



Regulator

B2019 Series

● Port size: Rc1/8, Rc1/4

JIS symbol



Specifications

1 MPa = 10 bar

Descriptions	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

(Ending Page 17)

B2019 — — P11

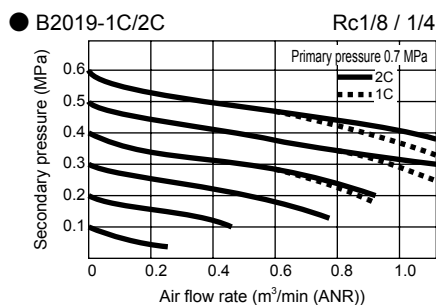
Option weight

* Add to the weight of the standard accessories.

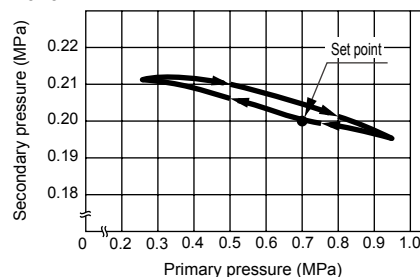
Unit: kg

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

Flow characteristics



● B2019



How to order

B2019 — **2C** — **NPB**

Model No.

● A Port size
*1

● B Option
*2 to 5

[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.

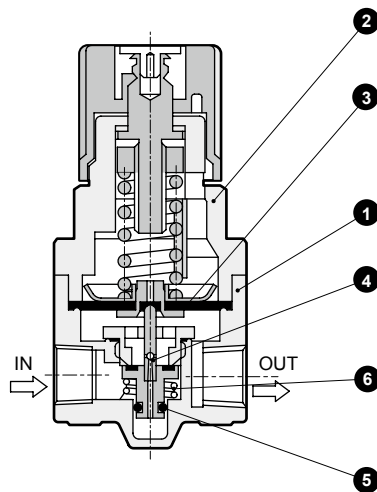
The pressure gauge supplied is G49D-6-P10 (G49D-6-P04 for low pressure). Refer to related products (page 289) for pressure gauge specifications.

*4 : Contact CKD when assembly products are required.

*5 : 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 345 for the attached product "B" bracket.

Code		Content
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
Attached product	Blank	Not attached
	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	Copper alloy/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

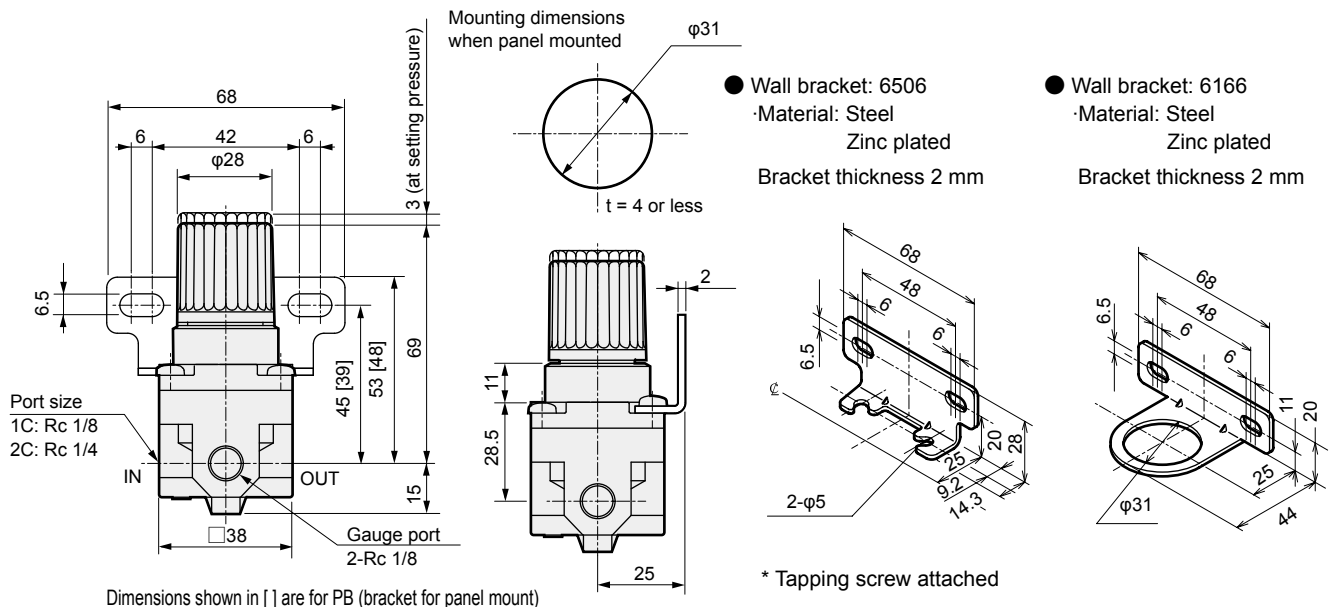
Repair parts list

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

Dimensions



● B2019



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.

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FilmResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending