

## F.R.L. Modular design

# Flame resistant Series

■ Components for air preparation / pressure adjustment / F.R.L. unit



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Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
<b>Air booster</b>
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

Ending

Flame resistant Series  
F.R.L. unit



Filter and regulator flame resistant Series

# W3000/W4000/W8000-G4 Series

New Series of 5μm elements for dust removal, and 0.3μm elements for tar removal.

Port size: 1/4 to 1

JIS symbol



## Specifications

Descriptions	W3000-G4	W4000-G4	W8000-G4
Working fluid	Compressed air		
Max. working pressure MPa	1.0 (Note 2, 3)		
Withstanding pressure MPa	1.5		
Working temperature °C	5 to 60		
Filtration rating μm	5 or 0.3		
Set pressure range MPa	0.05 to 0.85		
Relief	With relief mechanism		
Drain capacity cm <sup>3</sup>	45	80	80 (Note 3)
Port size Rc, NPT, G	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Product weight kg	0.72	1.08	2.16
Standard specifications	Exterior: Flame-resistant material, metal bowl		

Note 1: When "F" with an automatic drain is selected, minimum operation pressure must be 0.1MPa.

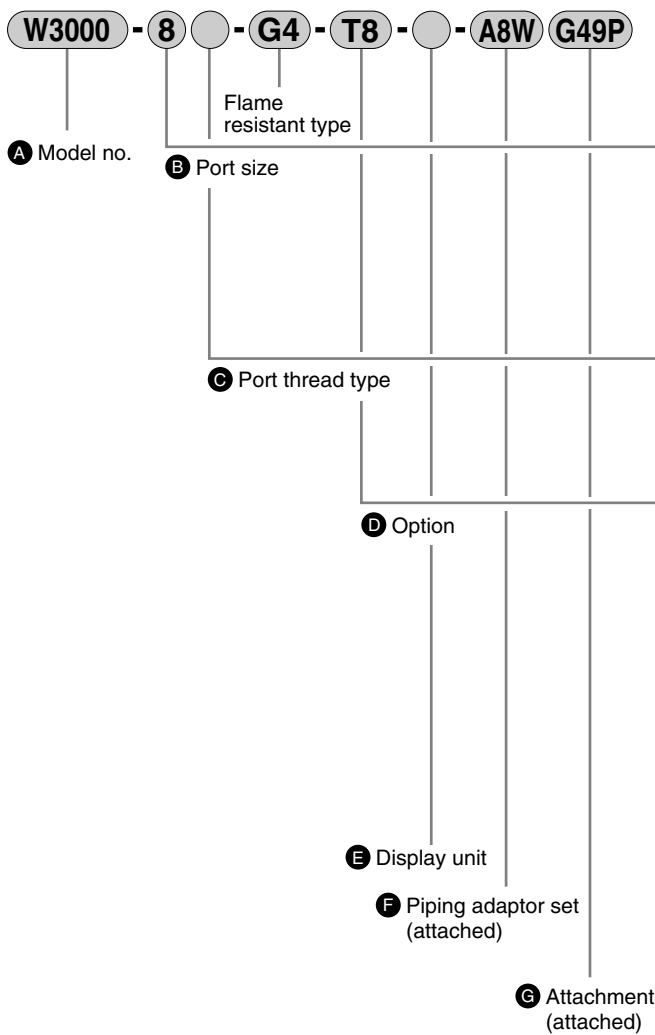
Air is purged with initial drainage until pressure reaches 0.1 MPa.

Note 2: When "F1" with an automatic drain is selected, minimum operation pressure must be 0.15 MPa.

Note 3: Drainage accumulates up to 170 cm<sup>3</sup> only with the manual drain cock.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

### How to order



\* Refer to page 274 for the explanation of the option.

### A Model no.

Model no.	W3000	W4000	W8000
Refrigerating type dryer			
Desiccant type dryer			
High polymer membrane type dryer			
Air filter			
Auto. drain / others			
F.R.L. (Module unit)			
F.R.L. (Separate)			
Compact F.R.			

Symbol	Descriptions	W3000	W4000	W8000
<b>B Port size</b>				
8	1/4	●	●	
10	3/8	●	●	
15	1/2		●	
20	3/4			●
25	1			●

C Port thread type		Note 1		
Blank	Rc thread	●	●	●
N	NPT thread	●	●	●
G	G thread	●	●	●

D Option		Note 2			
Drainage	Blank	With manual drain cock	●	●	●
	F	Automatic drain with manual override (NO type: Exhaust w/o pressurized)	●	●	●
	F1	Automatic drain with manual override (NC type: No exhaust w/o pressurized)	●	●	●
	FF	Large automatic drain with manual override (NO type: Exhaust w/o pressurized)			●
Note 3	FF1	Large automatic drain with manual override (NC type: No exhaust w/o pressurized)			●
Bowl material	Blank	Metal bowl (resin cock)	●	●	●
	M	Metal bowl (metal cock)	●	●	●
Element	Blank	5μm	●	●	●
	Y	0.3μm (submicron) Note 4	●	●	●
Pressure range	Blank	0.05 to 0.85MPa	●	●	●
	L	0.05 to 0.35MPa Note 5	●	●	●
Relief	Blank	With relief mechanism	●	●	●
	N	Nonrelief type	●	●	●
Pressure gauge	T	Without pressure gauge (pressure gauge port (Rc1/4) is assembled with sealed)	●	●	●
	T8	Pressure gauge attached (pressure gauge port (Rc1/4) is assembled by open)	●	●	●
Flow direction	Blank	Standard flow (left → right)	●	●	●
	X1	Reverse flow (right → left)	●	●	●

E Display unit		W3000	W4000	W8000
Blank	MPa display, Rc thread	●	●	●
J1	MPa display, NPT/G thread	●	●	●

F Piping adaptor set (attached)		Note 6		Page 428
Blank	Not attached	●	●	●
A8*W	1/4 piping adaptor set (white)	●	●	
A10*W	3/8 piping adaptor set (white)	●	●	
A15*W	1/2 piping adaptor set (white)	●	●	
A20*W	3/4 piping adaptor set (white)		●	●
A25*W	1 piping adaptor set (white)			●
A32*W	1 1/4 piping adaptor set (white)			●

*Adaptor screw type		W3000	W4000	W8000
Blank	Rc thread	●	●	●
N	NPT thread	●	●	●
G	G thread	●	●	●

G Attachment (attached)		Note 8		Pages 425, 659
Blank	Not attached	●	●	●
BW	C type bracket (silver)	●	●	●
B3W Note 7	L type bracket (silver)	●	●	
G49P	G49D-8-P10(L: G49D-8-P04)	●	●	●
G59P	G59D-8-P10(L: G59D-8-P10)	●	●	●

### ⚠ Note on model no. selection

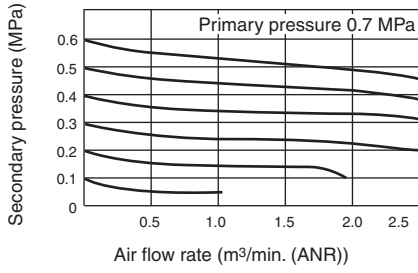
- Note 1: When G threads or NPT threads are selected, the IN, OUT, gauge port, and drainage discharge port (metal bowl (metal cock) automatic drain) are the target.
- Note 2: Select options per drainage, bowl material, element, and regulator sections. When selecting options for several items, list options in order from the top.
- Note 3: Refer to page 276 for the automatic drain use conditions.
- Note 4: Refer to page 476 for maximum processing flow when option "Y" is selected.
- Note 5: The pressure gauge's indication range is 0 to 0.4MPa for option "L".
- Note 6: The piping adaptor set and C bracket cannot be used together.
- Note 7: Refer to Section (2. Regulator), in "⚠ PRECAUTIONS for Installation and Adjustment" (page 279) for details on mounting the L-type bracket.
- Note 8: If NPT is selected for the "C" piping thread type, a NPT pressure gauge is enclosed. If Rc or G thread is selected, an R thread pressure gauge is enclosed.

Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)  
Ending  
Flame resistant Series  
F.R.L. unit

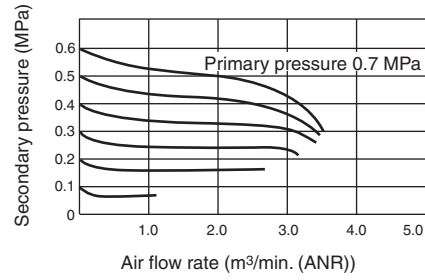
# Filter/Regulator Series

## Flow characteristic

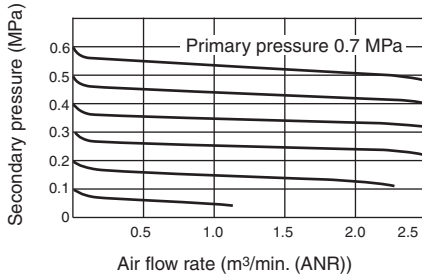
● W3000-8-G4



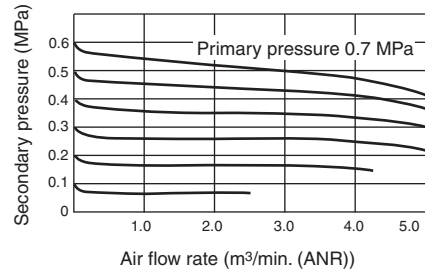
● W3000-10-G4



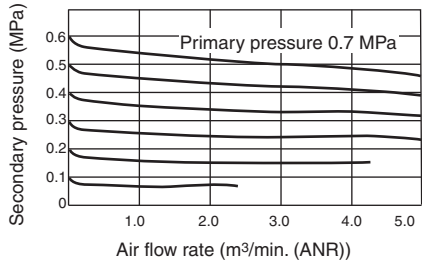
● W4000-8-G4



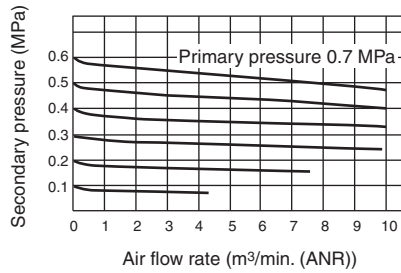
● W4000-10-G4



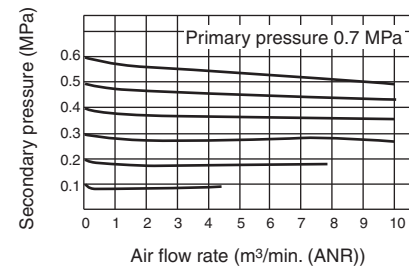
● W4000-15-G4



● W8000-20-G4

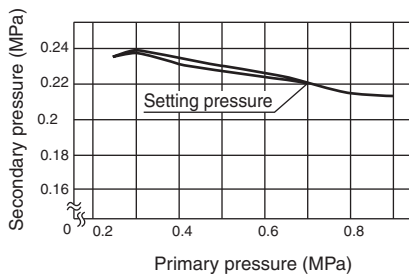


● W8000-25-G4

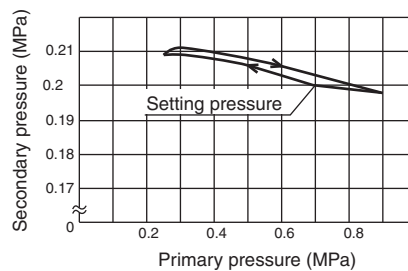


## Pressure characteristic

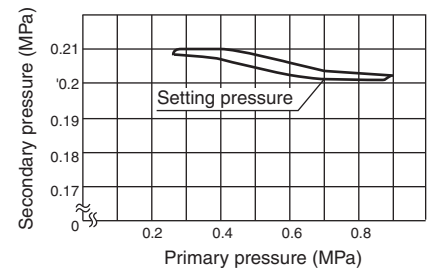
● W3000-G4



● W4000-G4



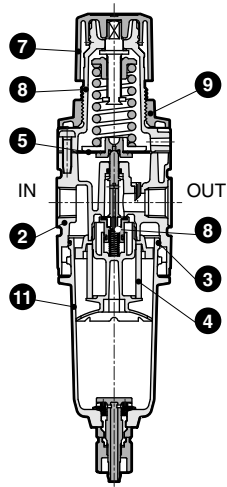
● W8000-G4



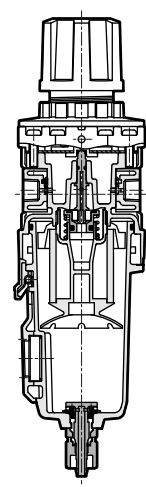
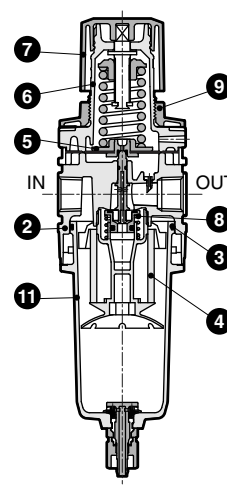
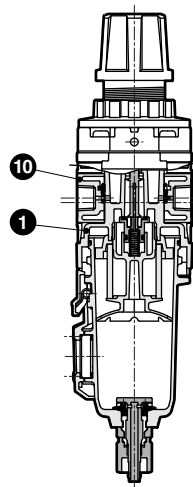
Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

### Internal structure and parts list

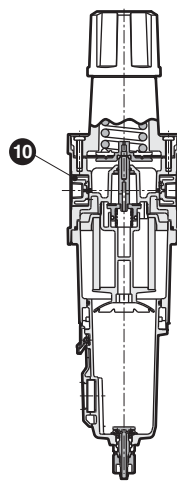
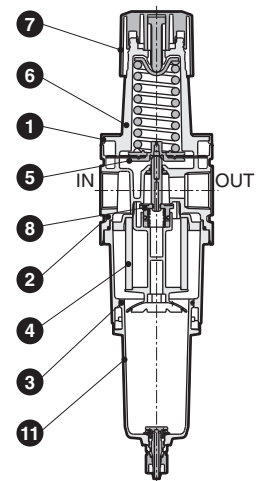
● W3000-G4



● W4000-G4



● W8000-G4



No.	Part name	Material		
		W3000-G4	W4000-G4	W8000-G4
1	Plate cover	ABS resin (Note 1)		
2	Body	Aluminum alloy die-casting		
3	O-ring	Special nitrile rubber		
4	Element	Polypropylene		
5	Diaphragm assembly	Zinc alloy die-casting, nitrile rubber		
6	Cover	Aluminum alloy die-casting		
7	Knob	PBT resin (Note 1)		
8	Valve assembly	Brass, hydrogen nitrile rubber (polyacetal resin: W3000, 4000)		
9	Mounting nut	PBT resin (Note 1)		-
10	Gauge plug assembly	Polyamide resin (Note 1), nitrile rubber, steel		
11	Bowl assembly	Aluminum alloy die casting, PBT resin (Note 1), glass, nitrile rubber, steel, polyacetal resin, urethane resin		

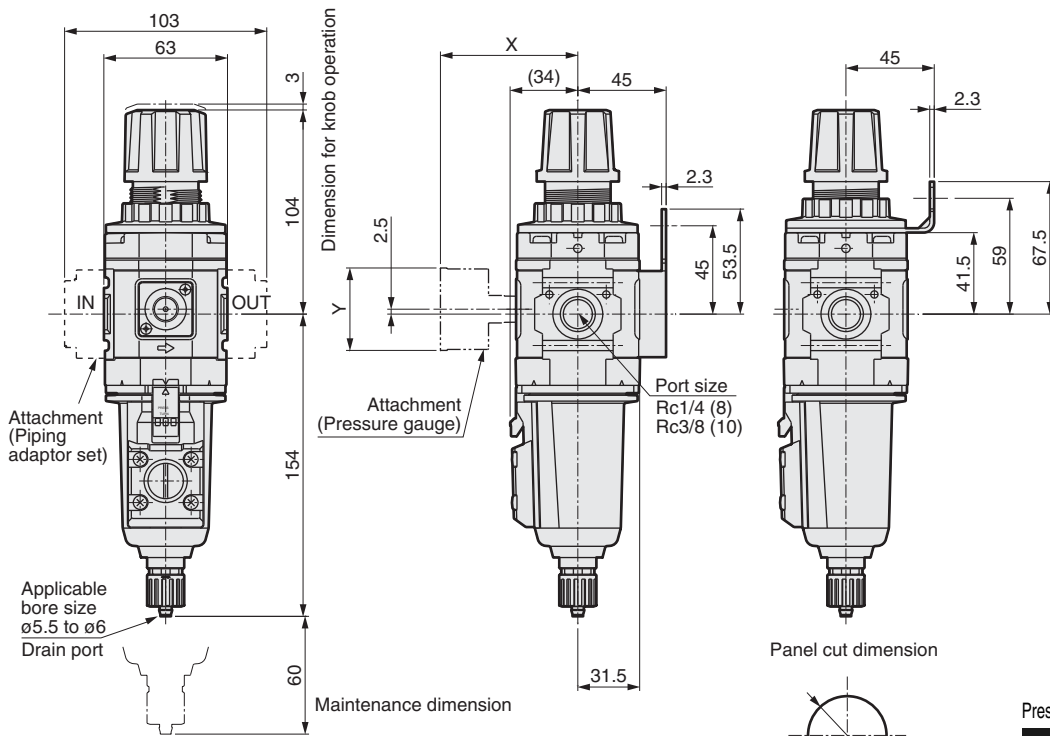
Note 1: Flame resistance resin and UL94 standards V-O or equivalent

Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)  
Ending  
Flame resistant Series  
F.R.L. unit

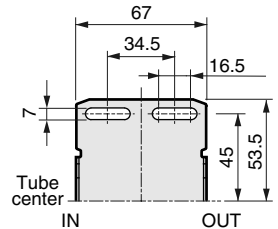
# Filter/Regulator Series

## Dimensions

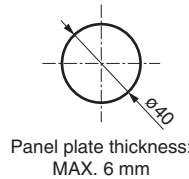
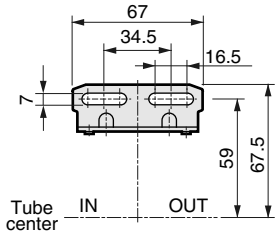
### ● W3000-G4



