

Regulator

# B2019 Series

● Port size: Rc1/8, Rc1/4

JIS symbol



## Specifications

1 MPa = 10 bar

Item	B2019-1C/2C	
Working fluid	Compressed air	
Max. working pressure	MPa	2.06 (≈300 psi, 20.6 bar)
Proof pressure	MPa	3.09 (≈450 psi, 30.9 bar)
Ambient / fluid temperatures	°C	5 (41°F) to 65 (149°F)
Set pressure	MPa	0.04 (≈5.8 psi) to 0.83 (≈120 psi)
Pressure relief	With relief mechanism	
Port size	Rc	1/8 / 1/4
Weight	kg	0.2

Ozone-proof specifications

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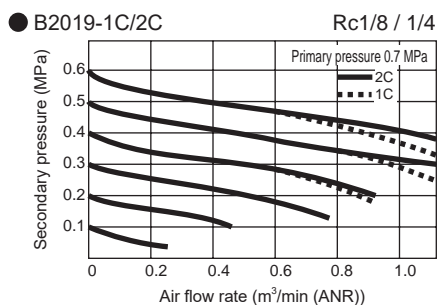
## Option weight

\* Add to the weight of the standard accessories.

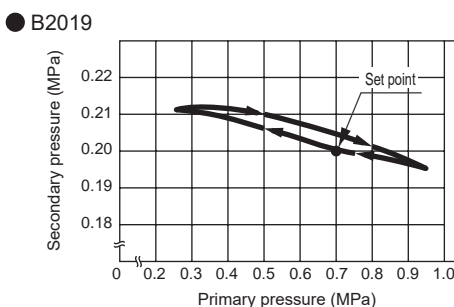
Unit: kg

	Panel mount	Pressure gauge	Bracket
Code	P	G	B
B2019	0	0.086	0.035

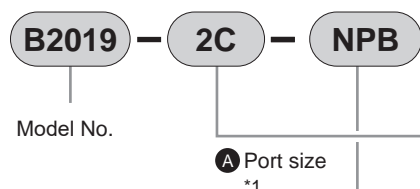
## Flow characteristics



## Pressure characteristics



## How to order



[Example of model No.]

**B2019-2C-NPB**

Model: Regulator

● A Port size: Rc 1/4

● B Option: Non-relief,  
panel mount,  
bracket included

## ⚠ Precautions for model No. selection

\*1 : If port size NPT thread is required, do not indicate nominal size C. (Example) B2019-1

If a pressure gauge is selected, the NPT thread pressure gauge is enclosed.

\*2 : Options can be combined.

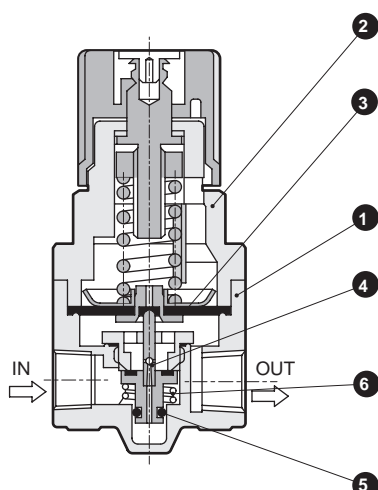
\*3 : If option codes "B" and "G" are indicated, a pressure gauge and a bracket are enclosed.

The pressure gauge supplied is G49D-6-P10 (G49D-6-P04 for low pressure). Refer to related products (page 363) for pressure gauge specifications.

\*4 : If option B (bracket) is selected, a 6506 bracket is enclosed, while if PB (bracket for panel mount) is selected, a 6166 bracket is enclosed. Refer to page 419 for the included product "B" bracket.

Code		Description
A Port size		
1C	Rc1/8	
2C	Rc1/4	
B Option		
Regulator	Blank	Standard
	N	Non-relief
	L	Low pressure (0.02 to 0.34 MPa)
	P	Panel mount
Included product	Blank	Not included
	G	Pressure gauge
	B	Bracket

### Internal structure and parts list



No.	Part name	Material
1	Body	Zinc alloy die-casting
2	Cover	Zinc alloy die-casting
3	Diaphragm assembly	Nitrile rubber, zinc alloy die-casting, steel
4	Valve assembly	Brass/hydrogenated nitrile rubber
5	O-ring	Nitrile rubber
6	Bottom spring	Stainless steel
7	O-ring	Nitrile rubber
8	Bottom plug	Zinc alloy die-casting

### Consumable parts list

No.	Part name	Model No.
3	Diaphragm assembly	Relief <b>B2019-DIAPHRAGM-ASSY</b>
		Non-relief <b>B2019-DIAPHRAGM-ASSY-N</b>
4	Valve assembly	<b>B2019-VALVE-ASSY</b>
5		

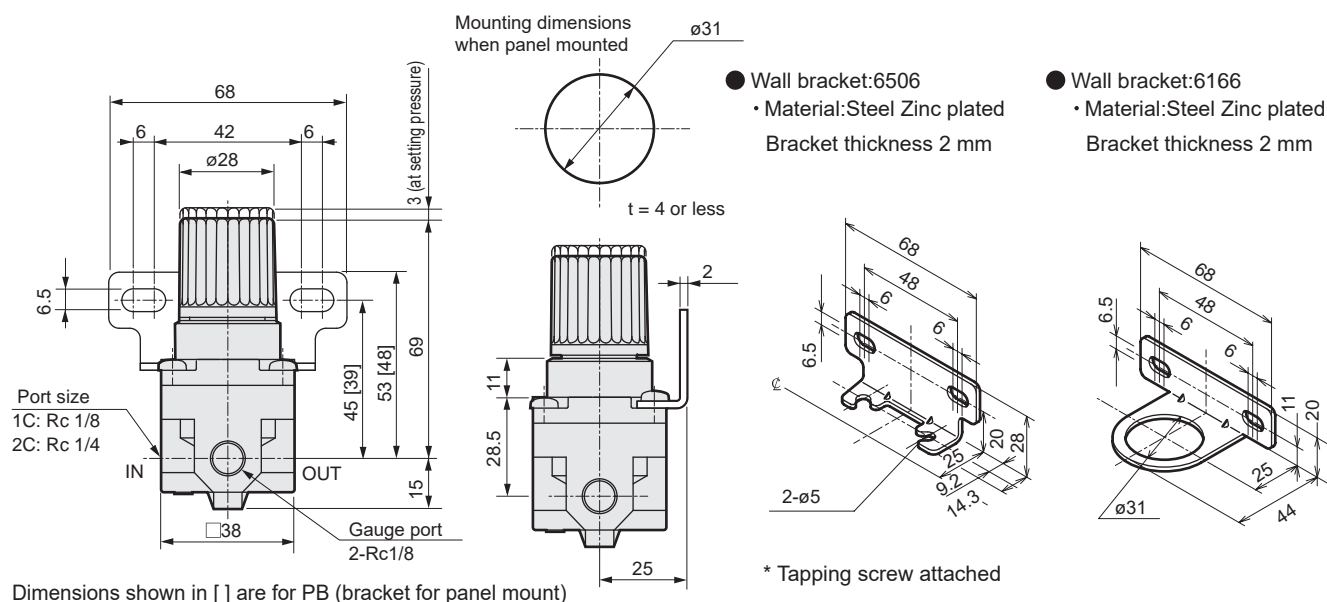
### Functions

- (1) Adjusting screw  
Adjusting screw to adjust secondary pressure is turned clockwise to increase pressure.
- (2) Relief valve  
If the secondary pressure becomes higher than the set pressure, the valve stem and diaphragm section separate to release compressed air to the atmosphere from the relief valve, preventing the secondary side set pressure from increasing abnormally.
- (3) Diaphragm  
The balance between the force of the pressure adjusting spring and the force applied to the diaphragm bottom (secondary side pressure) is maintained and the valve system is opened and closed to supply accurate and stable pressure (set pressure) to the secondary side.
- (4) Valve system  
If the diaphragm and the pressure adjustment spring lose balance, the compressed air on the primary side is supplied as required to the secondary side. A valve with a large bore size is used to achieve excellent flow characteristics.
- (5) Gauge port  
A gauge port is placed near the OUT side from the center section to measure the secondary side pressure accurately. Two gauge ports are provided.

### Dimensions



#### ● B2019



F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filt
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending