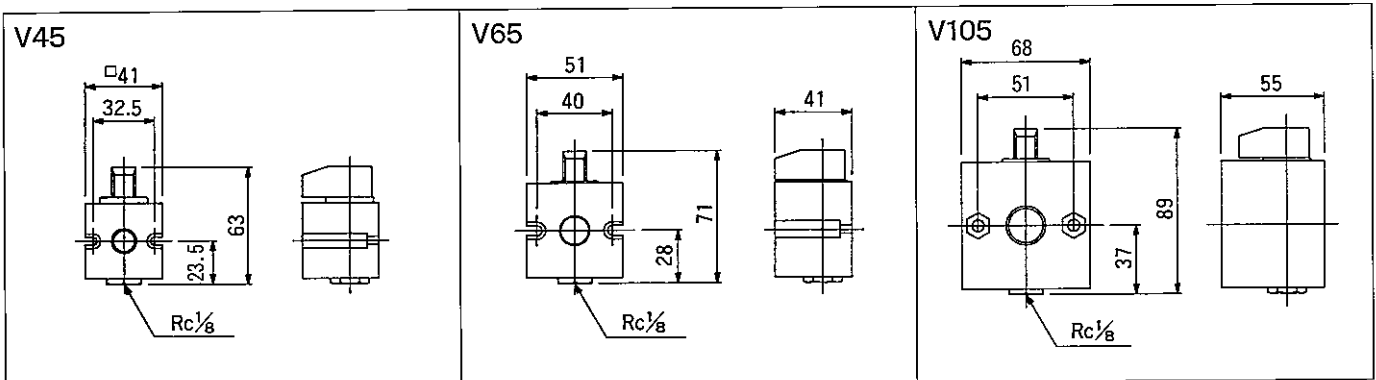
R : Reduced side

⊕ A bracket cannot be fitted to SHUT OFF VALVE with key. For your specific requirements, contact KURODA.



DIMENSIONS

(Unit : mm)



ACCESSORIES

Name	Q'ty	V45	V65	V105	Material
Joint O-ring	1	AS568-016	JASO-1021	AS568-122	NBR
Joint bolt	2	M4×0.7×10	M5×0.8×12	M6×1.0×15	SC



HANDLING

- ① When using an option A (with key), arrange the valve so that the keyhole may come to this side so as to prevent interference with the key and mounting surface.
- ② When a lubricator is located after the SHUT OFF VALVE, oil will drop in reverse air when air is exhausted. To prevent such a state, loosen the fill plug of the lubricator and relieve air in the bowl.
- ③ SHUT OFF VALVE does not have pipe threads to connect. (OUT side for supply side fixing and IN side of reduced side fixing).
When using SHUT OFF VALVE alone, use a spacer plate and a branch block to get pipe threads to connect no threads side.

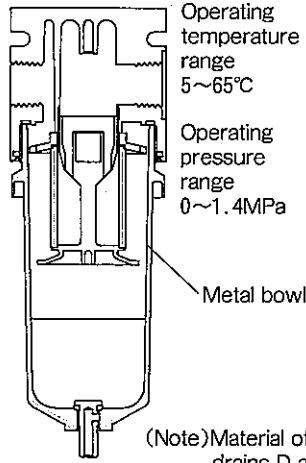
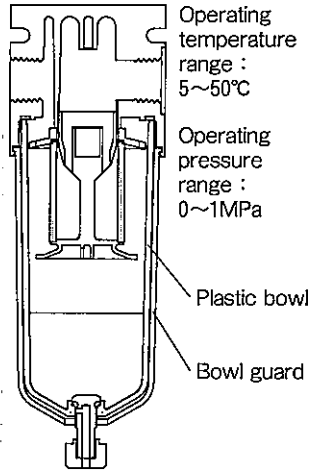
OPTION

BOWL

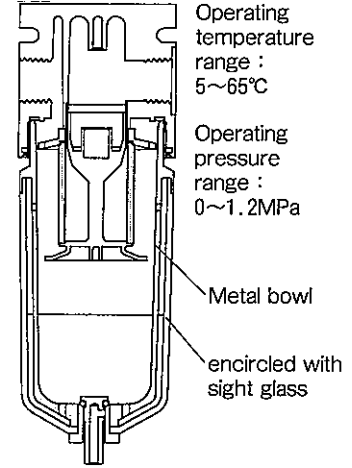
No mark : Plastic bowl

D : Metal bowl without sight glass

W : Metal bowl encircled with sight glass



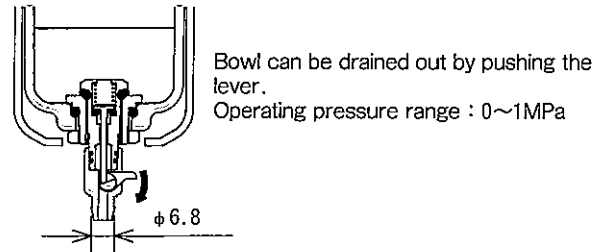
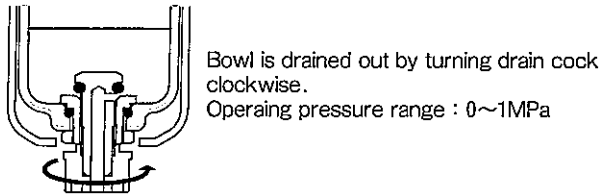
(Note)Material of manual drains D and W : C3604



DRAIN COCK

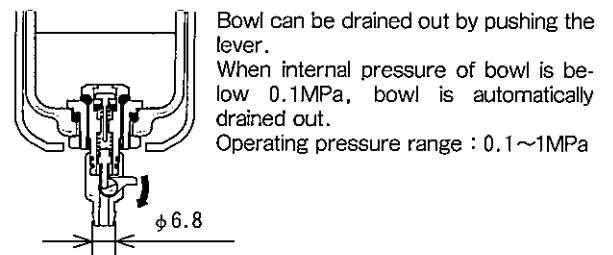
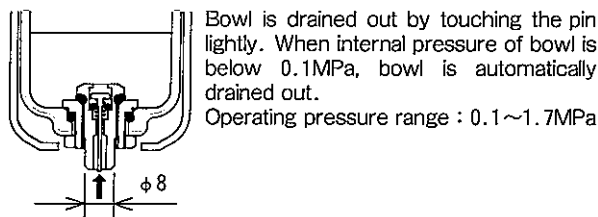
No mark : Manual drain (SAF10Y7)

Q : One-push drain (SA602Q)



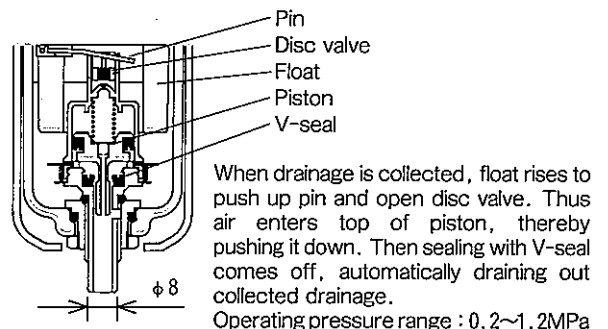
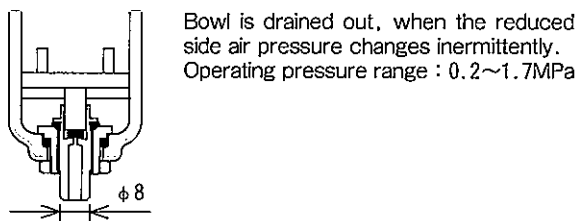
Y : Spring drain (SA602Y)

C : Combination drain (SA602C)



S : Drainmaster (3500)

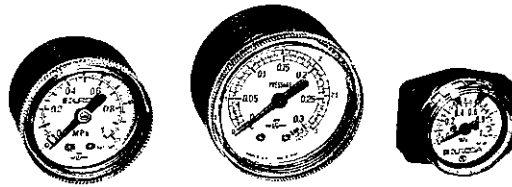
M : Automatic drain (SA602MD)