· Attachment  
C type bracket (-BW)  
Parts No.: B320



L type bracket (-B3W)  
Parts No.: B330

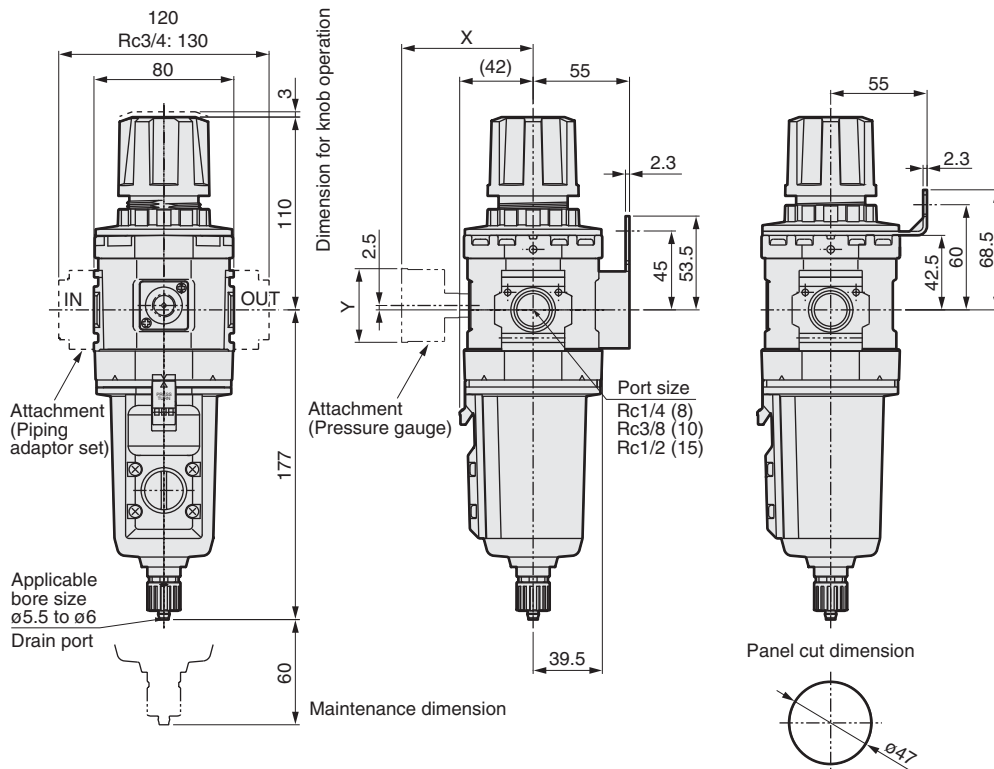


Pressure gauge attached optional dimensions table

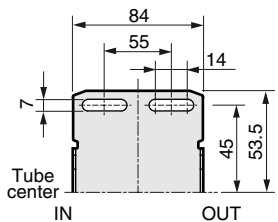
Attached pressure gauge	X	Y
G49P	(69.5)	ø43.5
G59P	(72)	ø52

· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.  
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

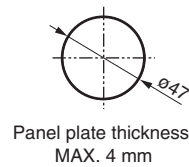
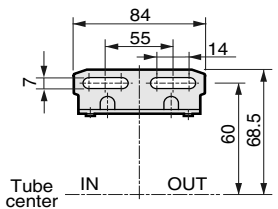
### ● W4000-G4



· Attachment  
C type bracket (-BW)  
Parts No.: B420



L type bracket (-B3W)  
Parts No.: B430



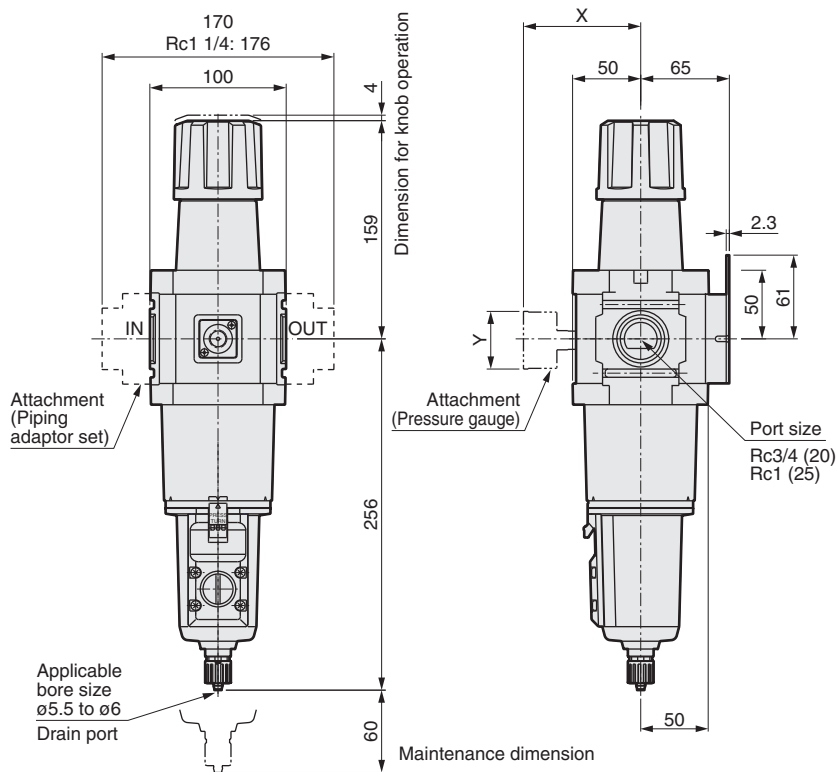
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(74.5)	ø43.5
G59P	(77)	ø52

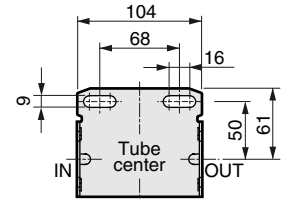
· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.  
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

### Dimensions

● W8000-G4



· Attachment  
C type bracket (-BW)  
Parts No.: B820



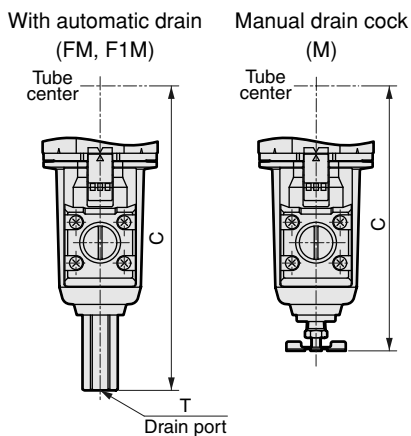
· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.  
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(84.5)	ø43.5
G59P	(87)	ø52

### Optional dimensions

● Metal bowl (metal cock) W3000/4000/8000-G4



Dimensions table

Model no.	With automatic drain		Manual cock
	C	T	C
W3000-G4	164	Rc1/4	143.5
W4000-G4	187	Rc1/4	166.5
W8000-G4	266	Rc1/4	245.5

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)**
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)

Ending

Flame resistant Series  
F.R.L. unit



Reverse filter and regulator flame resistant Series

# W3100/W4100/W8100-G4 Series

Introducing the 5 $\mu$ m dust removing element and 0.3 $\mu$ m tar removing element, with back flow function, to the lineup.

Port size: 1/4 to 1

JIS symbol



## Specifications

Descriptions	W3100-G4	W4100-G4	W8100-G4
Working fluid	Compressed air		
Max. working pressure MPa	1.0 (Note 2, 3)		
Withstanding pressure MPa	1.5		
Working temperature °C	5 to 60		
Filtration rating $\mu$ m	5 or 0.3		
Set pressure range (Note 1) MPa	0.05 to 0.85		
Relief	With relief mechanism		
Drain capacity cm <sup>3</sup>	45	80	80 (Note 4)
Port size Rc, NPT, G	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Product weight kg	0.72	1.08	2.16
Standard specifications	Exterior: Flame-resistant material, metal bowl		

Note 1: Refer to the set pressure range for the back pressure given on page 468 when selecting the model.

Note 2: When "F" with an automatic drain is selected, minimum operation pressure must be 0.1 MPa. Initially generated drainage and air are purged until pressure reaches 0.1 MPa.

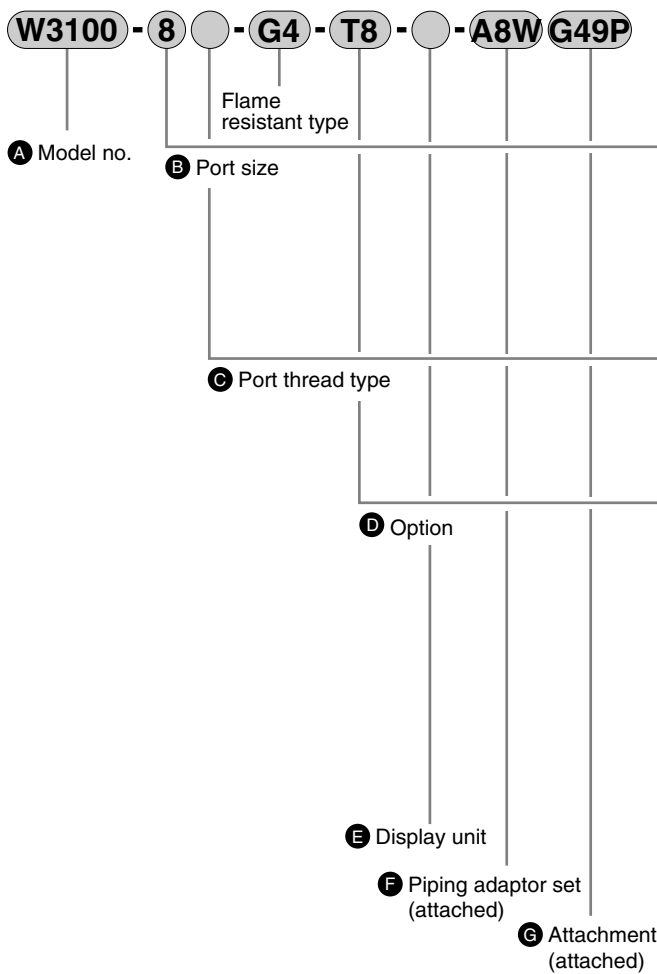
Note 3: When "F1" with an automatic drain is selected, minimum operation pressure must be 0.15 MPa.

Note 4: Up to 170 m<sup>3</sup> is stored only with the manual drain cock type.

Note 5: Check that the primary pressure is at least 0.05 MPa or more than the secondary pressure.



### How to order



\* Refer to page 274 for the explanation of the option.

		A Model no.			
		W3100	W4100	W8100	
Symbol	Descriptions				
B Port size					
8	1/4	●	●		
10	3/8	●	●		
15	1/2		●		
20	3/4			●	
25	1			●	
C Port thread type					
Blank	Rc thread	●	●	●	
N	NPT thread	●	●	●	
G	G thread	●	●	●	
D Option					
Drainage	Blank	With manual drain cock	●	●	●
	F	Automatic drain with manual override (NO type: Exhaust w/o pressurized)	●	●	●
	F1	Automatic drain with manual override (NC type: No exhaust w/o pressurized)	●	●	●
	FF	Large automatic drain with manual override (NO type: Exhaust w/o pressurized)			●
Note 4	FF1	Large automatic drain with manual override (NC type: No exhaust w/o pressurized)			●
Bowl material	Blank	Metal bowl (resin cock)	●	●	●
	M	Metal bowl (metal cock)	●	●	●
Element	Blank	5μm	●	●	●
	Y	0.3μm (submicron)	Note 5	●	●
Pressure range	Blank	0.05 to 0.85MPa	●	●	●
	L	0.05 to 0.35MPa	Note 6	●	●
Relief	Blank	With relief mechanism	●	●	●
	N	Nonrelief type	●	●	●
Pressure gauge	T	Without pressure gauge (pressure gauge port (Rc1/4) is assembled with sealed)	●	●	●
	T8	Pressure gauge attached (pressure gauge port (Rc1/4) is assembled by open)	●	●	●
Flow direction	Blank	Standard flow (left → right)	●	●	●
	X1	Reverse flow (right → left)	●	●	●
E Display unit					
Blank	MPa display, Rc thread	●	●	●	
J1	MPa display, NPT/G thread	●	●	●	
F Piping adaptor set (attached)					
Blank	Not attached	●	●	●	
A8*W	1/4 piping adaptor set (white)	●	●		
A10*W	3/8 piping adaptor set (white)	●	●		
A15*W	1/2 piping adaptor set (white)	●	●		
A20*W	3/4 piping adaptor set (white)		●	●	
A25*W	1 piping adaptor set (white)			●	
A32*W	1 1/4 piping adaptor set (white)			●	
*Adaptor screw type					
Blank	Rc thread	●	●	●	
N	NPT thread	●	●	●	
G	G thread	●	●	●	
G Attachment (attached)					
Blank	Not attached	●	●	●	
BW	C type bracket (silver)	●	●	●	
B3W Note 8	L type bracket (silver)	●	●		
G49P	G49D-8-P10(L: G49D-8-P04)	●	●	●	
G59P	G59D-8-P10(L: G59D-8-P04)	●	●	●	

### ⚠ Note on model no. selection

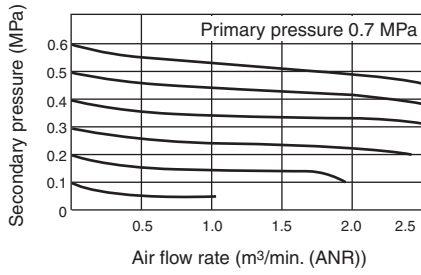
- Note 1: When G threads or NPT threads are selected, the IN, OUT, gauge port, and drainage discharge port (metal bowl (metal cock) automatic drain) are the target.
- Note 2: Select options per drainage, bowl material, element, and regulator sections.  
When selecting options for several items, list options in order from the top.
- Note 3: Positions of a check valve and pressure gauge can not be changed.  
If the IN and OUT direction must be reversed, indicate "X1" at the end of the option field.
- Note 4: Refer to page 276 for the automatic drain use conditions.
- Note 5: Refer to page 476 for maximum processing flow when option "Y" is selected.
- Note 6: The pressure gauge's indication range is 0 to 0.4MPa for option "L".
- Note 7: The piping adaptor set and C bracket cannot be used together.
- Note 8: Refer to Section (2. Regulator) in "⚠ PRECAUTIONS For Installation and Adjustment" (page 279) for details on mounting the L-type bracket.
- Note 9: If NPT is selected for the "C" piping thread type, a NPT pressure gauge is enclosed. If Rc or thread is selected, an R thread pressure gauge is enclosed.

Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)  
Ending  
Flame resistant Series  
F.R.L. unit

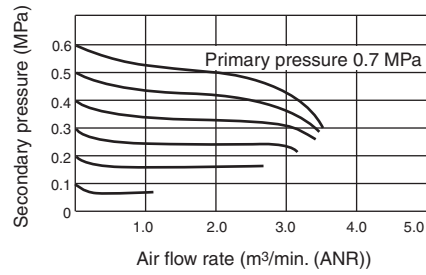
# Filter/Regulator Series

## Flow characteristic

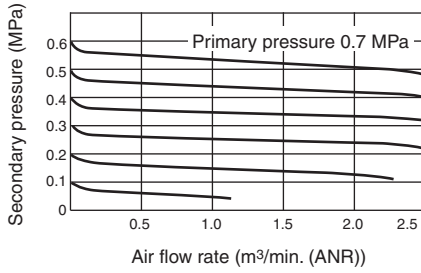
● W3100-8-G4



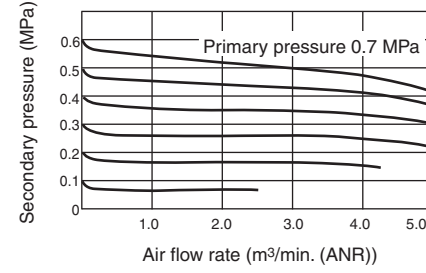
● W3100-10-G4



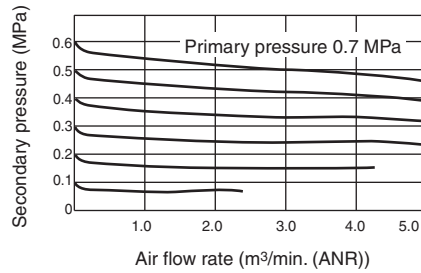
● W4100-8-G4



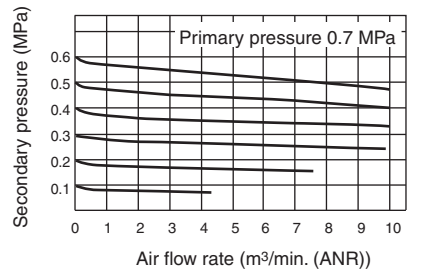
● W4100-10-G4



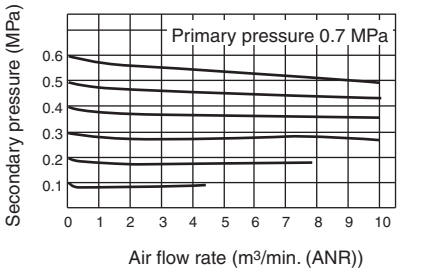
● W4100-15-G4



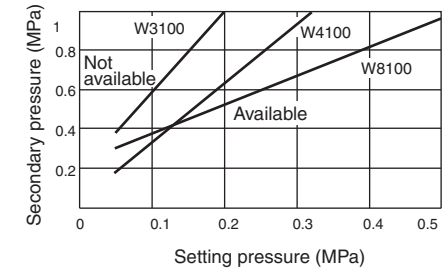
● W8100-20-G4



● W8100-25-G4



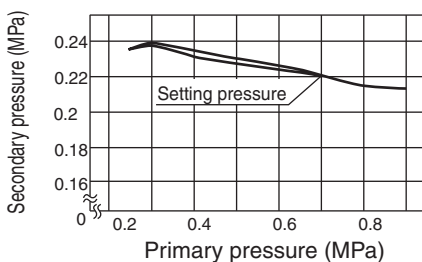
● Set pressure range to back pressure



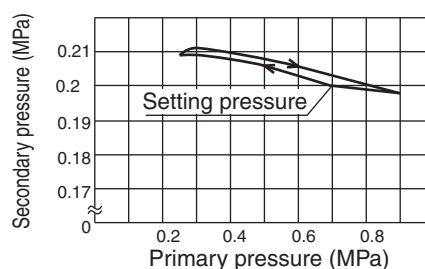
Note: The upper side of the graph is nonusable and the lower side usable.  
Example: If W4100 is set to set pressure 0.2 MPa and the secondary back pressure is 0.6 MPa or more, the secondary pressure will not be released to the primary side.

