

Discontinue

2419/2400/2401/2415 Series

Reverse regulator (check valve integrated)

Smoothly exhausting secondary pressure by check valve. No by-pass circuit required and easy piping.

● Port size: Rc1/8 to Rc 11/4

JIS symbol



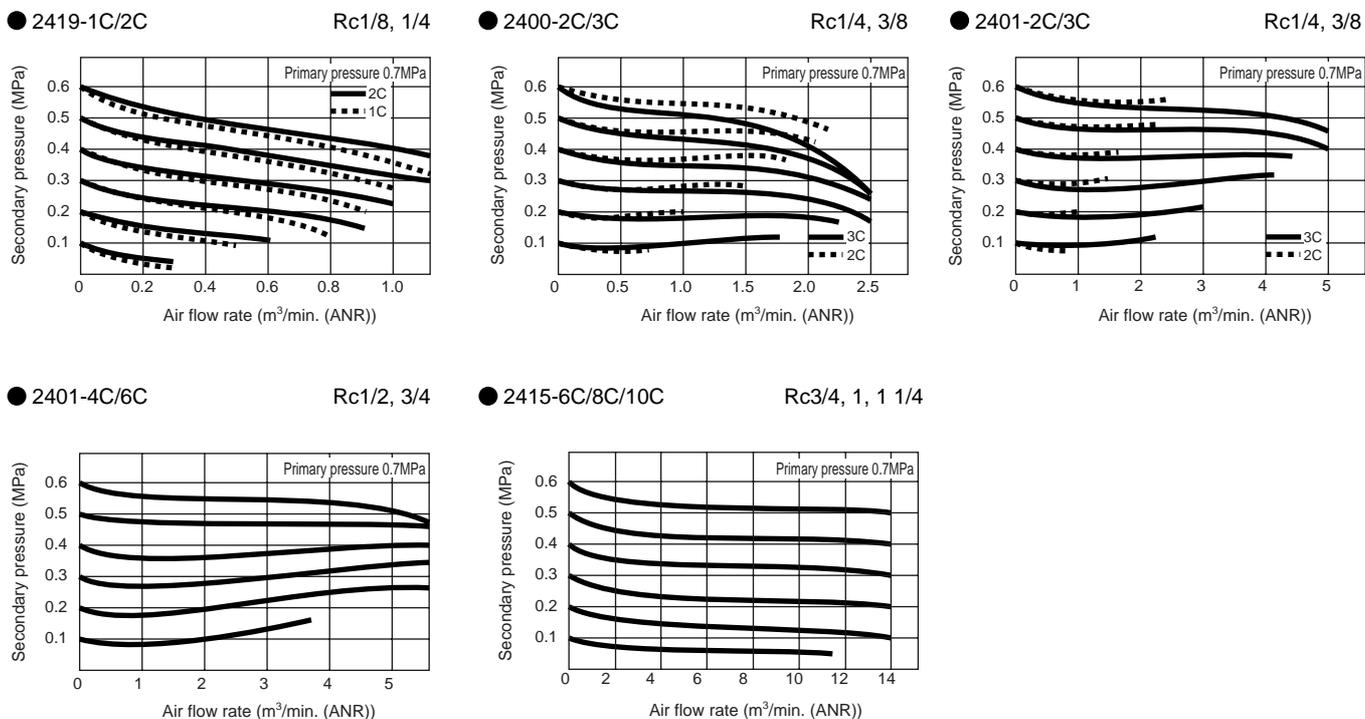
Specifications

Descriptions	Discontinued			
	2419-1C/2C	2400-2C/3C	2401-2C/3C/4C/6C	2415-6C/8C/10C
Appearance				
Working fluid	Compressed air			
Max. working pressure MPa	1.0			
Withstanding pressure MPa	1.5			
Fluid temperature (ambient temperature) °C	5 to 65			
Set pressure range MPa	0.04 to 0.83	0.03 to 0.83		0.07 to 0.83
Relief	With relief mechanism			
Port size Rc	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2, 3/4	3/4, 1, 1 1/4
Product weight kg	0.2	0.6	1.2	2.5

Note 1: Refer to the set pressure range for the back pressure given on page 583.

Note 2: Pressure gauge of "LG" has 0 to 0.4MPa range.

Flow characteristic



Ozone specifications (Ending 18)

Copper and PTFE free (page 606)

2400- - P11

2419- - P6

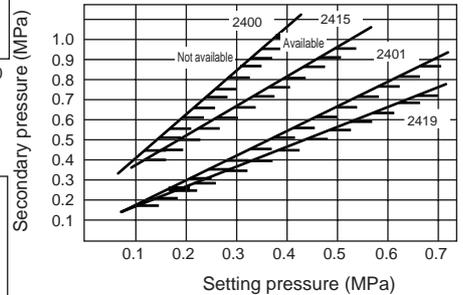
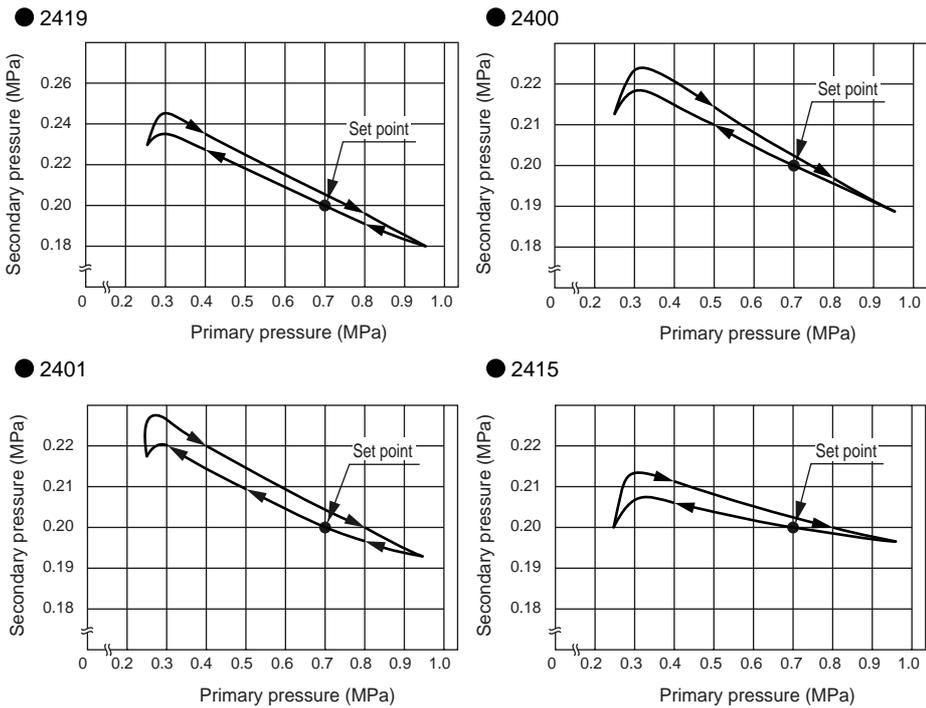
2415- - P11

Pressure characteristic

Note on model no. selection

Always refer to the following graph for the set pressure range for back pressure. For example, if the set pressure of a model 2401 is set to 0.3 MPa and the secondary side back pressure increases more than 0.42 MPa, secondary pressure is not released to the primary side.

Set pressure range for back pressure



How to order



A Model no.

B Port size
Note 1

C Option
Note 2
Note 3
Note 4
Note 5
Note 6

<Example of model number>

2419-1C-NLGB
Model: Reverse regulator
(check valve integrated)

B Port size: Rc1/8

C Option: Non-relief,
low pressure, pressure gauge attached,
bracket attached

Note on model no. selection

Note 1: If NPT thread is required, do not indicate nominal size C. (E.g.) 2419-1
If a pressure gauge is selected, the NPT thread pressure gauge is enclosed.

Note 2: Options can be combined.

Note 3: If option "B" and "G" are indicated, a pressure gauge and a bracket are attached.

A pressure gauge, G49D-6-P10 is attached to 2419 type (G49D-6-P04 for flow pressure), while G59D-8-P10 is attached to 2400, 2401 and 2415 type (G50D-8-P04 for low pressure). Refer to related components on page 691 for the specifications on pressure gauge.

Note 4: Consult with CKD if assembly parts are required.

Note 5: Consult with CKD if metal bottom plug of A2400 is required.

Note 6: If option B (bracket) of 2419 is selected, "6506" is attached, while if PB (bracket for panel mount) is selected, bracket of "6166" is attached. Refer to page 608 and 609 for attachment "B" bracket.

Note 7: Refer to page 606 for How to order 2419 copper and PTFE free.

