

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
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



Oil-free 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

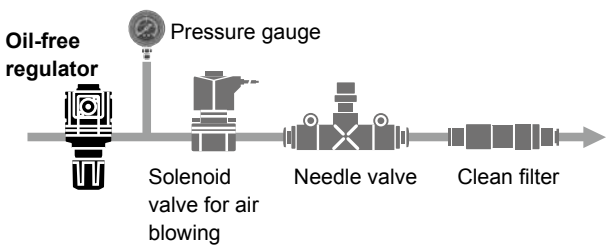
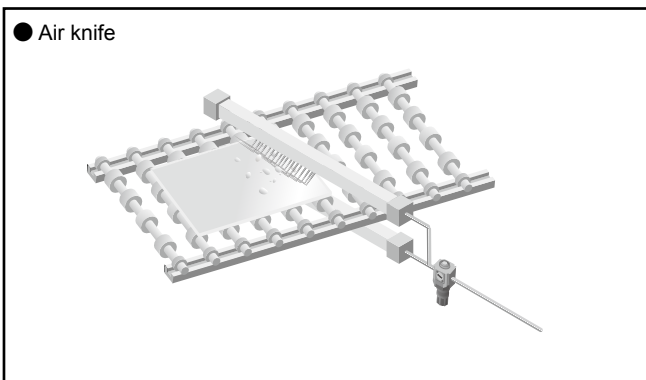
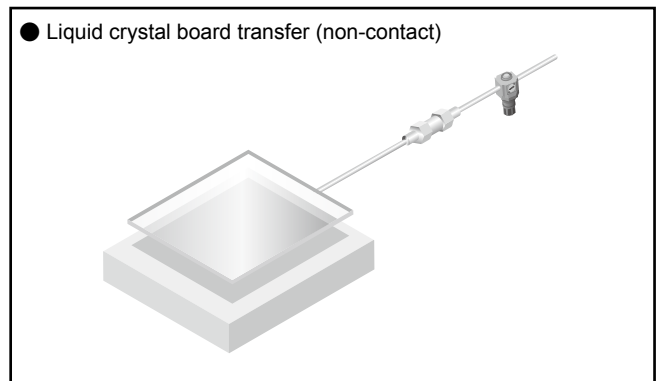
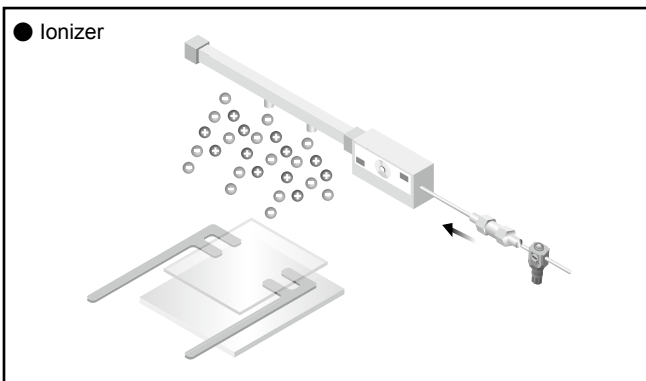
JIS symbol



Specifications

Descriptions		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-free, nut for panel mount		Fluid passage section: Oil-free

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 28 for the explanation of the option.

		A Model No.			
		RN3000	RN4000	RN8000	
Code	Content				
B Port size					
8	Rc1/4	●	●		
10	Rc3/8	●	●		
15	Rc1/2		●		
20	Rc3/4			●	
25	Rc1			●	
C Option *1					
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 267, 289					
Blank	Not attached		●	●	●
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 283).
- *6: Attachment for options using copper alloy. All others are options and attachments which do not use copper alloys.

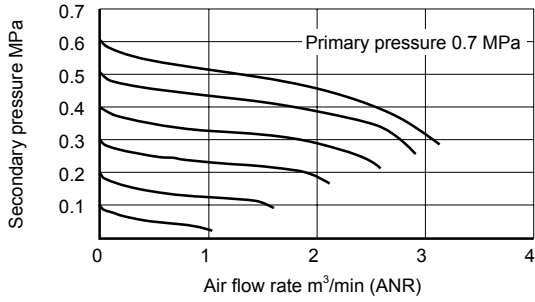
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VacF/R
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AirBoost
SpdContr
Silncr
CheckV/other
Jnt/tube
AirUnt
PrecsCompn
Mech/ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Oil Prohibited Regulator series

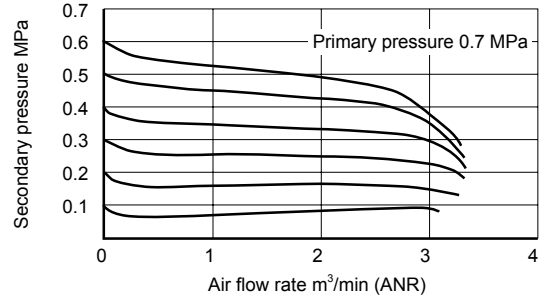
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- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

