

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 Filtr
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
ElecPneR
AirBoost
Speed Ctrl
Silncr
CheckV/
other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro
Press SW
ContactSW
AirSens
PresSW
Cool
Air Flo
Sens/Ctrl
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending



Oil-prohibited regulator

RN3000/RN4000/RN8000 Series

Ideal for applications susceptible to grease, including liquid crystal, semiconductors, foodstuffs, medical use, and electronic parts.

All parts in the fluid passage area are degreased and washed, and use no grease.

● Port size: Rc1/4 to Rc1

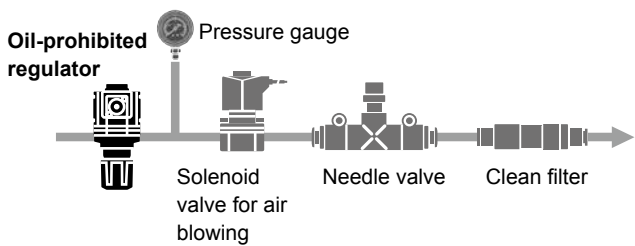
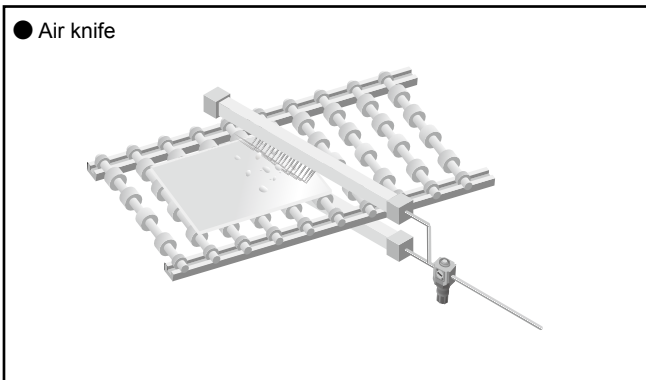
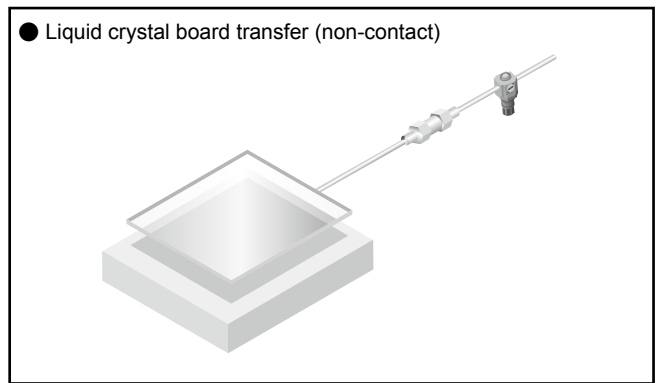
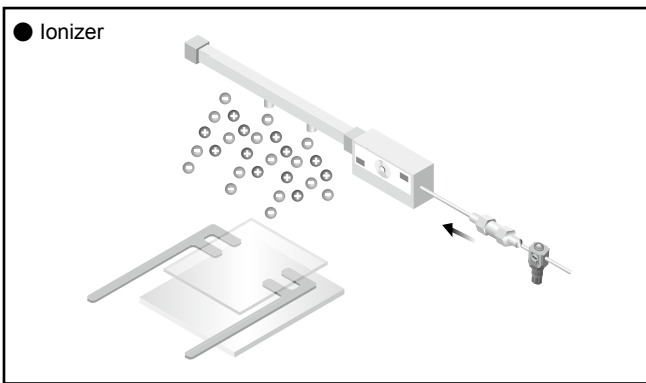
JIS symbol



Specifications

Item	RN3000		RN4000		RN8000	
Working fluid	Compressed air					
Max. working pressure MPa	0.8 (0.5 for low pressure)					
Proof pressure MPa	1.5 (≈220 psi, 15 bar)					
Ambient / fluid temperatures °C	5 (41°F) to 60 (140°F)					
Set pressure MPa	0.05 (≈7.3 psi, 0.5 bar) to 0.7 (≈100 psi, 7 bar)					
Pressure relief	With relief mechanism					
Port size Rc	1/4,3/8		1/4,3/8,1/2		3/4,1	
Weight kg	0.5		0.7		1.9	
Standard specifications	Fluid passage section: Oil-prohibited, nut for panel mount				Fluid passage section: Oil-prohibited	

Applications



Option weight

* Add to the weight of the standard accessories.