Symbol		Descriptions				
B Port size						
1C	Rc1/8	●				
2C	Rc1/4	●	●	●		
3C	Rc3/8		●	●		
4C	Rc1/2			●		
6C	Rc3/4			●	●	
8C	Rc1				●	
10C	Rc1 1/4				●	
C Option						
Regulator	Blank	Standard	●	●	●	●
	N	Nonrelief	●	●	●	●
	L	Low pressure (0.02 to 0.34MPa)	●	●	●	
	K	Plastic knob		●	●	●
Attachment	P	Panel mount	●	●	●	
	Blank	Not attached	●	●	●	●
	G	Pressure gauge	●	●	●	●
	B	Bracket	●	●	●	

A Model no.				
Miniature	Compact	Standard	Large type	
2419	2400	2401	2415	

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane 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

Reverse regulator
F.R.L. unit

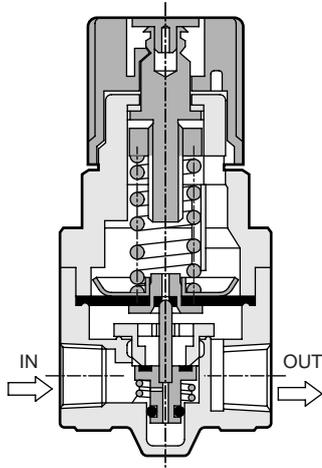
Regulator Series

Internal structure

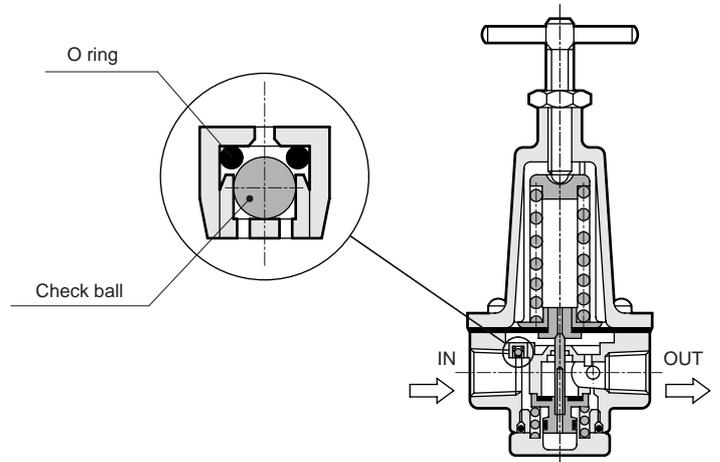
● 2419

● 2400

● 2401



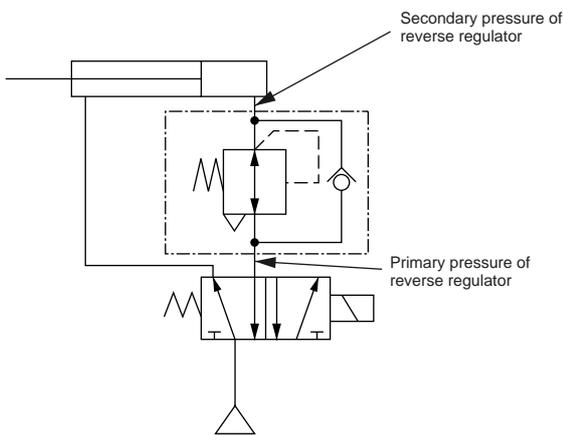
Non-balance type



Applications

● Circuit diagram

When head side and rod side pressure of cylinder differ



Functional explanation

2400/2401

If the primary pressure is applied from IN side, the check ball is forced upward to close as a regulator. If the pressure in the primary side is exhausted by the switching valve, the check ball is forced downward at the same time to exhaust the pressure in the diaphragm room to IN side passing through the check valve. If the pressure in diaphragm room is exhausted to cause pressure drop, the diaphragm on the top is pushed down by the pressure adjustment spring, and the valve seat section opens to exhaust the air in OUT side.

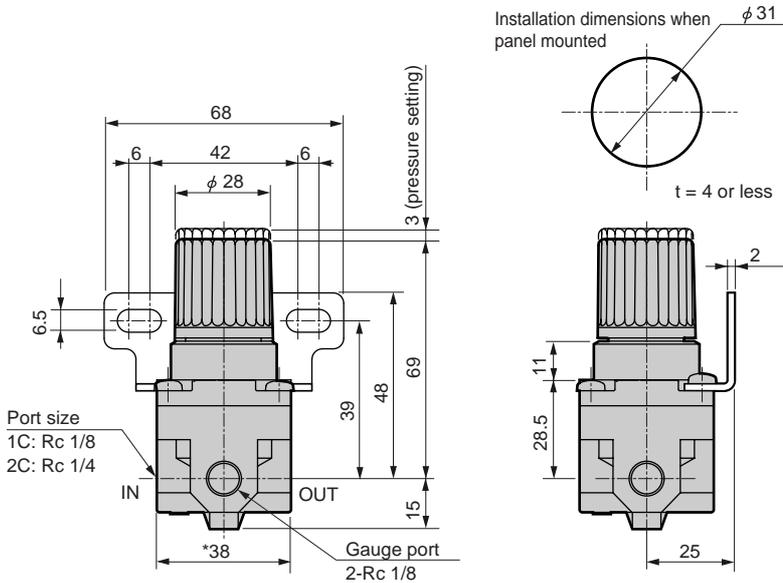
2419 (non-balance type)

Since the primary pressure is received under the main valve (valve assembly), if the primary pressure is exhausted, the holding force of main valve by primary pressure is eliminated to open the main valve. This allows the reverse regulation.