## Pressure characteristic

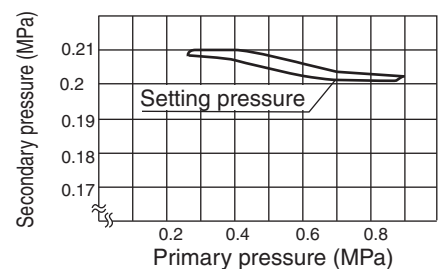
● W3100-G4



● W4100-G4

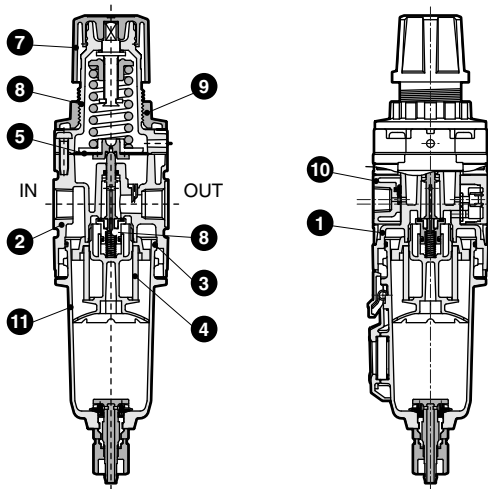


● W8100-G4

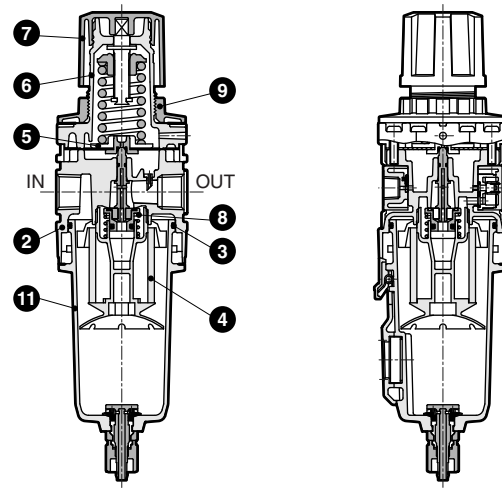


### Internal structure and parts list

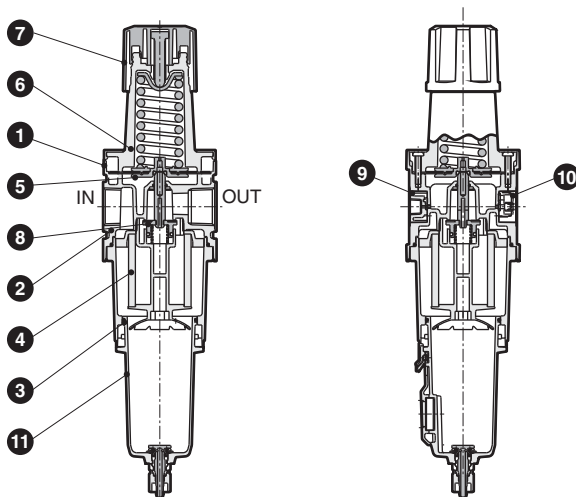
#### ● W3100-G4



#### ● W4100-G4



#### ● W8100-G4



No.	Part name	Material		
		W3100-G4	W4100-G4	W8100-G4
1	Plate cover	ABS resin (Note 1)		
2	Body	Aluminum alloy die-casting		
3	O-ring	Special nitrile rubber		
4	Element	Polypropylene		
5	Diaphragm assembly	Zinc alloy die-casting, nitrile rubber		
6	Cover	Aluminum alloy die-casting		
7	Knob	PBT resin (Note 1)		
8	Valve assembly	Brass, hydrogen nitrile rubber (polyacetal resin: W3100, 4100)		
9	Gauge plug assembly	Polyamide resin (Note 1), nitrile rubber, steel		
10	Check valve total assemblies	PBT resin, nitrile rubber, stainless steel wire, steel, aluminum		
11	Bowl assembly	Aluminum alloy die casting, PBT resin (Note 1), glass, nitrile rubber, steel, polyacetal resin, urethane resin		
12	Mounting nut	PBT resin (Note 1)		

Note 1: Flame resistance resin and UL94 standards V-O or equivalent

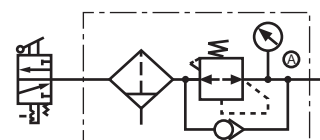
Note 2: Refer to page 444 for repair kits model no.

### Functional explanation

When the primary pressure is introduced from the IN side, the check valve functions as a regular regulator because it closes with primary pressure and spring load. When primary pressure is released by a switching valve such as a shut-off valve, the check valve opens with secondary pressure. Pressure in the diaphragm chamber is released and pressure drops. This causes the diaphragm to be pressed down by the pressure adjustment spring. The main valve (valve assembly) opens, and the air on the OUT side is discharged.

Note: Set back pressure A for when the primary pressure is released within the range in the graph for the regulator's set pressure. (Refer to page 440 for the graph)

#### ● Circuit diagram



When using shut-off valve in front of reverse filter and regulator.

Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster

Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW

Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)

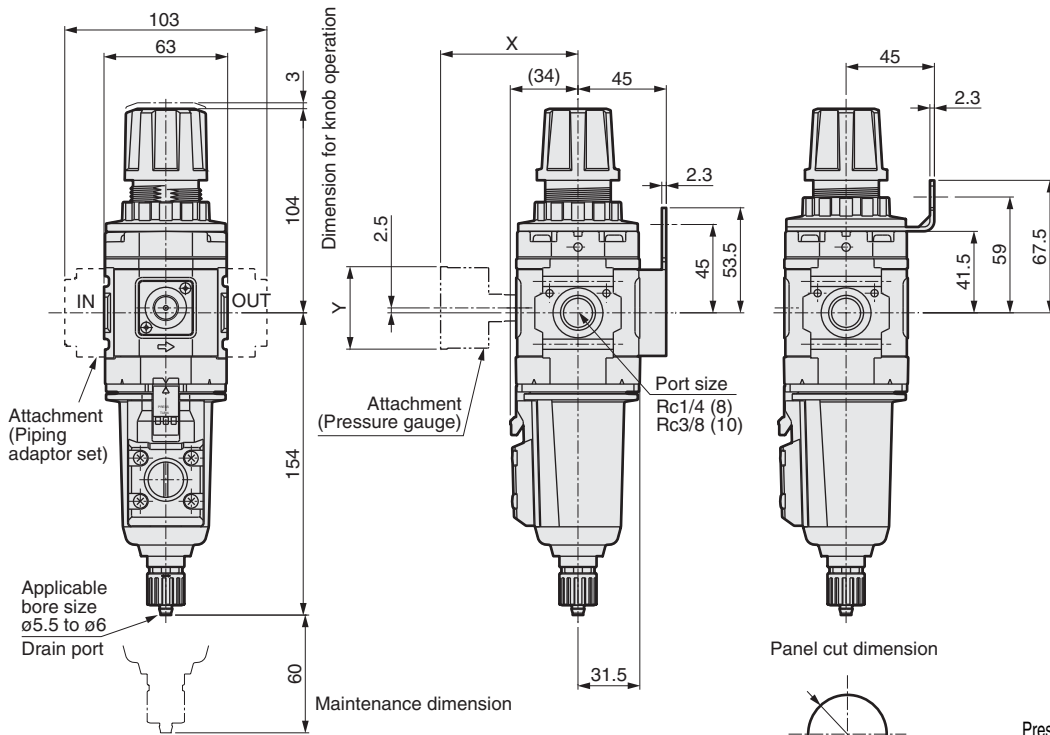
Ending

Flame resistant Series  
F.R.L. unit

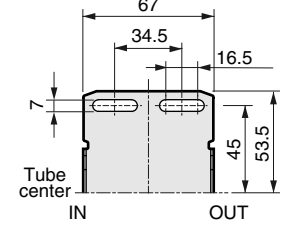
# Filter/Regulator Series

## Dimensions

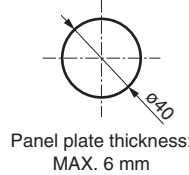
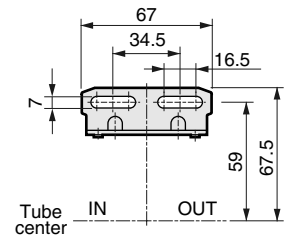
### ● W3100-G4



· Attachment  
C type bracket (-BW)  
Parts No.: B320



L type bracket (-B3W)  
Parts No.: B330



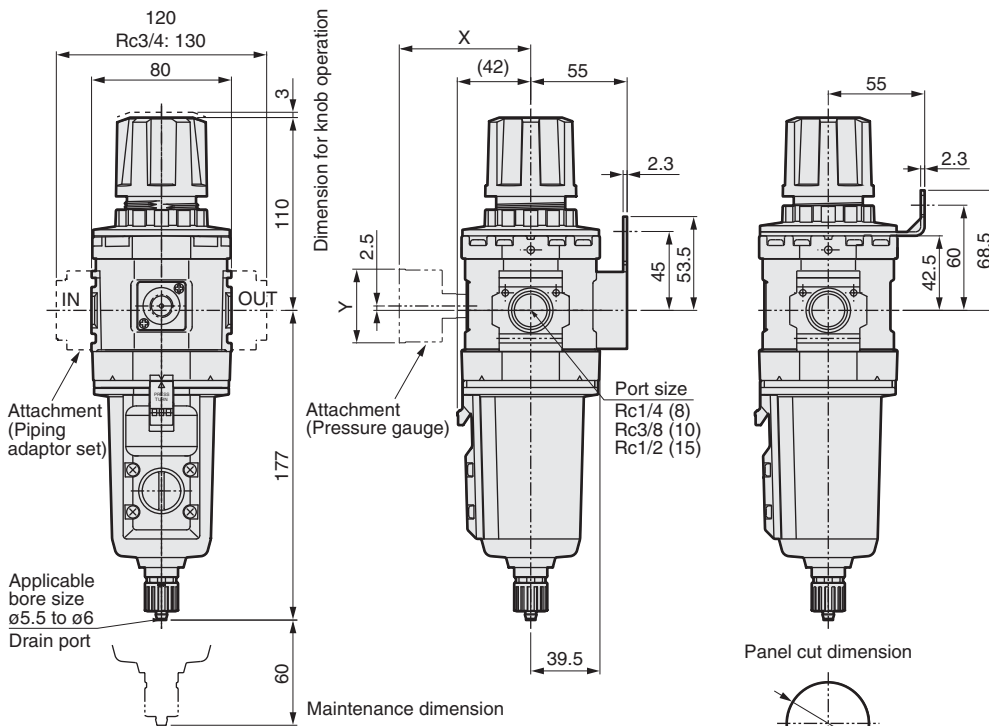
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(69.5)	ø43.5
G59P	(72)	ø52

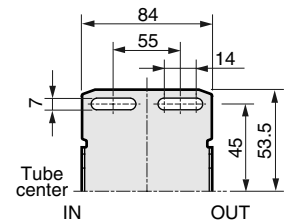
· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.

Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

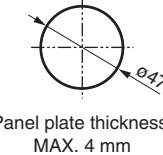
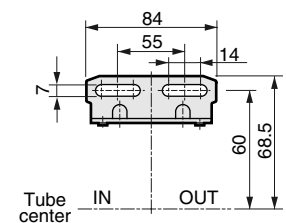
### ● W4100-G4



· Attachment  
C type bracket (-BW)  
Parts No.: B420



L type bracket (-B3W)  
Parts No.: B430



Pressure gauge attached optional dimensions table

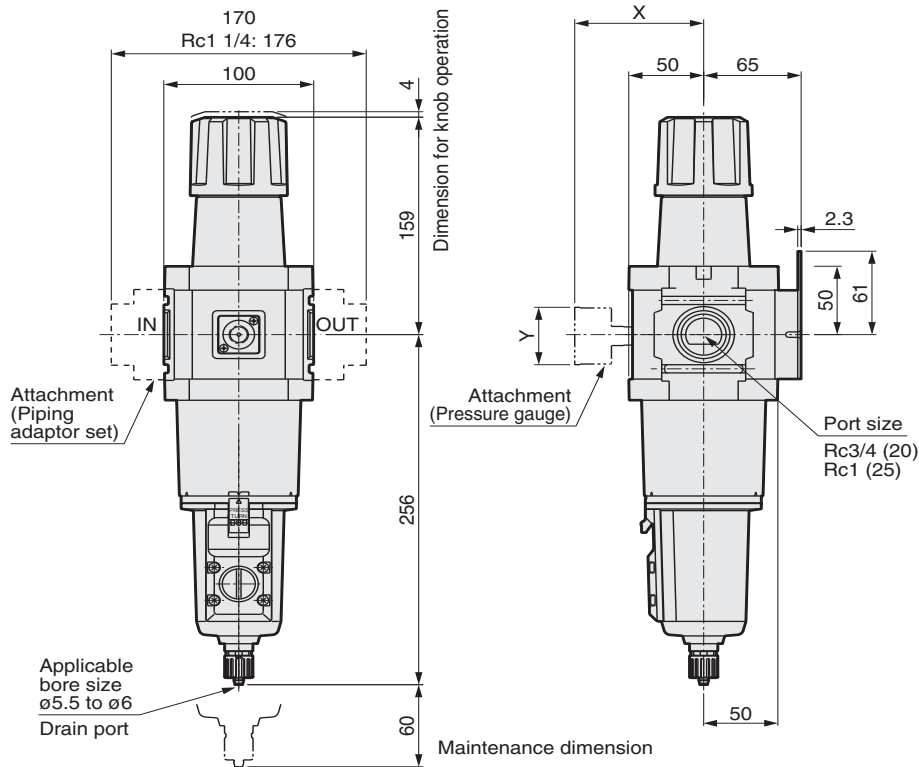
Attached pressure gauge	X	Y
G49P	(74.5)	ø43.5
G59P	(77)	ø52

· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.

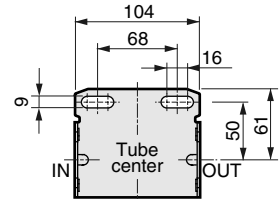
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

### Dimensions

● W8100-G4



· Attachment  
C type bracket (-BW)  
Parts No.: B820



· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.

Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

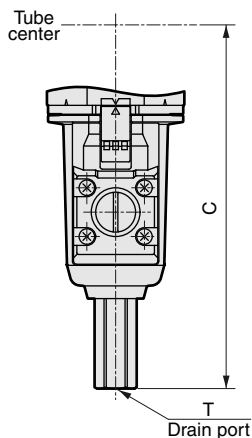
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(84.5)	ø43.5
G59P	(87)	ø52

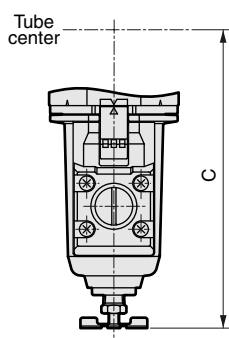
### Optional dimensions

● Metal bowl (metal cock) W3100-G/W4100-G4/W8100-G4

With automatic drain (FM, F1M)



Manual drain cock (M)



Dimensions table

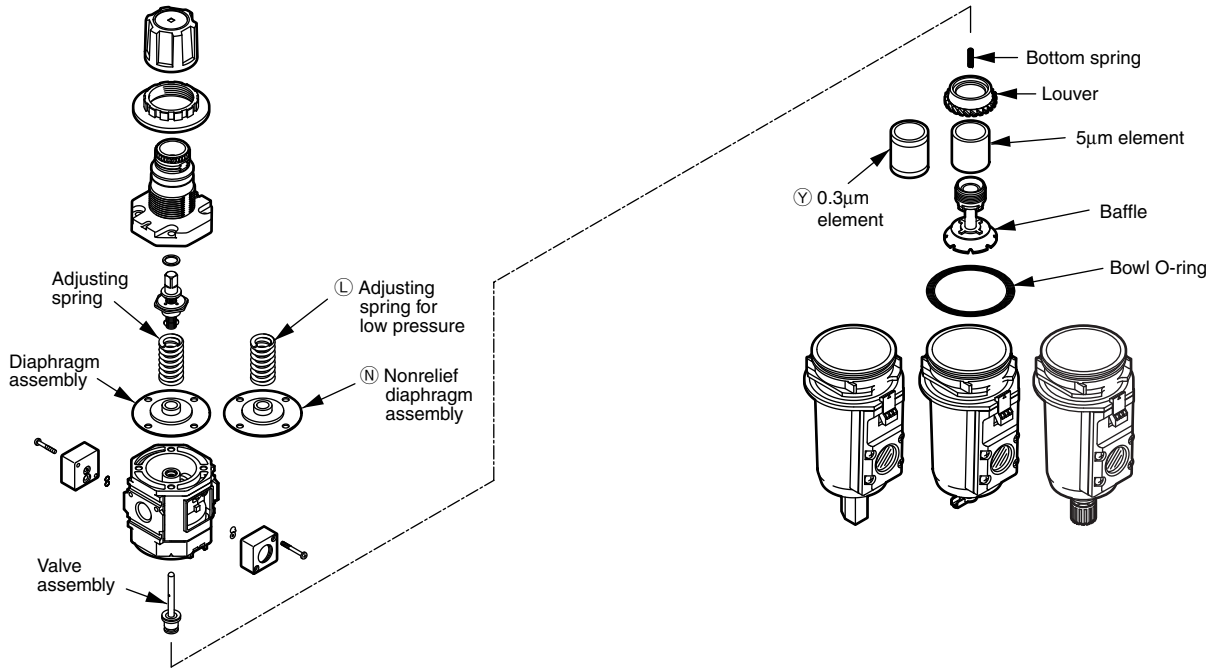
Model no.	With automatic drain		Manual cock
	C	T	C
W3100-G4	164	Rc1/4	143.5
W4100-G4	187	Rc1/4	166.5
W8100-G4	266	Rc1/4	245.5

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)**
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending

Flame resistant Series  
F.R.L. unit

# Filter/Regulator Series

## Optional parts diagram



### Repair kits (Set of diaphragm assembly, valve assembly, bottom spring, louver, element, baffle, bowl O-ring)

Repair kits model no.	Relief type diaphragm	Nonrelief Diaphragm assembly	Relief type diaphragm	Nonrelief Diaphragm assembly
Model	5µm element (blank)	5µm element (N)	0.3µm element (Y)	0.3µm element (NY)
W3000-G4, W3100-G4	W3000-KIT	W3000-KIT-N	W3000-KIT-Y	W3000-KIT-NY
W4000-G4, W4100-G4	W4000-KIT	W4000-KIT-N	W4000-KIT-Y	W4000-KIT-NY
W8000-G4, W8100-G4	W8000-KIT	W8000-KIT-N	W8000-KIT-Y	W8000-KIT-NY

### Valve assembly (set of valve assembly and bottom spring)

Model	Valve assembly model no.
W3000-G4, W3100-G4	W3000-VALVE-ASSY
W4000-G4, W4100-G4	W4000-VALVE-ASSY
W8000-G4, W8100-G4	W8000-VALVE-ASSY

\* Refer to the regulator options and parts table (page 466) for details on the adjustment spring, diaphragm, check valve assembly for reverse regulator, and gauge plug assembly. Refer to air filter options and parts table (page 452) for details on the element, bowl assembly.