Unit: kg

Code	Pressure gauge	Attachment			
	T*	BW	B3W	GX59	GY59
RN3000	0	0.17	0.07	0.14	0.14
RN4000	0	0.21	0.11	0.14	0.14
RN8000	0	0.36		0.14	0.14

Oil Prohibited Regulator series

How to order

How to order

RN3000 - **8** - **LT** - **BW**

A Model No.

B Port size

C Option

D Other attachments

* Refer to page 30 for the explanation of the option.

		A Model No.			
		RN3000	RN4000	RN8000	
Code	Description				
B Port size					
8	Rc1/4	●	●		
10	Rc3/8	●	●		
15	Rc1/2		●		
20	Rc3/4			●	
25	Rc1			●	
C Option					
Pressure range	Blank	0.05 to 0.7MPa	●	●	●
	L	0.05 to 0.3 MPa *2	●	●	●
Pressure relief	Blank	With relief mechanism	●	●	●
	N	Non-relief	●	●	●
Pressure gauge	T *3	No pressure gauge (gauge port is assembled sealed)	●	●	●
	T8 *3	Optional (enclosed) round pressure gauge (pressure gauge port is left open)	●	●	●
	T6 *4	PPX mounting option (pressure gauge mounting board is left open Port size Rc1/8)	●	●	●
Flow direction	Blank	Standard flow (left → right)	●	●	●
	X1	Reverse flow (right → left)	●	●	●
D Other attachments Pages 346, 363					
Blank	Not included	●	●	●	
BW	C type bracket	●	●	●	
B3W *5	L type bracket	●	●		
GX59	Pressure gauge: G59D-8-P10-P70 *6	●	●	●	
GY59	Pressure gauge: G59D-8-P10-P94	●	●	●	

⚠ Precautions for model No. selection

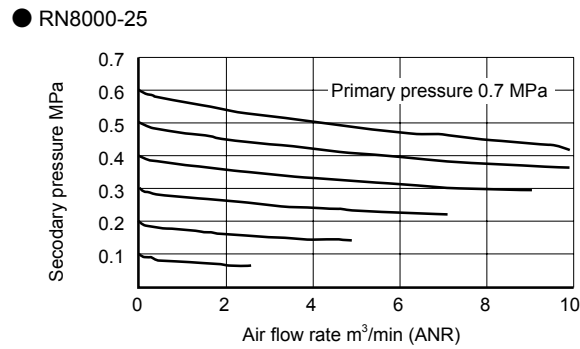
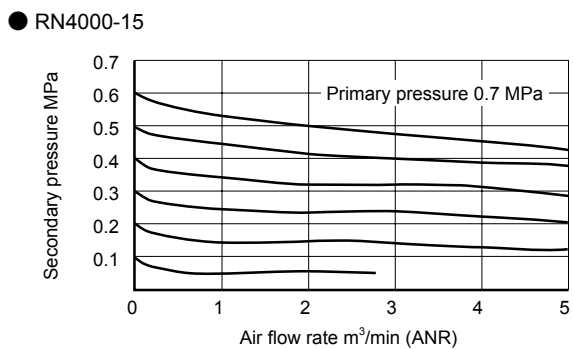
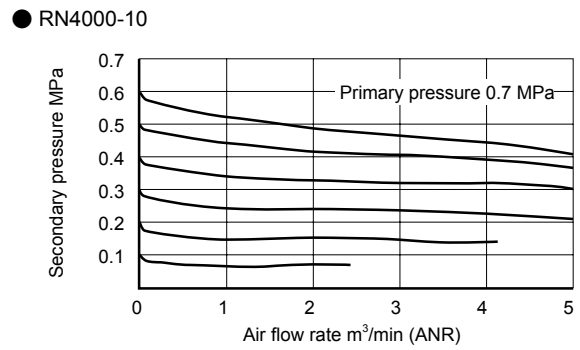
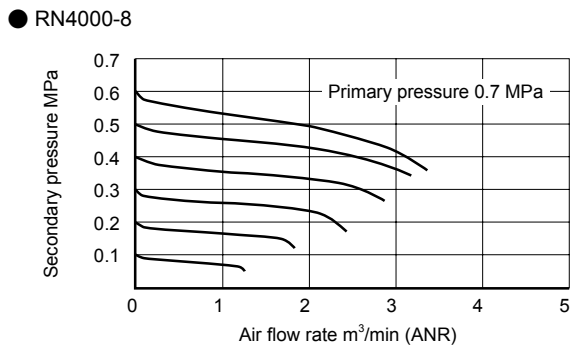
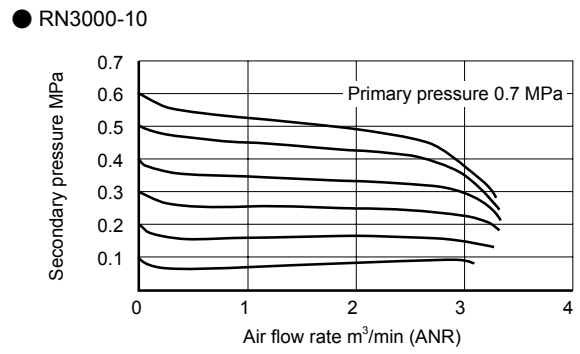
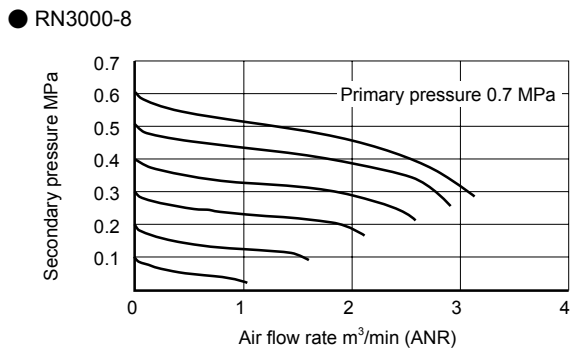
- *1: When selecting options for several items, list options in order from the top.
- *2: If "L" is selected for the pressure range option, the pressure gauge for low pressure (0 to 0.4 MPa) are selected.
- *3: For "T" and "T8", a gauge plug is assembled. The gauge port is Rc1/4.