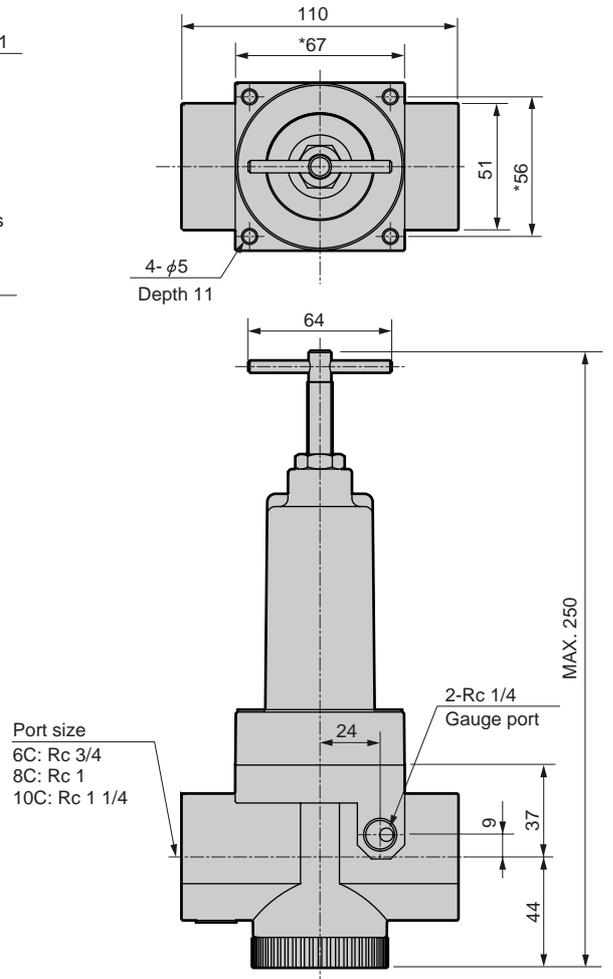
Dimensions



● 2419

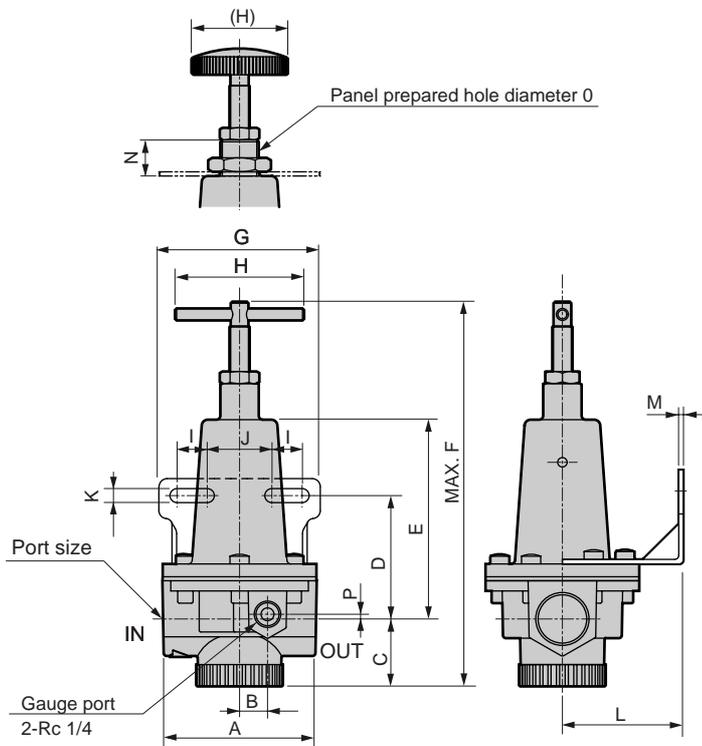


● 2415



● 2400

● 2401



Model no.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Port size
2400	61	7	31	58	56.5	140	80	57 (φ48)	16	32	6.6	62.5	2.3	18	φ18	0	Rc1/4, 3/8
2401-2/3/4C	76.5	14	35	62	97	160	80	63	15	32	7	60	2.3	20	φ20	0	Rc1/4, 3/8, 1/2
2401-6C	76.5	14	33	62	99	162	80	63	15	32	7	60	2.3	20	φ20	2.35	Rc3/4

Note: Refer to pages 608 to 609 for dimensions of bracket.

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane 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
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Reverse regulator
F.R.L. unit