Flow characteristics

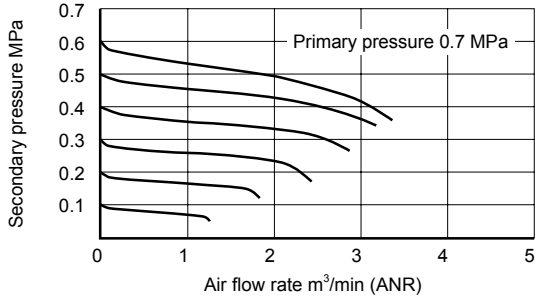
● RN3000-8



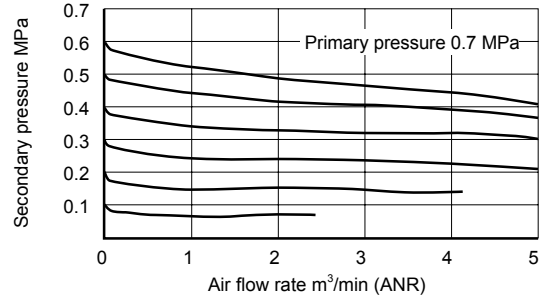
● RN3000-10



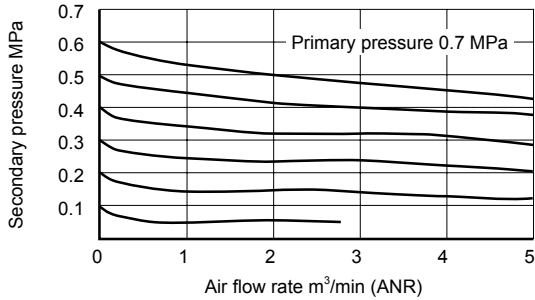
● RN4000-8



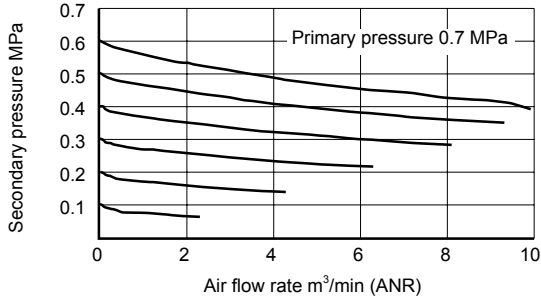
● RN4000-10



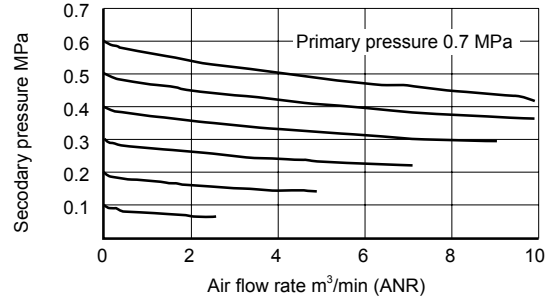
● RN4000-15



● RN8000-20

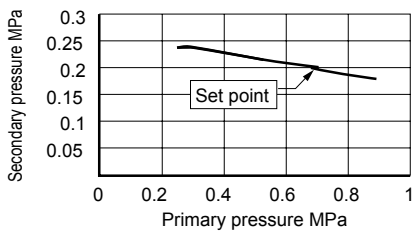


● RN8000-25

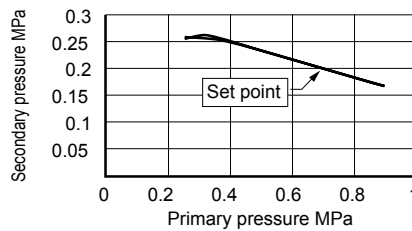


Pressure characteristics

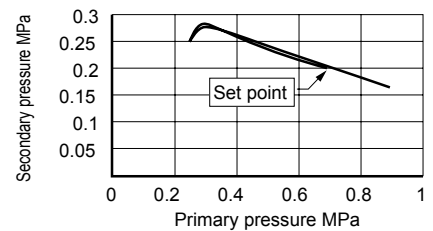
● RN3000



● RN4000



● RN8000

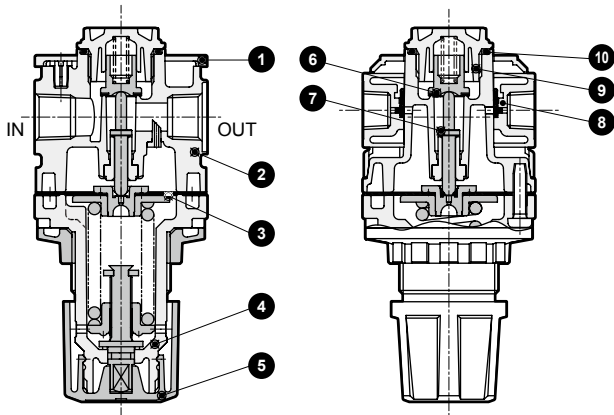


Oil Prohibited Regulator series

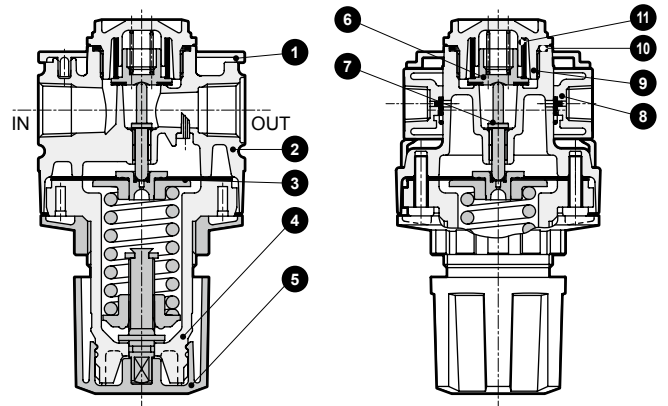
Internal structure and parts list

Internal structure and parts list

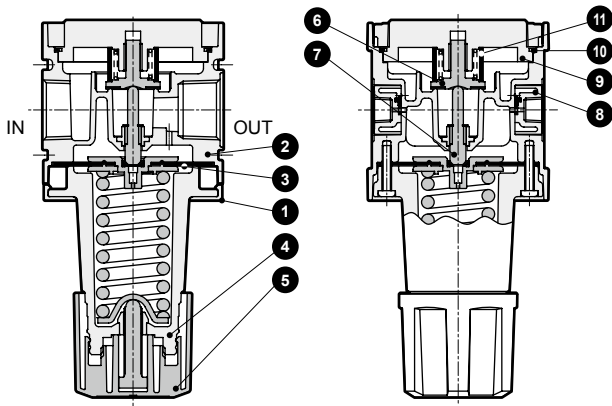
● RN3000



● RN4000



● RN8000



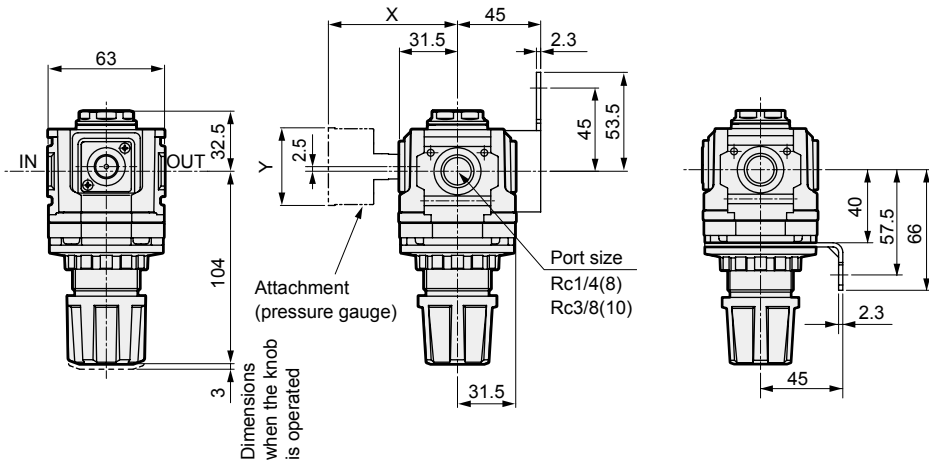
No.	Part name	Material		
		RN3000	RN4000	RN8000
1	Plate cover	ABS resin		