- *4: The digital pressure sensor PPX must be prepared separately. The following model No. are recommended.
PPX-R10N-6M-P12
PPX-R10NH-6M-P12
- *5: For details on mounting the L type bracket, refer to [\(2. Regulator\)](#) of "⚠ Cautions and Installation & Adjustment" (page 357).
- *6: Attachment for options using copper alloy. All others are options and attachments which do not use copper alloys.

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 Filtr
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

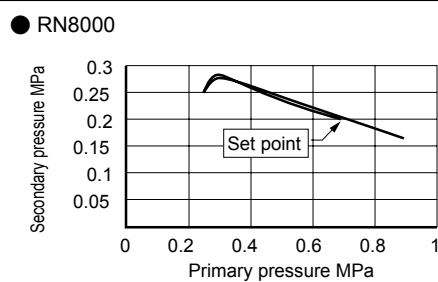
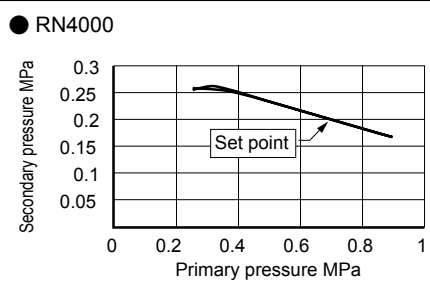
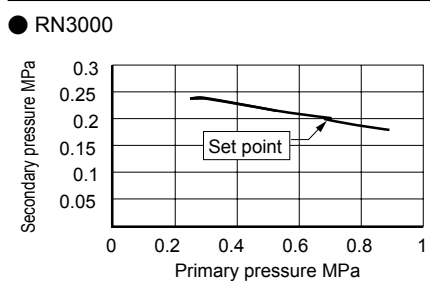
Oil Prohibited Regulator series

