

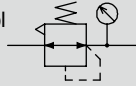
Compact direct acting precision regulator

RJB500 Series

Grease-free specification/compact/space saving

● Port size: Push-in fitting $\phi 4$, $\phi 6$

JIS symbol



Specifications

1 MPa = 10 bar

Descriptions		RJB500
Working fluid		Compressed air
Max. working pressure	MPa	1.0 (≈ 150 psi, 10 bar)
Proof pressure	MPa	1.5 (≈ 220 psi, 15 bar)
Ambient / fluid temperatures		$^{\circ}\text{C}$ 5 (41°F) to 60 (140°F)
Set pressure	MPa	0.02 (≈ 2.9 psi) to 0.5 (≈ 73 psi) (0.01 (≈ 1.5 psi) to 0.2 (≈ 29 psi)) (*1)
Sensitivity	MPa	0.001 (≈ 0.15 psi) {Lock sensitivity 0.004 (≈ 0.58 psi)} (*2)
Air consumption		ℓ/min 1.5 (*3)
Port size	IN/OUT	Push-in fitting: $\phi 4/\phi 6$
	GAUGE	Rc 1/8
Weight	g	90 (No pressure gauge: 65)

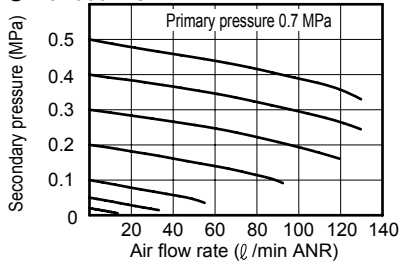
*1: Values in parentheses are for low pressure.

*2: Pressure sensitivity setting for the pressure adjustment knob block's minimum spacing.

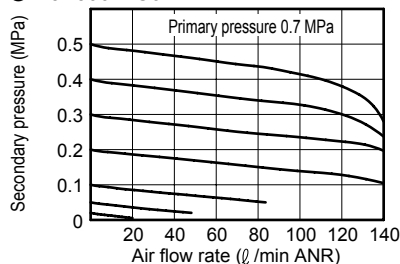
*3: Value for secondary side setting pressure 0.1 MPa.

Flow characteristics

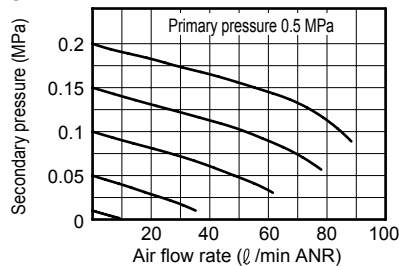
● RJB500-**C4



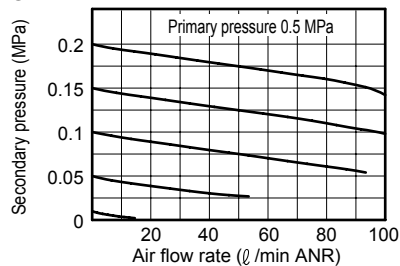
● RJB500-**C6



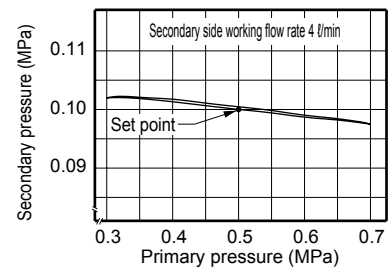
● RJB500-**C4-L



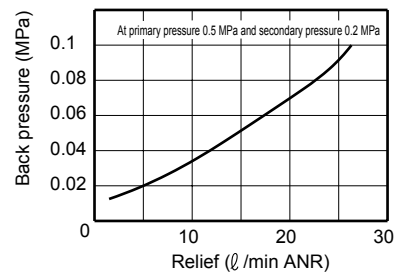
● RJB500-**C6-L



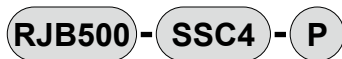
Pressure characteristics



Relief characteristics



How to order



Model No.

A Connection

B Option

Code		Content	
A Connection			
Direction	IN	S	Straight
		L	Elbow
	OUT	S	Straight
		L	Elbow
Bore size		C4	$\phi 4$
		C6	$\phi 6$
B Option			
Panel mount	Blank	Without nut	
	P	With nut	
Pressure range	Blank	0.02 to 0.5 MPa *1	
	L	0.01 to 0.2 MPa *2	
Pressure gauge	Blank	With pressure gauge	
	T	No pressure gauge (gauge port Rc1/8)	

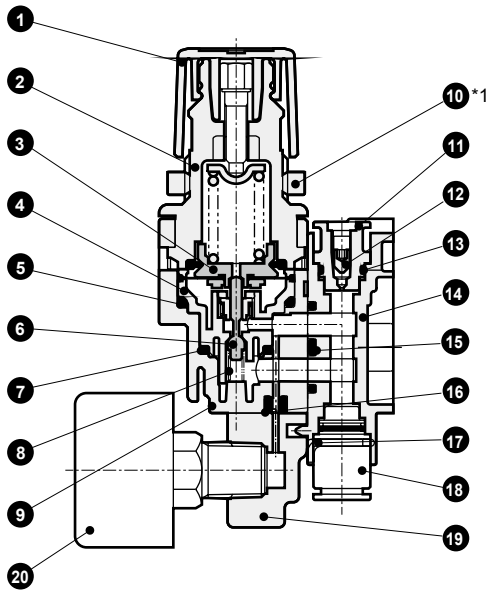
⚠ Precautions for model No. selection

*1: A 0 to 1.0 MPa pressure gauge is assembled.