Air filter flame resistant Series

# F3000/ F4000/ F8000-G4 Series

Introducing the 5µm element for dust removal and 0.3µm element for tar removal.

Port size: 1/4 to 1

JIS symbol 



## Specifications

Descriptions	F3000-G4	F4000-G4	F8000-G4
Working fluid	Compressed air		
Max. working pressure MPa	1.0 (Note 1, 2)		
Withstanding pressure MPa	1.5		
Working temperature °C	5 to 60		
Filtration rating µm	5 or 0.3		
Drain capacity cm <sup>3</sup>	45	80	80 (Note 3)
Port size Rc, NPT, G	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Product weight kg	0.35	0.55	1.26
Standard specifications	Exterior: Flame-resistant material, metal bowl		

Note 1: When "F" with an automatic drain is selected, minimum operation pressure must be 0.1MPa.

Air is purged with initial drainage until pressure reaches 0.1 MPa.

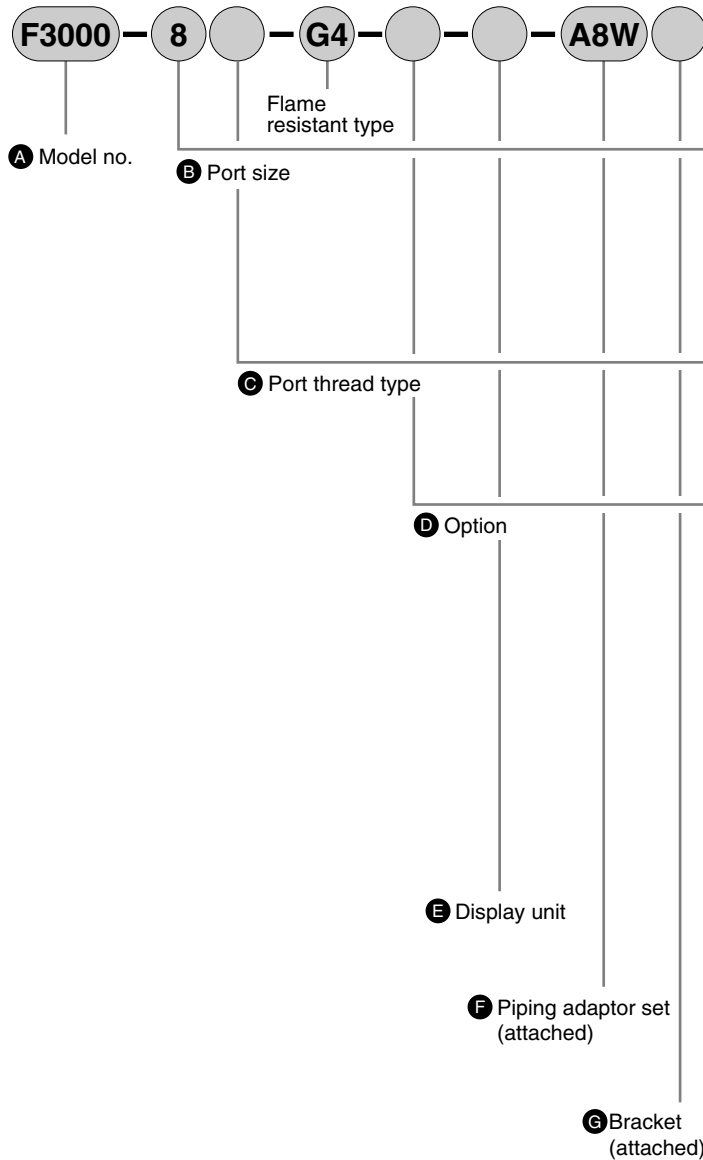
Note 2: When "F1" with an automatic drain is selected, minimum operation pressure must be 0.15 MPa.

Note 3: Drainage accumulates up to 170 cm<sup>3</sup> only with the manual drain cock.

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending



### How to order



\* Refer to page 274 for the explanation of the option.

		A Model no.			
		F3000	F4000	F8000	
Symbol		Descriptions			
<b>B Port size</b>					
8	1/4	●	●		
10	3/8	●	●		
15	1/2		●		
20	3/4			●	
25	1			●	
<b>C Port thread type</b>				Note 1	
Blank	Rc thread	●	●	●	
N	NPT thread	●	●	●	
G	G thread	●	●	●	
<b>D Option</b>				Note 2	
Drainage	Blank	With manual drain cock	●	●	●
	F	Automatic drain with manual override (NO type: Exhaust w/o pressurized)	●	●	●
	F1	Automatic drain with manual override (NC type: No exhaust w/o pressurized)	●	●	●
	FF	Large automatic drain with manual override (NO type: Exhaust w/o pressurized)			●
Note 3	FF1	Large automatic drain with manual override (NC type: No exhaust w/o pressurized)			●
Bowl material	Blank	Metal bowl (resin cock)	●	●	●
	M	Metal bowl (metal cock)	●	●	●
Element	Blank	5µm	●	●	●
	Y	0.3µm (submicron)	●	●	●
Differential pressure detection	Blank	Without differential pressure detection port	●	●	●
	Q	With differential pressure detection port (Rc1/4)			●
Flow direction	Blank	Standard flow (left → right)	●	●	●
	X1	Reverse flow (right → left)	●	●	●
<b>E Display unit</b>					
Blank	MPa display, Rc thread	●	●	●	
J1	MPa display, NPT/G thread	●	●	●	
<b>F Piping adaptor set (attached)</b>				Note 4 Page 428	
Blank	Not attached	●	●	●	
A8*W	1/4 piping adaptor set (white)	●	●		
A10*W	3/8 piping adaptor set (white)	●	●		
A15*W	1/2 piping adaptor set (white)	●	●		
A20*W	3/4 piping adaptor set (white)		●	●	
A25*W	1 piping adaptor set (white)			●	
A32*W	1 1/4 piping adaptor set (white)			●	
<b>*Adaptor screw type</b>					
Blank	Rc thread	●	●	●	
N	NPT thread	●	●	●	
G	G thread	●	●	●	
<b>G Bracket (attached)</b>				Page 425	
Blank	Not attached	●	●	●	
BW	C type bracket (silver)	●	●	●	

### ⚠ Note on model no. selection

- Note 1: When G threads or NPT threads are selected, the IN, OUT, and drainage discharge port (metal bowl (metal cock) automatic drain) are the target.
- Note 2: Select options based on drainage, bowl material, element, and differential pressure detection. When selecting options for several items, list options in order from the top.
- Note 3: Refer to page 276 for the automatic drain use conditions.
- Note 4: The piping adaptor set and C bracket cannot be used together.

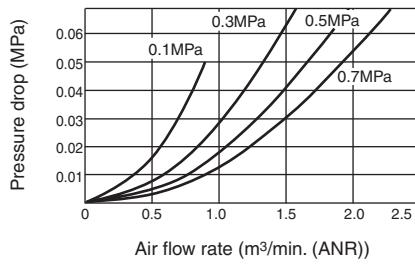
Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)  
Ending  
Flame resistant Series  
F.R.L. unit

# Air Filter Series

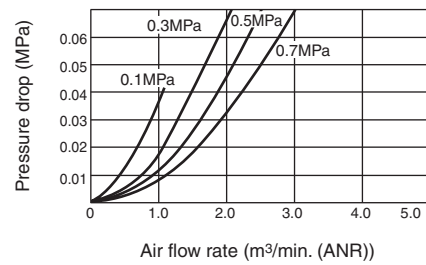
## Flow characteristic

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
<b>Air booster</b>
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

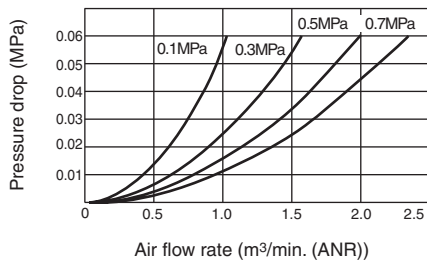
### ● F3000-8-G4



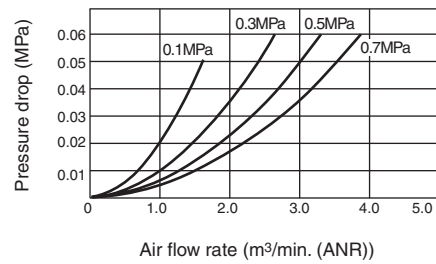
### ● F3000-10-G4



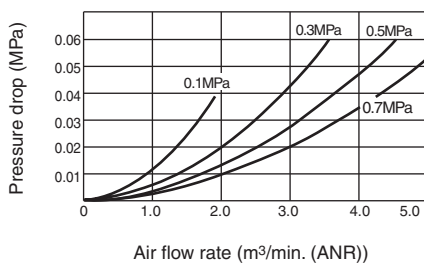
### ● F4000-8-G4



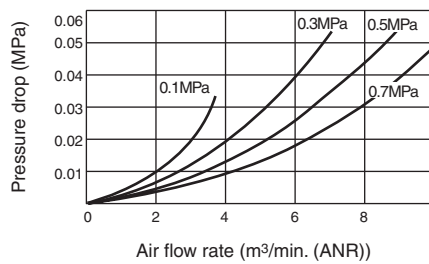
### ● F4000-10-G4



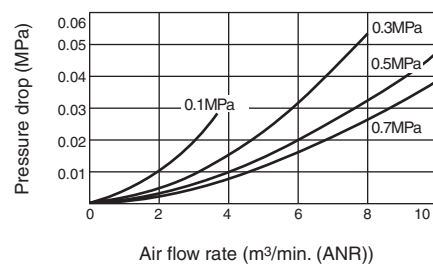
### ● F4000-15-G4



### ● F8000-20-G4

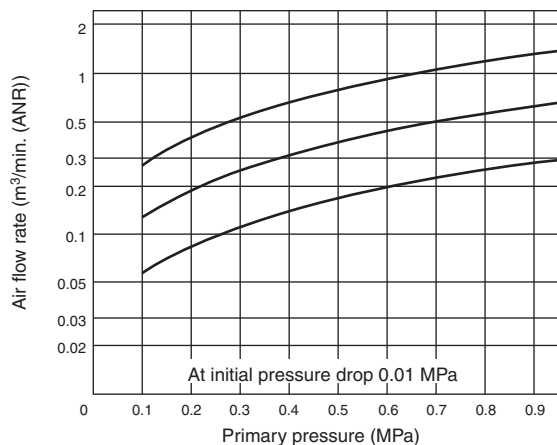


### ● F8000-25-G4



### ● F3000 F4000 - \* - G4 - Y (0.3μm element) F8000

(Maximum flow rate)



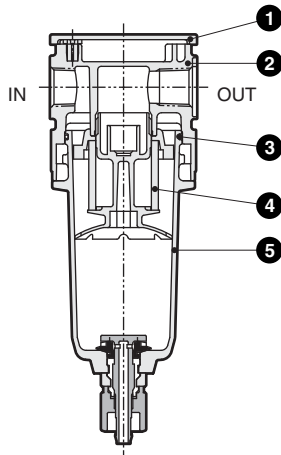
Contact CKD for F8000-\* - G4 - Y large volume.

F4000-\* - G4 - Y

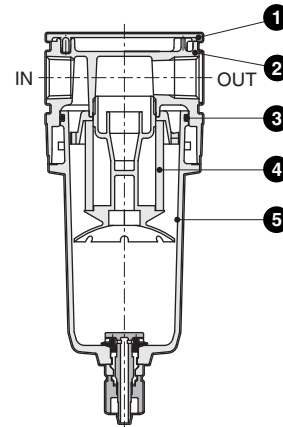
F3000-\* - G4 - Y

### Internal structure and parts list

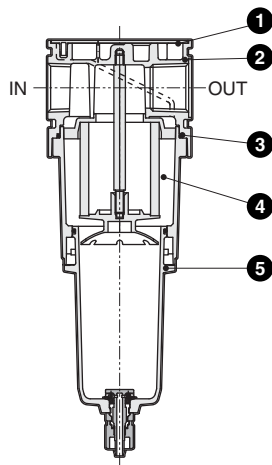
● F3000-G4



● F4000-G4



● F8000-G4



No.	Part name	Material		
		F3000-G4	F4000-G4	F8000-G4
1	Plate cover	ABS resin (Note 1)		
2	Body	Aluminum alloy die-casting		
3	O-ring	Special nitrile rubber		
4	Element (5 $\mu$ m)	Polypropylene		
	Element (0.3 $\mu$ m)	-		
5	Bowl assembly	Aluminum alloy die casting, PBT resin (Note 1), glass, nitrile rubber, steel, polyacetal resin, urethane resin		

Note 1: Flame resistance resin and UL94 standards V-O or equivalent

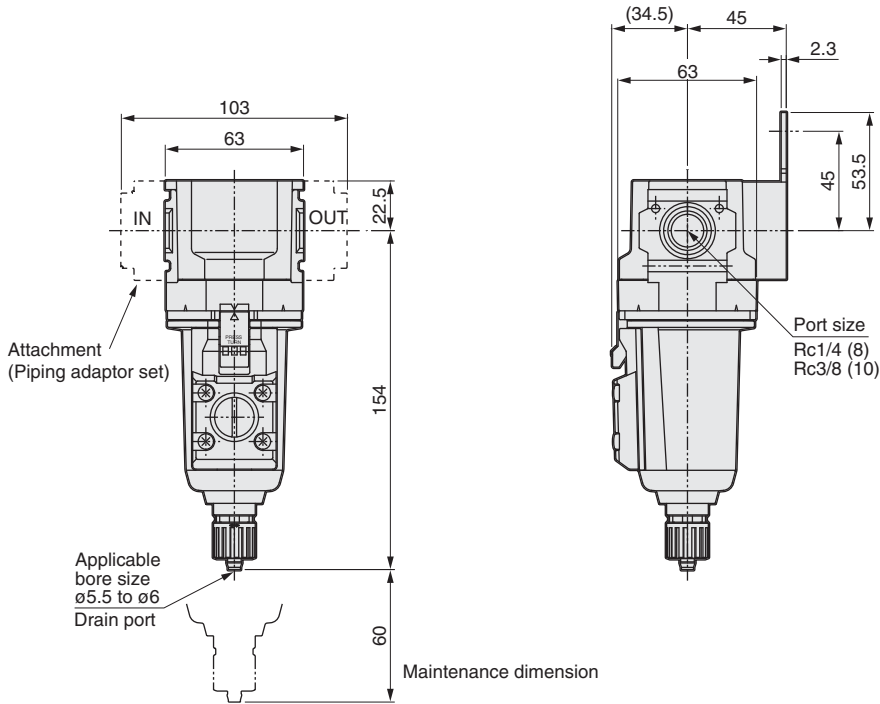
Note 2: Refer to page 452 for the repair kits.

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)**
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster**
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending

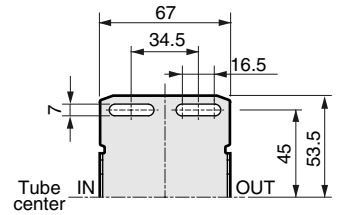
Flame resistant Series  
F.R.L. unit

## Dimensions

### ● F3000-G4

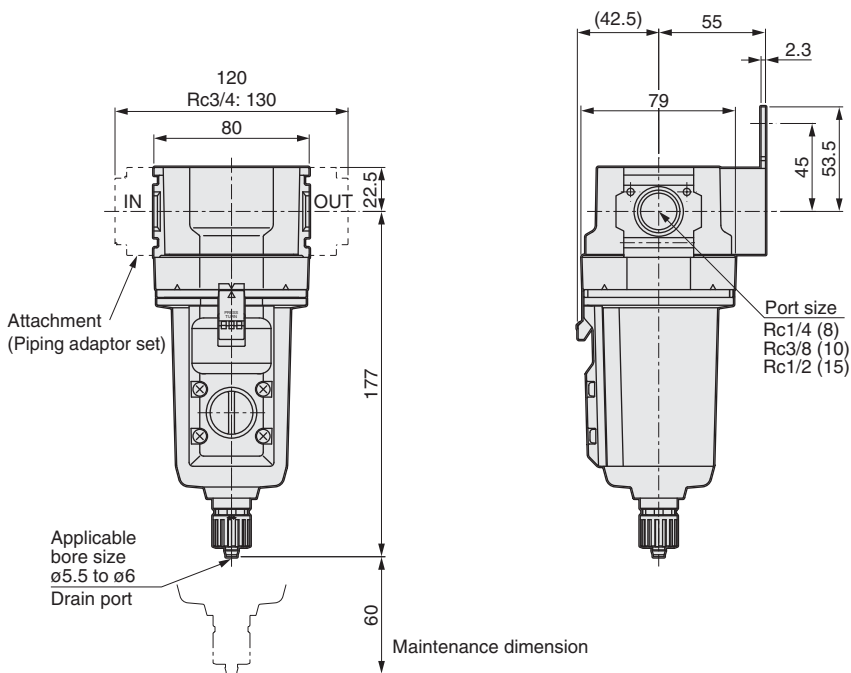


· Bracket  
C type bracket (-BW)  
Parts No.: B320

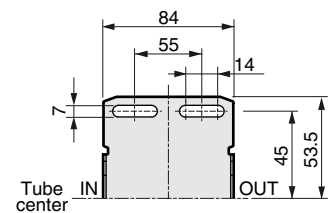


· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.  
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

### ● F4000-G4



· Bracket  
C type bracket (-BW)  
Parts No.: B420

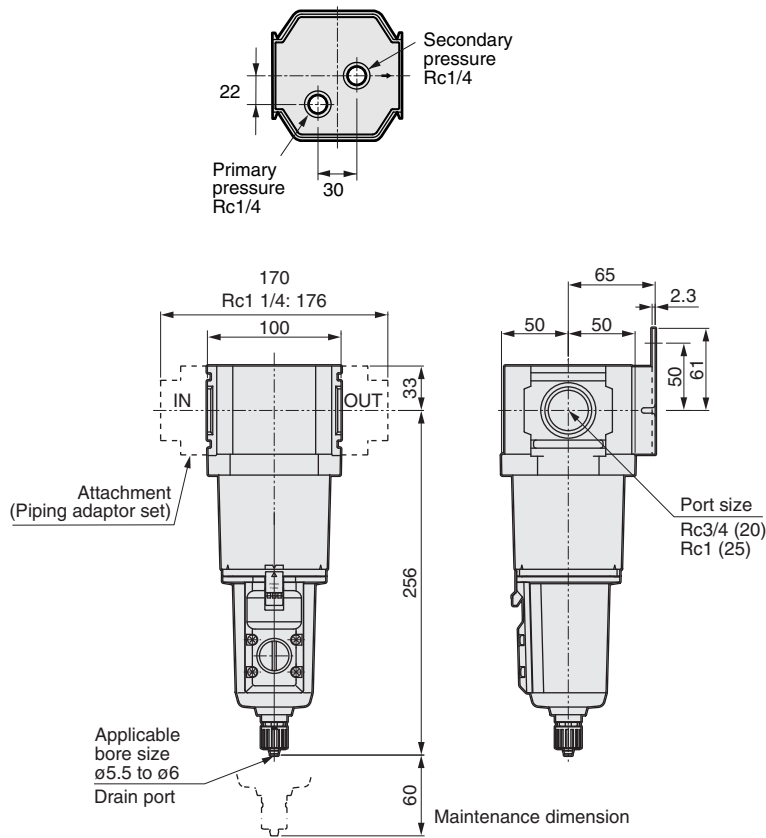


· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.  
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