F.R.L. Flow characteristics

- 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
- WaterRtSens
- TotAirSys
- (Total Air)
- TotAirSys
- (Gamma)
- Gas
- generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg
- etc
- Ending



Pressure characteristics

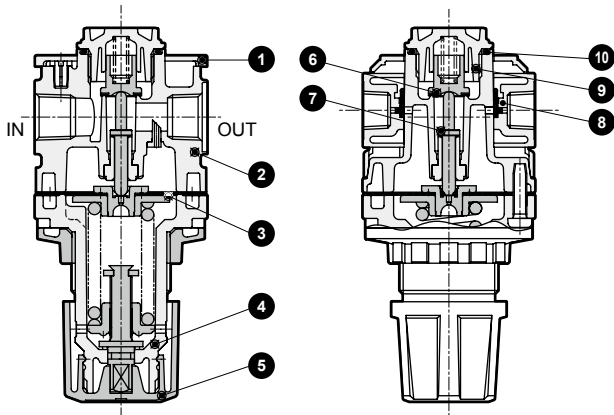


Oil Prohibited Regulator series

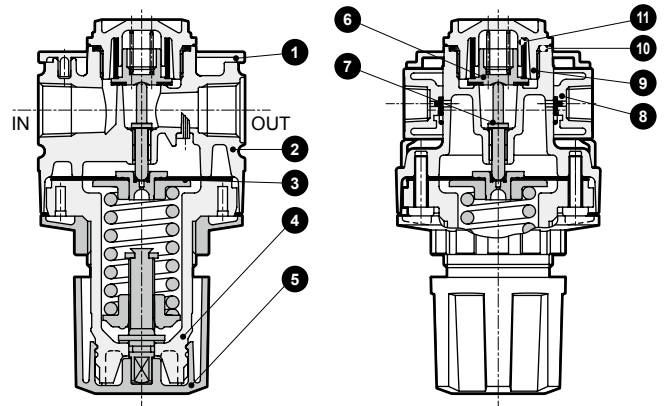
Internal structure and parts list

Internal structure and parts list

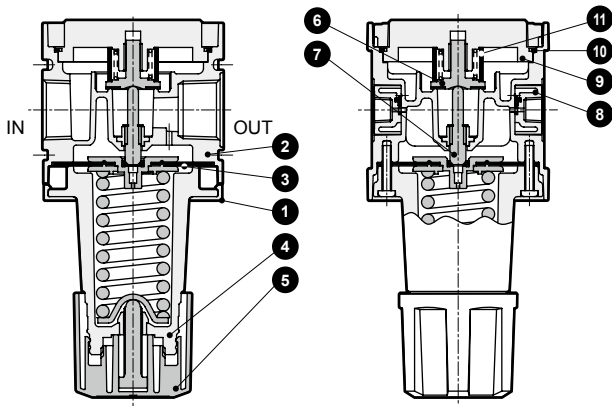
● RN3000



● RN4000



● RN8000



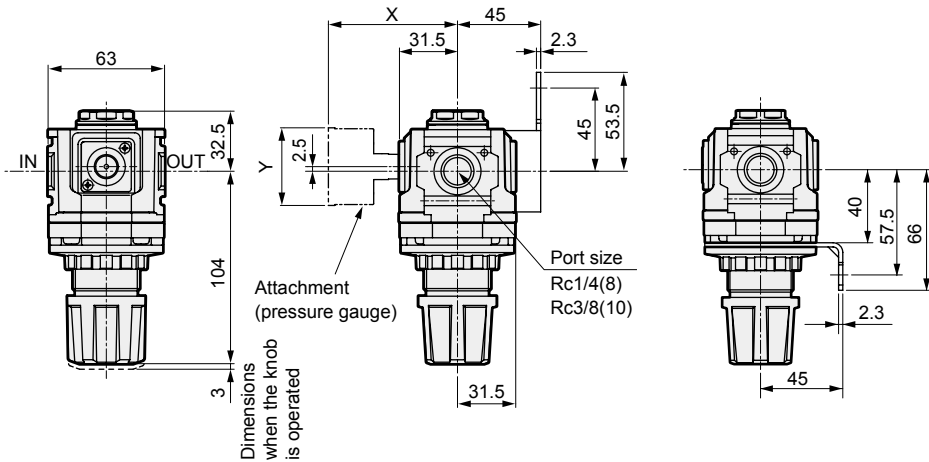
No.	Part name	Material		
		RN3000	RN4000	RN8000
1	Plate cover	ABS resin		
2	Body	Aluminum alloy die-casting		
3	Diaphragm assembly	Zinc alloy die-casting, nitrile rubber		
4	Cover	PBT resin		Aluminum alloy die-casting
5	Knob	Polyacetal resin		
6	Valve	Aluminum alloy, hydrogenated nitrile rubber		Stainless steel, hydrogenated nitrile rubber
7	Stem	Aluminum alloy		Stainless steel
8	Gauge plug assembly	Polyamide resin, nitrile rubber, steel		
9	Bottom cap	Polyacetal resin		Aluminum alloy
10	Bottom O-ring	Fluoro rubber		
11	Bottom rubber	-	Hydrogenated nitrile rubber	

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 Filtr
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
PresCompn
Electro
Press SW
ContactSW
AirSens
PresSW
Cool
Air Flo
Sens/Ctrl
WaterRSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

Oil Prohibited Regulator series

F.R.L. Dimensions

F.R. ● RN3000



Panel cut dimension

Panel plate thickness:
max. 7 mm

Attachment (C type bracket)

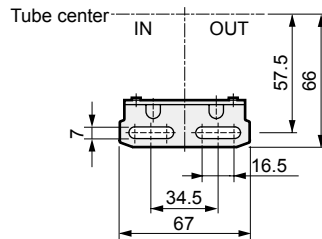
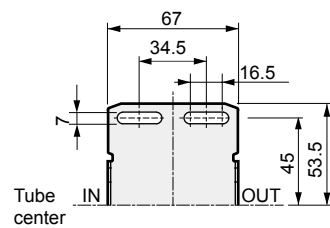
C type bracket (-BW)
Part model No.: B320

Material: Steel
Zinc plated

L type bracket (-B3W)

Part model No.: B330

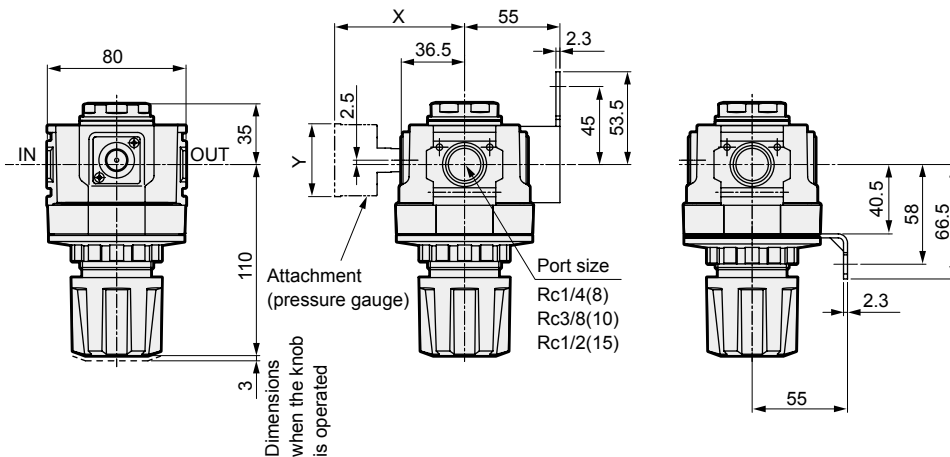
Material: Steel
Zinc plated



Pressure gauge attached optional dimensions table

Pressure gauge	X	Y
GX59	76.5	ø52
GY59	79	ø52

F.R. ● RN4000



Panel cut dimension

Panel plate thickness:
max. 7 mm

Attachment

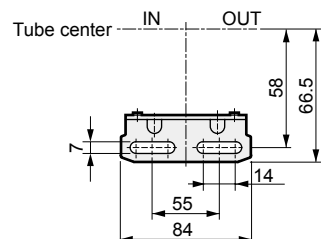
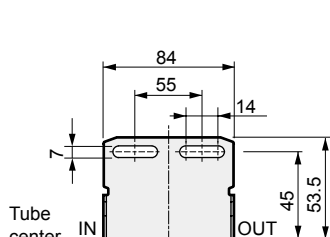
C type bracket (-BW)
Part model No.: B420

Material: Steel
Zinc plated

L type bracket (-B3W)

Part model No.: B430

Material: Steel
Zinc plated



Pressure gauge attached optional dimensions table

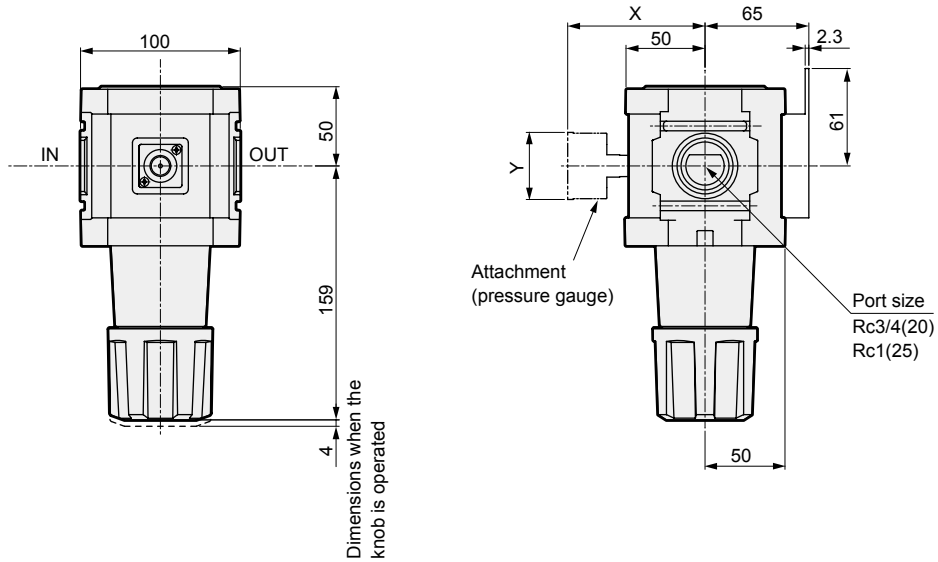
Pressure gauge	X	Y
GX59	81.5	ø52
GY59	84	ø52

Oil Prohibited Regulator series

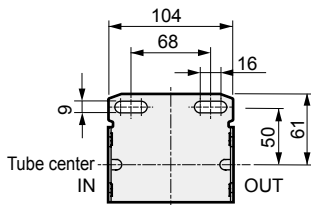
Dimensions

Dimensions

● RN8000



- Attachment
C type bracket (-BW)
Part model No.: B820
- Material: Steel
Zinc plated



Pressure gauge attached optional dimensions table

Pressure gauge	X	Y
GX59	91.5	ø52
GY59	94	ø52

- 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 Filtr
- 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