2	Body	Aluminum alloy die-casting		
3	Diaphragm assembly	Zinc alloy die-casting, nitrile rubber		
4	Cover	PBT resin		Aluminum alloy die-casting
5	Knob	Polyacetal resin		
6	Valve	Aluminum alloy, hydrogenated nitrile rubber		Stainless 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	

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Silncr
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AirUnt
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DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

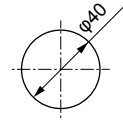
Oil Prohibited Regulator series

F.R.L Dimensions

● RN3000



Panel cut dimension



Panel plate thickness:
max. 7 mm

· Attachment (C type bracket)

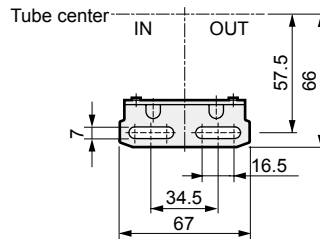
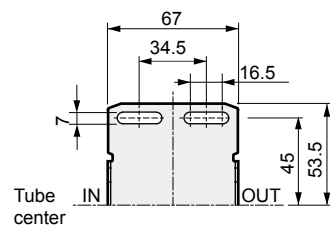
C type bracket (-BW)
Part model No.: B320

· Material: Steel
Zinc plated

L type bracket (-B3W)

Part model No.: B330

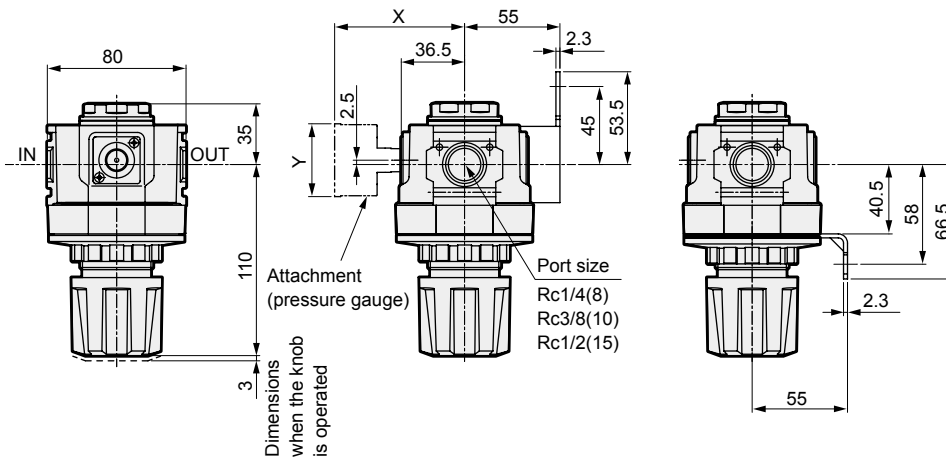
· Material: Steel
Zinc plated



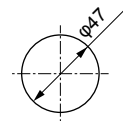
Pressure gauge attached optional dimensions table

Pressure gauge	X	Y
GX59	76.5	φ52
GY59	79	φ52

● RN4000



Panel cut dimension



Panel plate thickness:
max. 7 mm

· Attachment

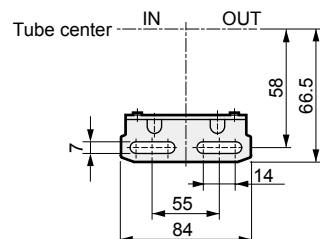
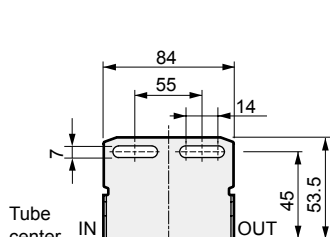
C type bracket (-BW)
Part model No.: B420

· Material: Steel
Zinc plated

L type bracket (-B3W)

Part model No.: B430

· Material: Steel
Zinc plated



Pressure gauge attached optional dimensions table

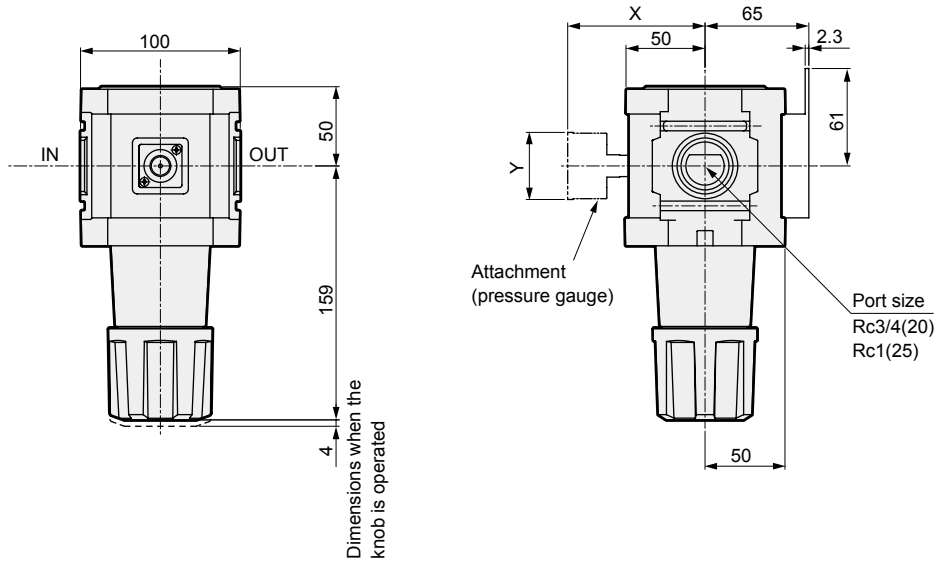
Pressure gauge	X	Y
GX59	81.5	φ52
GY59	84	φ52

Oil Prohibited Regulator series

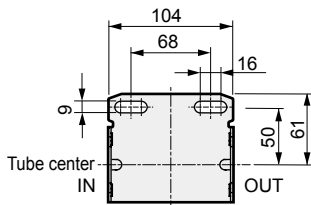
Dimensions

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	φ52
GY59	94	φ52

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- Clean FR
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- Dischrg etc
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