*2: A 0 to 0.4 MPa pressure gauge is assembled.

*3: Indicate option code "P" for panel mounting.

Internal structure and parts list



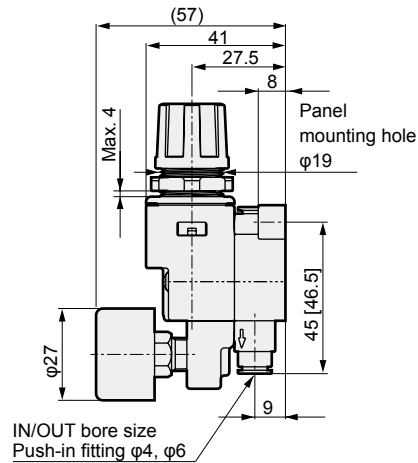
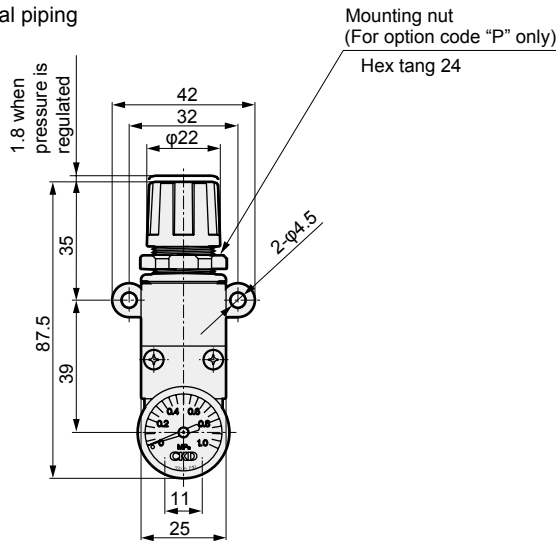
*1: A mounting nut is optional. Nut is attached only for option code "P".

No.	Part name	Material
1	Knob	Polyacetal resin
2	Cover	Polyamide resin
3	Diaphragm assembly	Polyacetal resin/nitrile rubber/chloroprene rubber
4	Valve guide assembly	Polyacetal resin/copper alloy/stainless steel
5	O-ring	Fluoro rubber
6	Valve	Stainless steel
7	O-ring	Fluoro rubber
8	Spring	Stainless steel
9	Body	Polyamide resin
10	Mounting nut	Polyacetal resin
11	Bleed plug	Polyamide resin
12	Hexagon socket set screw	Stainless steel
13	O-ring	Nitrile rubber
14	Piping block assembly	Polyamide resin/steel
15	Body packing seal	Hydrogenated nitrile rubber
16	Packing	Nitrile rubber
17	Stop pin	Stainless steel
18	Cartridge fitting	
19	Gauge plug	Polyamide resin
20	Pressure gauge	

Dimensions

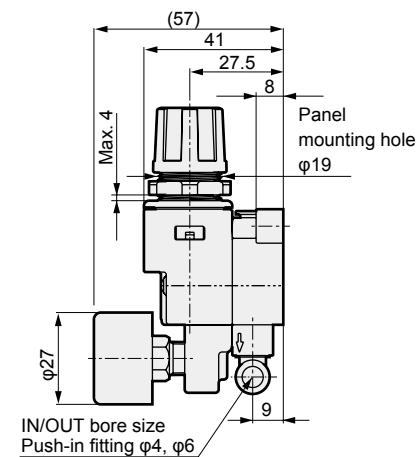
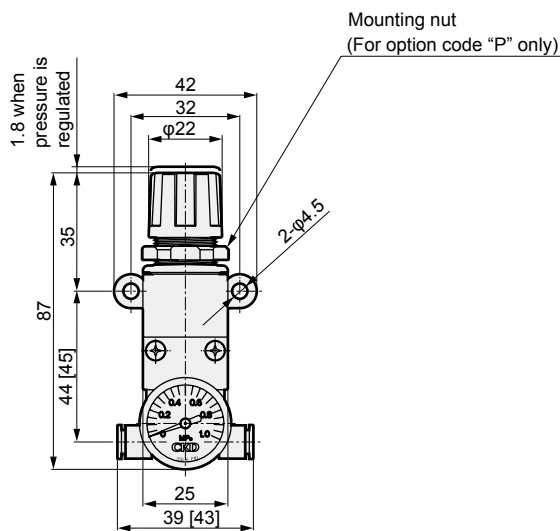


● RJB500 axial piping



Dimensions shown in [] are for the push-in fitting φ6

● RJB500 elbow piping



Dimensions shown in [] are for the push-in fitting φ6

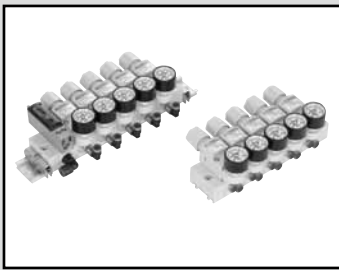
F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrescR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrescCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/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

Block manifold compact direct acting precision regulator

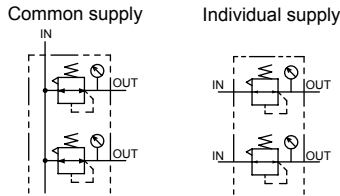
MNRJB500 Series

Mix manifold of RJB500/RB500 Series

● Port size: Push-in fitting $\phi 4$, $\phi 6$, $\phi 8$



JIS symbol



Specifications

1 MPa = 10 bar

Descriptions		MNRJB500A	MNRJB500B
Working fluid		Compressed air	
Max. working pressure MPa		0.8 (≈ 120 psi, 8 bar)	
Proof pressure MPa		1.2 (≈ 170 psi, 12 bar)	
Ambient / fluid temperatures $^{\circ}\text{C}$		5 (41°F) to 60 (140°F)	
Set pressure MPa		0.02 (≈ 2.9 psi) to 0.5 (≈ 73 psi) (0.01 (≈ 1.5 psi) to 0.2 (≈ 29 psi)) (*1)	
Sensitivity MPa		0.001 (≈ 0.15 psi) {Lock sensitivity 0.004 (≈ 0.58 psi)} (*2)	
Air consumption ℓ/min		1.5 (*3)	
Port size	IN	Push-in fitting $\phi 6/\phi 8$	Push-in fitting $\phi 4/\phi 6$
	OUT	Push-in fitting: $\phi 4/\phi 6$	
	GAUGE	Rc 1/8	
Block manifold		109n+126	111n+94
Weight calculation formula (n: station No.) g			

*1: Values in parentheses are for low pressure.

*2: Pressure sensitivity setting for the pressure adjustment knob block's minimum spacing.

*3: Value for secondary side setting pressure 0.1 MPa.

Option weight

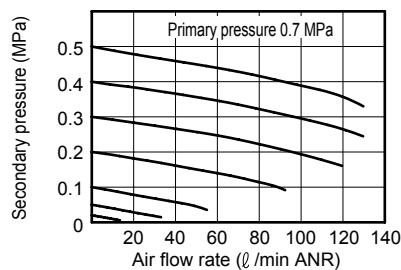
* Add to the weight of the standard accessories. n: Station No.

Unit: g

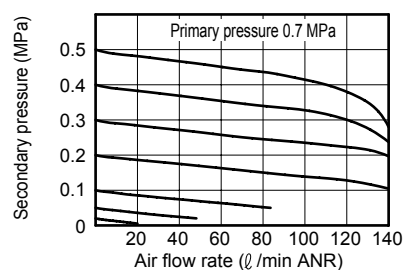
Code	Fitting + port size IN/OUT						Pressure gauge		Mounting method	
	SS**	SL**	LS**	LL**	S*	L*	T	D		
MNRJB500A	-	6n	6n+2	6n+2			-31n	-6n-49		
MNRJB500B					-	12n	-31n	-6n-49		

Flow characteristics

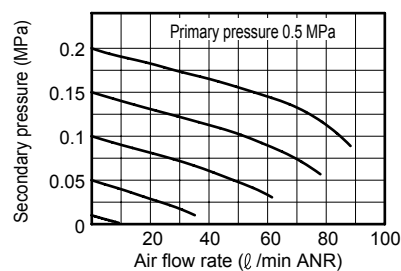
- MNRJB500A-**-C64
- MNRJB500B-**-C4



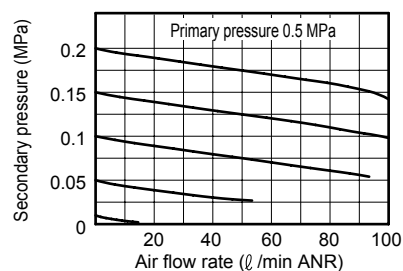
- MNRJB500A-**-C86
- MNRJB500B-**-C6



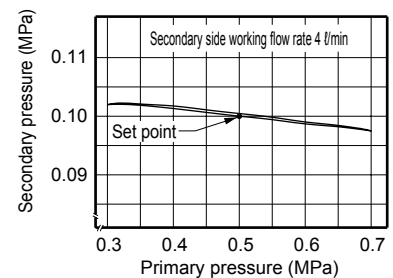
- MNRJB500A-**-C64-L
- MNRJB500B-**-C4-L



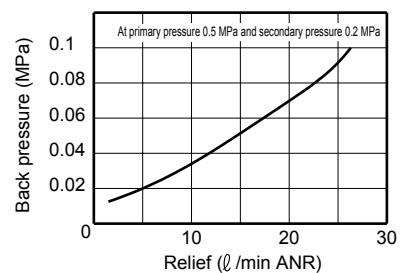
- MNRJB500A-**-C86-L
- MNRJB500B-**-C6-L



Pressure characteristics

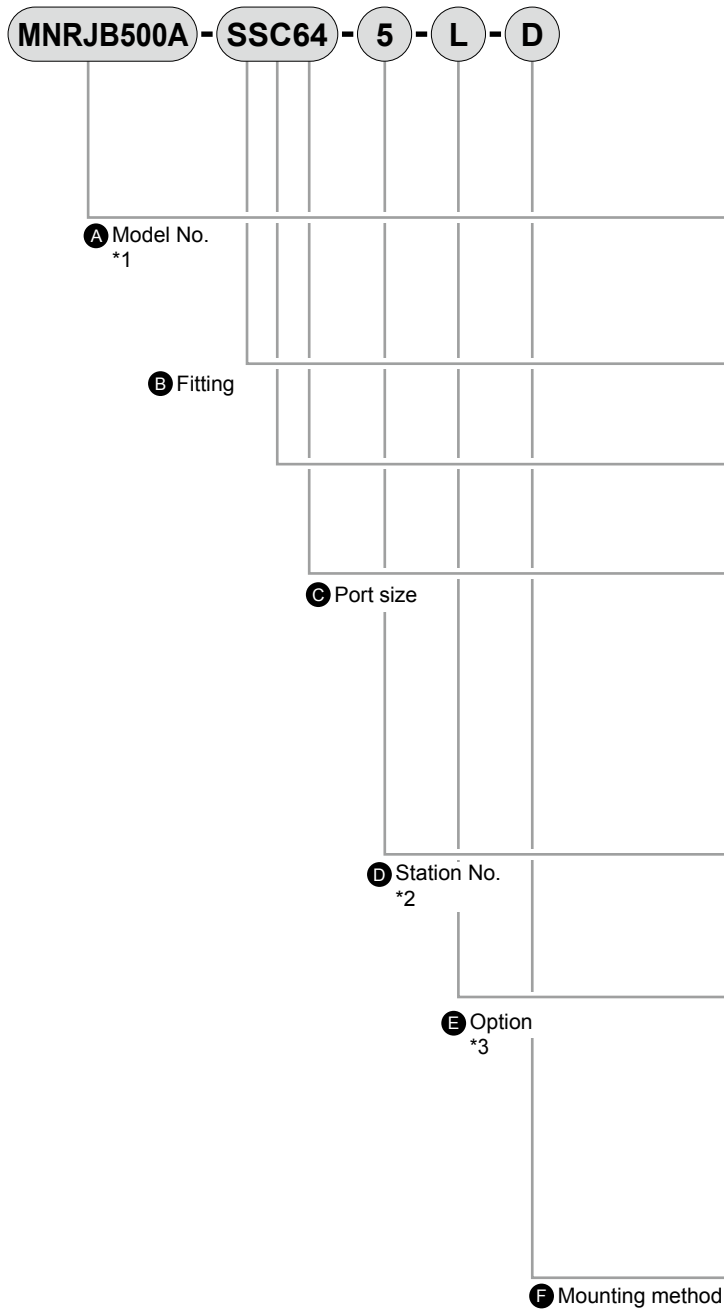


Relief characteristics



*1: For the common supply, the primary pressure will become insufficient when using multiple stations simultaneously. Install 1 air supply block per three stations. Use an air supply port larger than OUT bore size.

How to order



Code		Content	
A Model No.			
MNRJB500A		Common supply	
MNRJB500B		Individual supply	
B Fitting			
IN direction			
S		Straight	
L		Elbow	
OUT direction			
S		Straight	
L		Elbow	
C Port size IN/OUT			
		MNRJB500A	MNRJB500B
C64	IN; φ6, OUT; φ4	●	
C66	IN; φ6, OUT; φ6	●	
C84	IN; φ8, OUT; φ4	●	
C86	IN; φ8, OUT; φ6	●	
C4	IN, OUT; φ4		●
C6	IN, OUT; φ6		●
D Station No.			
1		1 station	
to		to	
10		10 stations	
E Option			
		MNRJB500A	MNRJB500B
Pressure range	Blank	0.02 to 0.5 MPa *4	●
	L	0.01 to 0.2 MPa *5	●
Pressure gauge	Blank	With pressure gauge	●
	T	No press gauge (gauge port Rc1/8)	●
Flow direction	Blank	Standard flow (left → right)	●
	X1	Reverse flow (right → left)	●
F Mounting method			
Blank		DIN rail mount	
D		Direct mount	

⚠ Precautions for model No. selection

- *1 : The air supply block is one station.
When using three or more stations simultaneously with the common supply, increase one supply block station for every three stations.
Designate with mix manifold specifications sheet.
- *2 : Up to five direct mounting stations can be used.
- *3 : Options and pressure gauges for each regulator block are the same.
- *4 : A 0 to 1.0 MPa pressure gauge is assembled.
- *5 : A 0 to 0.4 MPa pressure gauge is assembled.
- *6 : When other than basic model specifications, ask CKD to issue the mix manifold specifications sheet on page 431.

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

MNRJB500 Series

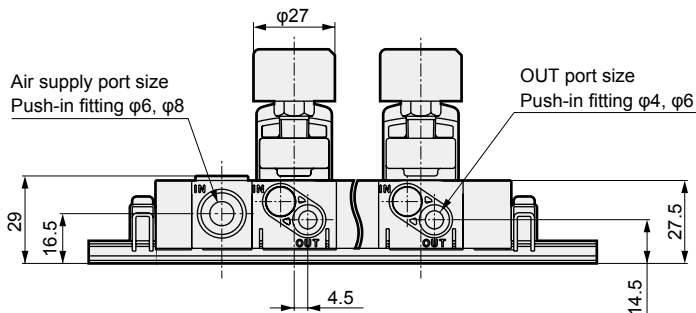
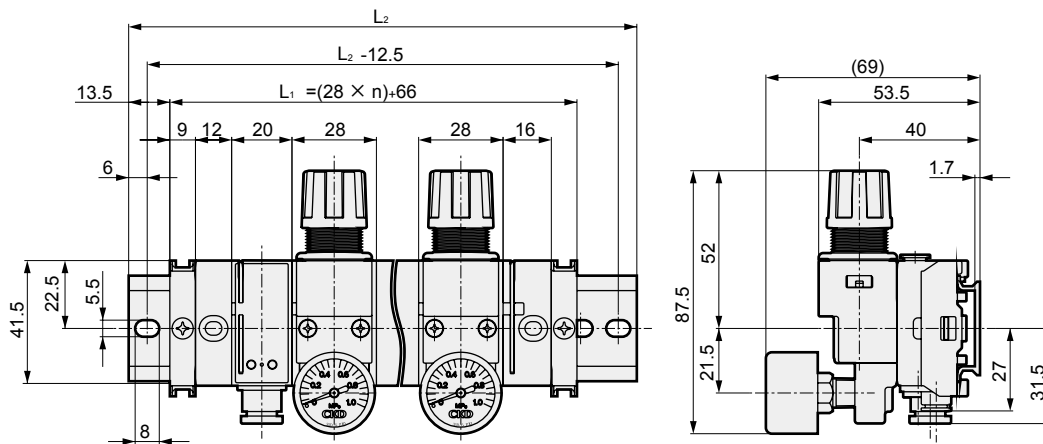
Dimensions