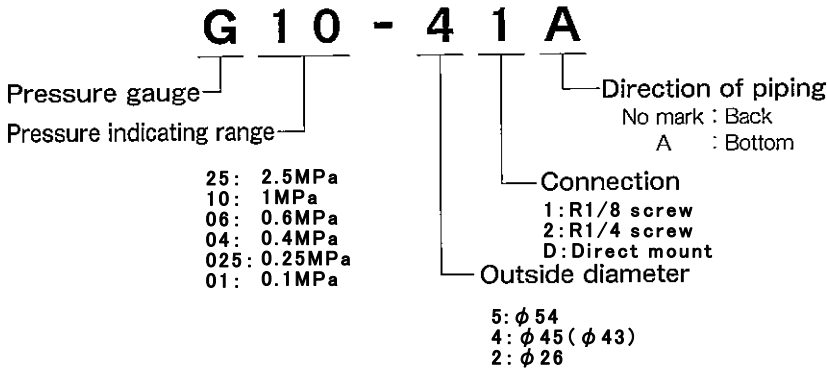
· When actuating DRAINMASTER, a pressure difference of more than 0.07MPa is required. Mount it to this side within a distance of 50 cm from solenoid valve to get the pressure changing for drainmaster operating.

⊗ PRESSURE GAUGE

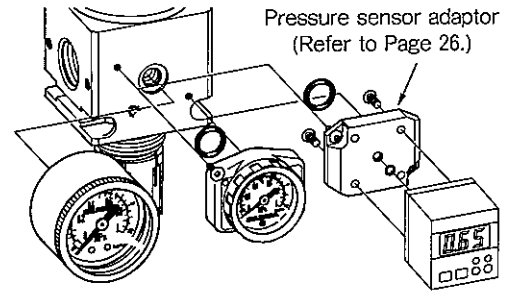
JIS Symbol



ORDERING INSTRUCTIONS



In addition to direct mount pressure gauge, usual type pressure gauge can be connected.
A pressure sensor with digital readout which is locally available can be connected by using a pressure sensor adaptor.



(Note) · All pressure gauge with 1MPa and 0.5MPa readout are provided with limit pointers.
· Accuracy for direct mount, G10-21(A) is $\pm 3\%$ F.S. and accuracy for other types is $\pm 1.5\%$ F.S.

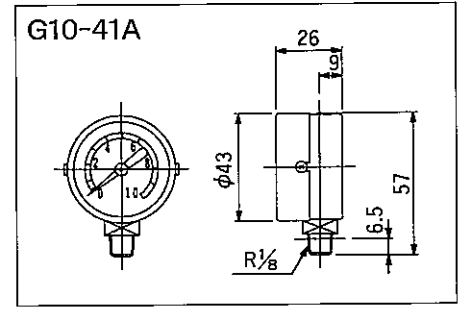
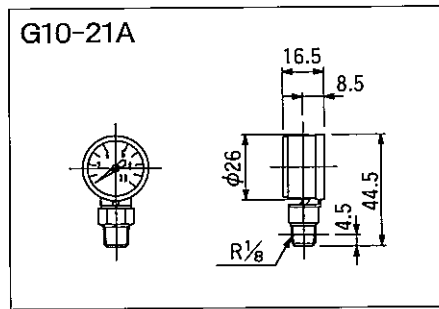
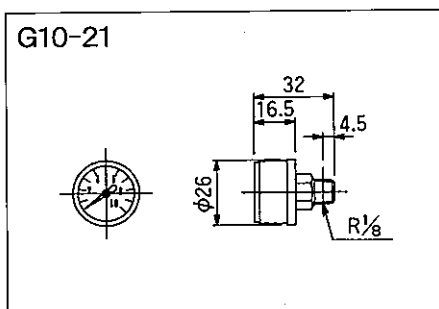
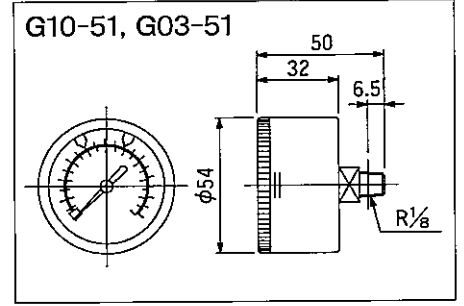
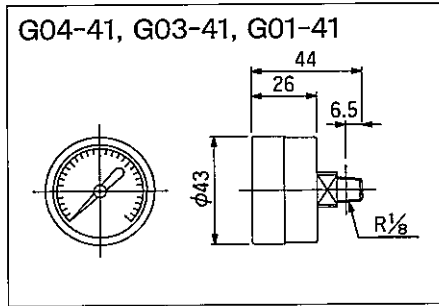
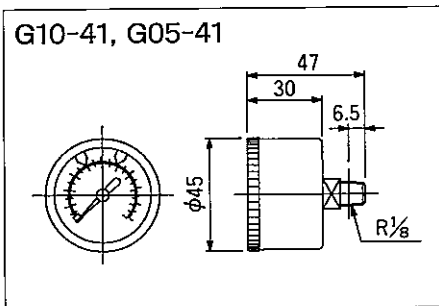


CAUTIONS

- Direct mount pressure gauge is mounted using hexagon wrench (2 mm between opposite sides). Do not use ball point type hexagon wrench. Otherwise it will damage hexagonal hole.
- Check and calibrate pressure gauge periodically.

(Unit : mm)

DIMENSIONS



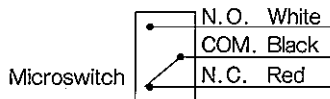
PRESSURE SWITCH/PS-6-1



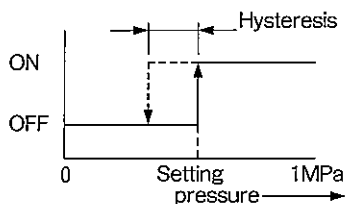
SPECIFICATIONS

Model No.		PS-6-1
Port size		R $\frac{1}{8}$
Maximum pressure	MPa[kgf/cm ²]	1.6[16]
Pressure setting range	MPa[kgf/cm ²]	0.15~0.9(1.5~9)
Hysteresis	MPa[kgf/cm ²]	0.05(0.5)
Surrounding or fluid temperature range	°C	5~65
Rated current	A	3(AC125V)、2(DC24V)
ON/OFF cycle life		100,000 cycles (20 ON/OFF cycles/minute, rated load)
Weight	g	50

• Electric connection diagram



• Operation diagram (In case of COM-NO connection)



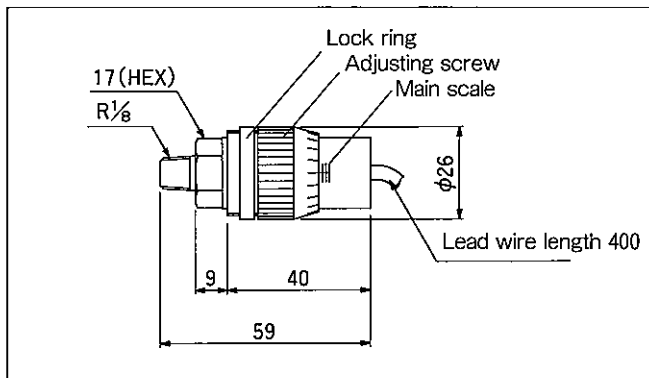
• Setting pressure

Pressure setting for the pressure switch is done by rotating the adjusting screw. Clockwise turn of the adjusting screw will increase the set value. One graduation of the main scale represents approx. 0.2 MPa. When making pressure setting accurately, lay piping and supply the intended pressure, and then check the contact condition by a tester, etc.

After completion of pressure setting, be sure to fix the screw with the lock ring.