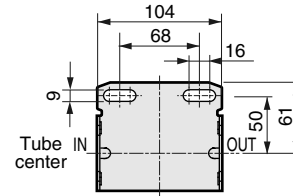
### Dimensions

● F8000-G4

With differential pressure detection port (Q)



· Bracket  
C type bracket (-BW)  
Parts No.: B820

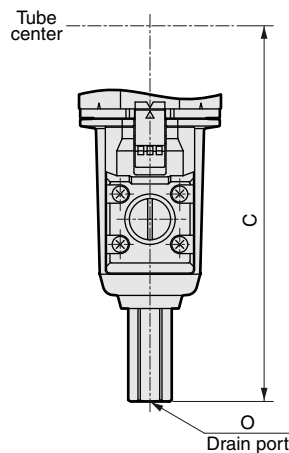


· Dimensions for the metal bowl (resin cock) are the same regardless of whether the manual drain cock or automatic drain with manual override is installed.  
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

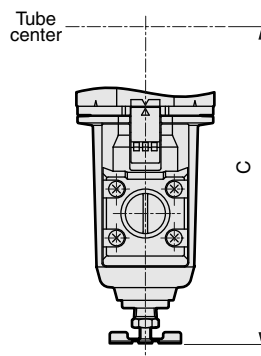
### Optional dimensions

● Metal bowl (metal cock) F3000-G4/F4000-G4/F8000-G4

With automatic drain (FM, F1M)



Manual drain cock (M)



Dimensions table

Model no.	With automatic drain		Manual cock
	C	O	C
F3000-G4	164	Rc1/4	143.5
F4000-G4	187	Rc1/4	166.5
F8000-G4	266	Rc1/4	245.5

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)

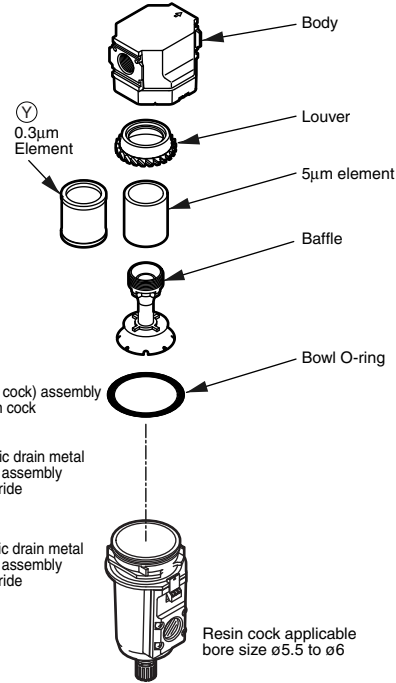
Ending

Flame resistant Series  
F.R.L. unit

## Optional parts diagram

### Element

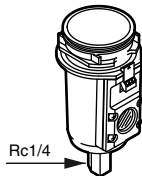
Element model no.	5µm element	0.3µm element (Y)
Model		
F3000-G4	F3000-ELEMENT	F3000-ELEMENT-Y
W3000-G4, W3100-G4	W3000-ELEMENT	W3000-ELEMENT-Y
F4000-G4	F4000-ELEMENT	F4000-ELEMENT-Y
W4000-G4, W4100-G4	W4000-ELEMENT	W4000-ELEMENT-Y
F8000-G4	F8000-ELEMENT	F8000-ELEMENT-Y
W8000-G4, W8100-G4	W8000-ELEMENT	W8000-ELEMENT-Y



**(FM)**  
NO type automatic drain metal bowl (metal cock) assembly with manual override

**(F1M)**  
NC type automatic drain metal bowl (metal cock) assembly with manual override

**(M)**  
Metal bowl (metal cock) assembly with manual drain cock



Rc1/4

\*8000 series large emission

**(FFM)**  
NO type large automatic drain metal bowl (metal cock) assembly with manual override

**(FF1M)**  
NC type large automatic drain metal bowl (metal cock) assembly with manual override

**(Blank)**  
Metal bowl (resin cock) assembly with manual drain cock

**(F)**  
NO type automatic drain metal bowl (resin cock) assembly with manual override

**(F1)**  
NC type automatic drain metal bowl (resin cock) assembly with manual override

\*8000 series large emission

**(FF)**  
NO type large automatic drain metal bowl (resin cock) assembly with manual override

**(FF1)**  
NC type large automatic drain metal bowl (resin cock) assembly with manual override

### Repair kits

(Set of louver, baffle, element, bowl O-ring)

Repair kits model no.	5µm element	0.3µm element (Y)
Model		
F3000-G4	F3000-KIT	F3000-KIT-Y
F4000-G4	F4000-KIT	F4000-KIT-Y
F8000-G4 Note 1	F8000-KIT	F8000-KIT-Y

Note 1: For the F8000, the baffle, element, and bowl O-ring are a set.

### Bowl assembly (set of bowl assembly and bowl O-ring)

Bowl assembly model no.	Metal bowl (resin cock) assembly with manual drain cock	NO type automatic drain metal bowl (resin cock) assembly with manual override	NC type automatic drain metal bowl (resin cock) assembly with manual override	Metal bowl (metal cock) assembly with manual drain cock	NO type automatic drain metal bowl (metal cock) assembly with manual override	NC type automatic drain metal bowl (metal cock) assembly with manual override
Product option	Blank	F	F1	M	FM	F1M
Type						
F3000, W3000, W3100-G4	F3000-G4-BOWL-M1	F3000-G4-BOWL-FM1	F3000-G4-BOWL-F1M1	F3000-G4-BOWL-M	F3000-G4-BOWL-FM	F3000-G4-BOWL-F1M
F4000, F8000, W4000, W4100, W8000, W8100-G4	F4000-G4-BOWL-M1	F4000-G4-BOWL-FM1	F4000-G4-BOWL-F1M1	F4000-G4-BOWL-M	F4000-G4-BOWL-FM	F4000-G4-BOWL-F1M
Bowl assembly model no.	NO type large automatic drain metal bowl (resin cock) assembly with manual override	NC type large automatic drain metal bowl (resin cock) assembly with manual override	NO type large automatic drain metal bowl (metal cock) assembly with manual override	NC type large automatic drain metal bowl (metal cock) assembly with manual override		
Product option	FF	FF1	FFM	FF1M		
Type						
F8000, W8000, W8100-G4	F8000-G4-BOWL-FFM1	F8000-G4-BOWL-FF1M1	F8000-G4-BOWL-FFM	F8000-G4-BOWL-FF1M		



Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending



Regulator flame resistant Series

# R3000/R4000/R8000-G4 Series

Port size: 1/4 to 1

JIS symbol

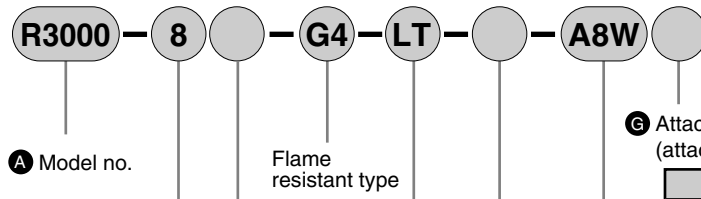


## Specifications

Descriptions	R3000-G4	R4000-G4	R8000-G4
Working fluid	Compressed air		
Max. working pressure MPa	1.0		
Withstanding pressure MPa	1.5		
Working temperature °C	5 to 60		
Set pressure range MPa	0.05 to 0.85		
Relief	With relief mechanism		
Port size Rc, NPT, G	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Product weight kg	0.52	0.77	1.6
Standard specifications	Exterior: Flame-resistant material, nut for panel mounting		Exterior: Flame-resistant material



### How to order



\* Refer to page 274 for the explanation of the option.

**A** Model no.

**B** Port size

**C** Port thread type

**D** Option

**E** Display unit

**F** Piping adaptor set (attached)

**G** Attachment (attached)

**A** Model no.

R3000 R4000 R8000

Symbol	Descriptions	R3000	R4000	R8000
<b>B Port size</b>				
8	1/4	●	●	
10	3/8	●	●	
15	1/2		●	
20	3/4			●
25	1			●

<b>C Port thread type</b>		Note 1		
Blank	Rc thread	●	●	●
N	NPT thread	●	●	●
G	G thread	●	●	●

<b>D Option</b>		Note 2			
Pressure range	Blank	0.05 to 0.85MPa	●	●	●
	L	0.05 to 0.35MPa	●	●	●
Relief	Blank	With relief mechanism	●	●	●
	N	Nonrelief type	●	●	●
Pressure gauge	T	Without pressure gauge (pressure gauge port (Rc1/4) is assembled with sealed)	●	●	●
	T8	Pressure gauge attached (pressure gauge port (Rc1/4) is assembled by open)	●	●	●
Flow direction	Blank	Standard flow (left → right)	●	●	●
	X1	Reverse flow (right → left)	●	●	●

<b>E Display unit</b>		Note 2		
Blank	MPa display, Rc thread	●	●	●
J1	MPa display, NPT/G thread	●	●	●

<b>F Piping adaptor set (attached)</b>		Note 4		Page 428
Blank	Not attached	●	●	●
A8*W	1/4 piping adaptor set (white)	●	●	
A10*W	3/8 piping adaptor set (white)	●	●	
A15*W	1/2 piping adaptor set (white)	●	●	
A20*W	3/4 piping adaptor set (white)		●	●
A25*W	1 piping adaptor set (white)			●
A32*W	1 1/4 piping adaptor set (white)			●

<b>*Adaptor screw type</b>		Note 4		
Blank	Rc thread	●	●	●
N	NPT thread	●	●	●
G	G thread	●	●	●

<b>G Attachment (attached)</b>		Note 6		Pages 425, 659
Blank	Not attached	●	●	●
BW	C type bracket (silver)	●	●	●
B3W Note 5	L type bracket (silver)	●	●	
G49P	G49D-8-P10(L: G49D-8-P04)	●	●	●
G59P	G59D-8-P10(L: G59D-8-P04)	●	●	●

### ⚠ Note on model no. selection

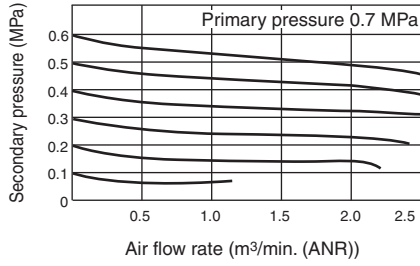
- Note 1: G and NPT threads are available for IN, OUT, and gauge ports.
- Note 2: When selecting options for several items, list options in order from the top.
- Note 3: The pressure gauge's indication range is 0 to 0.4MPa for option "L".
- Note 4: The piping adaptor set and C bracket cannot be used together.
- Note 5: Refer to Section (2. Regulator), in "⚠ PRECAUTIONS for Installation and Adjustment" (page 279) for details on mounting the L-type bracket.
- Note 6: If NPT is selected for the "C" piping thread type, a NPT pressure gauge is enclosed. If Rc or G thread is selected, an R thread pressure gauge is enclosed.

Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)  
Ending

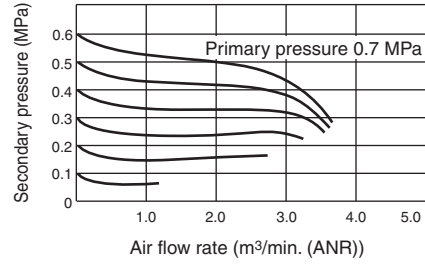
Flame resistant Series  
F.R.L. unit

## Flow characteristic

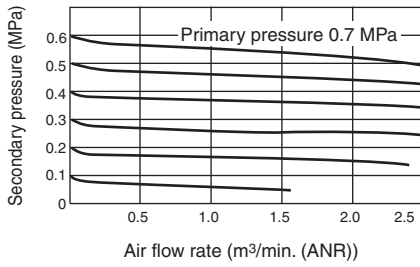
● R3000-8-G4



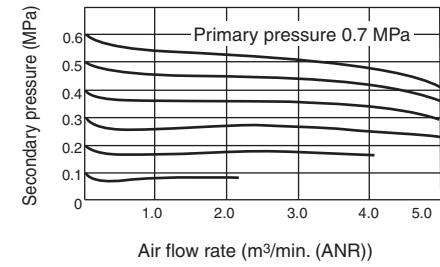
● R3000-10-G4



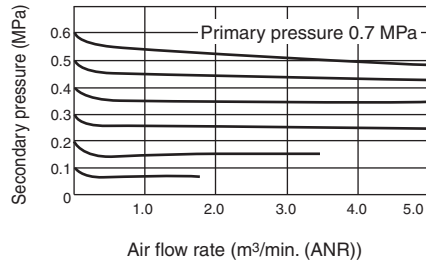
● R4000-8-G4



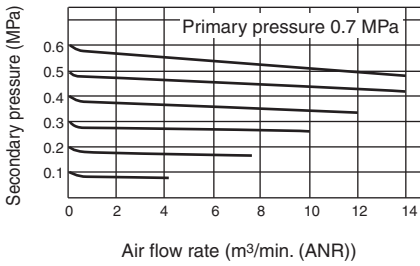
● R4000-10-G4



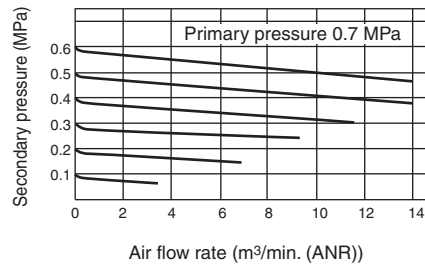
● R4000-15-G4



● R8000-20-G4

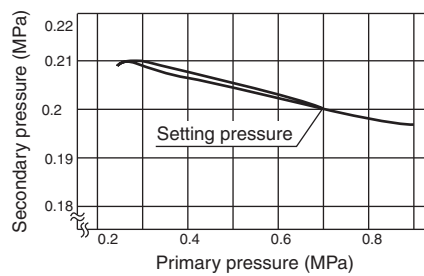


● R8000-25-G4

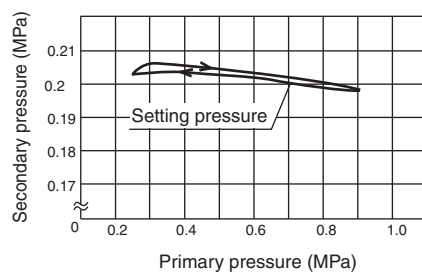


## Pressure characteristic

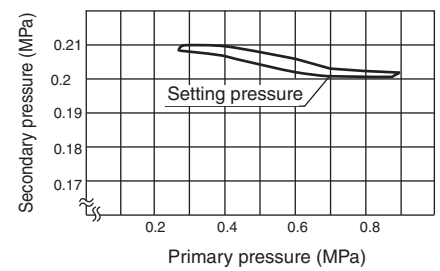
● R3000-G4



● R4000-G4



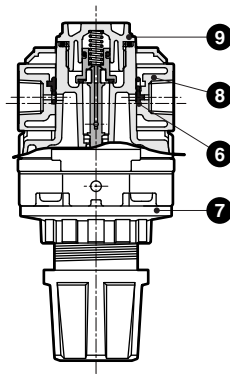
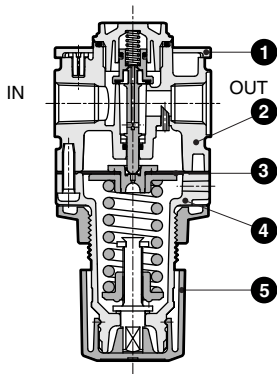
● R8000-G4



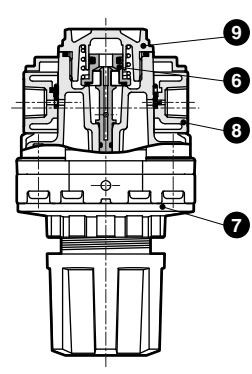
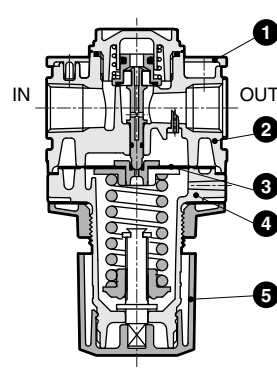
Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

## Internal structure and parts list

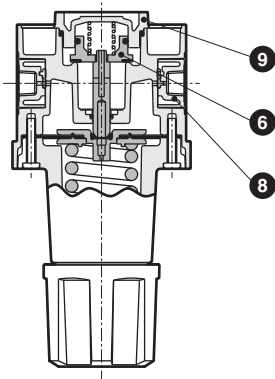
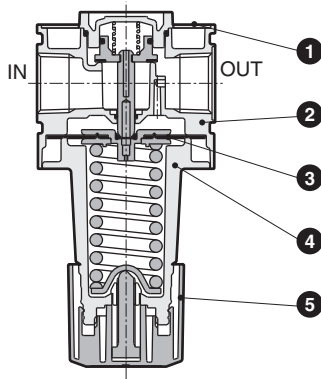
● R3000-G4



● R4000-G4



● R8000-G4



No.	Part name	Material		
		R3000-G4	R4000-G4	R8000-G4
1	Plate cover	ABS resin (Note 1)		
2	Body	Aluminum alloy die-casting		
3	Diaphragm assembly	Zinc alloy die-casting, nitrile rubber		
4	Cover	Aluminum alloy die-casting		
5	Knob	PBT resin (Note 1)		
6	Valve assembly	Brass, hydrogen nitrile rubber, polyacetal resin		
7	Mounting nut	PBT resin (Note 1)		-
8	Gauge plug assembly	Polyamide resin (Note 1), nitrile rubber, steel		
9	Bottom plug	Aluminum alloy die-casting		

Note 1: Flame resistance resin and UL94 standards V-O or equivalent

Note 2: Refer to page 466 for repair parts.

Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)

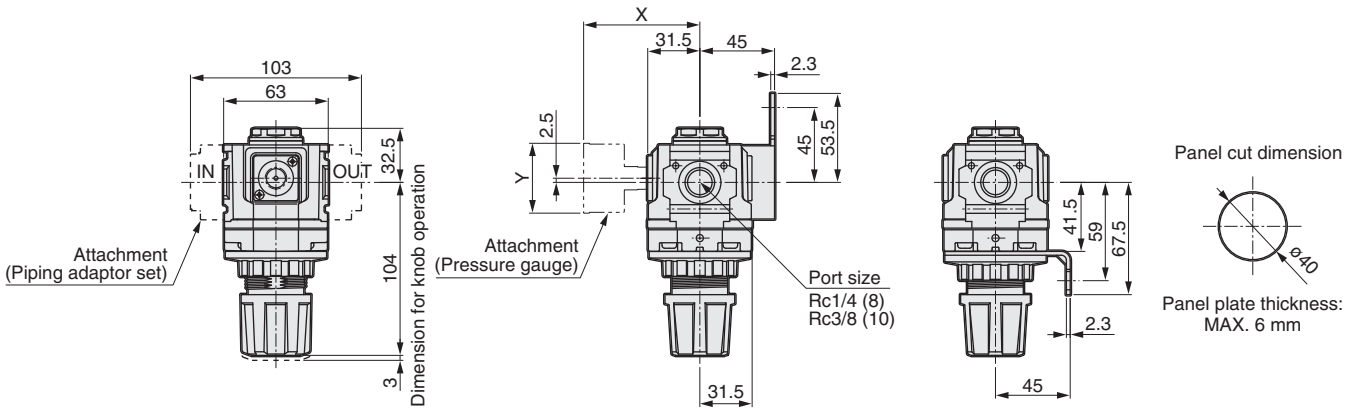
Ending

Flame resistant Series  
F.R.L. unit

# Regulator Series

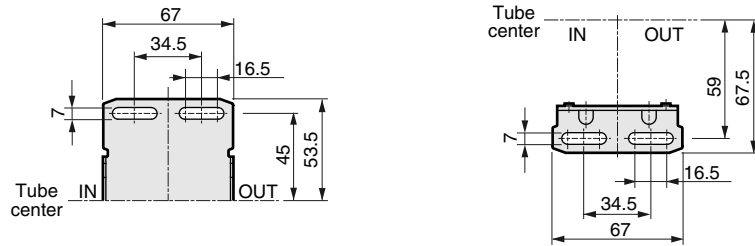
## Dimensions

### ● R3000-G4



Attachment  
C type bracket (-BW)  
Parts No.: B320

L type bracket (-BW)  
Parts No.: B330

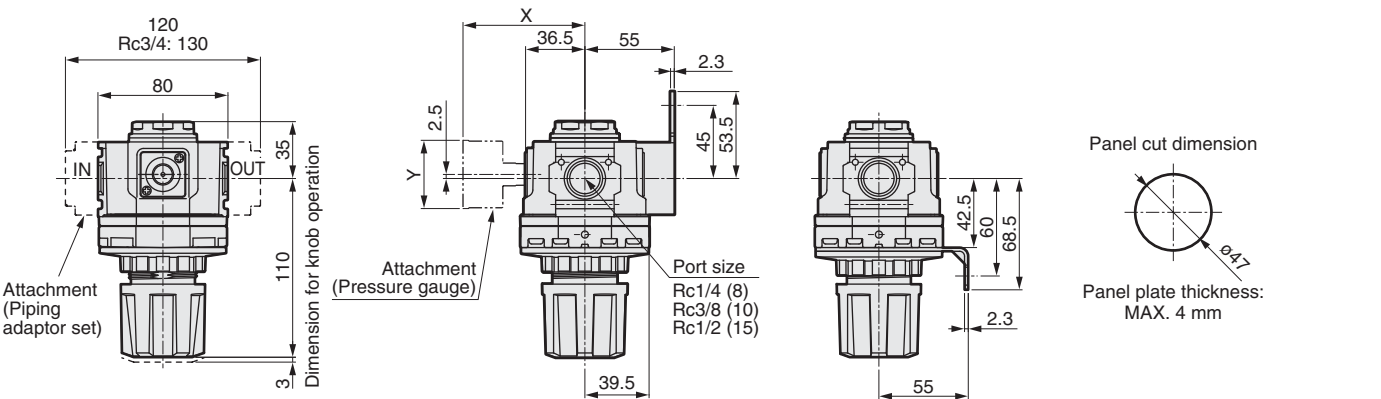


Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(69.5)	ø43.5
G59P	(72)	ø52

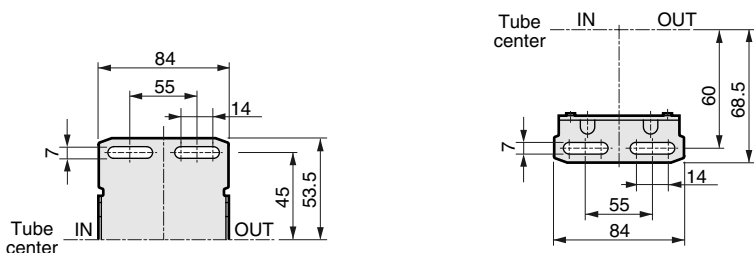
Note: The C-type bracket and piping adapter set attachments cannot be used at the same time.

### ● R4000-G4



Attachment  
C type bracket (-BW)  
Parts No.: B420

L type bracket (-BW)  
Parts No.: B430



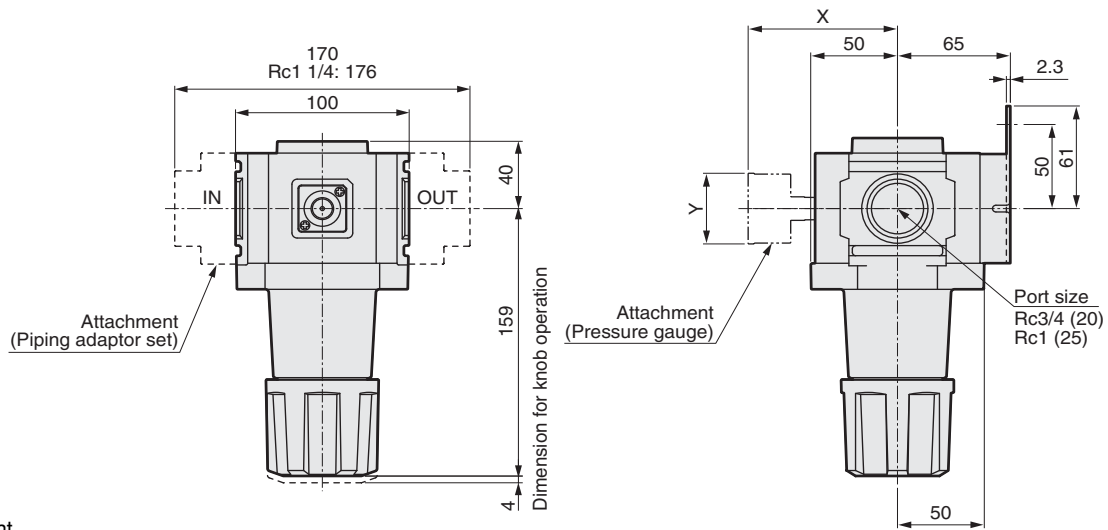
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(74.5)	ø43.5
G59P	(77)	ø52

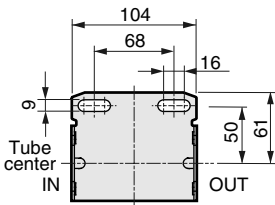
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

### Dimensions

● R8000-G4



· Attachment  
C type bracket (-BW)  
Parts No.: B820



Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(84.5)	ø43.5
G59P	(87)	ø52

Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

Ending

Flame resistant Series  
F.R.L. unit

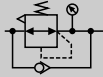


Reverse regulator flame resistant Series

# R3100/R4100/R8100-G4 Series

From secondary pressure to primary pressure with back flow function.  
Port size: 1/4 to 1

JIS symbol



## Specifications

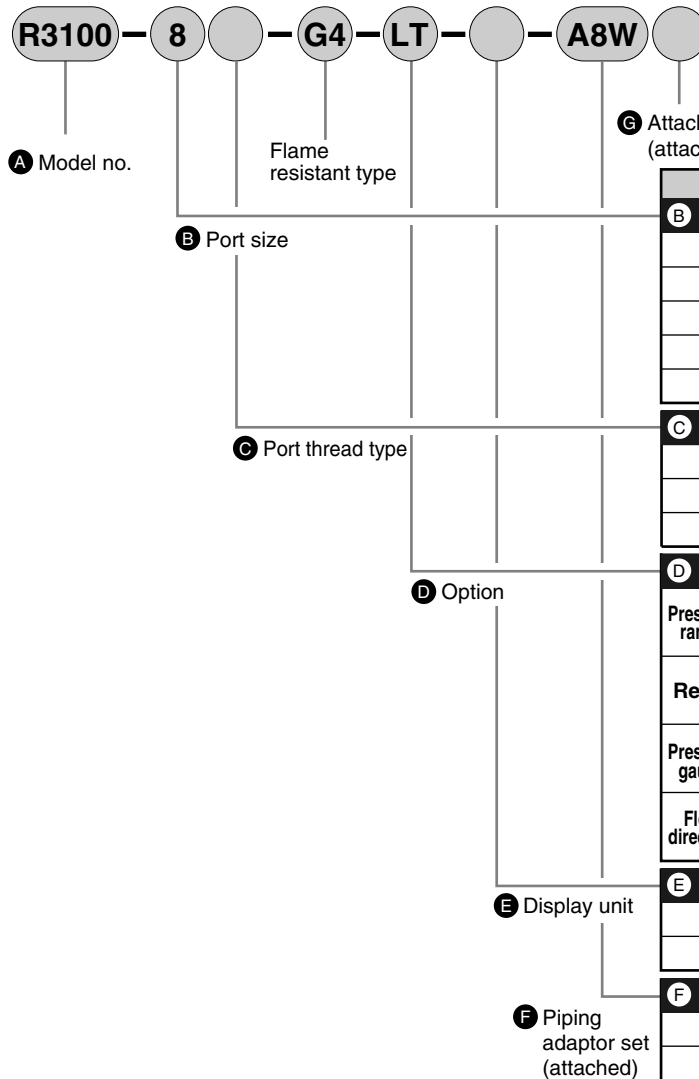
Descriptions	R3100-G4	R4100-G4	R8100-G4
Working fluid	Compressed air		
Max. working pressure MPa	1.0		
Withstanding pressure MPa	1.5		
Working temperature °C	5 to 60		
Set pressure range (Note 1) MPa	0.05 to 0.85		
Relief	With relief mechanism		
Port size Rc, NPT, G	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Product weight kg	0.52	0.77	1.6
Standard specifications	Exterior: Flame-resistant material, nut for panel mounting		Exterior: Flame-resistant material

Note 1: Refer to the set pressure range for the back pressure given on page 462 when selecting the model.

Note 2: Check that the primary pressure is at least 0.05 MPa or more than the secondary pressure.

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending

### How to order



\* Refer to page 274 for the explanation of the option.

#### A Model no.

Model no.	R3100	R4100	R8100
Refrigerating type dryer	●	●	●
Desiccant type dryer	●	●	●
High polymer membrane type dryer	●	●	●
Air filter	●	●	●
Auto. drain / others	●	●	●

Symbol	Descriptions	R3100	R4100	R8100
<b>B Port size</b>				
8	1/4	●	●	●
10	3/8	●	●	●
15	1/2	●	●	●
20	3/4	●	●	●
25	1	●	●	●

C Port thread type		Note 1		
Blank	Rc thread	●	●	●
N	NPT thread	●	●	●
G	G thread	●	●	●

D Option		Note 2, Note 3			
Pressure range	Blank	0.05 to 0.85MPa	●	●	●
	L	0.05 to 0.35MPa	●	●	●
Relief	Blank	With relief mechanism	●	●	●
	N	Nonrelief type	●	●	●
Pressure gauge	T	Without pressure gauge (pressure gauge port (Rc1/4) is assembled with sealed)	●	●	●
	T8	Pressure gauge attached (pressure gauge port (Rc1/4) is assembled by open)	●	●	●
Flow direction	Blank	Standard flow (left → right)	●	●	●
	X1	Reverse flow (right → left)	●	●	●

E Display unit		Note 5		
Blank	MPa display, Rc thread	●	●	●
J1	MPa display, NPT/G thread	●	●	●

F Piping adaptor set (attached)		Note 5 Page 428		
Blank	Not attached	●	●	●
A8*W	1/4 piping adaptor set (white)	●	●	●
A10*W	3/8 piping adaptor set (white)	●	●	●
A15*W	1/2 piping adaptor set (white)	●	●	●
A20*W	3/4 piping adaptor set (white)	●	●	●
A25*W	1 piping adaptor set (white)	●	●	●
A32*W	1 1/4 piping adaptor set (white)	●	●	●

*Adaptor screw type		Note 7 Pages 425, 659		
Blank	Rc thread	●	●	●
N	NPT thread	●	●	●
G	G thread	●	●	●

G Attachment (attached)		Note 7 Pages 425, 659		
Blank	Not attached	●	●	●
BW	C type bracket (silver)	●	●	●
B3W Note 6	L type bracket (silver)	●	●	●
G49P	G49D-8-P10(L: G49D-8-P04)	●	●	●
G59P	G59D-8-P10(L: G59D-8-P04)	●	●	●

### Note on model no. selection

- Note 1: G and NPT threads are available for IN, OUT, and gauge ports.
- Note 2: When selecting options for several items, list options in order from the top.
- Note 3: Positions of a check valve and pressure gauge can not be changed. If the IN and OUT direction must be reversed, indicate "X1" at the end of the option field.
- Note 4: The pressure gauge's indication range is 0 to 0.4MPa for option "L".
- Note 5: The piping adaptor set and C bracket cannot be used together.
- Note 6: Refer to Section (2. Regulator), in " PRECAUTIONS for Installation and Adjustment" (page 279) for details on mounting the L-type bracket.
- Note 7: If NPT is selected for the "C" piping thread type, a NPT pressure gauge is enclosed. If Rc or G thread is selected, an R thread pressure gauge is enclosed.

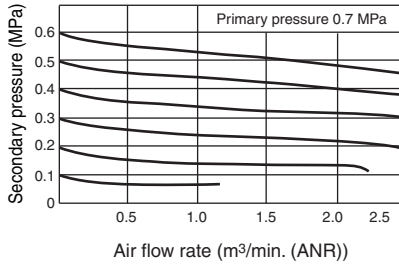
Refrigerating type dryer	●
Desiccant type dryer	●
High polymer membrane type dryer	●
Air filter	●
Auto. drain / others	●
F.R.L. (Module unit)	●
F.R.L. (Separate)	●
Compact F.R.	●
Precise regulator	●
F.R.L. (Related products)	●
Clean F.R.	●
Electro pneumatic regulator	●
Air booster	●
Speed control valve	●
Silencer	●
Check valve / others	●
Joint / tube	●
Vacuum filter	●
Vacuum regulator	●
Suction plate	●
Magnetic spring buffer	●
Mechanical pressure SW	●
Electronic pressure SW	●
Contact / close contact cont. SW	●
Air sensor	●
Pressure SW for coolant	●
Small flow sensor	●
Small flow controller	●
Flow sensor for air	●
Flow sensor for water	●
Total air system	●
Total air system (Gamma)	●
Ending	●

Flame resistant Series  
F.R.L. unit

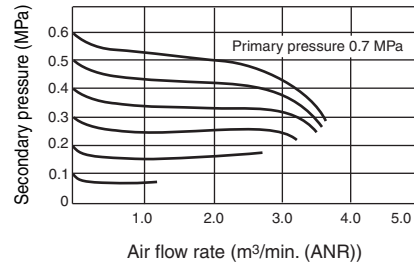
- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)**
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster**
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending

## Flow characteristic

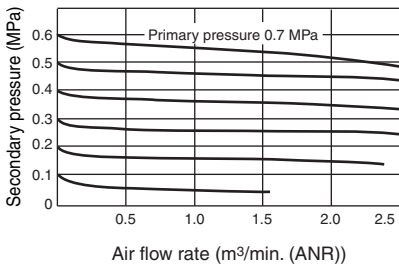
● R3100-8-G4



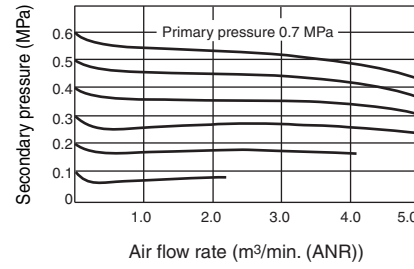
● R3100-10-G4



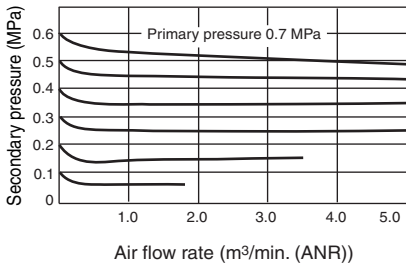
● R4100-8-G4



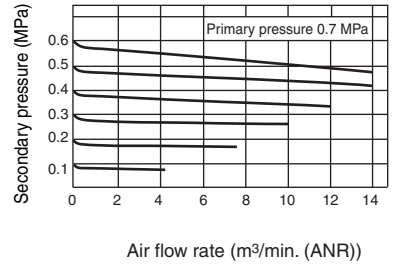
● R4100-10-G4



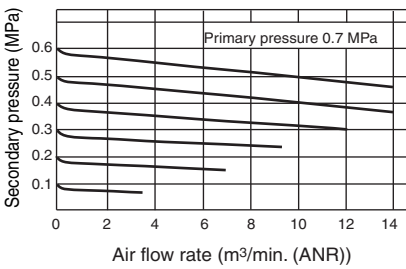
● R4100-15-G4



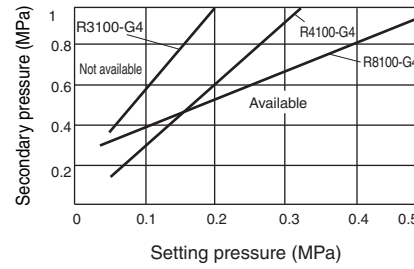
● R8100-20-G4



● R8100-25-G4



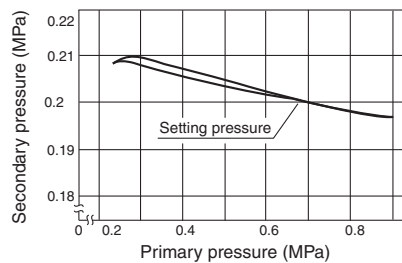
● Set pressure range to back pressure



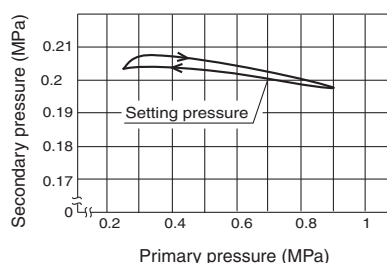
Note: The upper side of the graph is nonusable and the lower side usable.  
 Example: If R4100-G4 is set to set pressure 0.2 MPa and the secondary back pressure is 0.6 MPa or more, the secondary pressure will not be released to the primary side.

