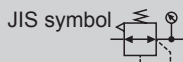




Regulator standard white Series
R1000/R2000/R3000
R4000/R6000/R8000-W Series

Compact, pressure gauge embedded.
 Port size: 1/8 to 1



Specifications

Descriptions	R1000-W	R2000-W	R3000-W	R4000-W	R6000-W	R8000-W
Appearance						
Working fluid	Compressed air					
Max. working pressure MPa	1					
Withstanding pressure MPa	1.5					
Ambient temperature range °C	5 to 60 Note 1					
Set pressure range MPa	0.05 to 0.85					
Relief	With relief mechanism					
Port size Rc, NPT, G	1/8, 1/4 (3/8 uses an adaptor)	1/4, 3/8 (1/2 uses an adaptor)	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)	3/4, 1 (1 1/4 uses an adaptor)
Product weight kg	0.16	0.31	0.45	0.7	1.0	1.6
Standard accessories	Pressure gauge, nut for panel mount					Pressure gauge

Note 1: The working temperature range of the pressure switch with indicator PPD assembly "R1" is 5 to 50°C.

Ozone specifications (Ending 12)

R*000 - ... - W ... - P11

Clean room specifications (catalog No. CB-033S)

- Dust generation preventing structure for use in cleanrooms

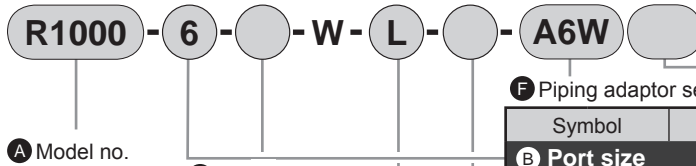
R*000 - - P7*

Secondary battery compatible specifications (catalog No. CC-947)

- Structured for use in secondary battery manufacturing processes

R*000 - - P4*

How to order



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

A Model no.					
R 1	R 2	R 3	R 4	R 6	R 8
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

F Piping adaptor set (attached)		A Model no.					
Symbol	Descriptions	R 1	R 2	R 3	R 4	R 6	R 8
B Port size							
6	1/8	●					
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					
Pressure Range	Blank	0.05 to 0.85MPa	●	●	●	●	●
	L	0.05 to 0.35MPa	●	●	●	●	●
Relief	Blank	With relief mechanism	●	●	●	●	●
	N	Nonrelief type	●	●	●	●	●
Pressure gauge	Blank	With standard pressure gauge (G401-W)	●	●	●	●	●
	T	W/o pressure gauge (pressure gauge port (Rc1/4) is assembled with sealed)	●	●	●	●	●
	T8	Pressure gauge attached (pressure gauge port (Rc1/4) is assembled by open)	●	●	●	●	●
	T6	Digital pressure sensor PPX attachment option	●	●	●	●	●
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)		Note 6, Note 7 page 428					
Blank	Not attached	●	●	●	●	●	●
A6*W	Rc1/8 piping adaptor set	●					
A8*W	Rc1/4 piping adaptor set	●	●	●	●		
A10*W	Rc3/8 piping adaptor set	●	●	●	●		
A15*W	Rc1/2 piping adaptor set		●	●	●		
A20*W	Rc3/4 piping adaptor set				●	●	●
A25*W	Rc1 piping adaptor set					●	●
A32*W	Rc1 1/4 piping adaptor set					●	●

*Adaptor screw type							
Blank	Rc thread	●	●	●	●	●	●
N	NPT thread	●	●	●	●	●	●
G	G thread	●	●	●	●	●	●

G Attachment (attached)		Note 8 pages 425, 659					
Blank	Not attached	●	●	●	●	●	●
BW	C type bracket	●	●	●	●	●	●
B3W	L type bracket	●	●	●	●	●	
B4W	B type bracket		●				
G45P	G45D-8-P10(L:G45D-8-P04)	●	●	●	●	●	●
G49P	G49D-8-P10(L:G49D-8-P04)	●	●	●	●	●	●
G59P	G59D-8-P10(L:G59D-8-P04)	●	●	●	●	●	●
G40P	G40D-8-P10(L:G40D-8-P04)	●	●	●	●	●	●
G50P	G50D-8-P10(L:G50D-8-P04)	●	●	●	●	●	●
G41P	G41D-8-P10(L:G41D-8-P04)	●	●	●	●	●	●
G52P	G52D-8-P10(L:G52D-8-P10)	●	●	●	●	●	●
R2 Note 4	Digital pressure sensor: PPX-R10N-6M	●	●	●	●	●	●

⚠ Note on model no. selection

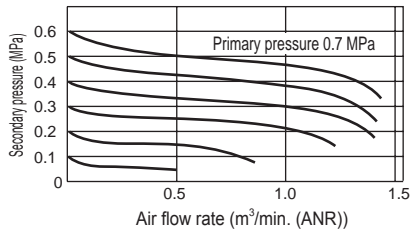
- Note 1:When G threads or NPT threads are selected, the IN, OUT and gauge port are the target
- Note 2:When selecting options for several items, list options in order from the top.
- Note 3:The pressure gauge's indication range is 0 to 0.4MPa for option "L".
- Note 4:When "D" option "T6" is selected, only "Blank" or "R2" can be selected for pressure gauge (enclosed). The digital pressure sensor PPX mounting port (Rc1/8) is assembled by open.
- Note 5:The output type is NPN transistor output. Consult with CKD when the PNP transistor output is required.
- Note 6:The C-type bracket and piping adaptor set attachments cannot be used at the same time.
- Note 7:The joiner set is enclosed with the piping adaptor set.
- Note 8:If NPT is selected for the "C" piping thread, a NPT pressure gauge is enclosed. If Rc or G thread is selected, an R thread pressure gauge is enclosed.
- Note 9:Refer to Section (2.Regulator), in "⚠ PRECAUTIONS for Installation and Adjustment" (page 279) for details on mounting the L-type bracket.

- 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
- Standard series
- F.R.L. unit

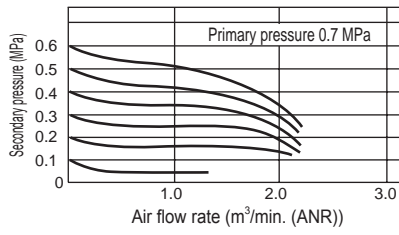
Regulator Series

Flow characteristic

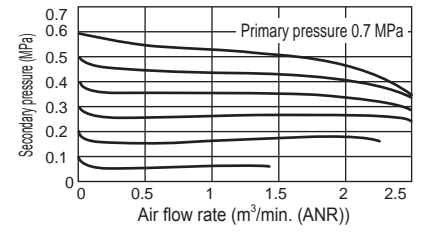
● R1000-6-W



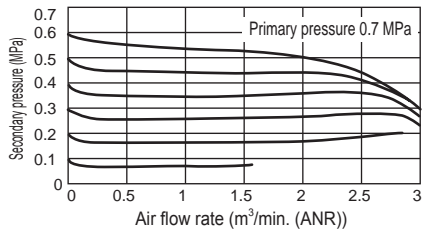
● R1000-8-W



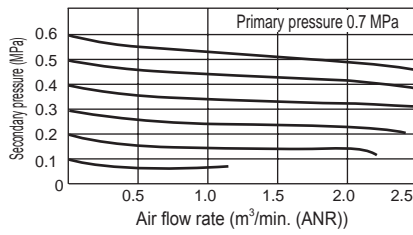
● R2000-8-W



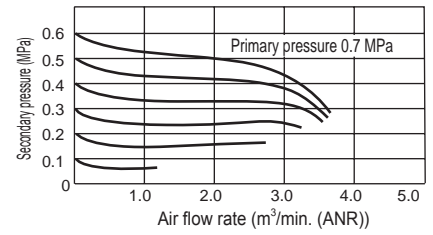
● R2000-10-W



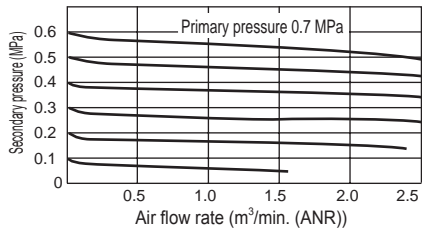
● R3000-8-W



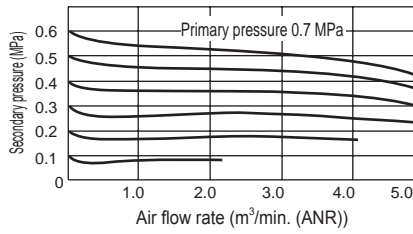
● R3000-10-W



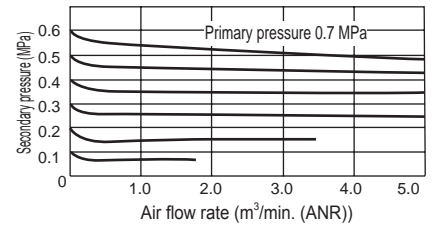
● R4000-8-W



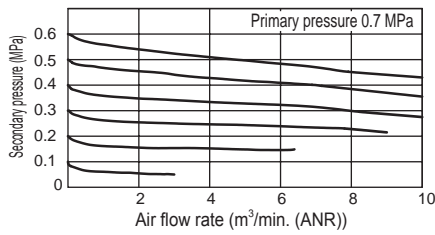
● R4000-10-W



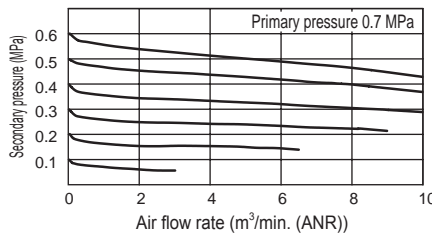
● R4000-15-W



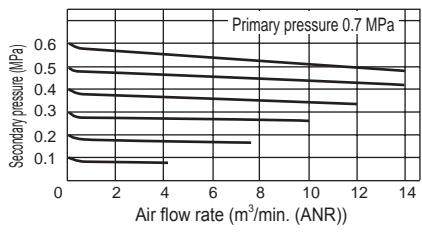
● R6000-20-W



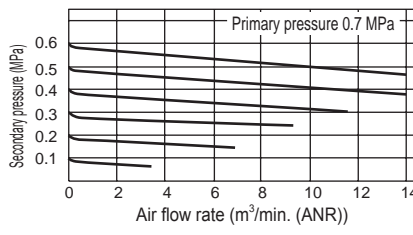
● R6000-25-W



● R8000-20-W

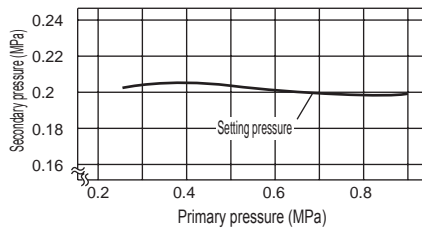


● R8000-25-W

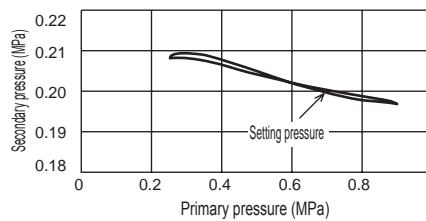


Pressure characteristic

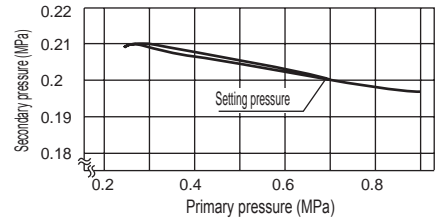
● R1000-W



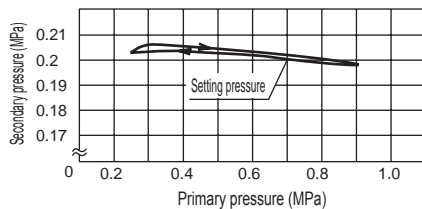
● R2000-W



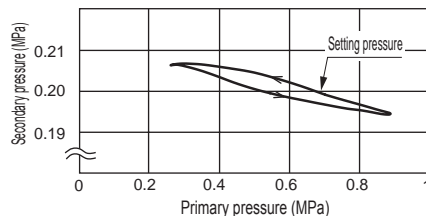
● R3000-W



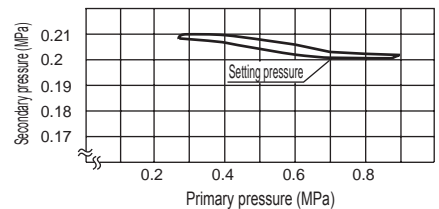
● R4000-W



● R6000-W

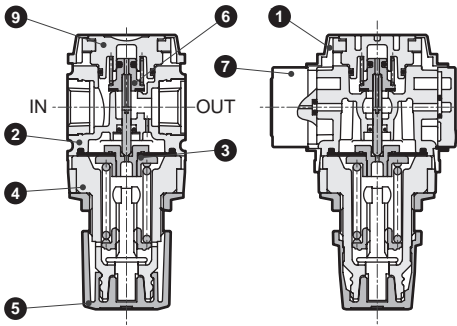


● R8000-W

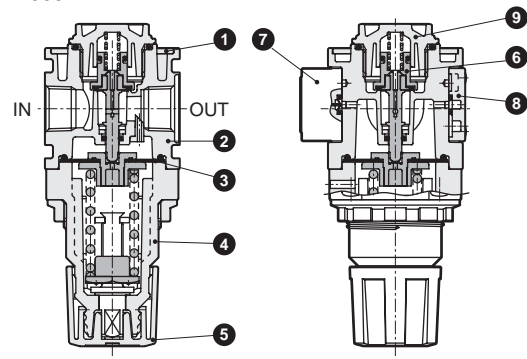


Internal structure and parts list

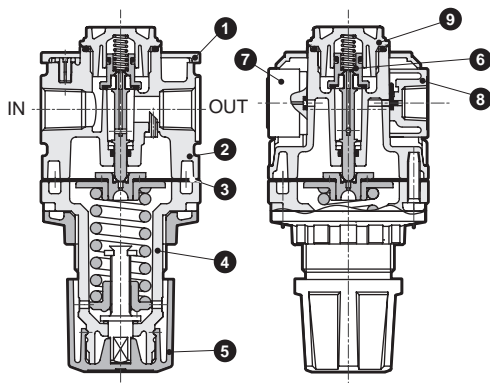
● R1000-W



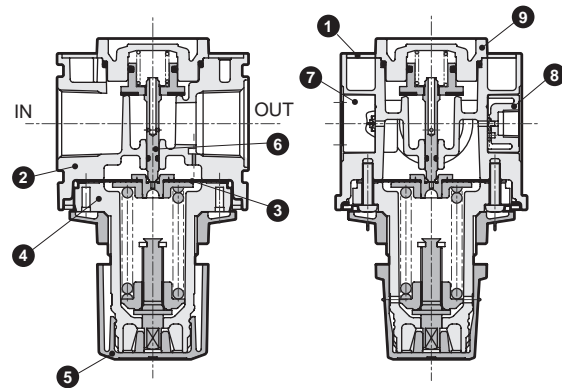
● R2000-W



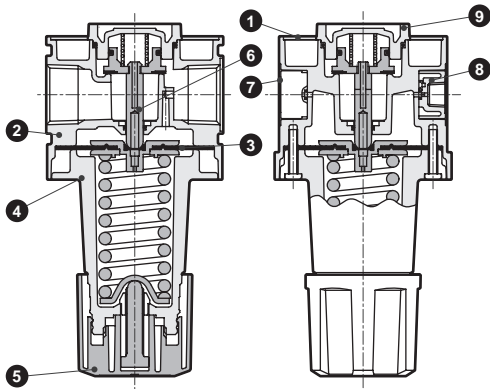
● R3000-W / R4000-W



● R6000-W



● R8000-W



No.	Parts name	Material					
		R1000-W	R2000-W	R3000-W	R4000-W	R6000-W	R8000-W
1	Plate cover	ABS resin					
2	Body	Polyamide resin, steel	Aluminum alloy die-casting	Aluminum alloy die-casting			
3	Diaphragm assembly	Polyacetal resin, nitrile rubber		Zinc alloy die-casting, nitrile rubber Note 3			
4	Cover	Polyamide resin	PBT resin				Aluminum alloy die-casting
5	Knob	Polyacetal resin					
6	Valve assembly	Brass, hydrogen nitrile rubber (polyacetal resin: R2000, R3000, 4000, 8000)					
7	Pressure gauge assembly	PBT resin, nitrile rubber, polyacetal resin, polycarbonate resin, brass, steel					
8	Gage plug assembly	Polyamide resin, nitrile rubber, steel					
	Blanking plug assembly Note 1	PBT resin, nitrile rubber, copper		-	-	-	-
9	Bottom plug Note 4	Polyacetal resin			Aluminum alloy die-casting		

Note 1: A blank plug is enclosed with the R1000-W standard type.

Note 2: Refer to page 393 for repair parts.

Note 3: Aluminum is added for the R6000-W low-pressure type.

Note 4: The material of RM3000-W and RM4000-W is aluminum die-casting.

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

Standard series
F.R.L. unit

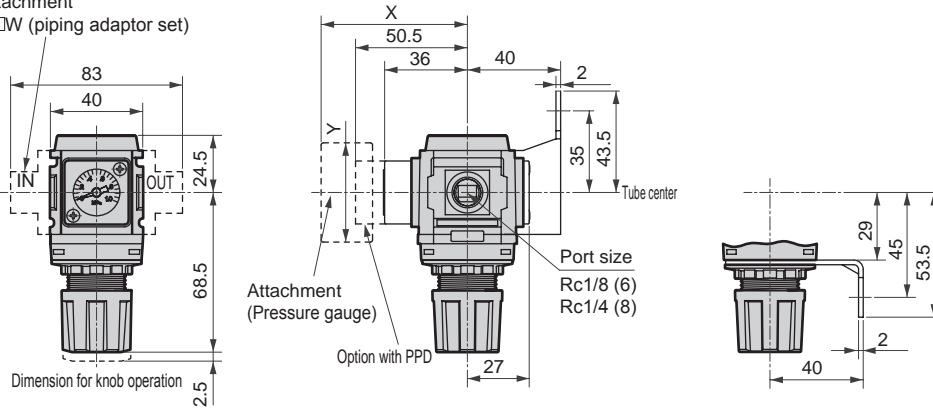
Regulator Series

Dimensions



● R1000-W

Attachment
A□W (piping adaptor set)



Panel cut dimension



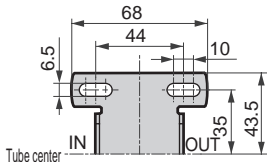
Panel plate thickness: Max. 6 mm

Pressure gauge attached optional dimensions table

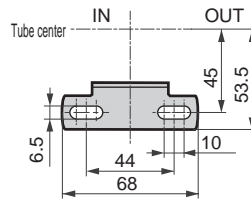
Attached pressure gauge	X	Y
G45P	(74)	∅39
G49P	(73.5)	∅43.5
G59P	(76)	∅52
G40P	(75.5)	∅42.5
G50P	(75.5)	∅52.5
G41P	(74)	∅42
G52P	(86)	∅52.5
R2	(74)	□30

● Attachment

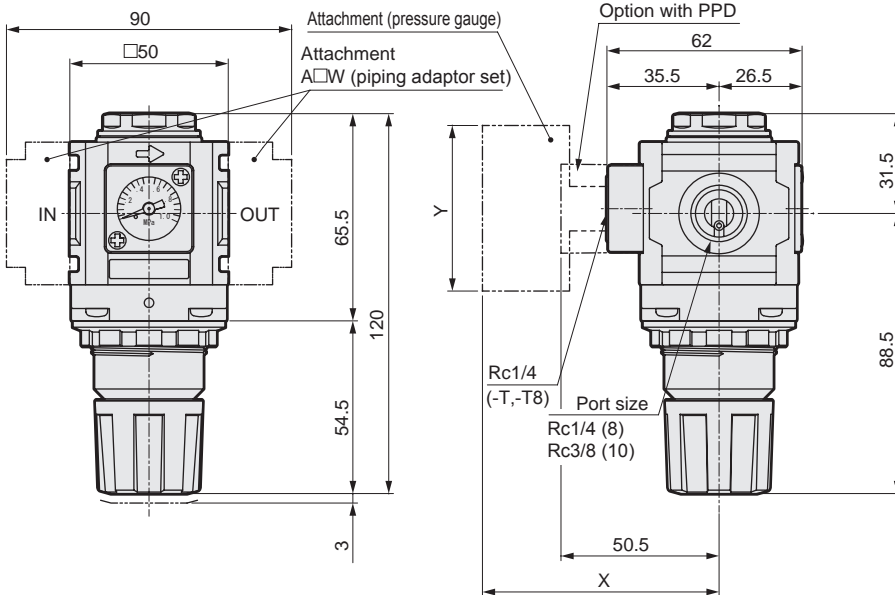
C type bracket (-BW)
Part model no.: B120



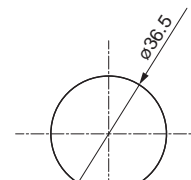
L type bracket (-B3W)
Part model no.: B130



● R2000-W



Panel cut dimension

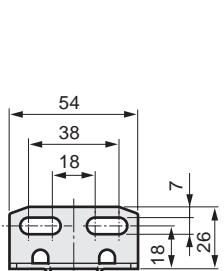


Panel plate thickness: Max. 4 mm

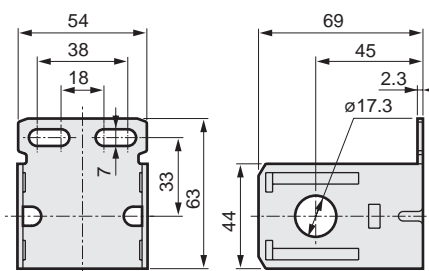
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G45P	(73.5)	∅39
G49P	(73)	∅43.5
G59P	(75.5)	∅52
G40P	(75)	∅42.5
G50P	(75)	∅52.5
G41P	(73.5)	∅42
G52P	(85.5)	∅52.5
R2	(73)	□30

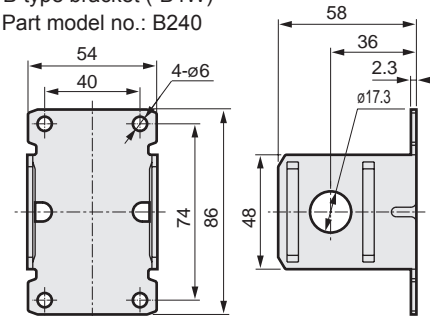
● L type bracket (-B3W)
Part model no.: B230



● C type bracket (-BW)
Part model no.: B220



● B type bracket (-B4W)
Part model no.: B240

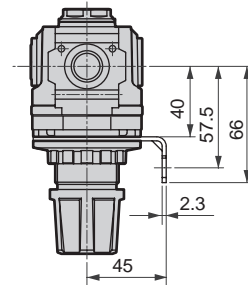
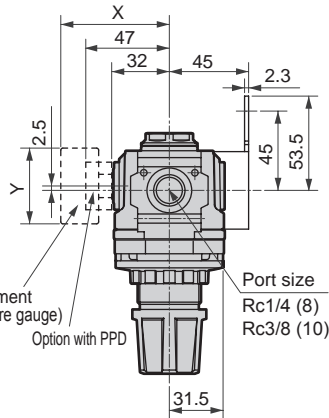
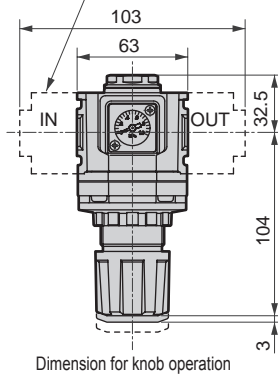


Dimensions

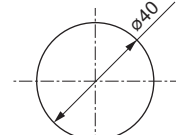


● R3000-W

Attachment
A□W (piping adaptor set)



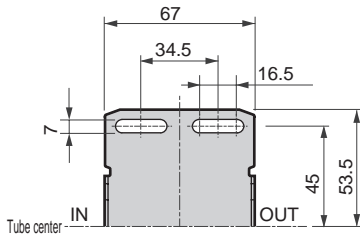
Panel cut dimension



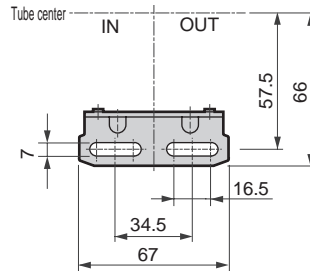
Panel plate thickness: Max. 7 mm

• Attachment (C type bracket)

C type bracket (-BW)
Part model no.: B320



L type bracket (-B3W)
Part model no.: B330

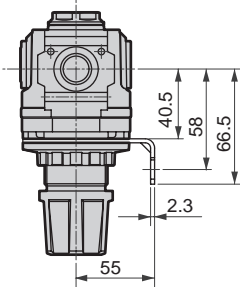
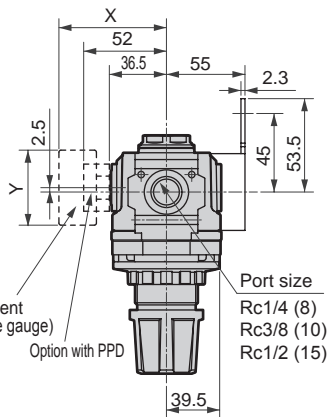
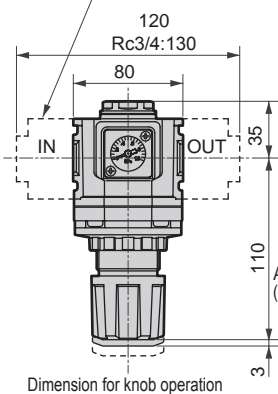


Pressure gauge attached optional dimensions table

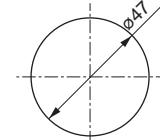
Attached pressure gauge	X	Y
G45P	(70)	∅39
G49P	(69.5)	∅43.5
G59P	(72)	∅52
G40P	(71.5)	∅42.5
G50P	(71.5)	∅52.5
G41P	(70)	∅42
G52P	(82)	∅52.5
R2	(69.5)	□30

● R4000-W

Attachment
A□W (piping adaptor set)



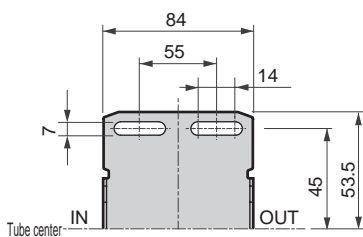
Panel cut dimension



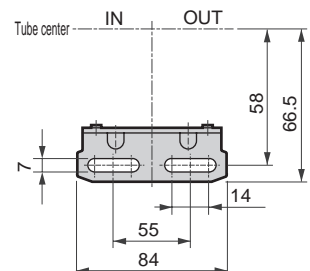
Panel plate thickness: Max. 7 mm

• Attachment

C type bracket (-BW)
Part model no.: B420



L type bracket (-B3W)
Part model no.: B430



Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G45P	(75)	∅39
G49P	(74.5)	∅43.5
G59P	(77)	∅52
G40P	(76.5)	∅42.5
G50P	(76.5)	∅52.5
G41P	(75)	∅42
G52P	(86)	∅52.5
R2	(75)	□30

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

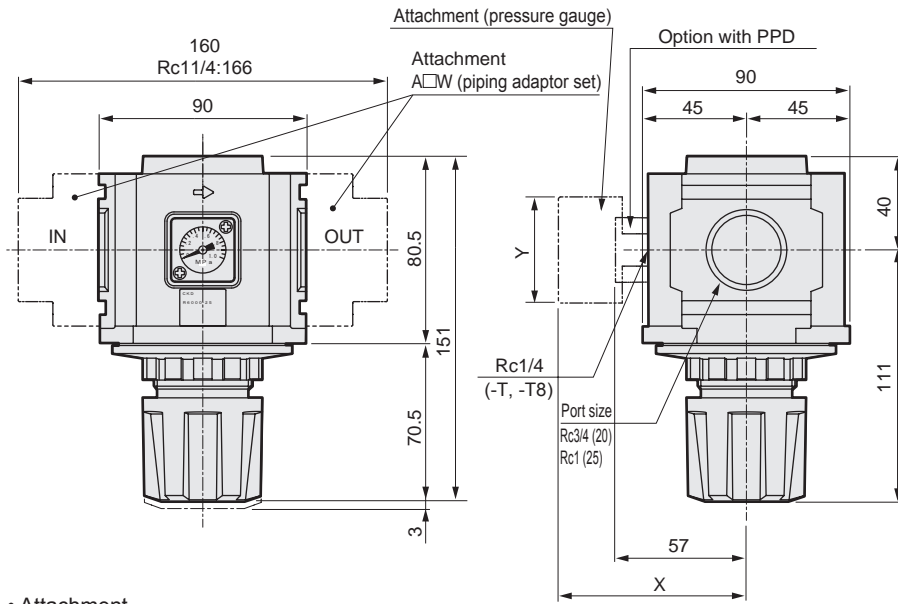
Standard series
F.R.L. unit

Regulator Series

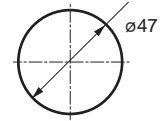
Dimensions



● R6000-W



Panel cut dimension

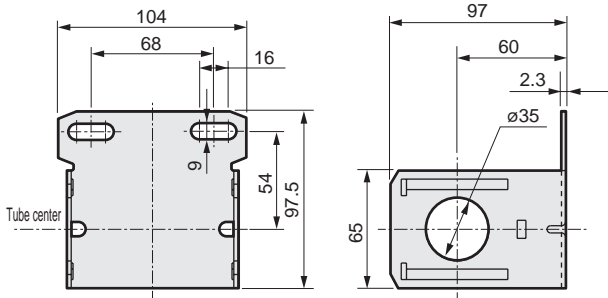


Pressure gauge attached optional dimensions table

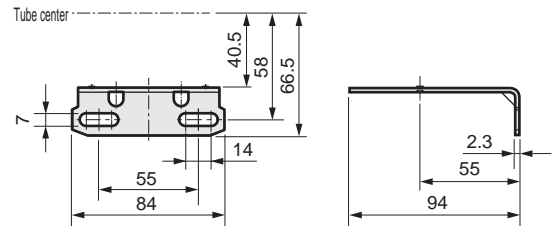
Attached pressure gauge	X	Y
G45P	(80)	ø39
G49P	(79.5)	ø43.5
G59P	(82)	ø52
G40P	(81.5)	ø42.5
G50P	(87.5)	ø52.5
G41P	(80)	ø42
G52P	(93)	ø52.5
R2	(80)	□30

• Attachment

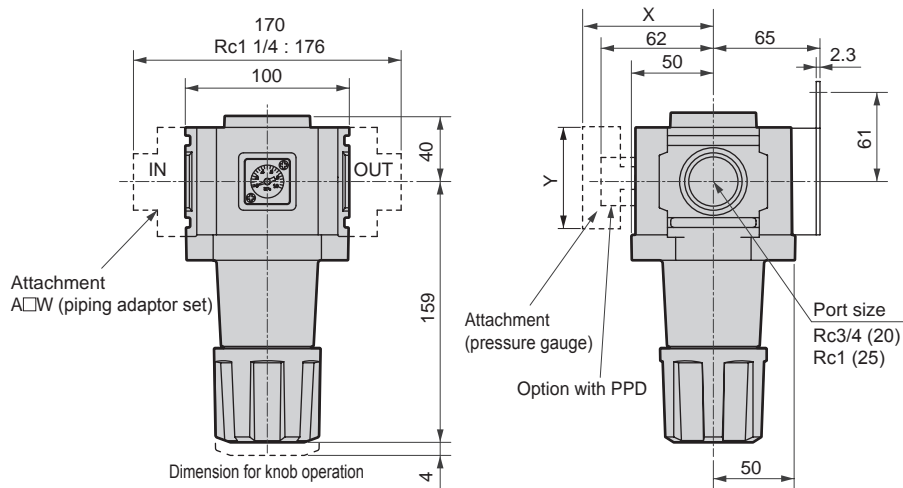
C type bracket (-BW)
Part model no.: B620



L type bracket (-B3W)
Part model no.: B430

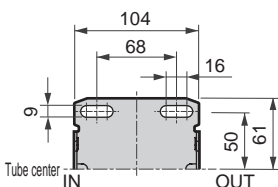


● R8000-W



• Attachment

C type bracket (-BW)
Part model no.: B820



Pressure gauge attached optional dimensions table

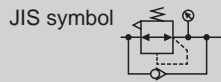
Attached pressure gauge	X	Y
G45P	(85)	ø39
G49P	(84.5)	ø43.5
G59P	(87)	ø52
G40P	(86.5)	ø42.5
G50P	(86.5)	ø52.5
G41P	(85)	ø42
G52P	(98)	ø52.5
R2	(85)	□30



Reverse regulator standard white Series

R1100/R2100/R3100 R4100/R6100/R8100-W Series

From secondary pressure to primary pressure with back flow function
Port size: 1/8 to 1



Specifications

Descriptions	R1100-W	R2100-W	R3100-W	R4100-W	R6100-W	R8100-W
Appearance						
Working fluid	Compressed air					
Max. working pressure MPa	1.0					
Withstanding pressure MPa	1.5					
Ambient temperature range °C	5 to 60					Note 2
Set pressure range (Note 1) MPa	0.05 to 0.85					
Relief	With relief mechanism					
Port size Rc, NPT, G	1/8, 1/4 (3/8 uses an adaptor)	1/4, 3/8 (1/2 uses an adaptor)	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)	3/4, 1 (1 1/4 uses an adaptor)
Product weight kg	0.16	0.31	0.45	0.7	1.0	1.6
Standard accessories	Pressure gauge, nut for panel mount					Pressure gauge

Note 1: Refer to the set pressure range for the back pressure given on page 388 when selecting the model.

Note 2: The working temperature range of the pressure switch with indicator PPD assembly "R1" is 5 to 50°C.

Note 3: Check that the primary pressure is at least 0.05 MPa or more than the secondary pressure.

Ozone specifications (Ending 13)

R*100 - ...W... - **P11**

Clean room specifications (catalog No. CB-033S)

● Dust generation preventing structure for use in cleanrooms

R*100 - - **P7***

Secondary battery compatible specifications (catalog No. CC-947)

● Structured for use in secondary battery manufacturing processes

R*100 - - **P4***

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

		A Model no.					
		R1100	R2100	R3100	R4100	R6100	R8100
F Piping adaptor set (attached)							
Symbol	Descriptions						
B Port size							
6	1/8	●					
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 Note 4	●	●	●	●	●
Relief	Blank	With relief mechanism	●	●	●	●	●
	N	Nonrelief type	●	●	●	●	●
Pressure gauge	Blank	With standard pressure gauge (G401-W)	●	●	●	●	●
	T	W/o pressure gauge (pressure gauge port (Rc1/4) is assembled with sealed)	●	●	●	●	●
	T8	Pressure gauge attached (pressure gauge port (Rc1/4) is assembled by open)	●	●	●	●	●
	T6	Digital pressure sensor PPX attachment option Note 5	●	●	●	●	●
	R1	Pressure switch with display PPD assembly Note 6	●	●	●	●	●
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)							
		Note 7, Note 8 page 428					
Blank	Not attached	●	●	●	●	●	●
A6*W	Rc1/8 piping adaptor set	●					
A8*W	Rc1/4 piping adaptor set	●	●	●	●		
A10*W	Rc3/8 piping adaptor set	●	●	●	●		
A15*W	Rc1/2 piping adaptor set		●	●	●		
A20*W	Rc3/4 piping adaptor set				●	●	●
A25*W	Rc1 piping adaptor set					●	●
A32*W	Rc1 1/4 piping adaptor set					●	●
*Adaptor screw type							
Blank	Rc thread	●	●	●	●	●	●
N	NPT thread	●	●	●	●	●	●
G	G thread	●	●	●	●	●	●
G Attachment (attached)							
		Note 9 pages 425, 659					
Blank	Not attached	●	●	●	●	●	●
BW	C type bracket	●	●	●	●	●	●
B3W	L type bracket Note 10	●	●	●	●	●	●
B4W	B type bracket		●				
G45P	G45D-8-P10(L:G45D-8-P04)	●	●	●	●	●	●
G49P	G49D-8-P10(L:G49D-8-P04)	●	●	●	●	●	●
G59P	G59D-8-P10(L:G59D-8-P04)	●	●	●	●	●	●
G40P	G40D-8-P10(L:G40D-8-P04)	●	●	●	●	●	●
G50P	G50D-8-P10(L:G50D-8-P04)	●	●	●	●	●	●
G41P	G41D-8-P10(L:G41D-8-P04)	●	●	●	●	●	●
G52P	G52D-8-P10(L:G52D-8-P10)	●	●	●	●	●	●
R2 Note 5	Digital pressure sensor: PPX-R10N-6M	●	●	●	●	●	●

Note on model no. selection

- Note 1:When G threads or NPT threads are selected, the IN, OUT and gauge port are the target.
- 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:When "D" option "T6" is selected, only "Blank" or "R2" can be selected for pressure gauge (enclosed). The digital pressure sensor PPX mounting port (Rc1/8) is assembled by open.
- Note 6:The output type is NPN transistor output. Consult with CKD when the PNP transistor output is required.
- Note 7:The C-type bracket and piping adaptor set attachments cannot be used at the same time.
- Note 8:The joiner set is enclosed with the piping adaptor set.
- Note 9:If NPT is selected for the "C" piping thread, a NPT pressure gauge is enclosed. If Rc or G thread is selected, an R thread pressure gauge is enclosed.
- Note 10:Refer to Section (2. Regulator), in "PRECAUTIONS for Installation and Adjustment" (page 279) for details on mounting the L-type bracket.

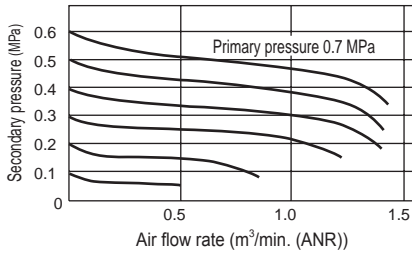
Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve /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

Regulator Series

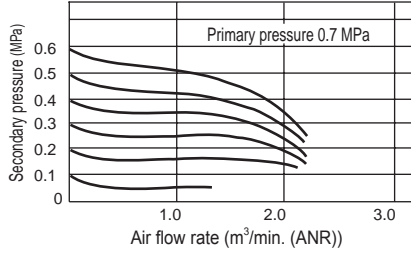
Flow characteristic

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

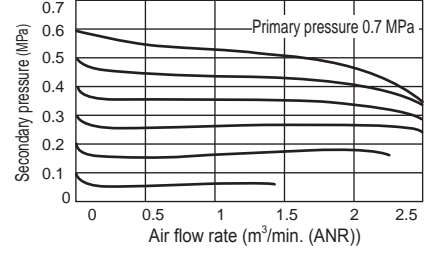
● R1100-6-W



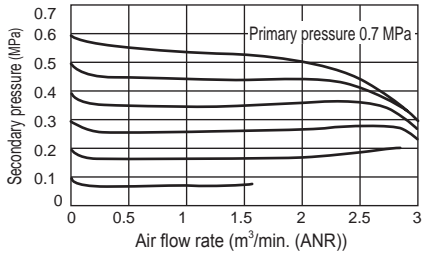
● R1100-8-W



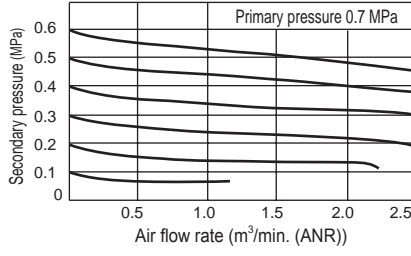
● R2100-8-W



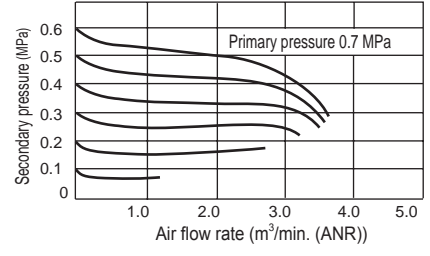
● R2100-10-W



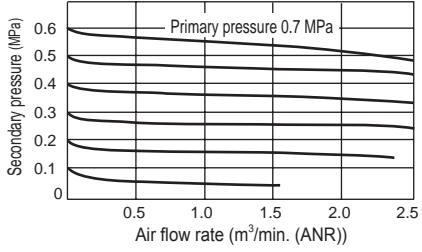
● R3100-8-W



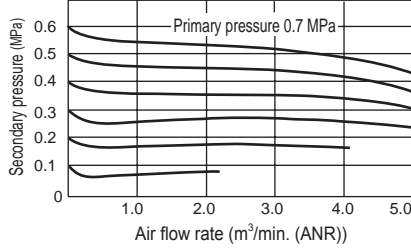
● R3100-10-W



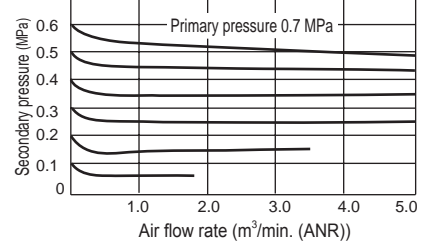
● R4100-8-W



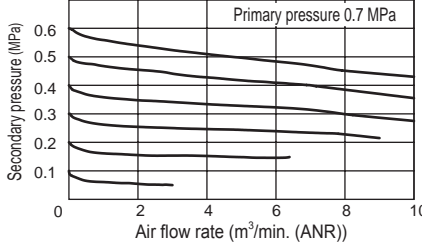
● R4100-10-W



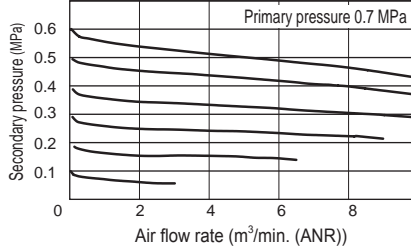
● R4100-15-W



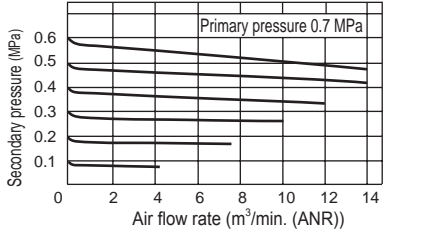
● R6100-20-W



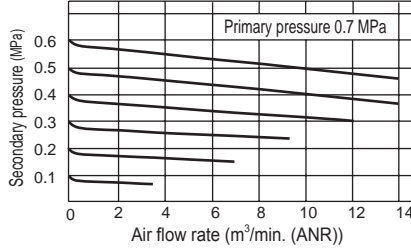
● R6100-25-W



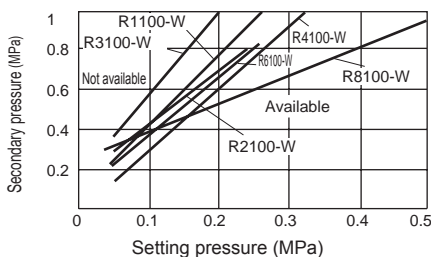
● R8100-20-W



● R8100-25-W



● Set pressure range to back pressure

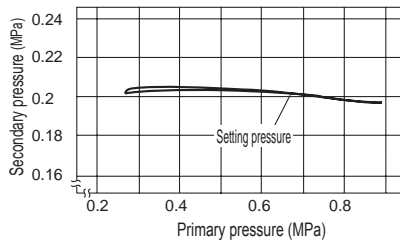


Note: The upper side of the graph is nonusable and the lower side usable.

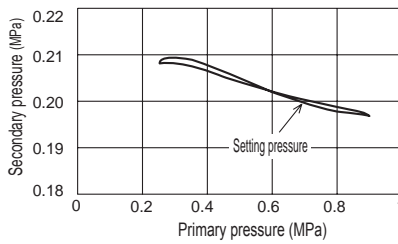
Example: If R4100-W is set to set pressure 0.2 MPa and the secondary back pressure is 0.6 MPa or more, the secondary pressure will not be released to the primary side.

Pressure characteristic

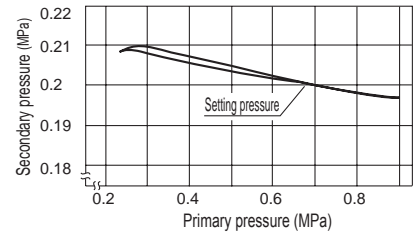
● R1100-W



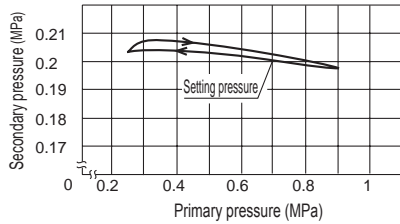
● R2100-W



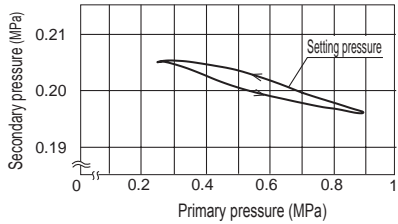
● R3100-W



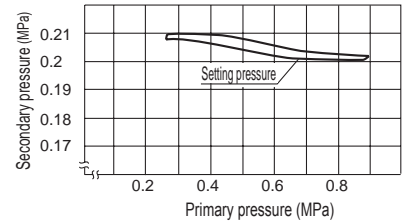
● R4100-W



● R6100-W

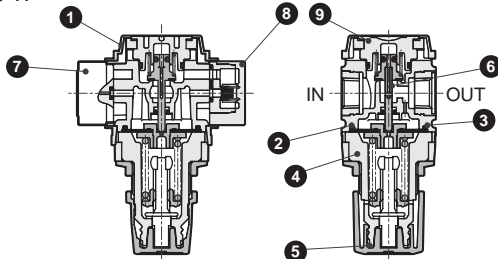


● R8100-W

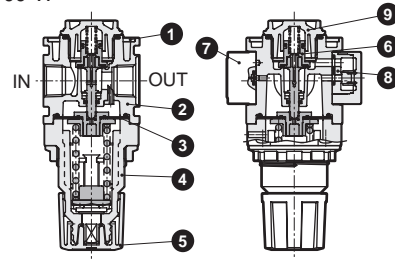


Internal structure and parts list

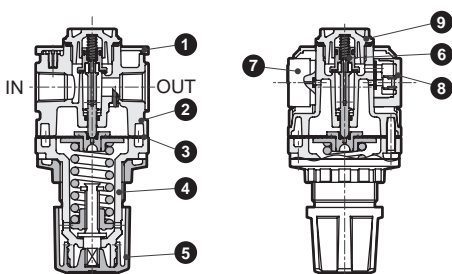
● R1100-W



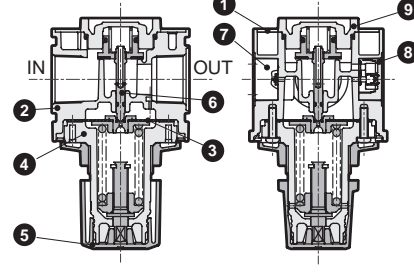
● R2100-W



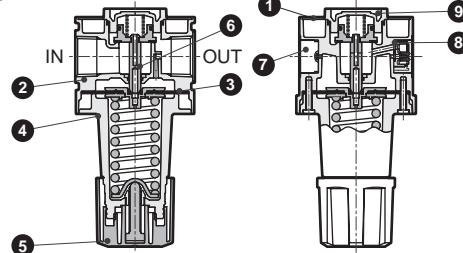
● R3100-W / R4100-W



● R6100-W



● R8100-W



No.	Parts name	Material					
		R1100-W	R2100-W	R3100-W	R4100-W	R6100-W	R8100-W
1	Plate cover	ABS resin					
2	Body	Polyamide resin, steel	Aluminum alloy die-casting				
3	Diaphragm assembly	Polyacetal resin, nitrile rubber		Zinc alloy die-casting, nitrile rubber Note 2			
4	Cover	Polyamide resin	PBT resin			Aluminum alloy die-casting	
5	Knob	Polyacetal resin					
6	Valve assembly	Brass, hydrogen nitrile rubber (polyacetal resin: R2100-W, 3100-W, 4100-W, 8100-W)					
7	Pressure gauge assembly	PBT resin, nitrile rubber, polyacetal resin, polycarbonate resin, brass, steel					
8	Check valve total assembly	PBT resin, nitrile rubber, stainless steel wire, steel					
9	Bottom plug	Polyacetal resin				Aluminum alloy die-casting	

Note 1: Refer to page 393 for repair kits.

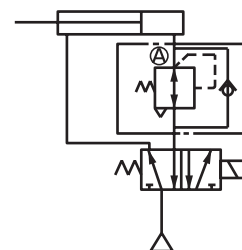
Note 2: Aluminum is added for the R6000-W low-pressure type.

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

Standard series
F.R.L. unit

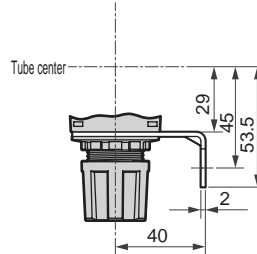
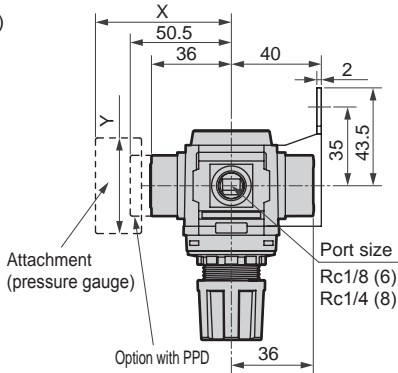
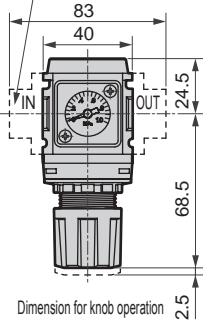
Regulator Series

Dimensions



● R1100-W

Attachment
A□W (piping adaptor set)

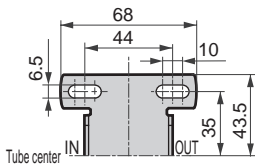


Panel cut dimension

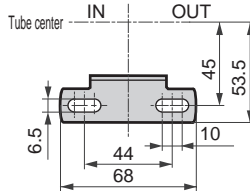


● Attachment

C type bracket (-BW)
Part model no.: B120



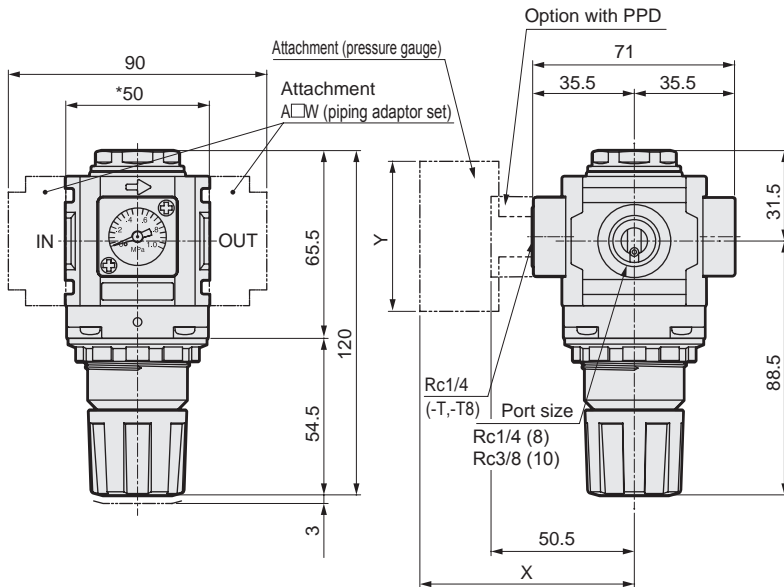
L type bracket (-B3W)
Part model no.: B130



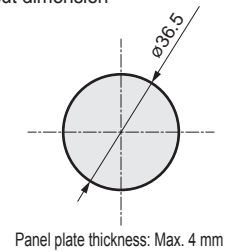
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G45P	(74)	$\phi 39$
G49P	(73.5)	$\phi 43.5$
G59P	(76)	$\phi 52$
G40P	(75.5)	$\phi 42.5$
G50P	(75.5)	$\phi 52.5$
G41P	(74)	$\phi 42$
G52P	(86)	$\phi 52.5$
R2	(74)	$\square 30$

● R2100-W



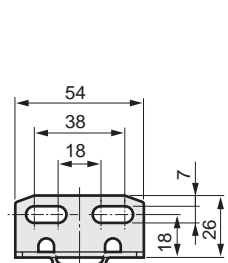
Panel cut dimension



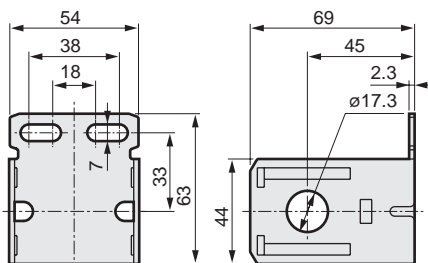
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G45P	(73.5)	$\phi 39$
G49P	(73)	$\phi 43.5$
G59P	(75.5)	$\phi 52$
G40P	(75)	$\phi 42.5$
G50P	(75)	$\phi 52.5$
G41P	(73.5)	$\phi 42$
G52P	(85.5)	$\phi 52.5$
R2	(73)	$\square 30$

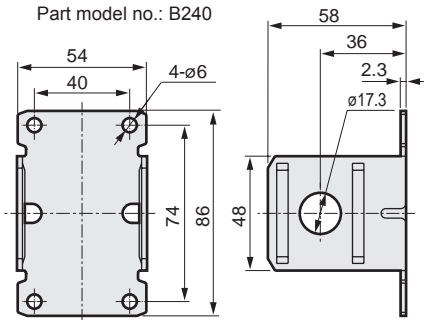
● L type bracket (-B3W)
Part model no.: B230



● C type bracket (-BW)
Part model no.: B220



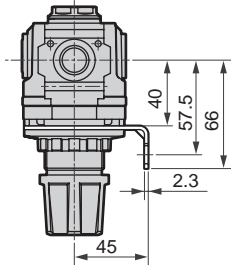
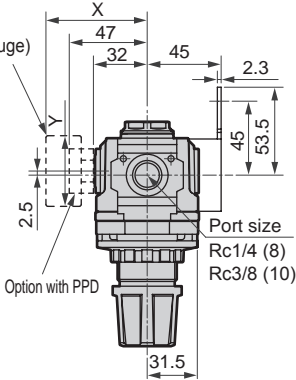
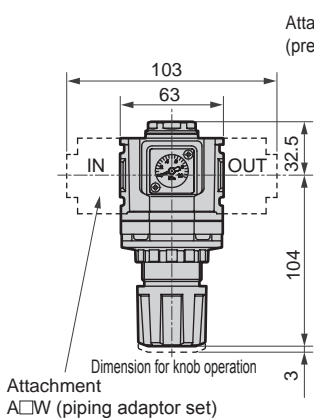
● B type bracket (-B4W)
Part model no.: B240



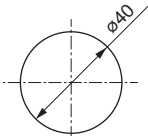
Dimensions



● R3100-W

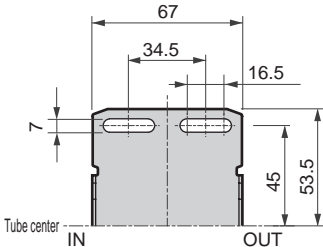


Panel cut dimension

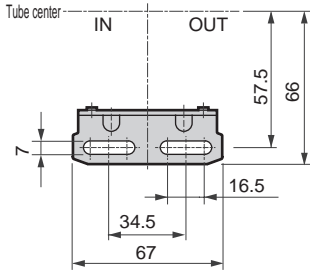


Panel plate thickness: Max. 7 mm

- Attachment
C type bracket (-BW)
Part model no.: B320



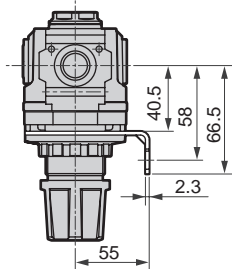
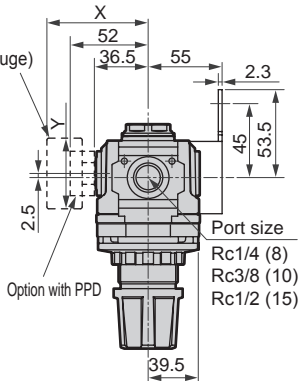
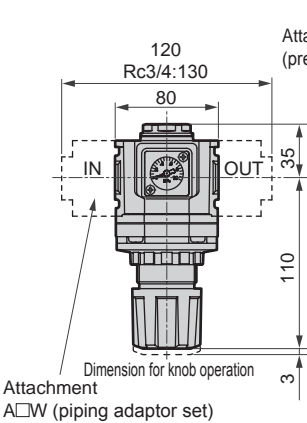
- L type bracket (-B3W)
Part model no.: B330



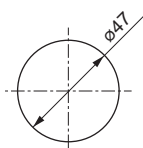
Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G45P	(70)	∅39
G49P	(69.5)	∅43.5
G59P	(72)	∅52
G40P	(71.5)	∅42.5
G50P	(71.5)	∅52.5
G41P	(70)	∅42
G52P	(82)	∅52.5
R2	(69.5)	□30

● R4100-W

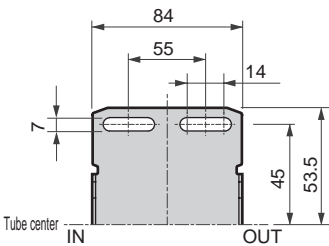


Panel cut dimension

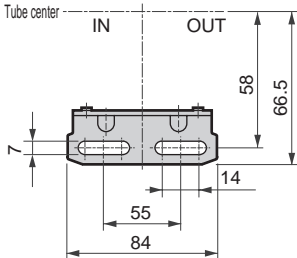


Panel plate thickness: Max. 7 mm

- Attachment
C type bracket (-BW)
Part model no.: B420



- L type bracket (-B3W)
Part model no.: B430



Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G45P	(75)	∅39
G49P	(74.5)	∅43.5
G59P	(77)	∅52
G40P	(76.5)	∅42.5
G50P	(76.5)	∅52.5
G41P	(75)	∅42
G52P	(86)	∅52.5
R2	(75)	□30

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

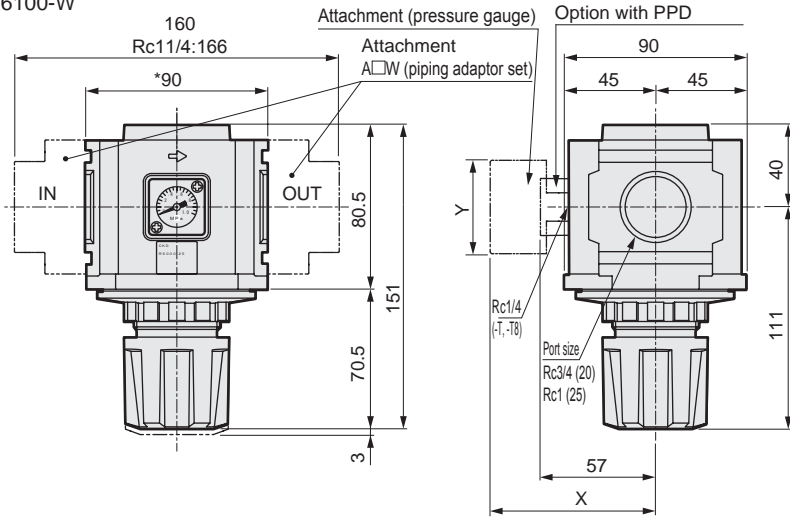
Standard series
F.R.L. unit

Regulator Series

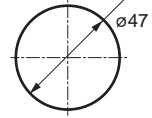
Dimensions



● R6100-W



Panel cut dimension



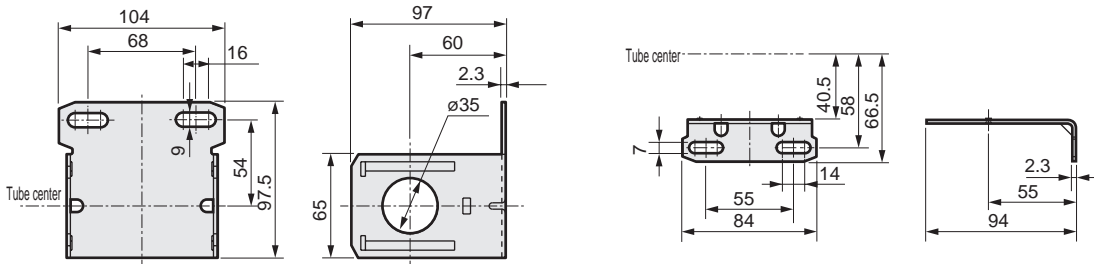
Pressure gauge optional dimensions table

Attached pressure gauge	X	Y
G45P	(80)	ø39
G49P	(79.5)	ø43.5
G59P	(82)	ø52
G40P	(81.5)	ø42.5
G50P	(81.5)	ø52.5
G41P	(80)	ø42
G52P	(93)	ø52.5
R2	(80)	□30

• Attachment

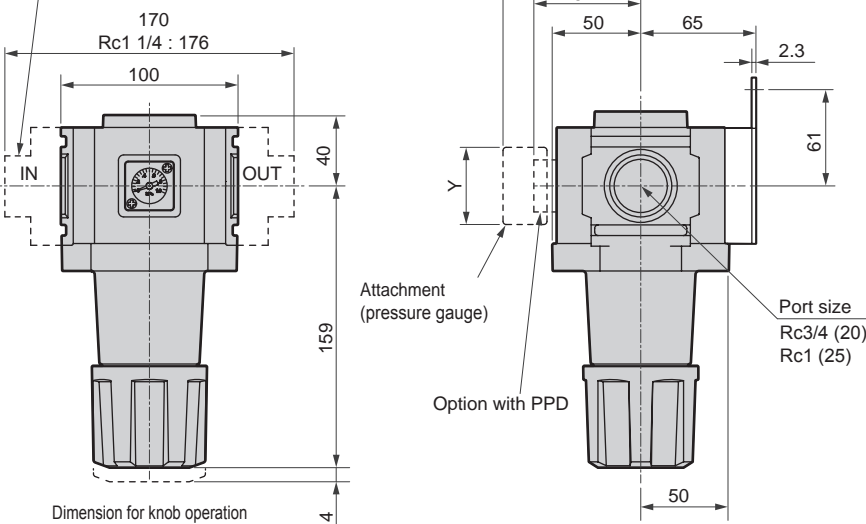
C type bracket (-BW)
Part model no.: B620

L type bracket (-B3W)
Part model no.: B430



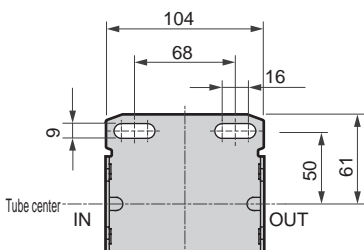
● R8100-W

Attachment
A□W (piping adaptor set)



• Attachment

C type bracket (-BW)
Part model no.: B820



Pressure gauge attached optional dimensions table

Attached pressure gauge	X	Y
G45P	(85)	ø39
G49P	(84.5)	ø43.5
G59P	(87)	ø52
G40P	(86.5)	ø42.5
G50P	(86.5)	ø52.5
G41P	(85)	ø42
G52P	(98)	ø52.5
R2	(85)	□30

Optional parts diagram

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

Repair kits model no. Model	Relief diaphragm assembly	Nonrelief diaphragm assembly
R1000-W, R1100-W	R1000-KIT	R1000-KIT-N
R2000-W, R2100-W	R2000-W-KIT	R2000-W-KIT-N
R3000-W, R3100-W, RM3000-W	R3000-KIT	R3000-KIT-N
R4000-W, R4100-W, RM4000-W	R4000-KIT	R4000-KIT-N
R6000-W, R6100-W	R6000-KIT R6000-KIT-L (low pressure range)	R6000-KIT-N R6000-KIT-LN (low pressure range)
R8000-W, R8100-W	R8000-KIT	R8000-KIT-LN

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

Model	Valve assembly model no.
R1000-W, R1100-W	R1000-VALVE-ASSY
R2000-W, R2100-W	R2000-W-VALVE-ASSY
R3000-W, R3100-W, RM3000-W	R3000-VALVE-ASSY
R4000-W, R4100-W, RM4000-W	R4000-VALVE-ASSY
R6000-W, R6100-W	R6000-VALVE-ASSY
R8000-W, R8100-W	R8000-VALVE-ASSY

* Refer to page 672 for the gauge plug assembly.

Check valve assembly for reverse regulator

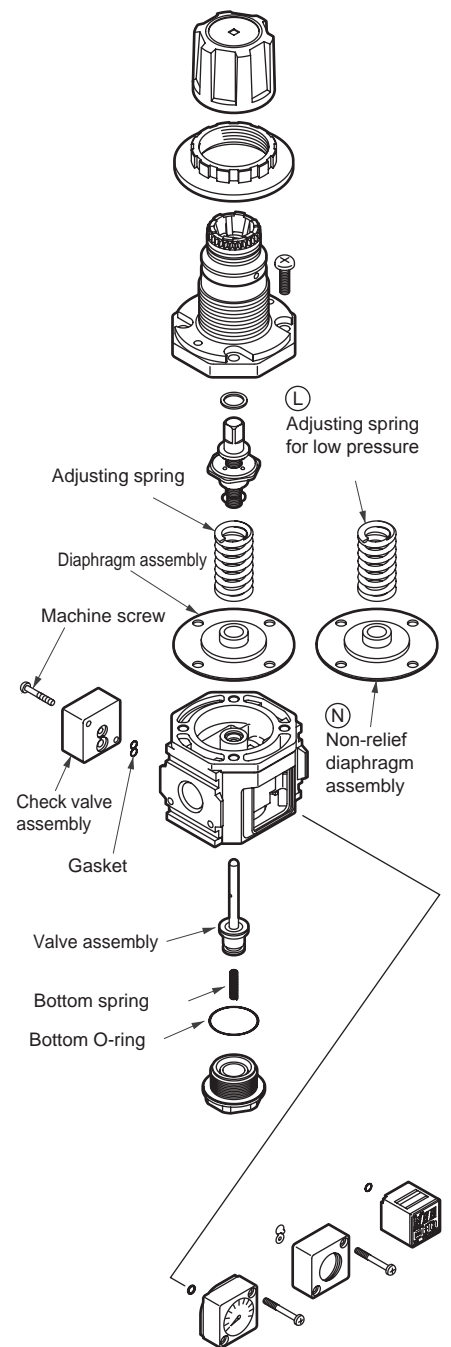
Model	Check valve assembly model no.
R1000-W, R1100-W	R1100-W-CHECK-VALVE-ASSY
R2100-W	R3100-W-CHECK-VALVE-ASSY
R3100-W, RM3000-W, W3100-W R4100-W, RM4000-W, W4100-W R6100-W, R8100-W W8100-W	R3100-W-CHECK-VALVE-ASSY

Adjusting spring

Adjusting spring model no. Model	Standard spring (0.05 to 0.85MPa)	Spring for low pressure (0.05 to 0.35MPa)
R1000-W, R1100-W W1000-W, W1100-W	R1000-SPRING	R1000-SPRING-L
R2000-W, R2100-W	R2000-W-SPRING	R2000-W-SPRING-L
R3000-W, R3100-W, RM3000-W W3000-W, W3100-W	R3000-SPRING	R3000-SPRING-L
R4000-W, R4100-W, RM4000-W W4000-W, W4100-W	R4000-SPRING	R4000-SPRING-L
R8000-W, R8100-W	R8000-SPRING	R8000-SPRING-L
W8000-W, W8100-W	W8000-SPRING	W8000-SPRING-L

Diaphragm assembly (only diaphragm assembly)

Diaphragm assembly model no. Model	Relief type diaphragm	Nonrelief type diaphragm
R1000-W, R1100-W W1000-W, W1100-W	R1000-DIAPHRAGM-ASSY	R1000-DIAPHRAGM-ASSY-N
R2000-W, R2100-W	R2000-DIAPHRAGM-ASSY	R2000-DIAPHRAGM-ASSY-N
R3000-W, R3100-W, RM3000-W W3000-W, W3100-W	R3000-DIAPHRAGM-ASSY	R3000-DIAPHRAGM-ASSY-N
R4000-W, R4100-W, RM4000-W W4000-W, W4100-W	R4000-DIAPHRAGM-ASSY	R4000-DIAPHRAGM-ASSY-N
R6000-W, R6100-W	R6000-DIAPHRAGM-ASSY R6000-DIAPHRAGM-ASSY-L (low pressure range)	R6000-DIAPHRAGM-ASSY-N R6000-DIAPHRAGM-ASSY-LN (low pressure range)
R8000-W, R8100-W	R8000-DIAPHRAGM-ASSY	R8000-DIAPHRAGM-ASSY-N
W8000-W, W8100-W	W8000-DIAPHRAGM-ASSY	W8000-DIAPHRAGM-ASSY-N



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

Standard series
F.R.L. unit