DIMENSIONS

(Unit : mm)



PRESSURE SENSOR ADAPTOR/DA-1



ORDERING INSTRUCTIONS

DP : Pressure sensor (DP-22) + Adaptor (DA-1)

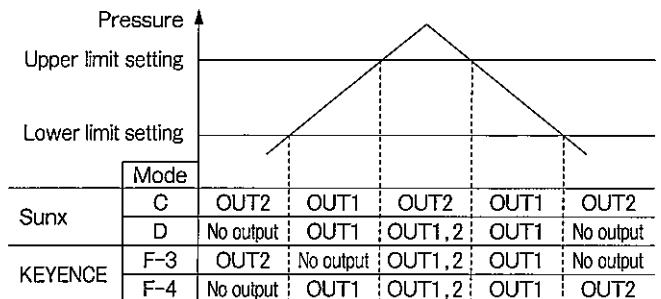
AP : Pressure sensor (AP-22) + Adaptor (DA-1)

⊗When ordering a component with pressure sensor, write DP or AP in the symbol column of pressure gauge.

SPECIFICATIONS

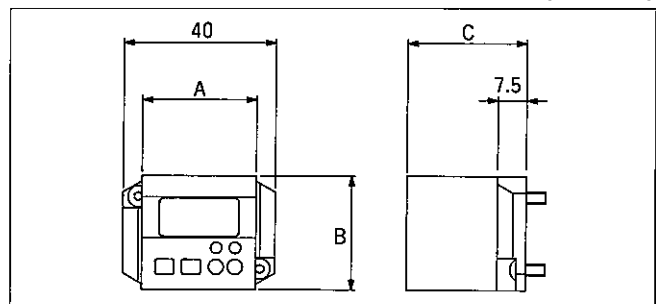
Maker	Sunx	KEYENCE
Model No.	DP-22	AP-23
Range	0 ~ 1 MPa	
Unit of indicating pressure	kgf/cm ² & kPa selectable	kgf/cm ² & kPa separately available
Resolution	1kPa	5kPa
Repeatability	±0.2%F.S. ±1dig.	Less than ±1%F.S.
Temperature characteristics	Less than ±1%F.S.	Less than ±3%F.S.
Supply voltage	12~24VDC±10% Ripple P-P Less than 10%	
Current consumption	Less than 70mA	Less than 45mA
Output	NPN open collector transistor maximum 100mA	
Applied voltage	Less than 30V	Less than 40V

• Operation chart



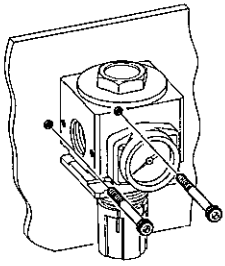
DIMENSIONS

(Unit : mm)

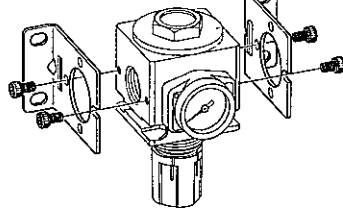


Symbol	A	B	C
DP	30	30	31
AP	31	33	34.5

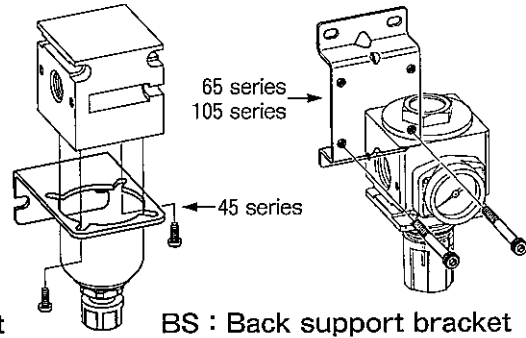
BRACKET, PANEL MOUNT RING



BS : Direct mount



BM : Both side support bracket

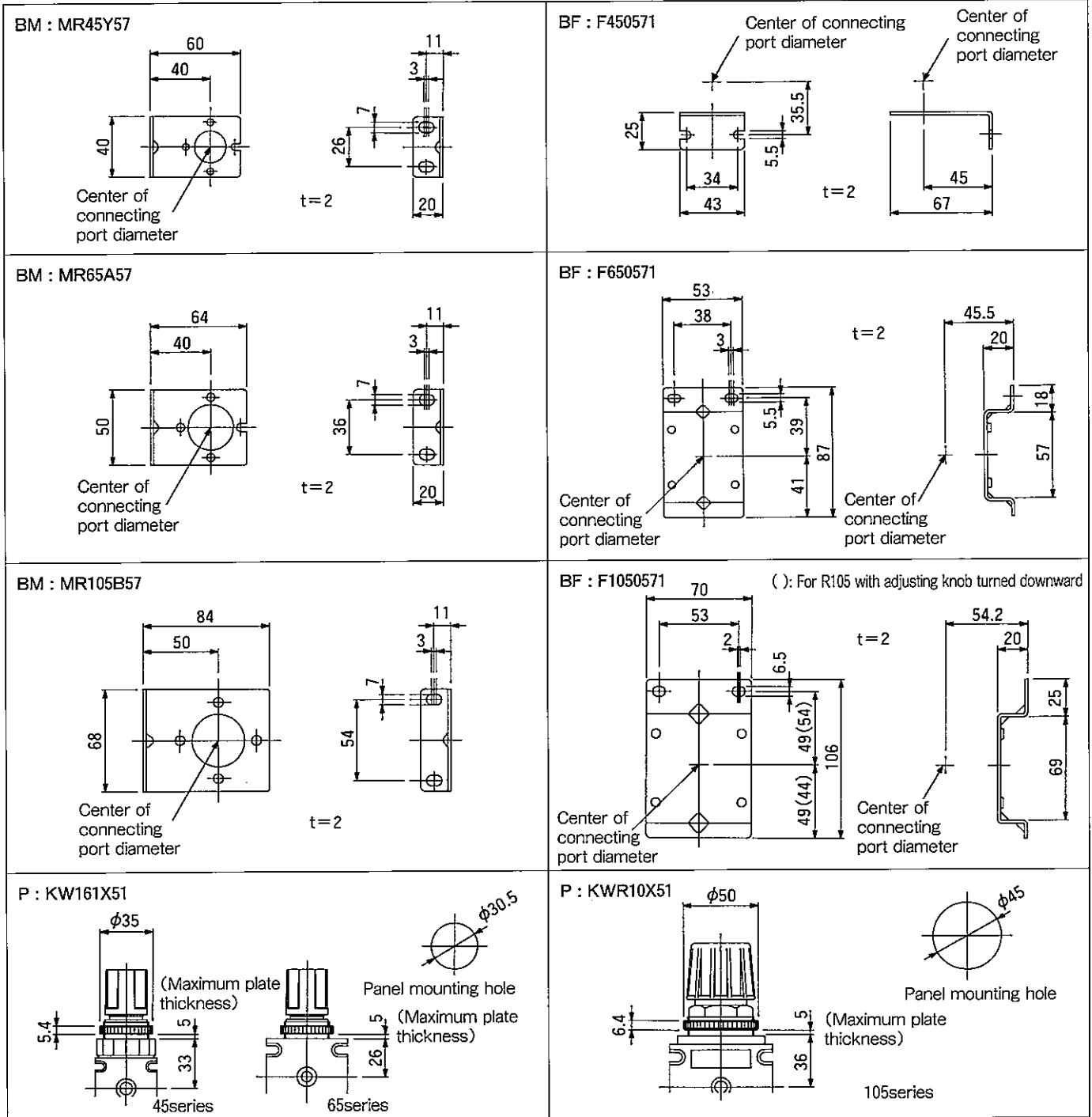


BS : Back support bracket

Name	45 series	65 series	105 series	Material
BS : Direct mounting bolts (2 pcs)	M4×0.7×40	M5×0.8×45	M6×1.0×55	SC

DIMENSIONS

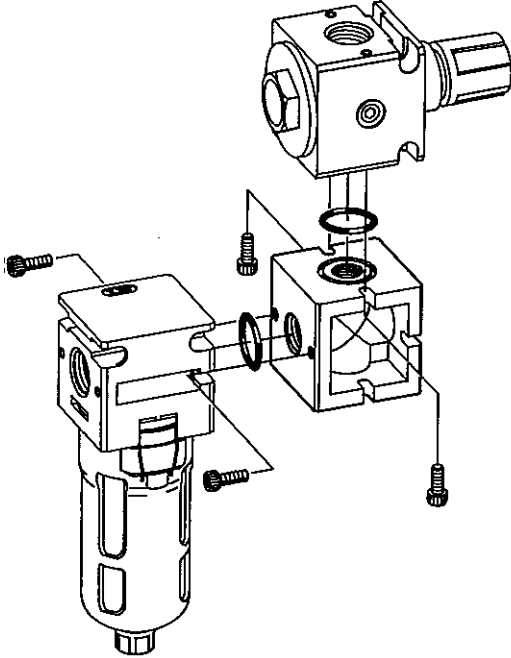
(Unit : mm)



ATTACHMENT

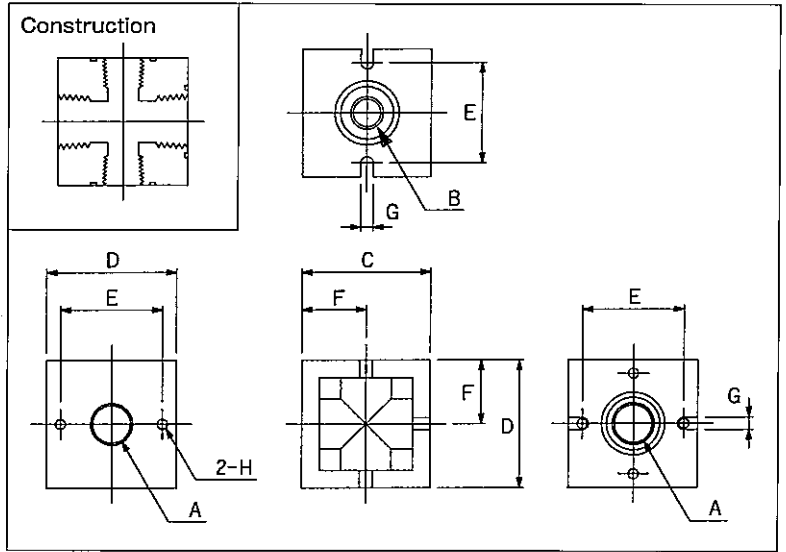
DIVERTER

A cube of which four planes (top, bottom, right and left) are connected and branched to two or more components or attachments. It is used as a base for manifolds regulators.



DIMENSIONS

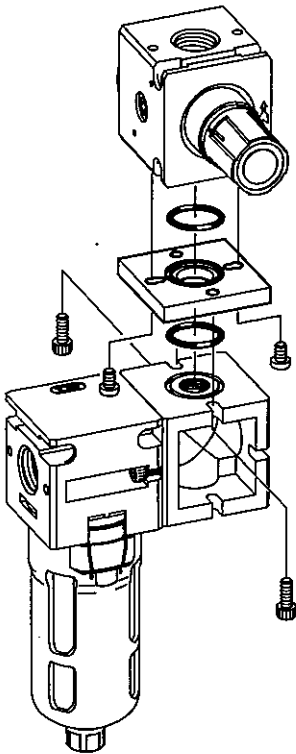
(Unit : mm)



Model No.	A	B	C	D	E	F	G	H
D45	Rc $\frac{3}{8}$	Rc $\frac{1}{4}$	49	41	32.5	20.5	4.5	M4×0.7
D65	Rc $\frac{3}{8}$	Rc $\frac{1}{4}$	51	52.5	40	25.5	5.5	M5×0.8
D105	Rc $\frac{3}{4}$	Rc $\frac{1}{2}$	70	68	51	35	6.5	M6×1

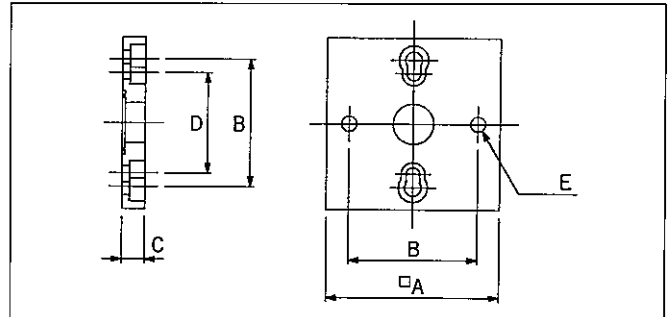
DIRECTION PLATE

A plate used for connecting a component or attachments, of which mounting direction can be turned by 90°. This plate is also used as an interface for connecting a component or attachment of different size.

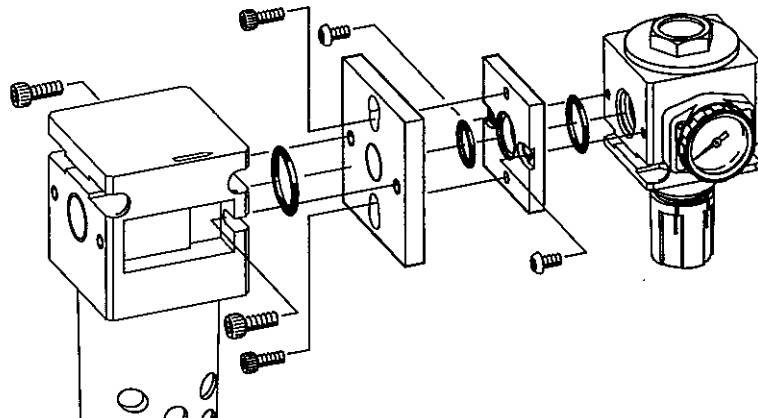


DIMENSIONS

(Unit : mm)



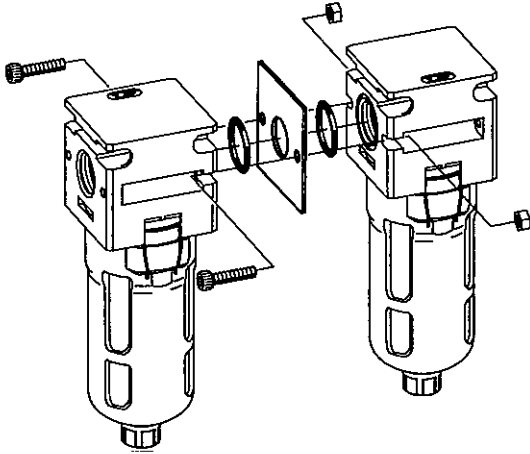
Model No.	A	B	C	D	E
DP45	41	32.5	5	—	M4×0.7
DP65	51	40	7.5	32.5	M5×0.8
DP105	68	51	9	40	M6×1



ATTACHMENT

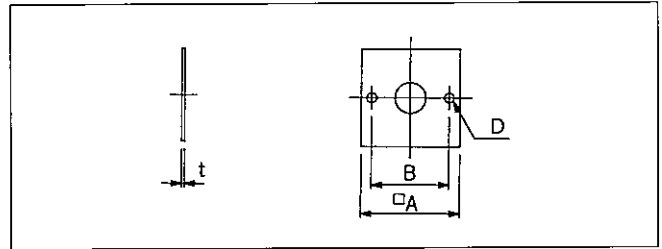
SPACER PLATE

When each component is connected each other with Woodruff key-seat, this spacer plate is used to prevent the joint bolt from coming off.