## Pressure characteristic

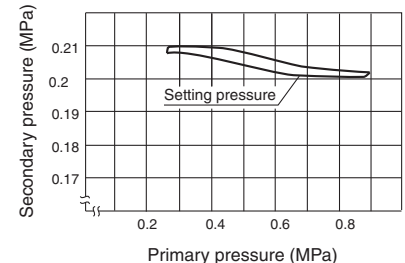
● R3100-G4



● R4100-G4



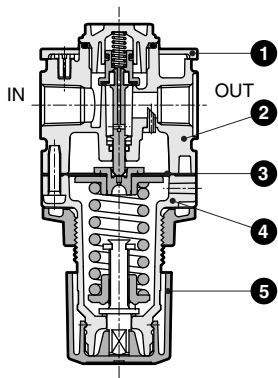
● R8100-G4



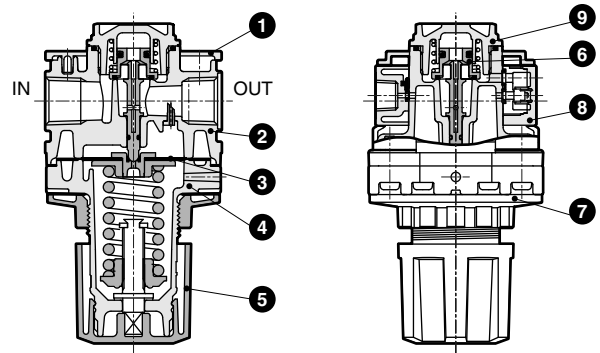


## Internal structure and parts list

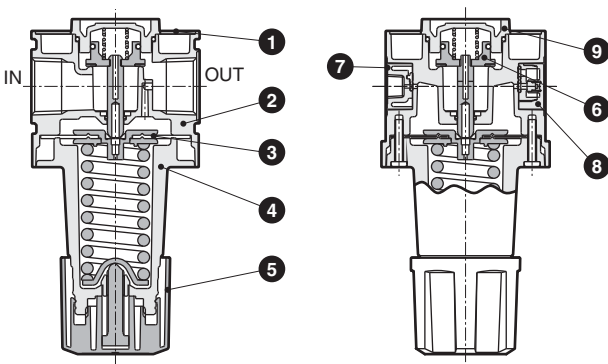
### ● R3100-G4



### ● R4100-G4



### ● R8100-G4



No.	Part name	Material		
		R3100-G4	R4100-G4	R8100-G4
1	Plate cover	ABS resin (Note 1)		
2	Body	Aluminum alloy die-casting		
3	Diaphragm assembly	Zinc alloy die-casting, nitrile rubber		
4	Cover	Aluminum alloy die-casting		
5	Knob	PBT resin (Note 1)		
6	Valve assembly	Brass, hydrogen nitrile rubber, polyacetal resin		
7	Gauge plug assembly	Polyamide resin (Note 1), nitrile rubber, steel		
8	Check valve total assemblies	PBT resin, nitrile rubber, stainless steel wire, steel, aluminum		
9	Bottom plug	Aluminum alloy die-casting		
10	Mounting nut	PBT resin (Note 1)		-

Note 1: Flame resistance resin and UL94 standards V-O or equivalent

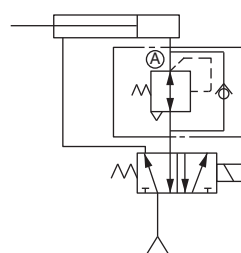
Note 2: Refer to page 466 for repair kits.

## Functional explanation

When the primary pressure is introduced from the IN side, the check valve functions as a regular regulator because it closes with primary pressure and spring load. When primary pressure is released by a switching valve such as a shut-off valve, the check valve opens with secondary pressure. Pressure in the diaphragm chamber is released and pressure drops. This causes the diaphragm to be pressed down by the pressure adjustment spring. The main valve (valve assembly) opens, and the air on the OUT side is discharged.

### ● Circuit diagram

When cylinder head end and rod end pressure differs.



Note: Set back pressure A for when the primary pressure is released within the range in the graph for the regulator's set pressure.

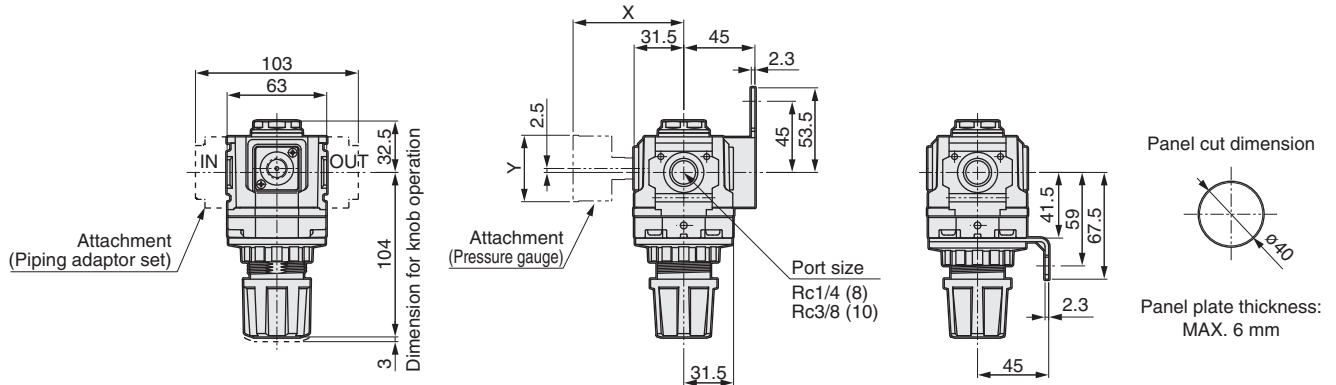
Refrigerating type dryer  
 Desiccant type dryer  
 High polymer membrane type dryer  
 Air filter  
 Auto. drain / others  
**F.R.L. (Module unit)**  
 F.R.L. (Separate)  
 Compact F.R.  
 Precise regulator  
 F.R.L. (Related products)  
**Clean F.R.**  
 Electro pneumatic regulator  
**Air booster**  
 Speed control valve  
 Silencer  
 Check valve / others  
 Joint / tube  
 Vacuum filter  
 Vacuum regulator  
 Suction plate  
 Magnetic spring buffer  
 Mechanical pressure SW  
 Electronic pressure SW  
 Contact / close contact cont. SW  
 Air sensor  
 Pressure SW for coolant  
 Small flow sensor  
 Small flow controller  
 Flow sensor for air  
 Flow sensor for water  
 Total air system  
 Total air system (Gamma)

Ending

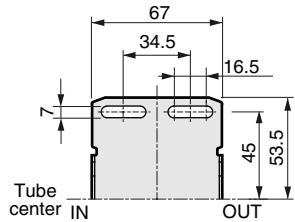
**Flame resistant Series**  
**F.R.L. unit**

## Dimensions

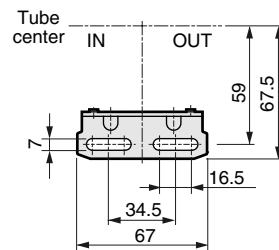
### ● R3100-G4



### · Attachment C type bracket (-BW) Parts No.: B320



### L type bracket (-B3W) Parts No.: B330

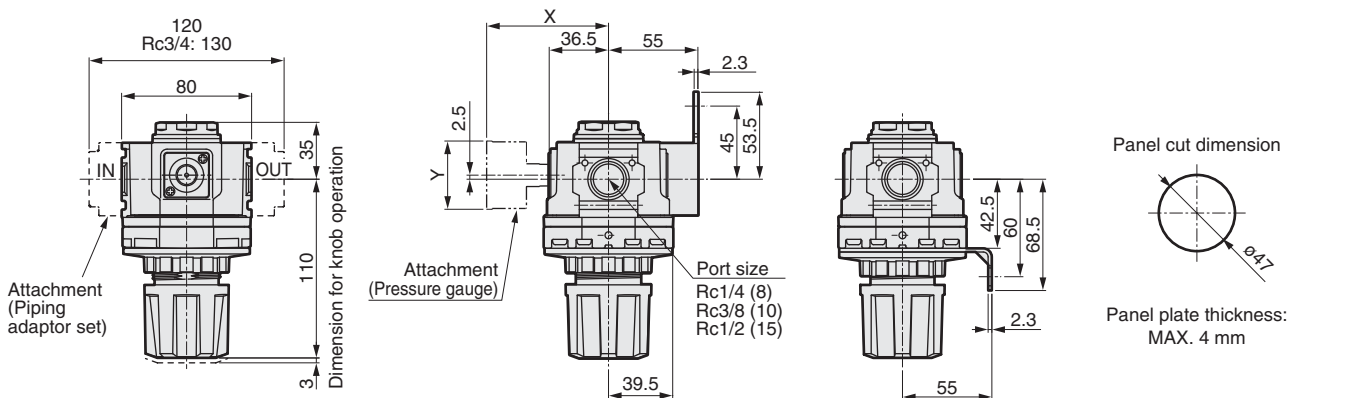


Pressure gauge attached optional dimensions table

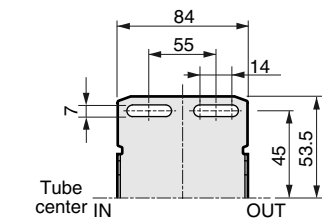
Attached pressure gauge	X	Y
G49P	(69.5)	ø43.5
G59P	(72)	ø52

Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

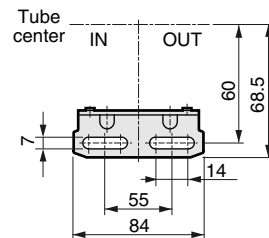
### ● R4100-G4



### · Attachment C type bracket (-BW) Parts No.: B420



### L type bracket (-B3W) Parts No.: B430



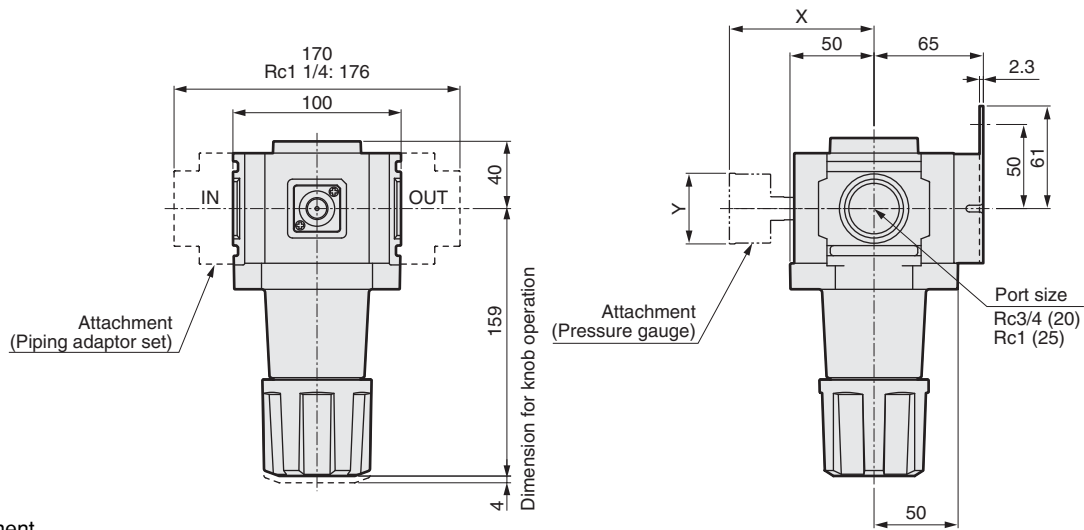
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(74.5)	ø43.5
G59P	(77)	ø52

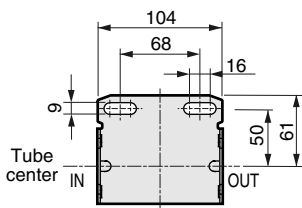
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

### Dimensions

● R8100-G4



- Attachment  
C type bracket (-BW)  
Parts No.: B820



Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G49P	(84.5)	ø43.5
G59P	(87)	ø52

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
<b>Air booster</b>
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

Ending

Flame resistant Series  
F.R.L. unit

## Optional parts diagram

### Repair kits (Set of diaphragm assembly, valve assembly, bottom spring, bottom O-ring)

Repair kits model no.	Relief type diaphragm	Nonrelief Diaphragm assembly
Model		
R3000-G4, R3100-G4	R3000-KIT	R3000-KIT-N
R4000-G4, R4100-G4	R4000-KIT	R4000-KIT-N
R8000-G4, R8100-G4	R8000-KIT	R8000-KIT-N

### Valve assembly (Set of valve assembly, bottom spring, bottom O-ring)

Model	Valve assembly model no.
R3000-G4, R3100-G4	R3000-VALVE-ASSY
R4000-G4, R4100-G4	R4000-VALVE-ASSY
R8000-G4, R8100-G4	R8000-VALVE-ASSY

### Check valve assembly for reverse regulator

Model	Check valve assembly model no.
R3100-G4, W3100-G4	R3100-G4-CHECK-VALVE-ASSY
R4100-G4, W4100-G4	
R8100-G4, W8100-G4	

### Adjusting spring

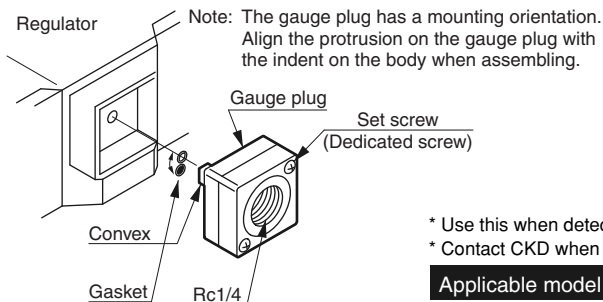
Adjusting spring model no.	Standard spring (0.05 to 0.85MPa)	Spring for low pressure (0.05 to 0.35MPa)
Model		
R3000-G4, R3100-G4 W3000-G4, W3100-G4	R3000-SPRING	R3000-SPRING-L
R4000-G4, R4100-G4 W4000-G4, W4100-G4	R4000-SPRING	R4000-SPRING-L
R8000-G4, R8100-G4	R8000-SPRING	R8000-SPRING-L
W8000-G4, W8100-G4	W8000-SPRING	W8000-SPRING-L

### Diaphragm assembly (only diaphragm assembly)

Diaphragm assembly model no.	Relief type diaphragm	Nonrelief type diaphragm
Model		
R3000-G4, R3100-G4 W3000-G4, W3100-G4	R3000-DIAPHRAGM-ASSY	R3000-DIAPHRAGM-ASSY-N
R4000-G4, R4100-G4 W4000-G4, W4100-G4	R4000-DIAPHRAGM-ASSY	R4000-DIAPHRAGM-ASSY-N
R8000-G4, R8100-G4	R8000-DIAPHRAGM-ASSY	R8000-DIAPHRAGM-ASSY-N
W8000-G4, W8100-G4	W8000-DIAPHRAGM-ASSY	W8000-DIAPHRAGM-ASSY-N

### Gauge plug assembly (assembly of gauge plug, gasket, set screw)

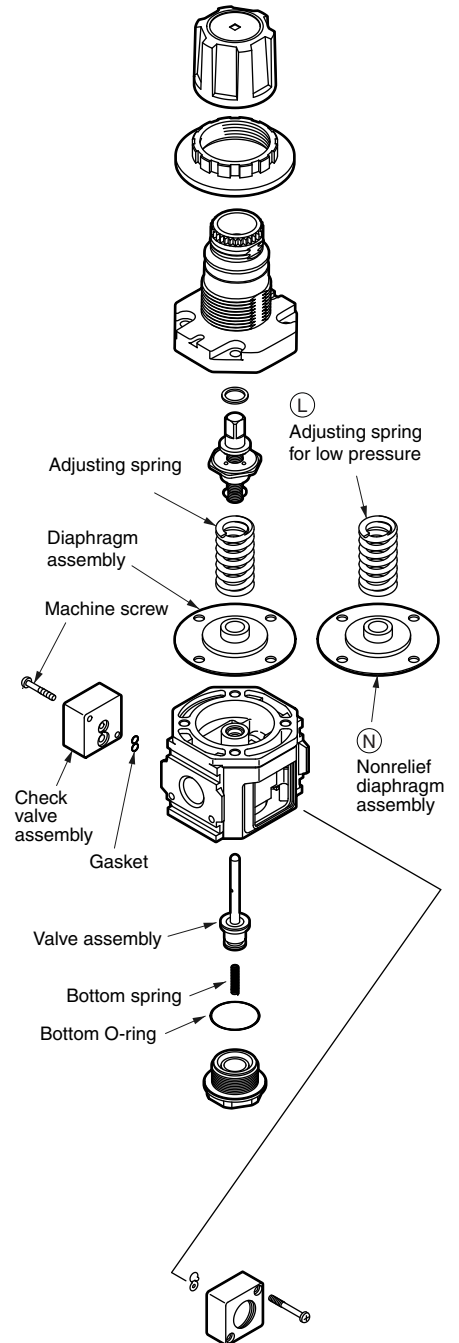
Use when mounting the pressure gauge.

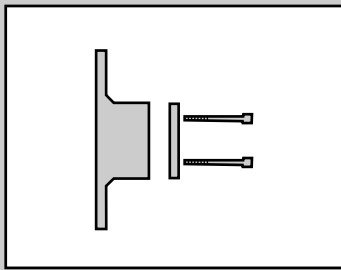


If the gasket is turned 180° as shown in the drawing, regulator pressure flows to the pressure gauge.

- \* Use this when detecting external pressure.
- \* Contact CKD when NPT or G threads are required.