- 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
- PresCompn
- Mech/
ElecPresSw
- ContactSW
- AirSens
- PresSW
Cool
- AirFloSens/
Contr
- WaterRtSens
- TotAirSys
(Total Air)
- TotAirSys
(Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg
etc
- Ending

Common supply DIN rail mount

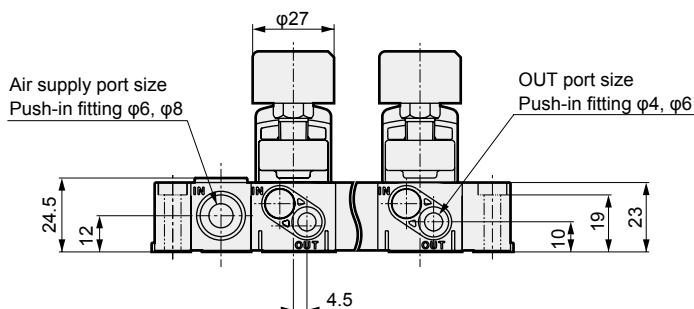
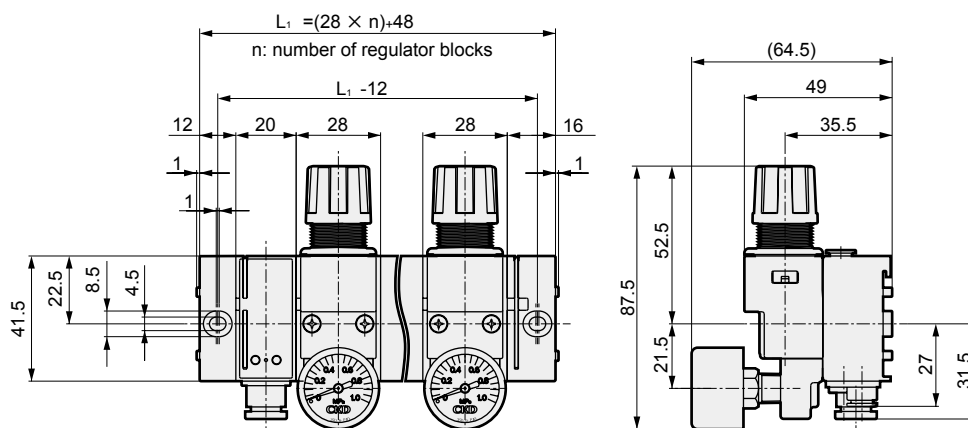
MNRJB500A-**C**.*



Station No.	L ₂ dimension
1	125
2	150
3	175
4	212.5
5	237.5
6	262.5
7	287.5
8	325
9	350
10	375

Common supply direct mount

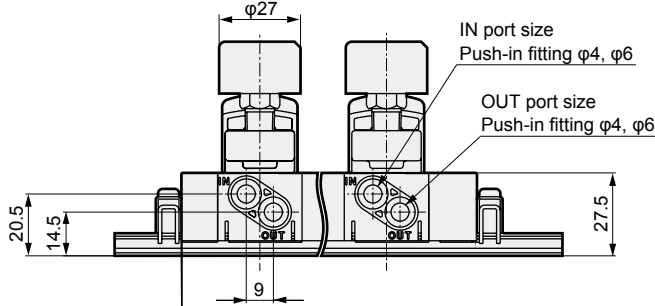
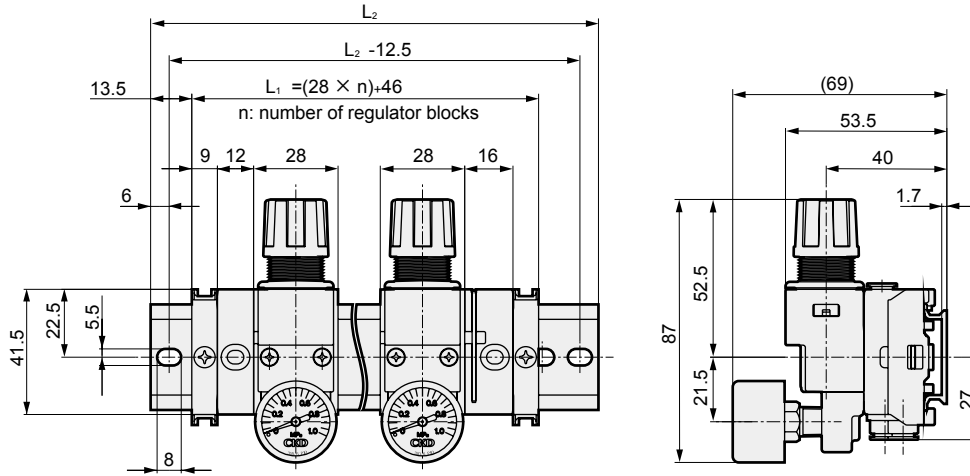
MNRJB500A-**C**.*-D



Dimensions

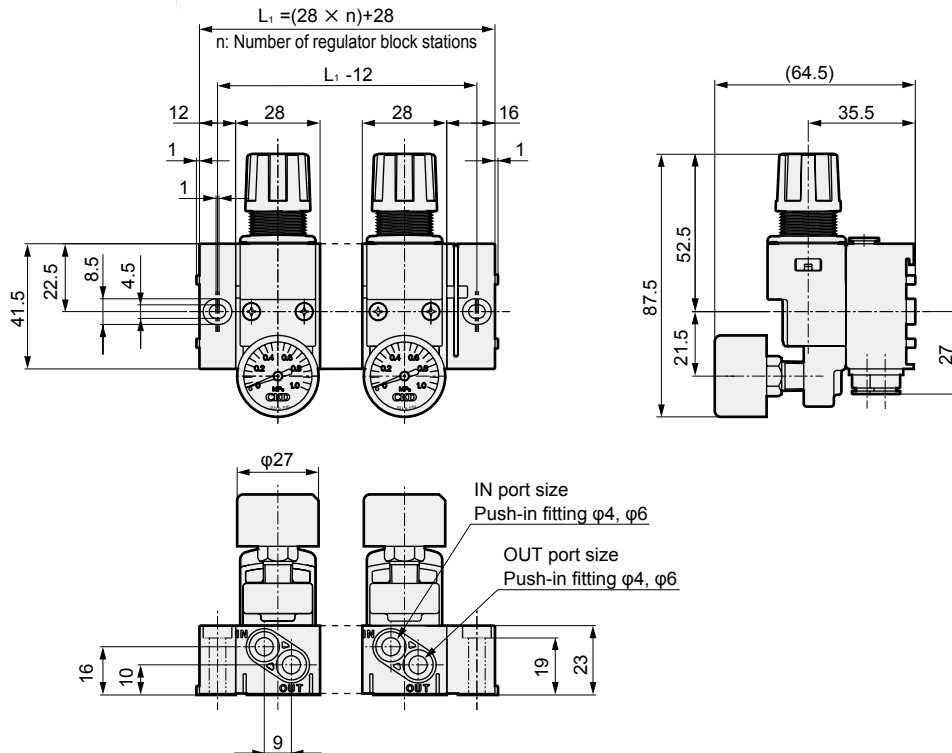
● Individual supply DIN rail mount

MNRJB500B-**C*-*



● Individual supply direct mount

MNRJB500B-**C*-*-D



Station No.	L ₂ dimension
1	100
2	137.5
3	162.5
4	187.5
5	212.5
6	250
7	275
8	300
9	325
10	362.5

- 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

MNRJB500 Series

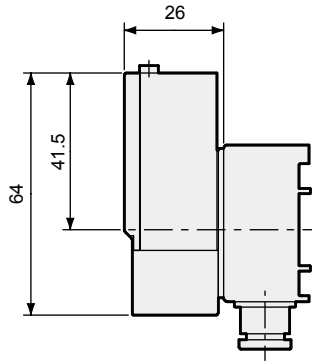
- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR**
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ElecPresSw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

Pressure switch/push-in fitting elbow dimensions

● Air supply block with pressure gauge

NRB500-APS-*C*

Pressure switch APS is integrated into the air supply block. Primary pressure can be controlled.

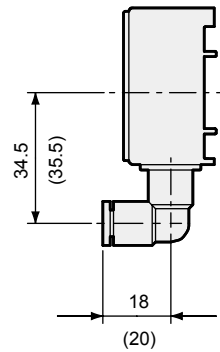


● Air supply block

Push-in fitting elbow

NRB500-NP-LC*

Front or rear piping is possible with air supply port and elbow fitting.



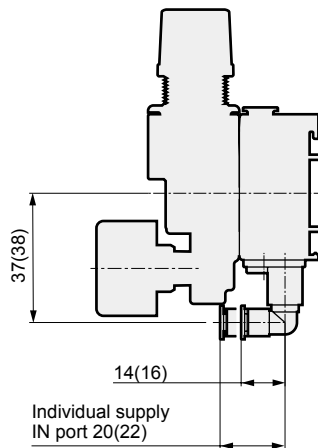
Dimension in () is for C8

● Regulator block

Push-in fitting elbow

NRJB500*-*C*

Front or rear piping is possible with IN and OUT ports and elbow fitting.



Dimension in () is for C6

MEMO

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

PresCompn

Mech/
ElecPresSw

ContactSW

AirSens

PresSW
Cool

AirFloSens/
Contr

WaterRtSens

TotAirSys
(Total Air)

TotAirSys
(Gamma)

RefrDry

DesicDry

HiPolymDry

MainFiltr

Dischrg
etc

Ending

MNRJB500 Series

F.R.L Regulator block

How to order

NRJB500B - **SSC4** - **L**

A Model No.

B Connection

C Option

Code		Content
A Model No.		
NRJB500A		Common supply
NRJB500B		Individual supply
B Connection		
Direction	*1 IN	S Straight
		L Elbow
	OUT	S Straight
		L Elbow
Bore size	IN/OUT	C4 φ4
		C6 φ6
C Option		
Pressure range	Blank	0.02 to 0.5 MPa *2
	L	0.01 to 0.2 MPa *3
Pressure gauge	Blank	With pressure gauge
	T	No pressure gauge (gauge port Rc1/8)

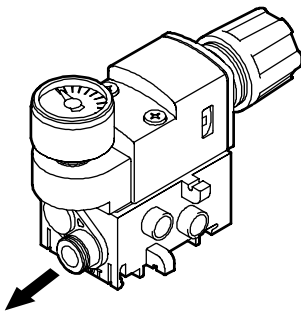
⚠ Precautions for model No. selection

*1: For common supply, IN port connection is not required.

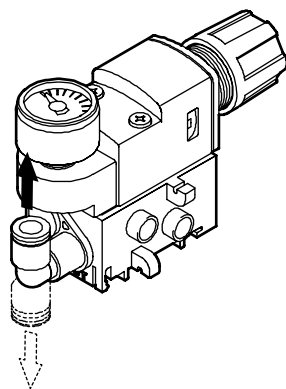
*2: A 0 to 1.0 MPa pressure gauge is assembled.

*3: A 0 to 0.4 MPa pressure gauge is assembled.

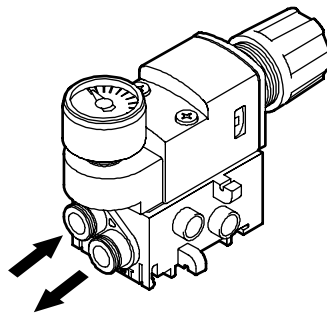
- **Common supply straight**
Downward piping is enabled by using an OUT port with straight fitting.



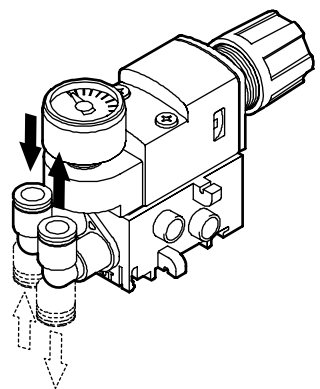
- **Common supply elbow**
Front or rear piping is enabled by OUT port with elbow fitting.



- **Individual supply straight**
Front or rear piping is enabled by using IN, OUT ports with straight fitting.



- **Individual supply elbow**
Front or rear piping is possible with IN and OUT ports and elbow fitting.



MNRJB500 Series

Block configuration

Sub-base

How to order

NRJB500B - NS - SSC4 MP

A Model No.

B Connection

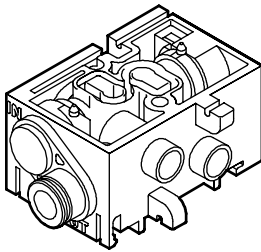
C Option

⚠ Precautions for model No. selection

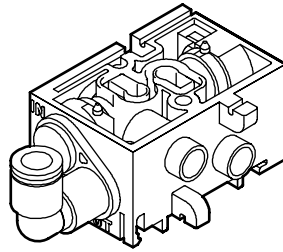
*1: For common supply, IN port connection is not required.

Code		Content	
A Model No.			
NRJB500A		Common supply	
NRJB500B		Individual supply	
B Connection			
Direction	*1 IN	S	Straight
		L	Elbow
	OUT	S	Straight
		L	Elbow
Bore size	IN/ OUT	C4	φ4
		C6	φ6
C Option			
Blank		No masking plate	
MP		With masking plate	

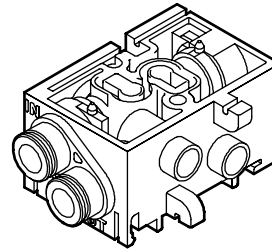
- Straight for common supply OUT port with straight fitting



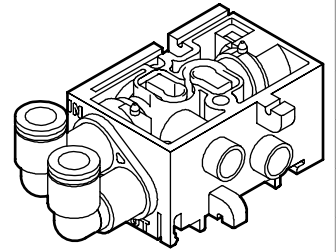
- Elbow for common supply OUT port with elbow fitting



- Straight for individual supply IN, OUT ports with straight fitting



- Elbow for individual supply IN, OUT ports with elbow fitting



Regulator body

How to order

RJB500 - 00 S - L

A Connection

B Option

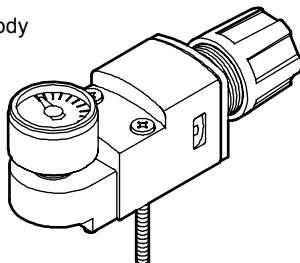
⚠ Precautions for model No. selection

*1: A 0 to 1.0 MPa pressure gauge is assembled.

*2: A 0 to 0.4 MPa pressure gauge is assembled.

Code		Content	
A Connection			
S		Discrete (for RJB500)	
M		Manifold (for MNRJB500A,B)	
B Option			
Panel Mount	Blank	Without nut	
	P	With nut	
Pressure range	Blank	0.02 to 0.5 MPa *1	
	L	0.01 to 0.2 MPa *2	
Pressure gauge	Blank	With pressure gauge	
	T	No pressure gauge (gauge port Rc1/8)	

- Regulator body



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

MNRJB500 Series

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

Common supply block

How to order

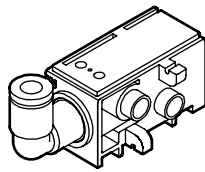
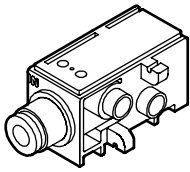
NRJB500 - NP - SC6

A Connection

Code		Content
A Connection		
Direction	S	Straight
	L	Elbow
Bore size	C6	φ6
	C8	φ8

● Straight
Air supply port with straight fitting

● Elbow
Air supply port with elbow fitting



Common supply block with pressure switch

How to order

NRB500 - APS - SC6 - 3

*1

A Connection

B Lead wire length

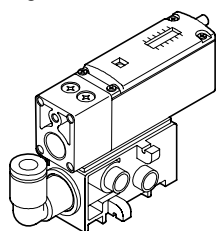
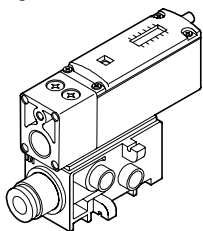
Code		Content
A Connection		
Direction	S	Straight
	L	Elbow
Bore size	C6	φ6
	C8	φ8
B Lead wire length		
	Blank	1 m
	3	3 m
	5	5 m

⚠ Precautions for model No. selection

*1: Grease is applied to the APS body before assembly. This part is not compatible with grease-free specifications.

● Straight
Air supply port with straight fitting

● Elbow
Air supply port with elbow fitting



End block

How to order

NRJB500 - NE **D**

D

A Connection

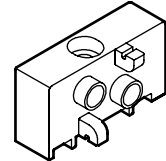
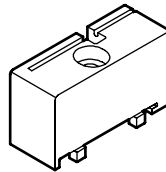
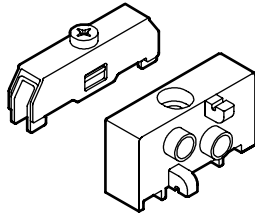
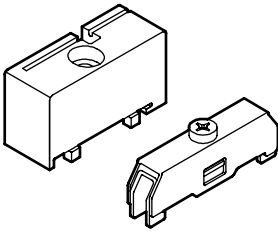
Code	Content
A Connection	
Blank	End block R for DIN rail (right)
L	End block L for DIN rail (left)
D	Direct end block R
DL	Direct end block L

● End block R for DIN rail

● End block L for DIN rail

● Direct end block R

● Direct end block L



End blocks R and L are required for manifold configuration.
For DIN rail, use end blocks R and L with DIN rail bracket.

DIN rail

How to order

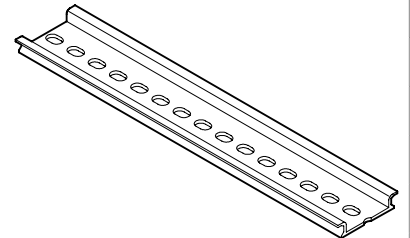
NRB500 - BAA **150**

150

A DIN rail dimensions
*1

Code	Content
A DIN rail dimensions	
125	125 mm
150	150 mm
⋮	⋮

● DIN rail



⚠ Precautions for model No. selection







*1: For the DIN rail dimensions, refer to the mix manifold specifications preparation methods, the DIN rail length and manifold dimensions, and indicate with mm units.

Push-in cartridge fitting (regulator block)

How to order

NRJB500 - JOINT - CL4

A Type

Code	Content
A Type	
C4	Straight $\phi 4$ 
C6	Straight $\phi 6$ 
CL4	Elbow $\phi 4$ (discrete) 
CL6	Elbow $\phi 6$ (discrete) 
CLL4	Long elbow $\phi 4$ (for manifold) 
CLL6	Long elbow $\phi 6$ (for manifold) 

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

MNRJB500 Series

F.R.L Cartridge fitting (common supply block)

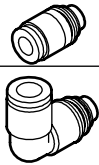
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/
PTFE FRL
Outdrs FR

How to order

NRJB500 - Q - JOINT - L6

A Type

Code	Content
A Type	
6	Straight $\phi 6$
8	Straight $\phi 8$
L6	Elbow $\phi 6$
L8	Elbow $\phi 8$



Pressure gauge

How to order

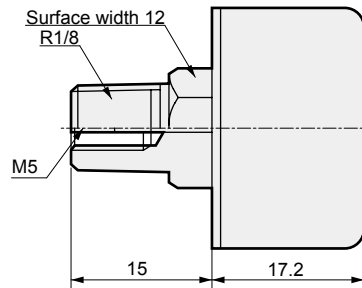
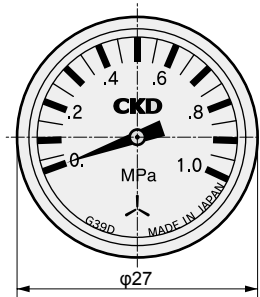
G39D - 6 - P10

A Pressure display

Code	Content
A Pressure display	
P10	0 to 1.0 MPa
P04	0 to 0.4 MPa

Dimensions

● G39D



Weight: 37 g

Blanking plug

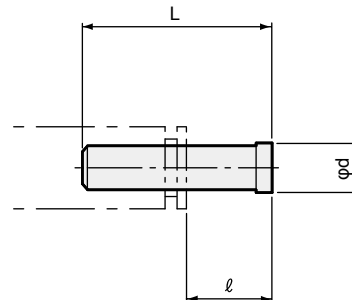
How to order

GWP 4 - B

A Connection

Code	Content
A Connection	
4	$\phi 4$
6	$\phi 6$
8	$\phi 8$

Dimensions



⚠ Precautions for model No. selection

*1: Sales unit is 10 pieces per unit.

Model No.	Fitting port size ϕ	L	l	d	Weight g
GWP 4-B	4	27	11	6	0.5
GWP 6-B	6	29	11.5	8	1
GWP 8-B	8	33	14	10	2