DIMENSIONS

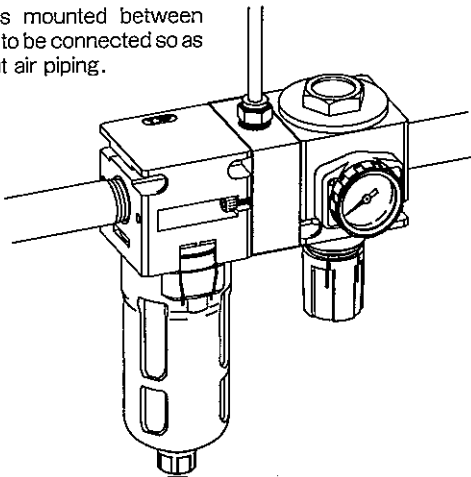
(Unit : mm)



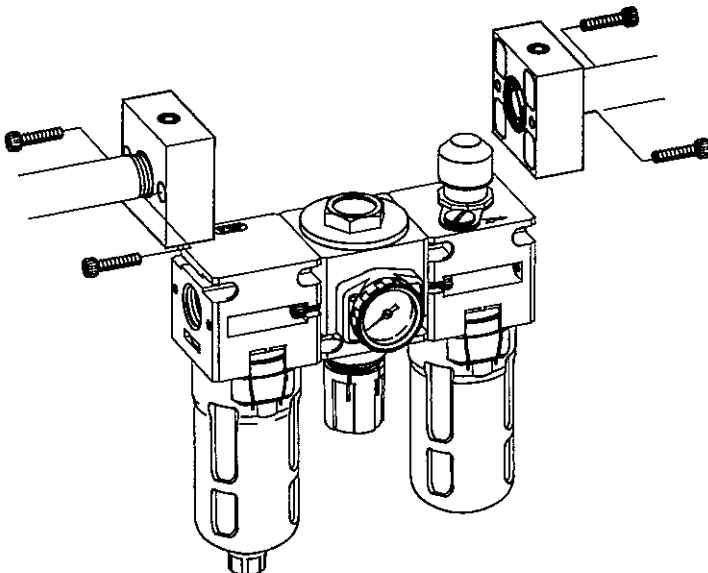
Model No.	A	B	t
SP45	41	32.5	1.5
SP65	51	40	1.5
SP105	68	51	1.5

BRANCH BLOCK

This block is mounted between components to be connected so as to branch out air piping.

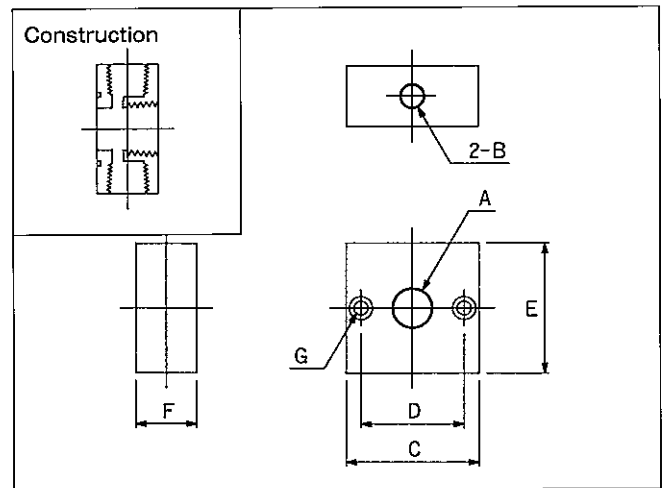


When a component or a unit is mounted between iron pipings, it can be easily attached and detached without rotating the piping.



DIMENSIONS

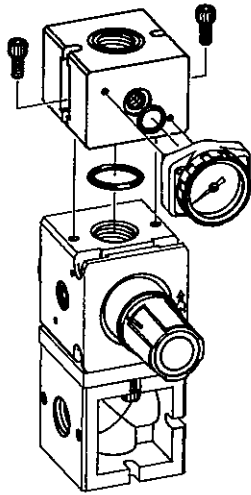
(Unit : mm)



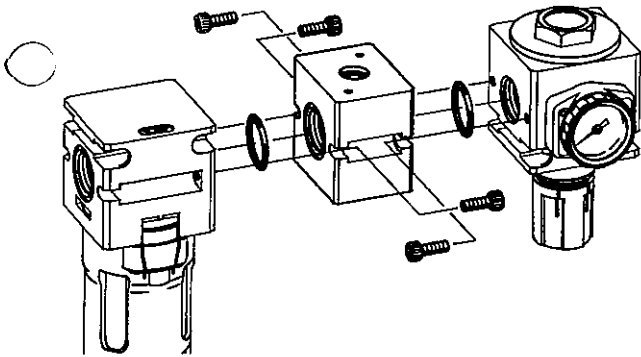
Model No.	A	B	C	D	E	F	G
BB45-1-1	Rc $\frac{1}{8}$	Rc $\frac{1}{8}$	42	32.5	41	23	4.5
-2-1	Rc $\frac{1}{4}$						
-3-1	Rc $\frac{3}{8}$						
-2-2	Rc $\frac{1}{4}$	Rc $\frac{1}{4}$	52	40	51	24	5.5
BB65-2-1	Rc $\frac{1}{4}$	Rc $\frac{1}{8}$					
-3-1	Rc $\frac{3}{8}$						
-4-1	Rc $\frac{1}{2}$	Rc $\frac{3}{8}$	68	51	68	26	6.5
-2-2	Rc $\frac{1}{4}$						
-3-3	Rc $\frac{3}{8}$						
BB105-4-2	Rc $\frac{1}{2}$	Rc $\frac{1}{4}$	68	51	68	26	6.5
-4-3	Rc $\frac{1}{2}$	Rc $\frac{3}{8}$					
-6-2	Rc $\frac{3}{4}$	Rc $\frac{1}{4}$					

GAUGE BASE

A block for connecting a pressure gauge. It is mainly used for a manifold regulator.

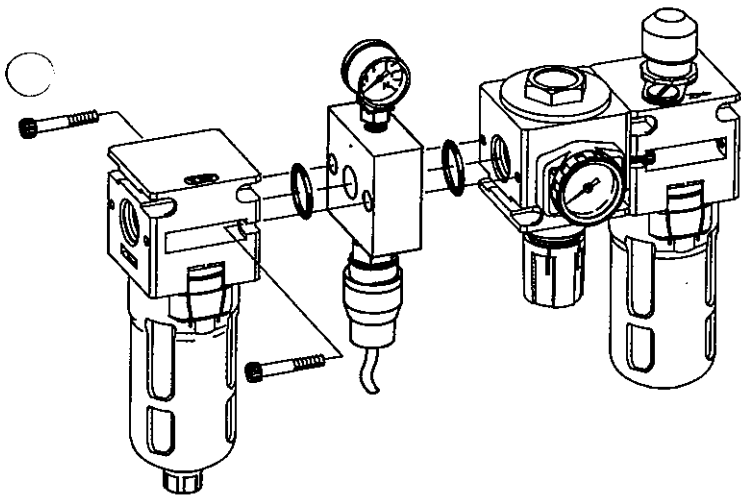


When each component has a female screw, connect the components through this gauge base.



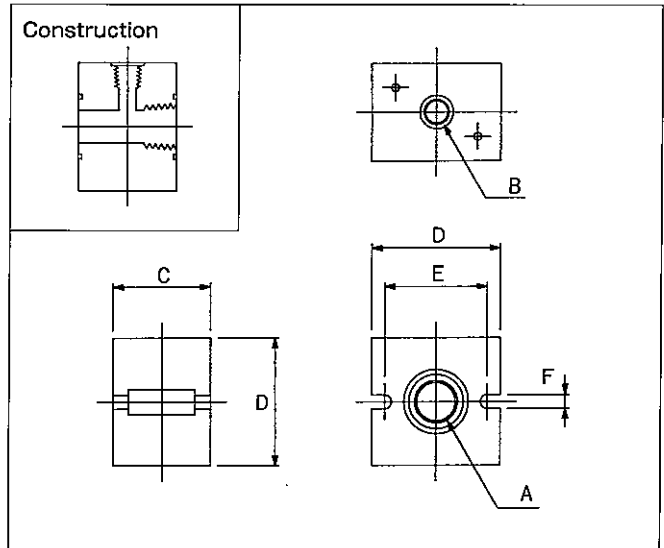
PRESSURE SWITCH BLOCK

A one-piece block with pressure gauge and pressure switch.



DIMENSIONS

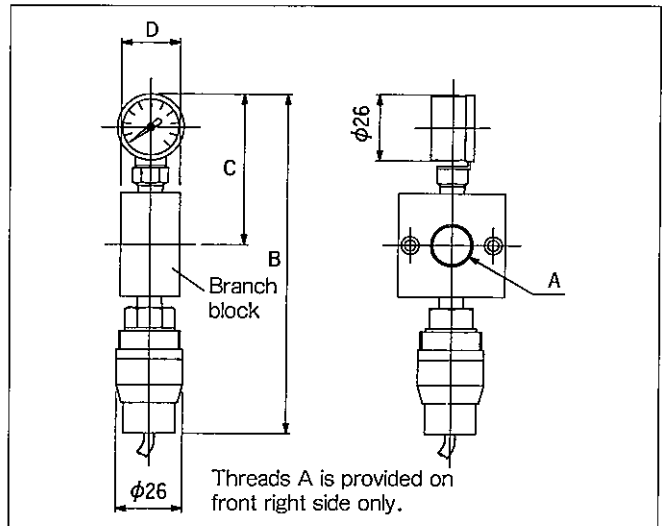
(Unit : mm)



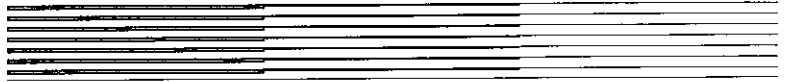
Model No.	A	B	C	D	E	F
GB45-1	Rc $\frac{1}{8}$					
-2	Rc $\frac{1}{4}$	Rc $\frac{1}{8}$	35	41	32.5	4.5
-3	Rc $\frac{3}{8}$					
GB65-2	Rc $\frac{1}{4}$					
-3	Rc $\frac{3}{8}$	Rc $\frac{1}{8}$	38	50	40	5.5
-4	Rc $\frac{1}{2}$					

DIMENSIONS

(Unit : mm)



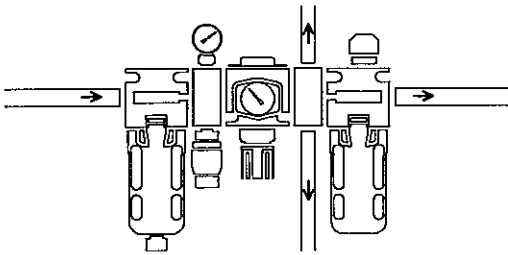
Model No.	A	B	C	D
PST45-1	Rc $\frac{1}{8}$			
-2	Rc $\frac{1}{4}$	133	59	23
-3	Rc $\frac{3}{8}$			
PST65-2	Rc $\frac{1}{4}$			
-3	Rc $\frac{3}{8}$	145	65	24
-4	Rc $\frac{1}{2}$			
PST105-4	Rc $\frac{1}{2}$			
-6	Rc $\frac{3}{4}$	180	82	26



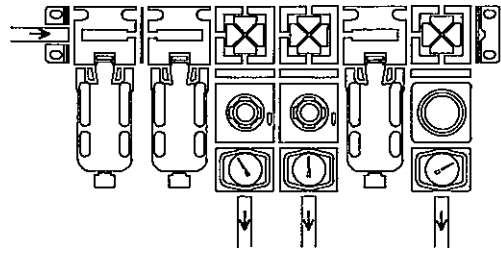
QUBE SYSTEM UNIT is capable of combining in many ways with a variety of components and attachments and also extending or branching out as desired. You can create various refining and pressure control units according to specifications.

EXAMPLE OF COMBINATION

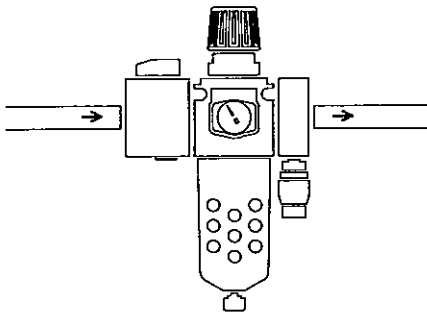
PRESSURE SWITCH BLOCK is connected between FILTER and REGULATOR and a branch port is provided between REGULATOR and LUBRICATOR, thereby making it possible to branch out the lubricating line and non-lubricating line.



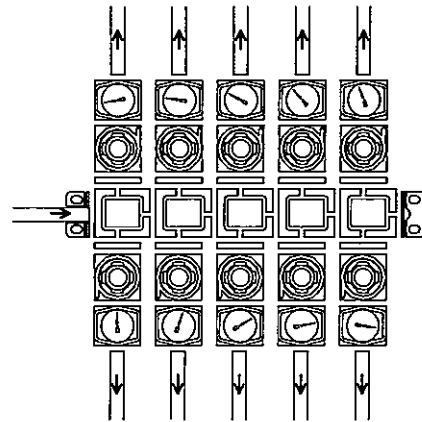
PRECISION PRESSURE REGULATOR can also be connected as a SYSTEM UNIT. COALESCING FILTER is provided for protecting PRECISION PRESSURE REGULATOR.



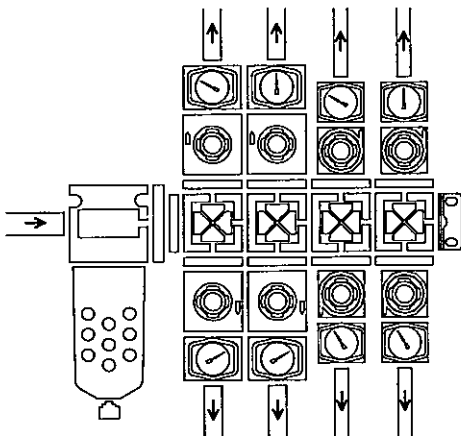
When SHUT OFF VALVE with keyhole is connected to INTEGRAL FILTER-REGULATOR, maintenance and inspection of the machine can be safely performed. Pressure can also be monitored using PRESSURE SWITCH.



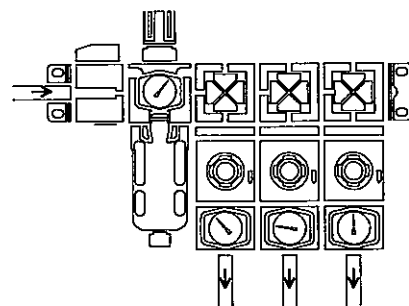
Basic combination of MANIFOLD REGULATOR. Two or more pressure settings are united. Quantity of DIVERTER can be set as desired.



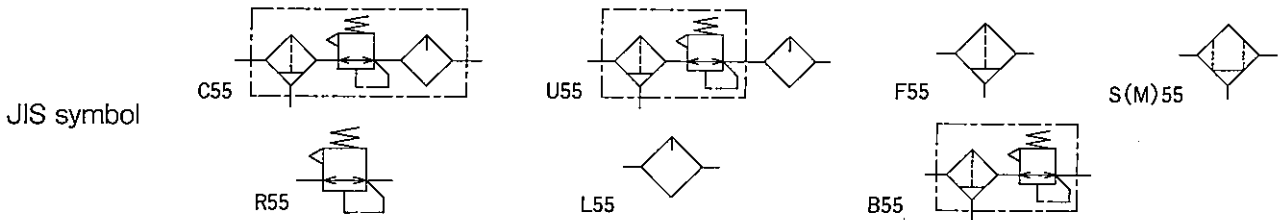
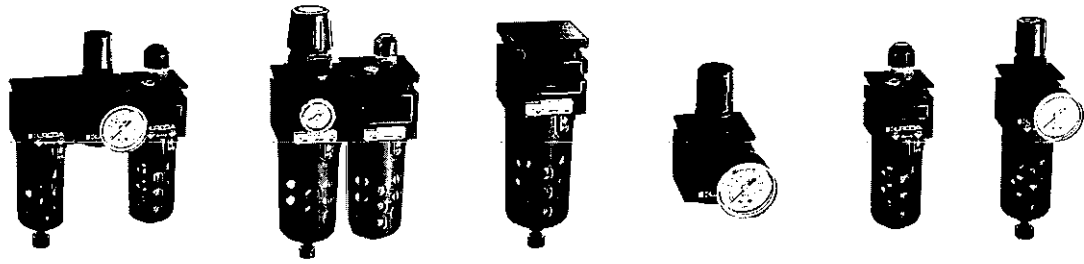
A large-sized FILTER is provided on the primary side of MANIFOLD REGULATOR to purify air while keeping air flow. Since serialized SYSTEM UNIT with different size is connectable each other, it can be properly used according to the intended flow rate or connecting port size.



INTEGRAL FILTER-REGULATOR is provided in front of MANIFOLD REGULATOR to stabilize secondary pressure by double, when the primary pressure fluctuates excessively. It purify the air, too.



QUBE 55series



ORDERING INSTRUCTIONS

C 5 5 - 3 L D J Y G B S

Model No.

- C55 : AIR COMBINATION UNIT
- U55 : AIR COMBINATION UNIT
- F55 : AIR FILTER
- S55 : SLUDGE FILTER
- M55 : COALESCING FILTER
- R55 : AIR REGULATOR
- L55 : AIR LUBRICATOR
- B55 : INTEGRAL FILTER-REGULATOR

Port size

- 2 : Rc $\frac{1}{4}$
- 3 : Rc $\frac{3}{8}$
- 4 : Rc $\frac{1}{2}$

Reduced pressure range (C,U,R,B)

- No mark : 0.03~0.8MPa
- L : 0.02~0.42MPa

Material of bowl (C,U,F,S,M,B)

- No mark : Plastic bowl
- D : Metal bowl without sight glass
- W : Metal bowl encircled with sight glass

Bracket

- No mark : No bracket
- BS : Direct mounting bolt
- BM : Both sides supporting bracket
- BF : Rear side supporting bracket
- P : Panel mount ring (R,B)

Pressure gauge (R,B)

- No mark : No pressure gauge
- G : G10-41
- Pressure gauge for C55L, U55L, R55L and B55L is G05-*. *

Drain cock (C,U,F,S,M,B)

- No mark : Manual drain
- Q : One-push drain
- Y : Spring drain
- C : Combination drain
- M : Automatic drain

Filter rating (C,U,F,B)

- No mark : 5 μ m
- J : 40 μ m

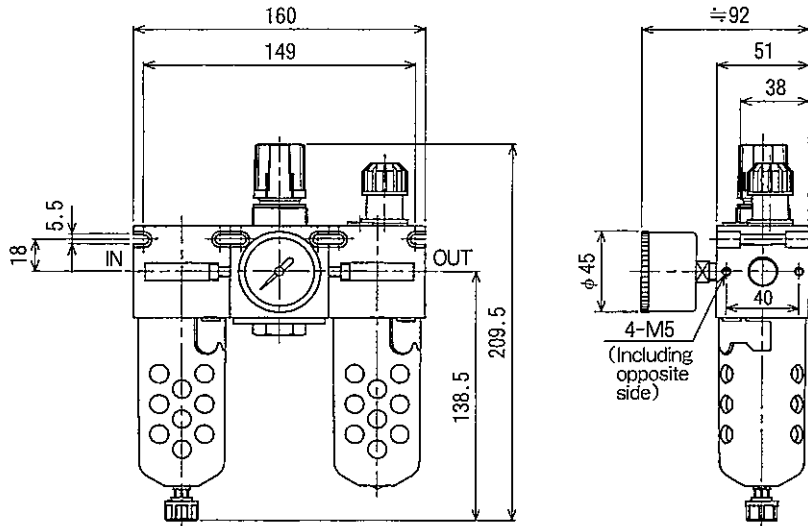
SPECIFICATIONS

Model No.	Unit	C55	U55	B55	R55	F55	S55/M55	L55	
Port size		Rc $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$							
Pressure gauge connecting port		Rc $\frac{1}{8}$				—			
Filter rating	μ m	5(J : 40)			—		5(J : 40)	0.3/0.01	—
Reduced pressure range	MPa[kgf/cm ²]	0.03~0.8(0.3~8)(L : 0.02~0.42(0.2~4.2))							
Max. operating pressure	MPa[kgf/cm ²]	1(10) (W : 1.2(12) D : 1.4(14)) R55 : 1.4(14)							
Surrounding or fluid temperature range	°C	5~50(D : 5~65) R55 : 5~65							
Filter bowl capacity (Storable liquids)	cm ³	47			—		47	45	—
Lubricator bowl capacity (Oil)	cm ³	78		—		—		78	
Min. flow rate for charging	ℓ /min(ANR)	50		—		—		50	
Weight	kg	0.90	0.65	0.35	0.30	0.30	0.31	0.30	
Recommended oil		Turbine oil, Class1 (ISO VG32)			—				Turbine oil, Class1 (ISO VG32)

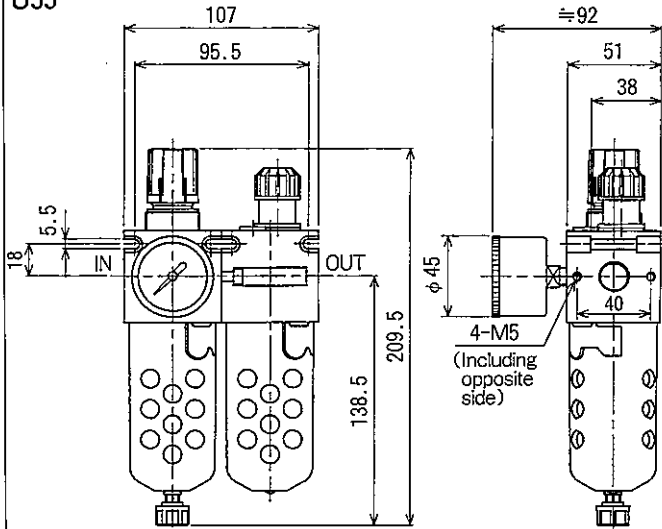
DIMENSIONS

(Unit : mm)

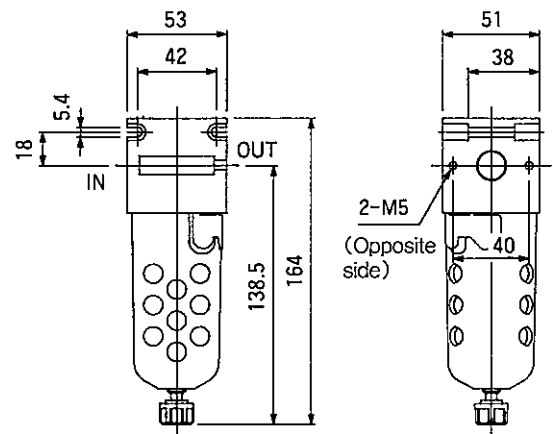
C55



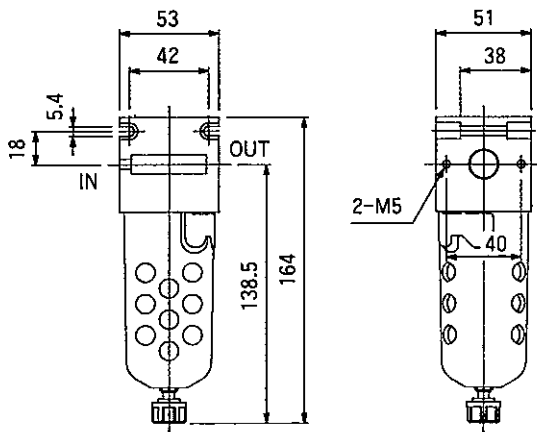
U55



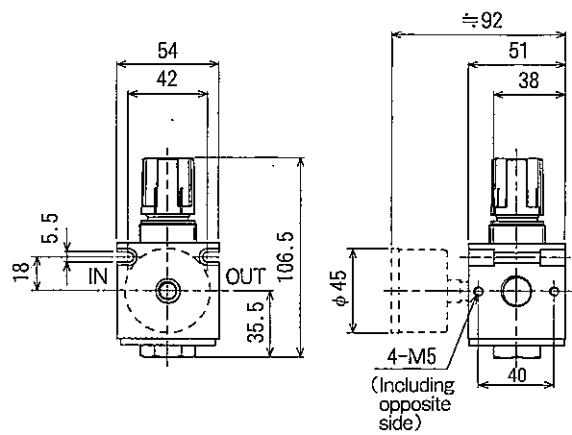
F55



S55/M55

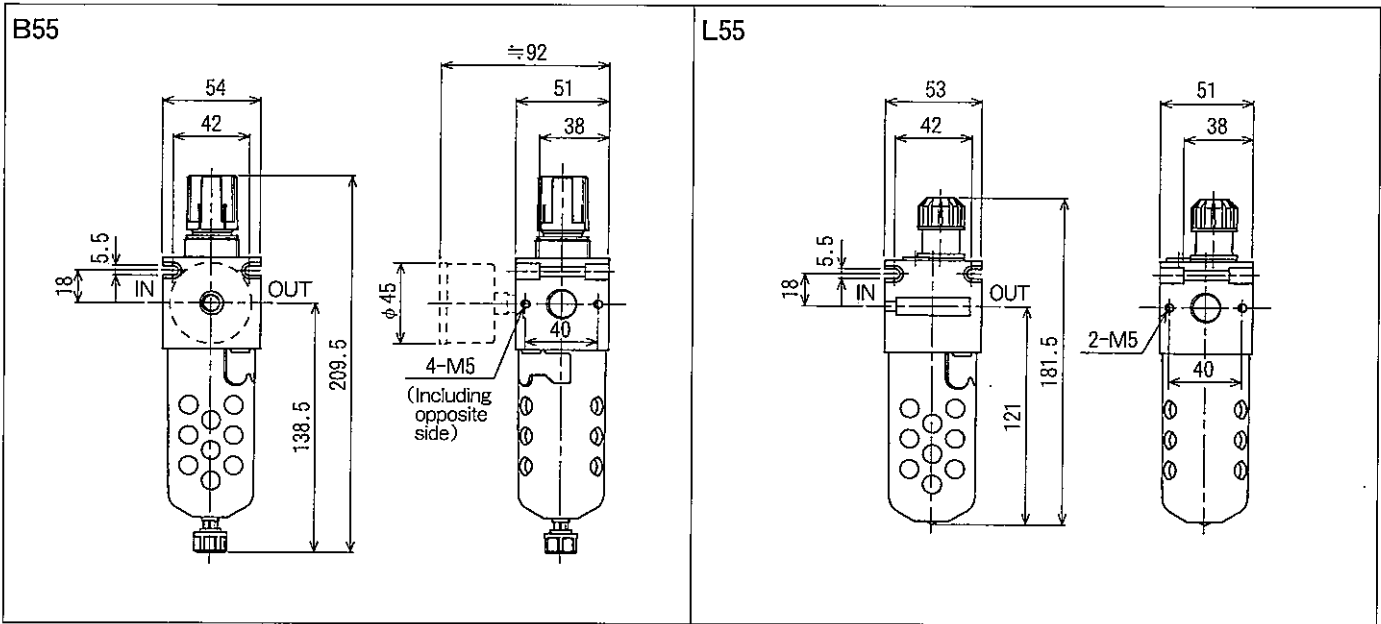


R55

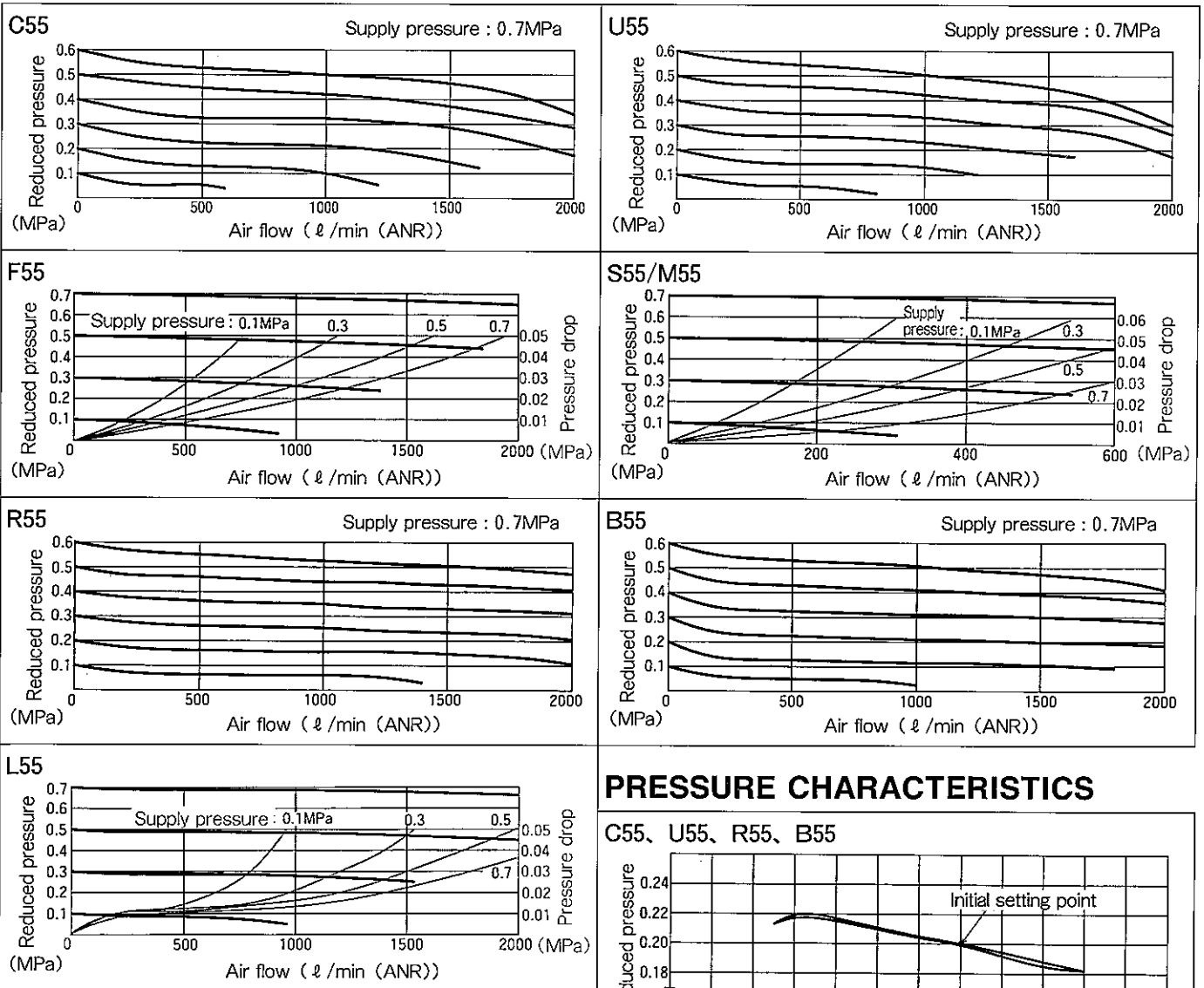


DIMENSIONS

(Unit : mm)



FLOW CHARACTERISTICS



PRESSURE CHARACTERISTICS