Applicable model	Gauge plug assembly model no.
3000-G4 4000-G4 Series 8000-G4	R3000-G4-G-PLUG





Bracket

# B/B-W Series

Joiner

# J-W Series

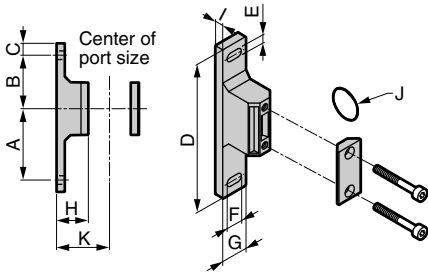


Refrigerating type dryer  
Desiccant type dryer  
High polymer membrane type dryer  
Air filter  
Auto. drain / others  
F.R.L. (Module unit)  
F.R.L. (Separate)  
Compact F.R.L.  
Precise regulator  
F.R.L. (Related products)  
Clean F.R.L.  
Electro pneumatic regulator  
Air booster  
Speed control valve  
Silencer  
Check valve / others  
Joint / tube  
Vacuum filter  
Vacuum regulator  
Suction plate  
Magnetic spring buffer  
Mechanical pressure SW  
Electronic pressure SW  
Contact / close contact cont. SW  
Air sensor  
Pressure SW for coolant  
Small flow sensor  
Small flow controller  
Flow sensor for air  
Flow sensor for water  
Total air system  
Total air system (Gamma)  
Ending

## Dimensions and Applications

### T type bracket set

- Model No.: B310-W / B410-W / B810-W Note: Select B410-W when using the 3000 Series and 4000 Series combined.
- Application

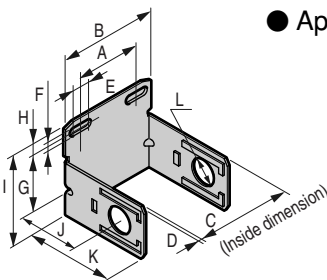


Model no.	Applicable model	A	B	C	D	E	F	G	H	I	J	K
B310-W	3000 Series	60	45	10	125	7	7	22	27	7	JISB2401-P21	45
B410-W	4000 Series	60	45	10	125	7	7	22	37	7	JISB2401-P21	55
B810-W	8000 Series	70	50	15	150	9	5	27	37	8	AS568-127	65

White type

### C type bracket

- Model No.: B320/B420/B820
- Attachment: BW



- Application



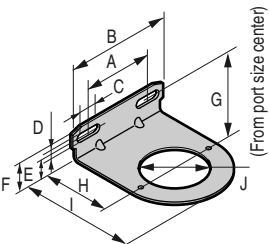
Model no.	Applicable model	A	B	C	D	E	F	G	H	I	J	K	L
B320	3000 Series	34.5	67	63	t2.3	16.5	7	45	9	75.5	45	69	ø21.7
B420	4000 Series	55	84	80	t2.3	14.0	7	45	9	75.5	55	69	ø21.7
B820	8000 Series	68	104	100	t2.3	16	9	50	11	93.5	65	102	ø35

White type

### L type bracket

- Model No.: B330/B430
- Attachment: B3W

Loosen the mounting nut to remove the knob.  
After inserting L type bracket, fix the bracket by the mounting nut. Press the knob in manually after fixing.  
Refer to "(2. Regulator)", filter and regulator" on page 279.



- Application

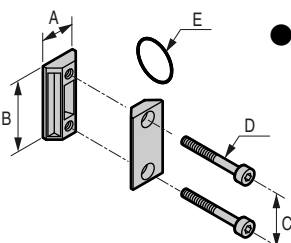


Model no.	Applicable model	A	B	C	D	E	F	G	H	I	J	Other
B330	3000 Series	34.5	67	16.5	7	17.5	26	58 (63.5)	45	76	ø40	Dimensions in ( ) for W3000/3100
B430	4000 Series	55	84	14	7	17.5	26	58	55	94	ø47	

White type

### Joiner set

- Model No.: C4000-J400-W  
C8000-J800-W



- Application



Model no.	Applicable model	A	B	C	D	E
C4000-J400-W	3000 Series 4000 Series	21	44	32	M5	JIS B2401-P21
C8000-J800-W	8000 Series	26	65	50	M6	AS568-127

White type

Flame resistant Series  
F.R.L. unit

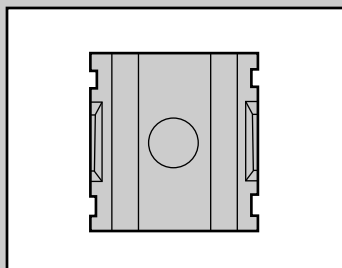
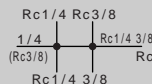
Distributor

# D401/D801-W Series

Applicable for pipe branching.

Port size: 1/4 to 1

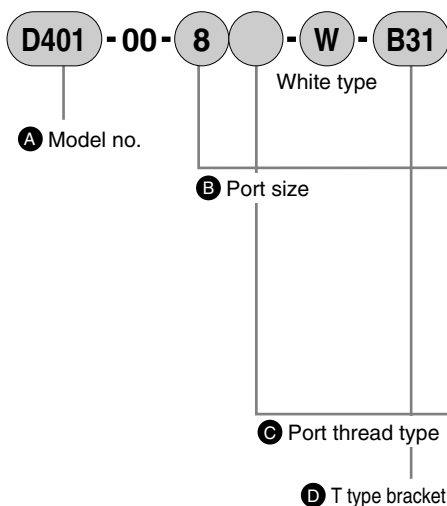
JIS symbol



## Specifications

Descriptions	D401-00-W	D801-00-W
Working fluid	Compressed air	
Max. working pressure MPa	1.0	
Withstanding pressure MPa	1.5	
No. of branch port	1	
Port size Rc	1/4, 3/8, 1/2	3/4, 1
Working temperature °C	5 to 60	
Product weight kg	0.13	0.35

## How to order

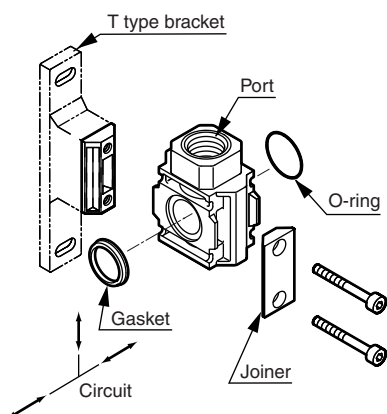


Symbol	Descriptions		
<b>A</b>	<b>Model no.</b>		
D401	Distributor		
D801	Distributor		
<b>B</b>	<b>Port size</b>		
		D401	D801
8	1/4	●	
10	3/8	●	
15	1/2	●	
20	3/4		●
25	1		●
<b>C</b>	<b>Port thread type</b>		
Blank	Rc thread	●	●
N	NPT thread	●	●
G	G thread	●	●
<b>D</b>	<b>T type bracket</b>		
Blank	None	●	●
B31	3000 Series	●	
B41	4000 Series	●	
B81	8000 Series		●

### ⚠ Note on model no. selection

- Note 1: The joiner set (joiner, bolt, O-ring) and one gasket are enclosed as a standard.
- Note 2: Consult with CKD for 2 way branch.
- Note 3: D401 can be connected to both 3000 Series and 4000 Series.

## Assembly method (D401-00-W/D801-00-W)



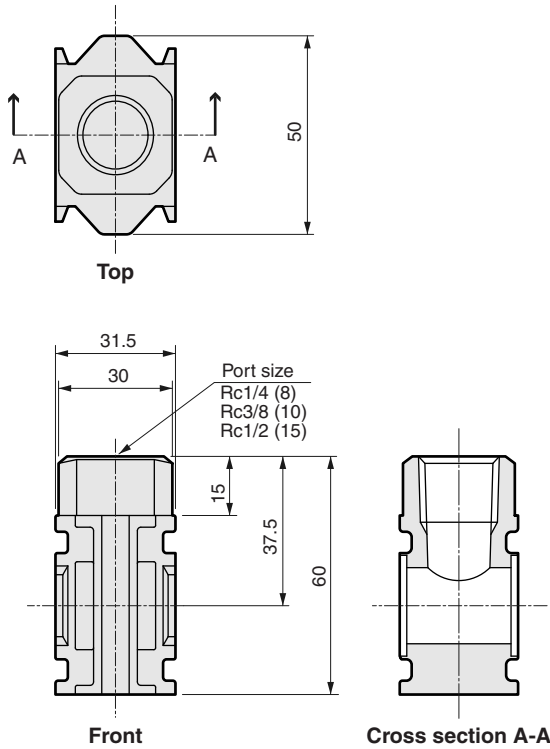
- Note 1: When installing at the primary side, insert an O-ring, while installing at the secondary side, insert a gasket.
- Note 2: When inserting O-ring and gasket to assemble, O-ring and gasket must not be folded.

## Application (D401-00-W/D801-00-W)



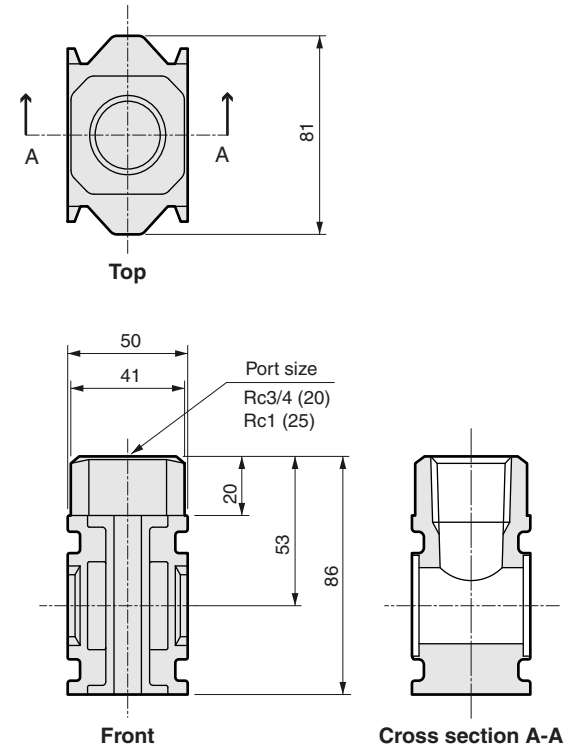
### Dimensions

● D401-00-W



Note: Contact CKD for 2 way branch type.

● D801-00-W

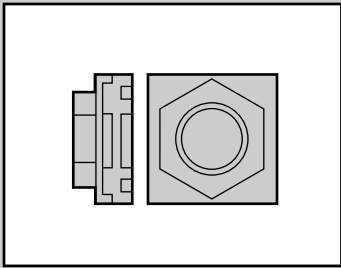


Note: Contact CKD for 2 way branch type.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
<b>Clean F.R.</b>
Electro pneumatic regulator
<b>Air booster</b>
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

Ending

Flame resistant Series  
F.R.L. unit



Piping adaptor

# A400/A800-W Series

Port size: 1/4 to 1 1/4

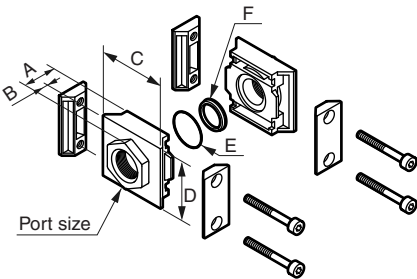


## Dimensions and Applications

### Piping adaptor set

● Application

- Model No.: A400-8,10,15,20-W  
A800-20,25,32-W



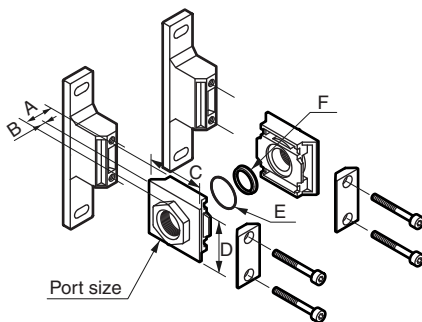
Model no.	Port size	Applicable model	A	B	C	D	E (O ring)	F (gasket)	Other
A400-8*-W	1/4	3000 Series 4000 Series	20 (25) {34}	6 (11) {20}	50	45	C4000-ORING JISB2401 P21 1 pc.	C4000- GASKET 1 pc.	Numbers in ( ) are for Rc3/4 Numbers in { } are for Rc1
A400-10*-W	3/8								
A400-15*-W	1/2								
A400-20*-W	3/4								
A400-25*-W	1	Note 1							
A800-20*-W	3/4	8000 Series	35 (38)	15 (18)	81	66	C8000-ORING AS568-127 1 pc.	C8000- GASKET 1 pc.	Numbers in ( ) are for Rc1 1/4
A800-25*-W	1								
A800-32*-W	1 1/4								

\*: Blank: Rc thread, N: NPT thread, G: G thread  
Note 1: Available also as attachment for V3000/V3010.  
White type

### Piping adaptor set

● Application

- Model No.: A400-8,10,15-W-B31W  
A400-8,10,15,20-W-B41W  
A800-20,25,32-W-B81W  
(with T type bracket set)

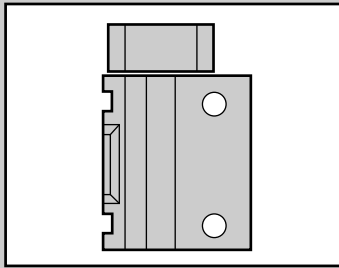


Model no.	Port size	Applicable model	A	B	C	D	E (O ring)	F (gasket)	Other
A400-8*-W-B31W	1/4	3000 Series	20	6	50	45	C4000-ORING JISB2401 P-21 1 pc.	C4000- GASKET 1 pc.	
A400-10*-W-B31W	3/8								
A400-15*-W-B31W	1/2								
A400-8*-W-B41W	1/4	4000 Series	20 (25) {34}	6 (11) {20}	50	45	C4000-ORING JISB2401 P-21 1 pc.	C4000- GASKET 1 pc.	Numbers in ( ) are for Rc3/4 Numbers in { } are for Rc1
A400-10*-W-B41W	3/8								
A400-15*-W-B41W	1/2								
A400-20*-W-B41W	3/4								
A400-25*-W-B41W	1	Note 1							
A800-20*-W-B81W	3/4	8000 Series	35 (38)	15 (18)	81	66	C8000-ORING AS568-127 1 pc.	C8000- GASKET 1 pc.	Numbers in ( ) are for Rc1 1/4
A800-25*-W-B81W	1								
A800-32*-W-B81W	1 1/4								

\*: Blank: Rc thread, N: NPT thread, G: G thread  
Note 1: Available also as attachment for V3000/V3010.  
White type

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane type dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)
- Ending





L type piping adaptor

# A401/A801-W Series

Port size: 1/4 to 1

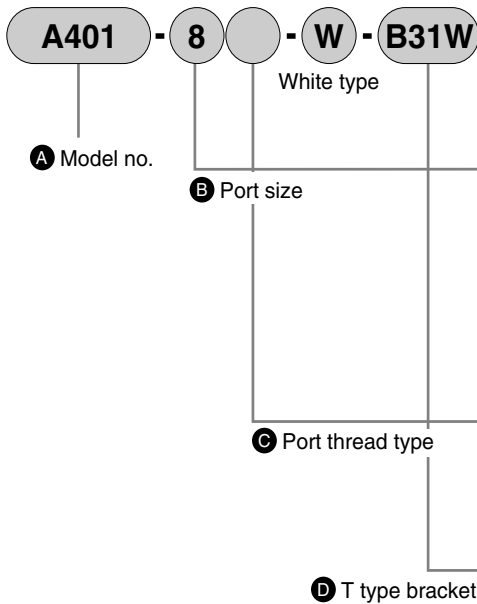


## Specifications

Descriptions	A401-W Note 1	A801-W
Working fluid	Compressed air	
Max. working pressure MPa	1.0	
Withstanding pressure MPa	1.5	
Port size Rc	1/4, 3/8, 1/2	3/4, 1
Working temperature °C	5 to 60	
Product weight kg	0.13	0.4

Note 1: A401-W can be connected to both 3000-G4 and 4000-G4 Series.

## How to order



Symbol	Descriptions	
<b>A Model no.</b>		
A401	L type adaptor	
A801	L type adaptor	
<b>B Port size</b>		
	A401	A801
8	Rc1/4	●
10	Rc3/8	●
15	Rc1/2	●
20	Rc3/4	
25	Rc1	●
<b>C Port thread type</b>		
Blank	Rc thread	●
N	NPT thread	●
G	G thread	●
<b>D T type bracket Note 1</b>		
Blank	None	●
B31W	3000 Series	●
B41W	4000 Series	●
B81W	8000 Series	●

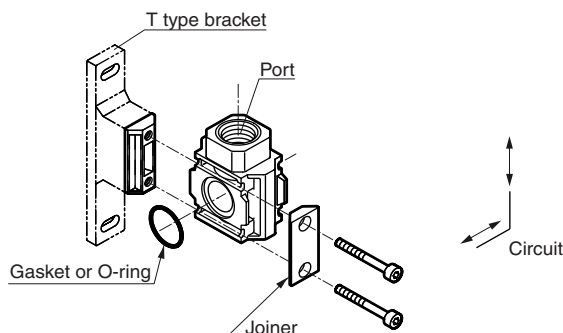
### ⚠ Note on model no. selection

Note 1: The joiner set (joiner, bolt, O-ring) and one gasket are enclosed as a standard.

Note 2: Contact CKD for vertical piping.

- Applicable model
- A401-8, 10, 15-W : 3000, 4000 Series
- A801-20, 25-W : 8000 Series

## L type piping adaptor



● Application



Note: Insert the O-ring when mounting on the primary side for the air flow, and insert the gasket when mounting on the secondary side.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

Ending

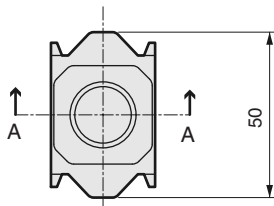
Flame resistant Series  
F.R.L. unit

# Piping adaptor

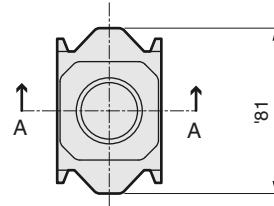
## Dimensions

● A401-W

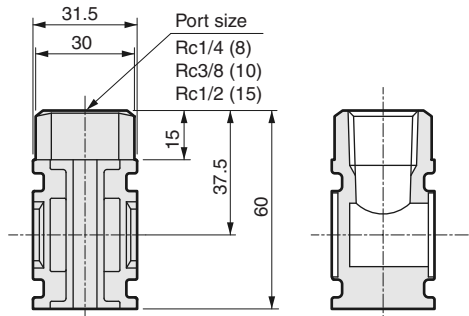
● A801-W



Top

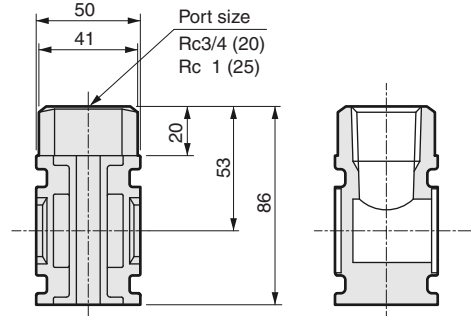


Top



Front

Cross section A-A



Front

Cross section A-A

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
<b>Air booster</b>
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending