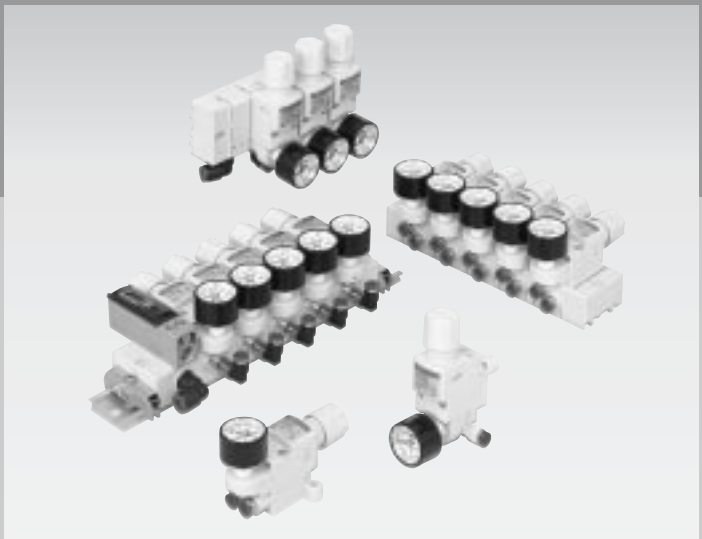
Compact direct acting precision regulator

■ Components for air preparation and pressure adjustment / F.R.L. unit



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● Discrete (RJB500)	624
● Block manifold (MNRJB500)	626
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Technical data	637
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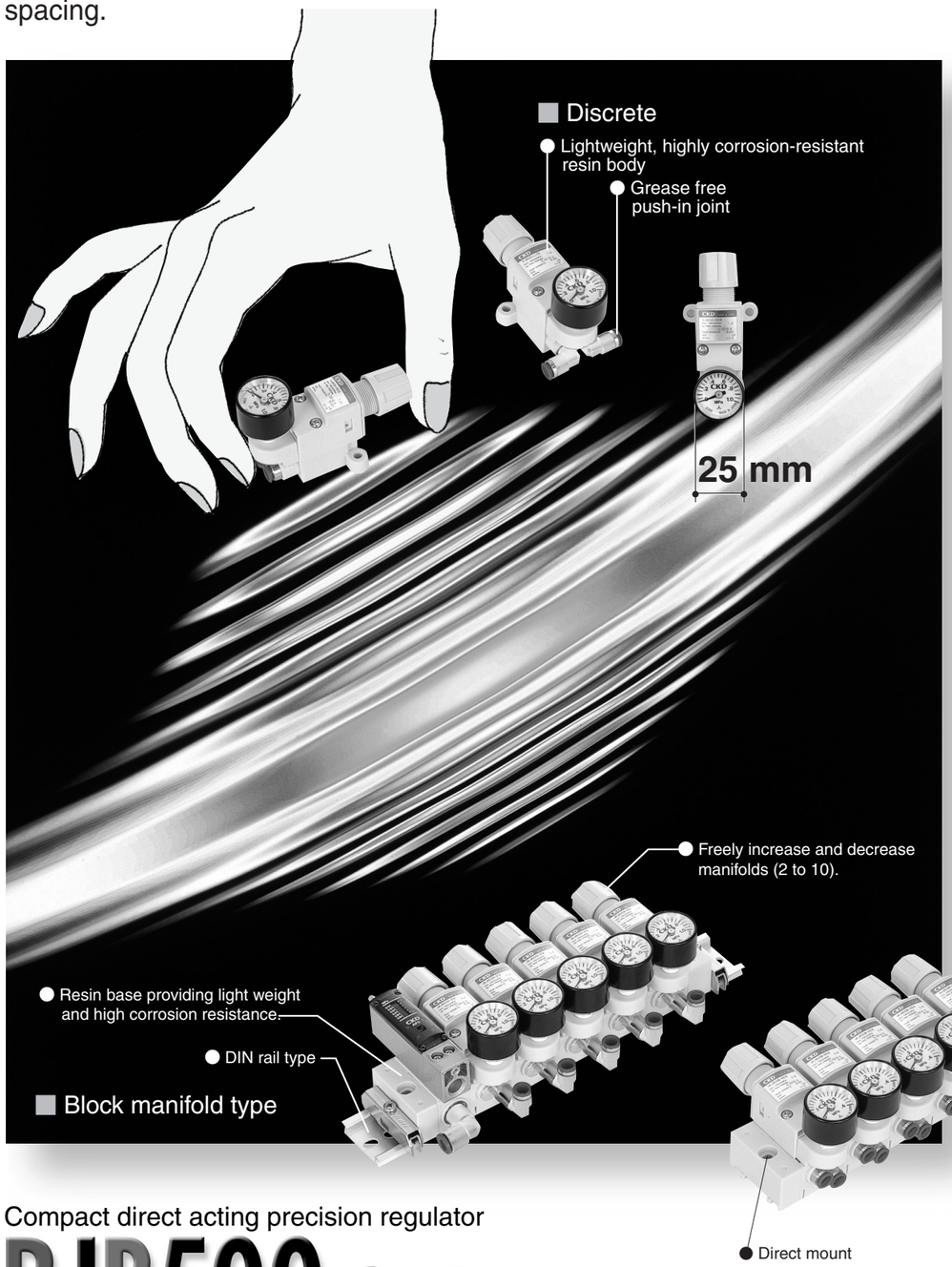
Precise control starting from

0.01MPa achieved with a miniature size.

This miniature direct-acting precision regulator realizes a minimum setting pressure of 0.01 MPa and sensitivity of 0.001 MPa even with compact 25 mm spacing.



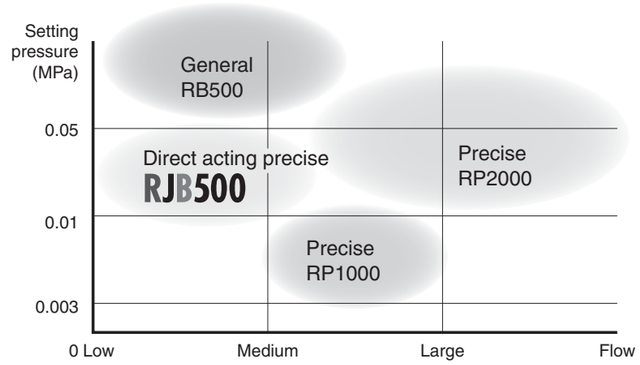
Compact direct acting precision regulator

RJB500 Series

Ideal for semiconductor manufacturing post processes, IT applications, and compact assembly, etc., requiring space saving, precision, and grease-free products

High-sensitivity control in low pressure ranges

Pressure can be set from 0.01 to 0.2 MPa for low pressure and from 0.02 to 0.5 MPa for standard pressures. Sensitivity is 0.001 MPa for both applications. Highly sensitivity adjustment is realized in low-pressure ranges with a special diaphragm.



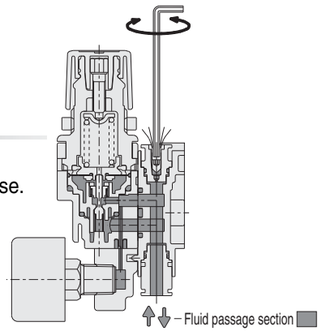
Grease-free specifications

Standard grease-free specifications are used for fluid passage areas and push-in joints, making this device ideal for applications susceptible to grease.

Energy saving

A variable constant-bleed mechanism is used.
minimum air consumption can be set to match the working pressure.

Energy is conserved with a variable constant-bleed mechanism



Fluid passage section grease free

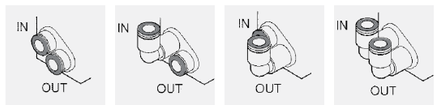
Compact

The push-in joint, mounting bracket, and pressure gauge are integrated, saving space and keeping things compact.

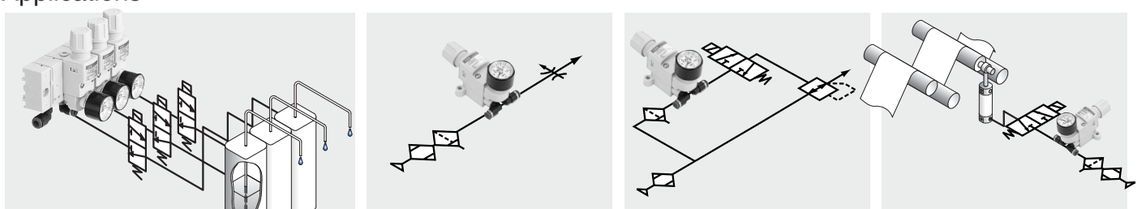
Conventional products RJB500

Improved workability

One-touch joints are standard. The piping direction can be selected for straight or elbow.



Applications



■ Liquid discharge control ■ Low pressure blow ■ Pilot pressure control ■ Tension control

MEMO

Pneumatic components

Safety precautions

Always read this section before starting use.
Refer to Intro 67 for general precautions for pneumatic components.

Compact direct operating precision regulator RJB500 Series

Design & Selection

⚠CAUTION

■ Avoid using this product where strong pulsation of pressure or vibration is applied.

■ Please consult with CKD for frequent operation.

■ Set a 5 μm or smaller air filter on the primary side of the regulator.

■ Differential pressure between primary and secondary sides is to be 0.1 to 0.7 MPa.

■ Even if primary and secondary pressure differ 0.7 MPa or less, secondary pressure may vibrate or make noise. In this case, lower primary pressure. If vibration or noise continues, contact CKD.

■ On/Off using the direction switch valve on the regulator's primary side can cause set pressure to change greatly. The direction switch valve should be installed on the regulator's secondary side.

■ When the set output pressure of regulator is exceeded, if damage and malfunction of devices at the secondary side could be caused, always provide a safety device.

Installation & Adjustment

⚠CAUTION

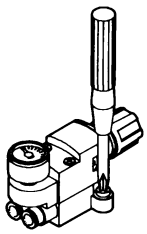
■ When transporting or installing the product, do not apply impact such as falling, etc, or failure of indicator accuracy may be caused.

■ Do not install the product where it is high temperature or humidity, or may cause a failure.

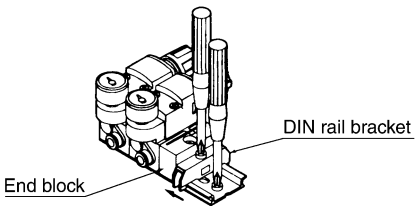
■ When installing a pressure gauge, screw the gauge into using a wrench on across floats of square section. If another section is used on, air leakage or damage may be caused.

■ When installing or piping, observe following matters.

- Check the IN arrow showing air inlet before connecting. If connected reversely, malfunction may be caused.
- Do not move and swing products with gripping adjustment knob.
- When installing a compact regulator, use M4 plain washer attached screws, and fix them with tightening torque 1.4 to 2.0 N·m or less.



- When installing a block manifold with DIN rail, fix the DIN rail, while pinching the bracket by end blocks of manifold. Recommended tightening torque of DIN rail bracket is 1.4 to 2.0 N·m.
  Fix DIN rail bracket, while making no gaps between end blocks. Care must be taken when expanding, maintaining or disassembling regulator blocks.

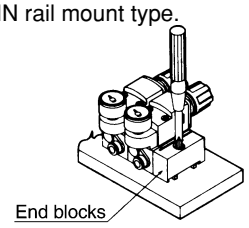


- Avoid installation where vibration or impact is applied.
- Flash the pipe carefully before installation.
- When assembling a pressure gauge or extending joint to a pressure gauge port, fix the part with tightening torque 3.5N·m or less.

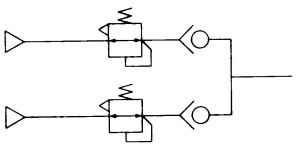
Installation & Adjustment

⚠CAUTION

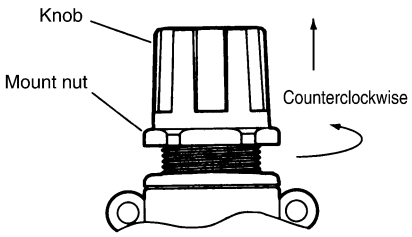
- When installing the product directly without using DIN rail (direct mount), fix end blocks on both sides with M4 set screws.
  Recommended tightening torque is 1.4 to 2.0 N·m.
  Install the product on fully flat plane.If the sheet plane is small, an external pressure from top may result in damaging manifold connection section. If flat sheet plane is not secured, use DIN rail mount type.



- When using in parallel as below, out side of circuit must not be closed. If closed circuit is required, install a check valve on each OUT side.



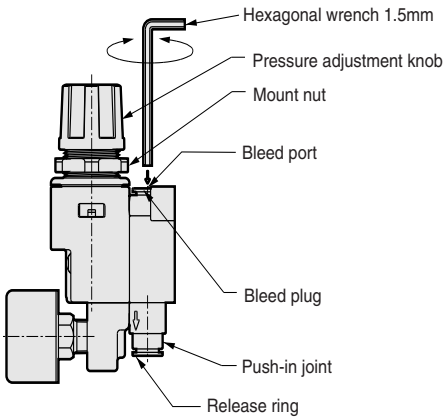
- When installing to a panel, loosening the mount nut, the nut function as a jack, so the knob is removed easily.
  Fix the product on a panel with a mount nut.



- Connecting a regulator, push-in joint is used. Tube coming off or air leakage could occur depending with outer diameter precision, wall thickness or hardness of piping tube. Use CKD specified tube. When mounting or dismounting a joint, press the release ring equally, while not twisting, then pull out the tube. When using a tube once used, cut the section having mark of chuck jaw.

Tube	O.D. (mm)	Tolerance of outer diameter (mm)	Bore size (mm)	Min. bending range (mm)
Soft nylon F-1500 series	ø4	±0.1	ø2.5	10
	ø6		ø4	20
	ø8		ø5.7	30
Urethane U-9500 series	ø4	+0.1 −0.15	ø2	10
	ø6		ø4	20
	ø8	+0.1 −0.2	ø5	30
Urethane NU series	ø4	±0.1	ø2.5	8
	ø6		ø4.5	15
	ø8		ø6	24

- Insert piping tube into push-in joint certainly and check that tube does not dislocate before starting use.
- For tube used with push in joint, cut the tube to right angle by the dedicating tool.
- Adjusting constant bleed
  Constant bleed is adjusted by turning the set screw in the constant bleed port, increasing it in proportion to the set pressure but if set pressure is 0.1 MPa or more to decrease it. In low pressure ranges, constant bleed should be increased to improve sensitivity.
  Constant bleed is set to 1.5 ℓ/min (ANR) before the product is shipped from CKD. Insert a hexagon wrench into the constant bleed port and adjust the rate. After adjustment, confirm that set pressure does not increase.
  When adjusting constant bleed, do not turn the hexagon wrench fully closed. It will not be possible to adjust pressure and damage could occur.



During Use & Maintenance

⚠CAUTION

■ Working air quality

- Use clean compressed air filtered with 5 μm of air filter.
- Do not use the product with other than compressed air. Air containing corrosive gas, liquid and chemical may result in pressure adjustment failure, damage to body or rubber swelling.

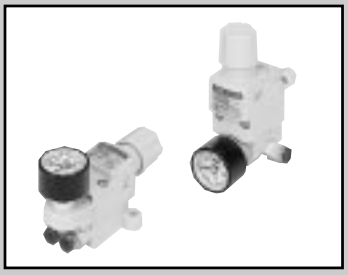
■ Working environment

Avoid using the products in following environment.

- When ambient temperature exceeds range of 5 to 60˚C.
- Where water drip and cutting lubricant contact to the product.
- Where it is humid, temperature fluctuates and dew condensates.
- Where splash of salt air or sea water contacts to the product.
- If there is atmosphere of corrosive gas and liquid and chemical material.
- Where the product is exposed to direct sun lay.

■ Pressure management

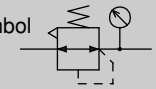
- Confirm primary pressure before setting.
- Pressure higher than the primary pressure can not be set.
- If pressure adjustment knob is rotated clockwise, the secondary pressure increases, while counterclockwise, the pressure decreases. When adjusting pressure pull up the knob to check that lock is not applied.
- Pressure is set in the depressurizing direction (high pressure → low pressure), so a highly precise setting can be made.
- Lock the pressure adjustment knob after setting pressure.
- Air constantly leaks from the breed hole. This is necessary for precise pressure control, so do not plug the hole.
- When setting pressure, turn the secondary direction switch valve several times and confirm set pressure. Failure to confirm pressure could cause set pressure to change greatly.



Compact direct operating precision regulator

RJB500 Series

Grease free specification, compact, space saving type.
Port size: Push-in joint ø4, ø6

JIS symbol 

RoHS CAD

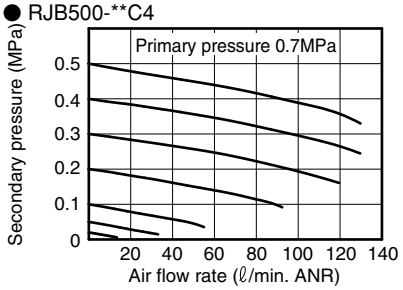
Specifications

Descriptions		RJB500
Working fluid		Compressed air
Max. working pressure	MPa	1.0
Withstanding pressure	MPa	1.5
Ambient temperature range	˚C	5 to 60
Set pressure range	MPa	0.02 to 0.5 (0.01 to 0.2) (Note 1)
Sensitivity	MPa	0.001 (lock sensitivity 0.004) (Note 2)
Air consumption	ℓ/min.	1.5 (Note 3)
Port size	IN-OUT	Push-in joint: ø4, ø6
	GAUGE	Rc1/8
Product weight	g	90

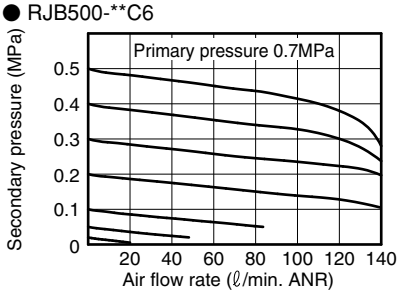
Note 1: Values in parentheses are for low pressure.
Note 2: Set pressure sensitivity for the pressure adjustment knob block's minimum spacing.
Note 3: Value for secondary side setting pressure 0.1 MPa.

Flow characteristics

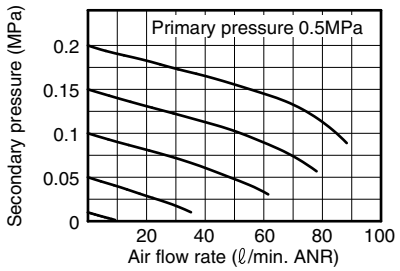
● RJB500-**C4



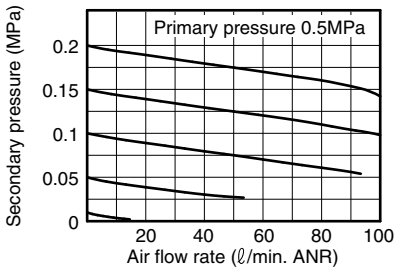
● RJB500-**C6



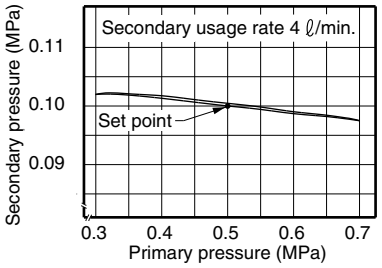
● RJB500-**C4-L



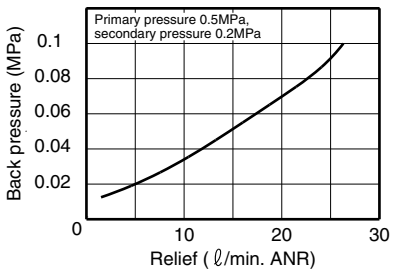
● RJB500-**C6-L



Pressure characteristics



Relief characteristics



How to order

RJB500 - **SSC4** - **P**

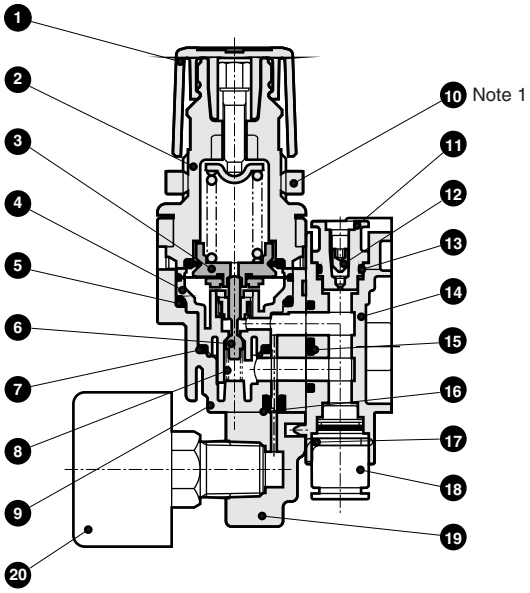
- RJB500: Model no.
- SSC4: Ⓐ Connection
- P: Ⓑ Option

Symbol			Descriptions
Ⓐ Connection			
Direction	IN	S	Straight
		L	Elbow
	OUT	S	Straight
		L	Elbow
Port size		C4	ø4
		C6	ø6
Ⓑ Option			
Panel mount		Blank	Without nut
		P	With nut
Pressure range		Blank	0.02 to 0.5 MPa Note 1
		L	0.01 to 0.2 MPa Note 2
Pressure gauge		Blank	With pressure gauge
		T	Without pressure gauge (gauge port Rc1/8)

⚠ Note on model no. selection

Note 1: A 0 to 1.0 MPa pressure gauge is assembled.
Note 2: A 0 to 0.4 MPa pressure gauge is assembled.
Note 3: For panel installation, indicate option symbol "P".

Internal structure and parts list

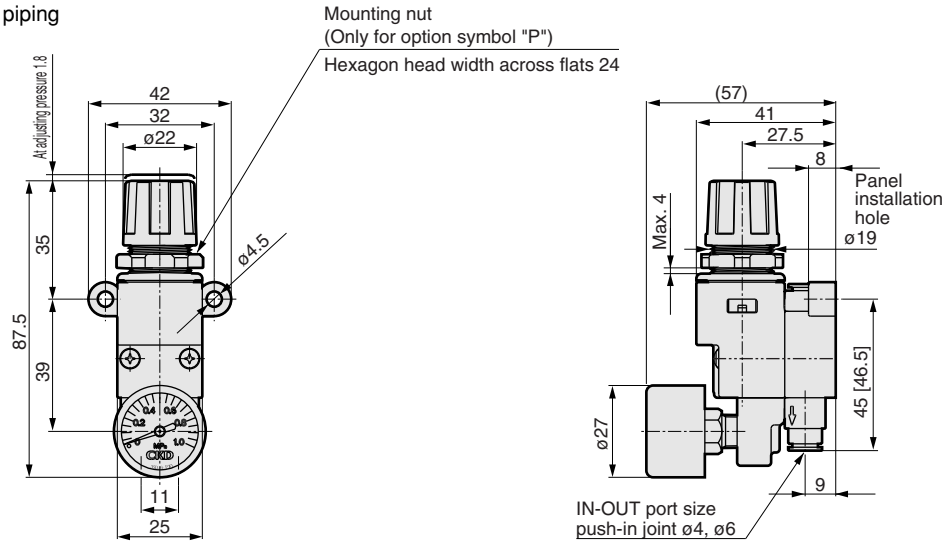


Note 1: A mounting nut is optional.
Nut is attached only for option symbol "P".

No.	Parts name	Material
1	Knob	Polyacetal resin
2	Guard	Polyamide resin
3	Diaphragm assembly	Polyacetal resin, nitrile rubber, cloroplane rubber
4	Valve guide assembly	Polyacetal resin, brass, 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	Bleeding plug	Polyamide resin
12	Hexagon socket head set screw	Stainless steel
13	O ring	Nitrile rubber
14	Piping block assembly	Polyamide resin, steel
15	Body packing seal	Hydrogen nitrile rubber
16	Packing seal	Nitrile rubber
17	Stop pin	Stainless steel
18	Cartridge joint	
19	Gauge plug	Polyamide resin
20	Pressure gauge	

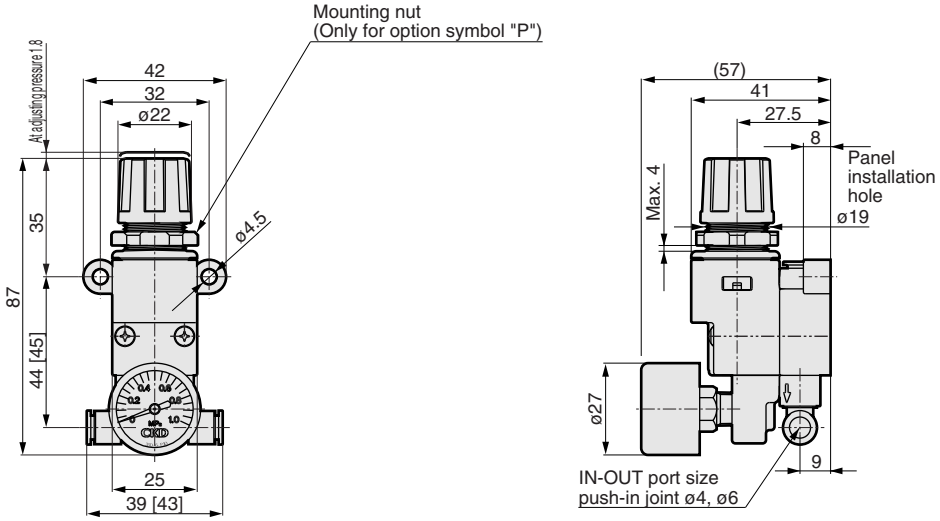
Dimensions CAD

● RJB500 straight piping

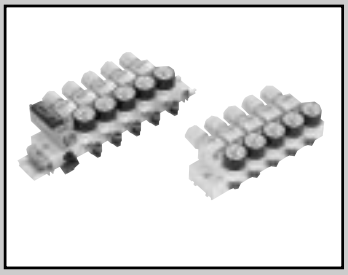


Dimensions shown in parentheses are for push-in joint ø6.

● RJB500 elbow piping



Dimensions shown in parentheses are for push-in joint ø6.



Block manifold compact direct operating precision regulator

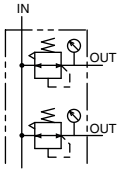
MNRJB500 Series

Mix manifold of RJB500/RB500 Series
Port size: Push-in joint ø4, ø6, ø8

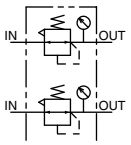
RoHS CAD

JIS symbol

Common supply type



Individual supply type



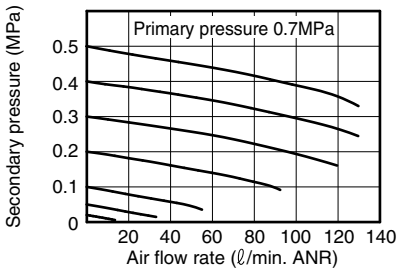
Specifications

Descriptions		MNRJB500A	MNRJB500B
Working fluid		Compressed air	
Max. working pressure MPa		0.8	
Withstanding pressure MPa		1.2	
Ambient temperature range ˚C		5 to 60	
Set pressure range MPa		0.02 to 0.5 (0.01 to 0.2) (Note 1)	
Sensitivity MPa		0.001 (lock sensitivity 0.004) (Note 2)	
Air consumption ℓ/min.		1.5 (Note 3)	
Port size	IN	Push-in joint ø6, ø8	Push-in joint ø4, ø6
	OUT	Push-in joint: ø4, ø6	
	GAUGE	Rc1/8	

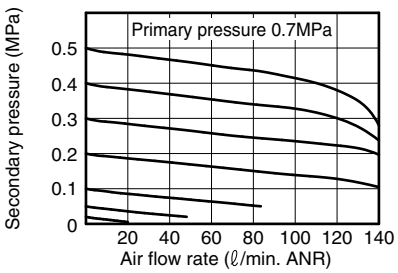
Note 1: Values in parentheses are for low pressure.
Note 2: Set pressure sensitivity for the pressure adjustment knob block's minimum spacing.
Note 3: Value for secondary side setting pressure 0.1 MPa.

Flow characteristics

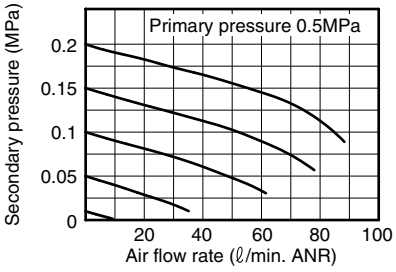
● MNRJB500A-**C64
● MNRJB500B-**C4



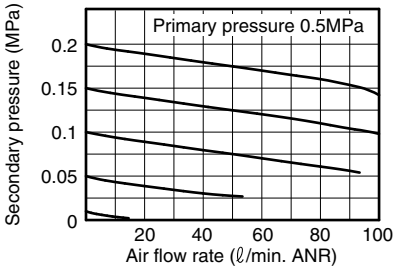
● MNRJB500A-**C86
● MNRJB500B-**C6



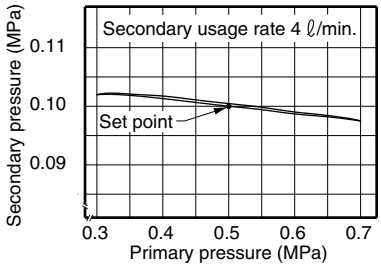
● MNRJB500A-**C64-L
● MNRJB500B-**C4-L



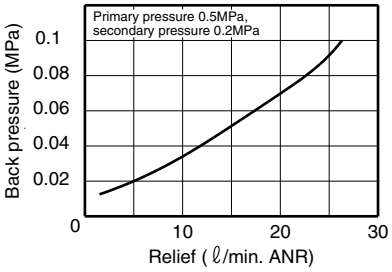
● MNRJB500A-**C86-L
● MNRJB500B-**C6-L



Pressure characteristics



Relief characteristics



Note 1: With common exhaust, primary pressure is insufficient when using multiple manifolds simultaneously. So, install air supply block per three stations. Use an air supply port larger than OUT port size.

How to order

MNRJB500A - SSC64 - 5 - L - D

Ⓐ Model no. Note 1

Ⓑ Joint type

Ⓒ Port size

Ⓓ Station number Note 2

Ⓔ Option Note 3

Ⓕ Installation method

Symbol	Descriptions
Ⓐ Model no.	
MNRJB500A	Common supply type
MNRJB500B	Individual supply type
Ⓑ Joint type	
IN direction	
S	Straight
L	Elbow
OUT direction	
S	Straight
L	Elbow

Ⓒ Port size IN-OUT

		MNRJB500A	MNRJB500B
C64	IN; ø6, OUT; ø4	●	
C66	IN; ø6, OUT; ø6	●	
C84	IN; ø8, OUT; ø4	●	
C86	IN; ø8, OUT; ø6	●	
C4	IN / OUT; ø4		●
C6	IN / OUT; ø6		●

Ⓓ Station number

1	1 station
to	to
10	10 stations

Ⓔ Option

			MNRJB500A	MNRJB500B
Pressure range	**Blank**	0.02 to 0.5 MPa Note 4	●	
	L	0.01 to 0.2 MPa Note 5	●	
Pressure gauge	**Blank**	With pressure gauge	●	
	T	Without pressure gauge (gauge port Rc1/8)	●	
Flow direction	**Blank**	Standard flow (left → right)	●	
	X1	Reverse flow (right → left)	●	

Ⓕ Installation method

Blank	DIN rail installation
D	Direct mount

⚠Note on model no. selection

Note 1: Air supply block is to be 1 station.
When using three or more stations simultaneously with the common supply, increase one supply block station for every three stations.
In this case, indicate specifications in the mix manifold specification sheet.

Note 2: Maximum installation number of direct mount type is 5 stations.

Note 3: Same options and pressure gauge apply for each regulator block.

Note 4: A 0 to 1.0 MPa pressure gauge is assembled.

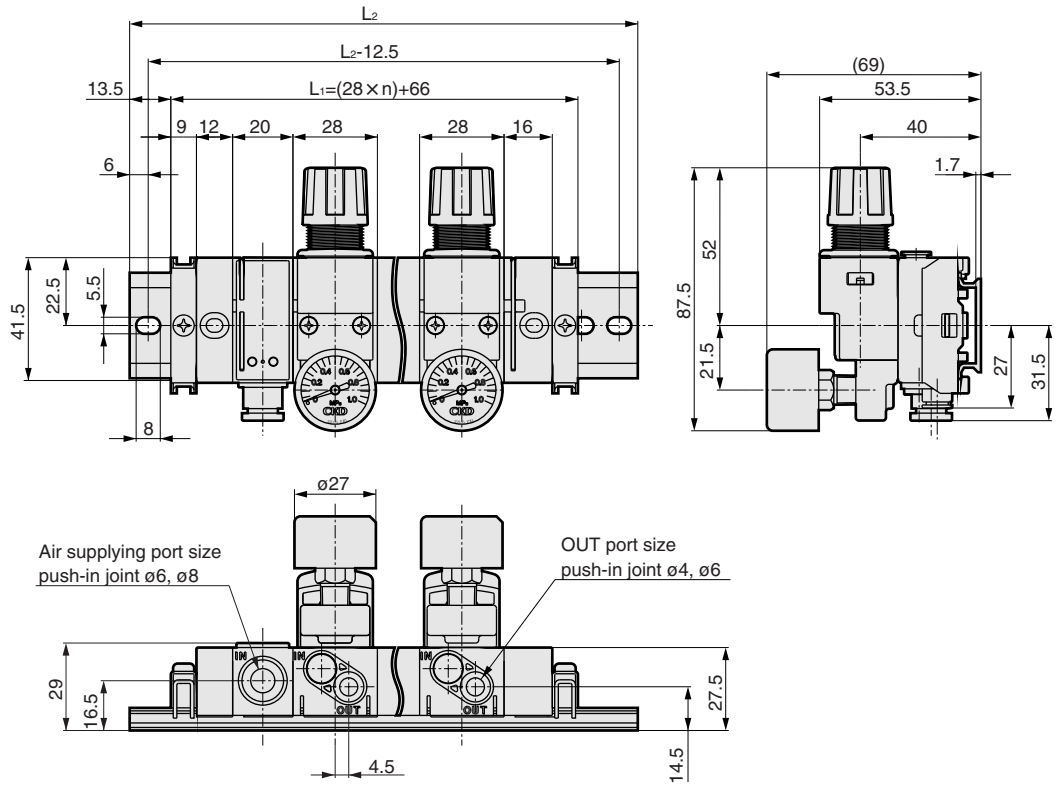
Note 5: A 0 to 0.4 MPa pressure gauge is assembled.

Note 6: When other than basic model specifications, issue the mix manifold specification sheet on page 639.

Dimensions CAD

● Common supply type DIN rail mount type

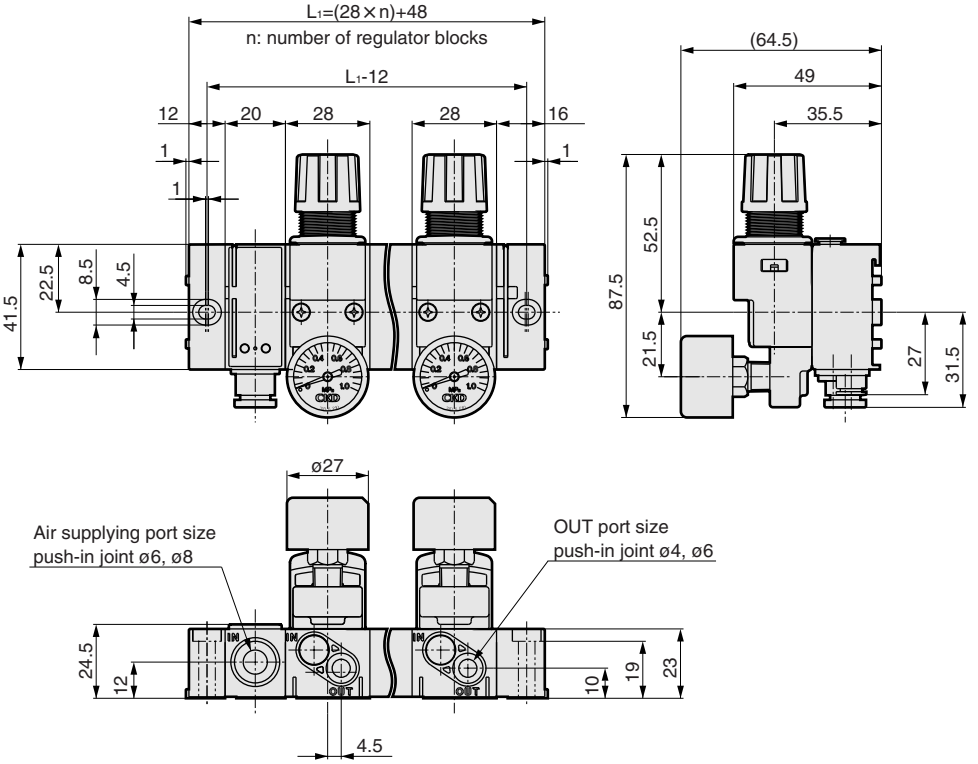
MNRJB500A-**C**-*



Station number	L2 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 type direct mount type

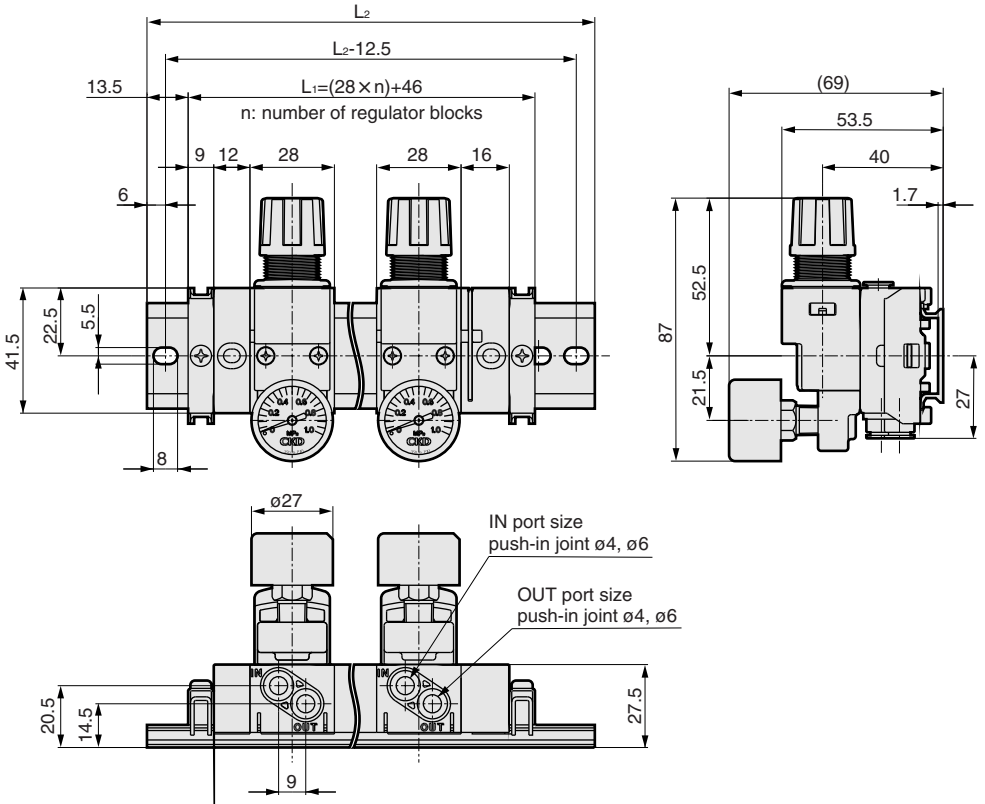
MNRJB500A-**C**-*-D



Dimensions

● Individual supply type DIN rail mount type

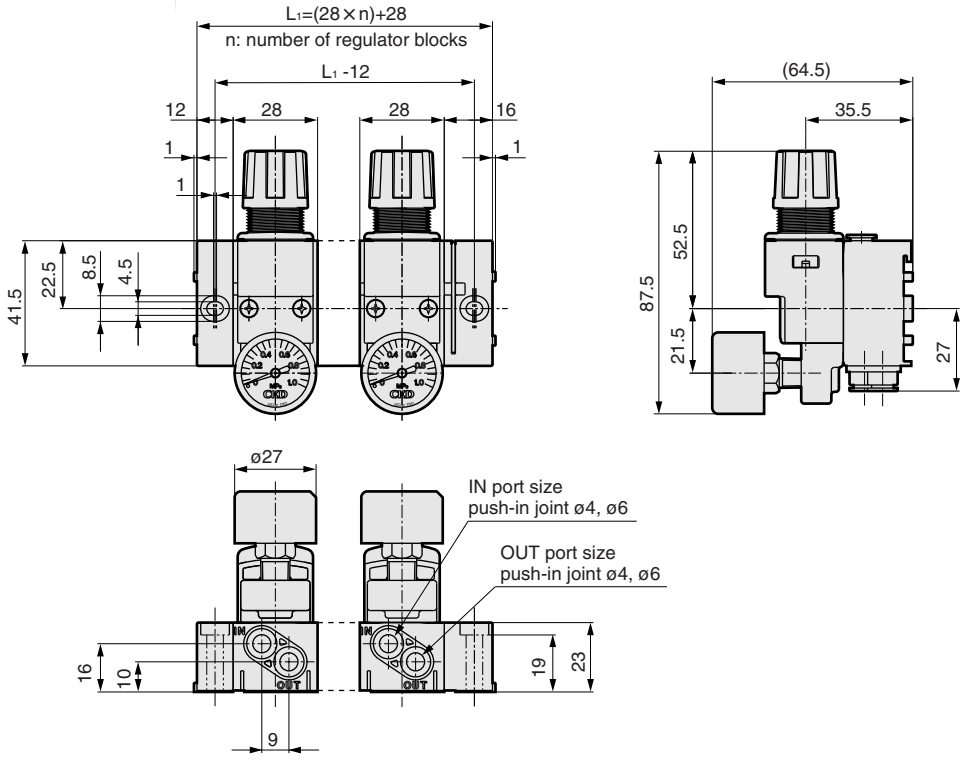
MNRJB500B-**C*-*



Station number	L2 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

● Individual supply type direct mount type

MNRJB500B-**C*-*-D

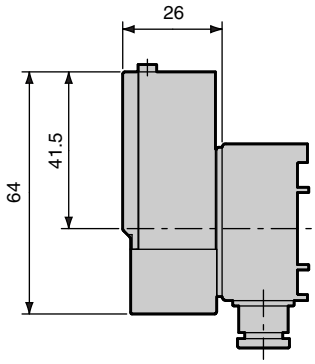


Pressure switch / push-in joint elbow type dimensions

● Air supply block with pressure gauge

NRB500-APS-*C*

Pressure switch APS is integrated into air supply block to control primary pressure.

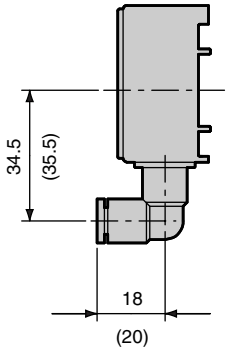


● Air supply block

Push-in joint elbow type

NRB500-NP-LC*

Front or rear piping is enabled with air supply port with elbow joint.



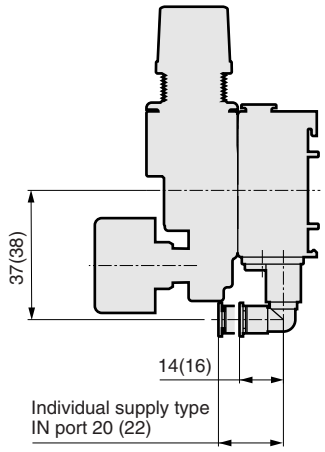
Dimension in ( ) is for C8

● Regulator block

Push-in joint elbow type

NRJB500*-**C*

Front or rear piping is enabled with IN and OUT ports with elbow joint.



Dimension in ( ) is for C6

MEMO

Regulator block

How to order

NRJB500B - SSC4 - L

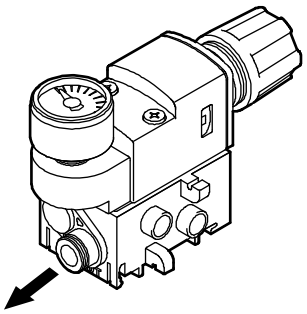
- Ⓐ Model no.
- Ⓑ Connection
- Ⓒ Option

Symbol			Descriptions
Ⓐ Model no.			
NRJB500A			Common supply type
NRJB500B			Individual supply type
Ⓑ Connection			
Direction	Note 1 **IN**	**S**	Straight
		L	Elbow
	OUT	**S**	Straight
		L	Elbow
Port size	**IN-OUT**	**C4**	ø4
		C6	ø6
Ⓒ Option			
Pressure range		**Blank**	0.02 to 0.5MPa Note 2
		L	0.01 to 0.2MPa Note 3
Pressure gauge		**Blank**	With pressure gauge
		T	Without pressure gauge (gauge port Rc1/8)

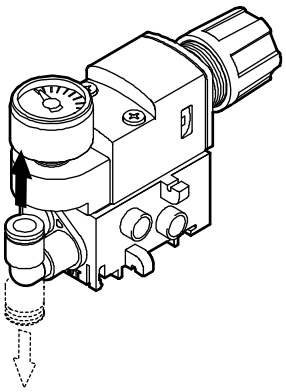
⚠Note on model no. selection

Note 1: For common supply, IN port connection type is not required.
Note 2: A 0 to 1.0 MPa pressure gauge is assembled.
Note 3: A 0 to 0.4 MPa pressure gauge is assembled.

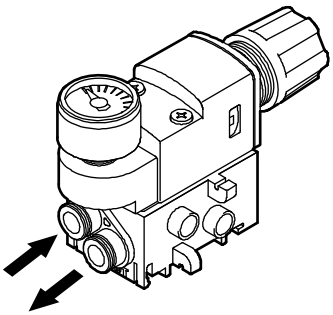
● Common supply straight type
Downward piping in enabled with OUT port with straight joint.



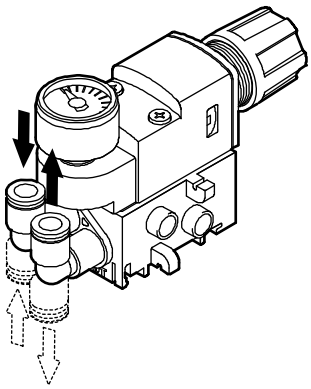
● Common supply elbow type
Front or rear piping is enabled with OUT port with elbow joint.



● Individual supply straight type
Front or rear piping is enables with IN and OUT ports with straight joint.



● Individual supply elbow type
Front or rear piping is enabled with IN and OUT ports with elbow joint.



Sub base

How to order

NRJB500B - NS - SSC4 MP

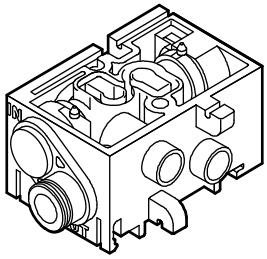
- Ⓐ Model no.
- Ⓑ Connection
- Ⓒ Option

Symbol			Descriptions
Ⓐ Model no.			
NRJB500A			Common supply
NRJB500B			Individual supply
Ⓑ Connection			
Direction	Note 1 IN	S	Straight
		L	Elbow
	OUT	S	Straight
		L	Elbow
Port size	IN-OUT	C4	ø4
		C6	ø6
Ⓒ Option			
Blank			Without masking plate
MP Note 2			With masking plate

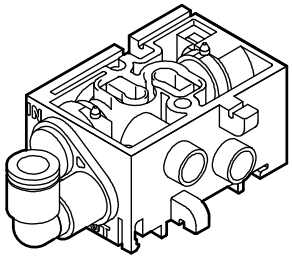
⚠Note on model no. selection

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

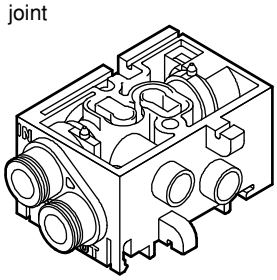
● Common supply straight type
OUT port with straight joint



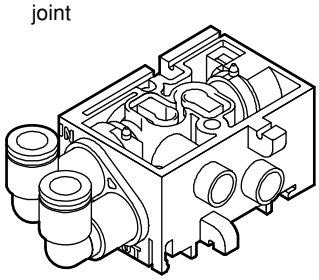
● Common supply elbow type
OUT port with elbow joint



● Individual supply straight type
IN, OUT ports with straight joint



● Individual supply elbow type
IN, OUT ports with elbow joint



Regulator body

How to order

RJB500 - 00 S - L

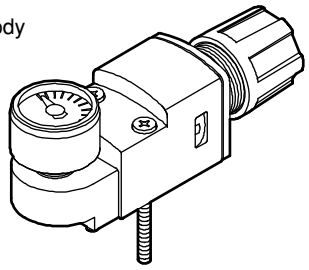
- Ⓐ Connection
- Ⓑ Option

Symbol		Descriptions
Ⓐ Connection		
S		Discrete (RJB500)
M		Manifold (MNRJB500A.B)
Ⓑ Option		
Panel mount	Blank	Without nut
	P	With nut
Pressure range	Blank	0.02 to 0.5 MPa Note 1
	L	0.01 to 0.2 MPa Note 2
Pressure gauge	Blank	With pressure gauge
	T	Without pressure gauge (gauge port Rc1/8)

⚠Note on model no. selection

Note 1: A 0 to 1.0 MPa pressure gauge is assembled.
Note 2: A 0 to 0.4 MPa pressure gauge is assembled.

● Regulator body



Common supply block

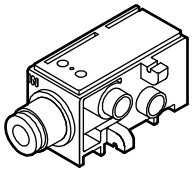
How to order

NRJB500-NP-SC6

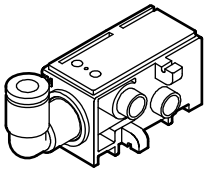
Ⓐ Connection

Symbol		Descriptions
Ⓐ **Connection**		
Direction	**S**	Straight
	L	Elbow
Port size	**C6**	ø6
	C8	ø8

● Straight type
Air supply port with straight joint



● Elbow type
Air supply port with elbow joint



Common supply block with pressure switch

How to order

NRB500-APS-SC6-3
Note 1

Ⓐ Connection

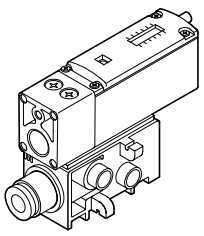
Ⓑ Lead wire length

Symbol		Descriptions
Ⓐ **Connection**		
Direction	**S**	Straight
	L	Elbow
Port size	**C6**	ø6
	C8	ø8
Ⓑ **Lead wire length**		
	Blank	1m
	3	3m
	5	5m

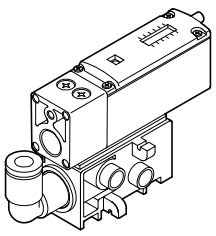
⚠Note on model no. selection

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

● Straight type
Air supply port with straight joint



● Elbow type
Air supply port with elbow joint



End block

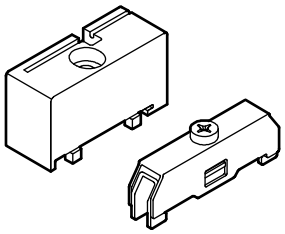
How to order

NRJB500-NE (D)

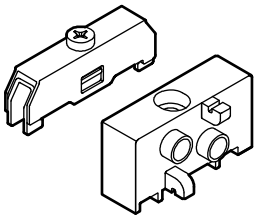
Ⓐ Connection

Symbol	Descriptions
Ⓐ **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

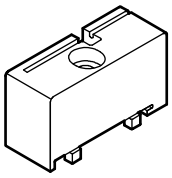
● End block R for DIN rail



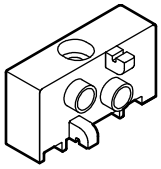
● End block L for DIN rail



● 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

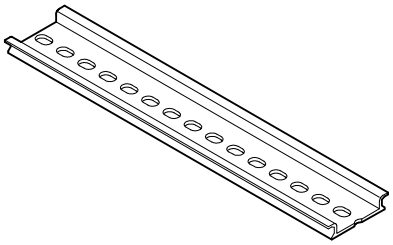
How to order

NRB500-BAA (150)

Ⓐ DIN rail dimension
Note 1

Symbol	Descriptions
Ⓐ **DIN rail dimension**	
125	125mm
150	150mm
⋮	⋮

● DIN rail



⚠Note on model no. selection

Note 1: Refer to "How to fill out mix manifold specifications" and DIN rail length and manifold dimension for determin.ing DIN dimension, and indicate the dimension on the sheet with mm unit.

Push-in cartridge joint (regulator block)

How to order

NRJB500 - JOINT - CL4

Ⓐ Type

Symbol	Descriptions	
Ⓐ **Type**		
C4	Straight ø4	
C6	Straight ø6	
CL4	Elbow ø4 (discrete)	
CL6	Elbow ø6 (discrete)	
CLL4	Long elbow ø4 (manifold)	
CLL6	Long elbow ø6 (manifold)	

Cartridge joint (common air supply block)

How to order

NRJB500 - Q - JOINT - L6

Ⓐ Type

Symbol	Descriptions	
Ⓐ **Type**		
6	Straight ø6	
8	Straight ø8	
L6	Elbow ø6	
L8	Elbow ø8	

Pressure gauge

How to order

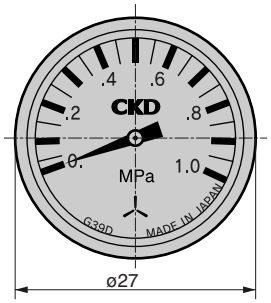
G39D - 6 - P10

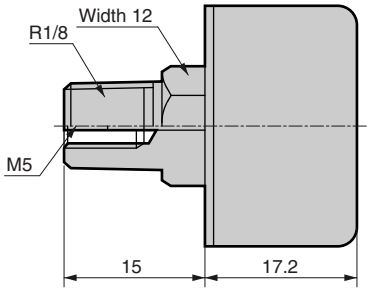
Ⓐ Pressure display

Symbol	Descriptions
Ⓐ **Pressure display**	
P10	0 to 1.0 MPa
P04	0 to 0.4 MPa

Dimensions

● G39D





Blanking plug

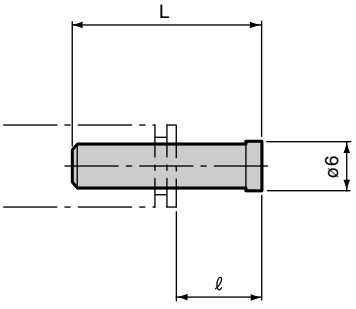
How to order

GWP 4 - B

Ⓐ Connection

Symbol	Descriptions
Ⓐ **Connection**	
4	ø4
6	ø6
8	ø8

Dimensions



⚠Note on model no. selection

Note 1: Sales unit is 10 pieces per unit.

Model no.	Joint port size ø	L	ℓ	d
GWP 4-B	4	27	11	6
GWP 6-B	6	29	11.5	8
GWP 8-B	8	33	14	10

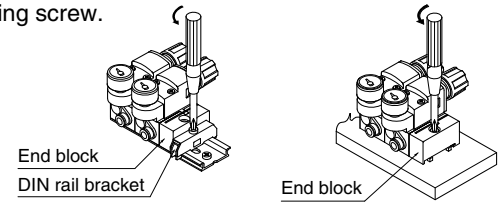
⚠ CAUTION

Disassembling and assembling the block manifold, and replacing the cartridge joint

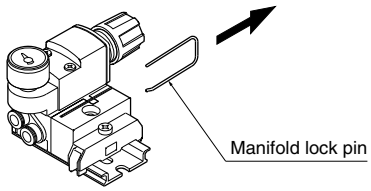
To change the regulator block when the regulator body or regulator block specifications change or when life has been reached, or when adding an air supply block, use the following procedures to expand, disassemble, and assemble parts. Refer to the separate instruction manual for details.
Stop the air pressure source supply and release residual pressure before starting disassembly work. After assembling parts, confirm that the lock pin is accurately inserted in the coupling groove between blocks before use. When using DIN rail installing, confirm that the DIN rail bracket is securely fixed ontothe end block with no gaps. When directly installing without a DIN rail, check that the end block is fixed with screw before starting use. Air could leak between blocks if the end block is not securely fixed.

Replacing the regulator block and air supply block

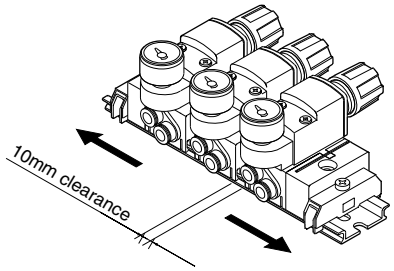
(1) When using the DIN rail installing, loosen the DIN rail bracket set screw.
When directly installing without a DIN rail, remove the end block fixing screw.



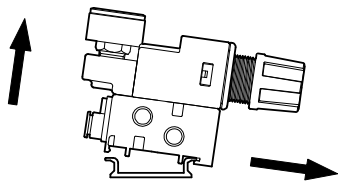
(2) Using a tip thin screwdriver, pull out the manifold lock pin coupling the regulator block and air supply block to be replaced.



(3) Slide the block toward the end block, and make an approximately 10mm opening at both ends of the block to be replaced. When installed directly, pull out blocks on both sides.



(4) Remove the pressure gauge up by pulling it up and toward the pressure adjustment knob. When DIN rail brackets on both sides are slid 2mm or more from the end block, the entire manifold block can be removed.



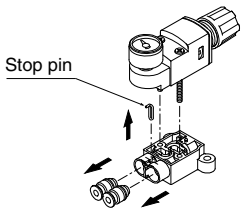
(5) Replace with a new block.
(6) Check that there is no gap between blocks, and then insert the manifold lock pin until it contacts the bottom of the groove.
(7) Refer to the safety precautions and installation methods, and fix the manifold block.

Increasing the regulator and air supply block rows

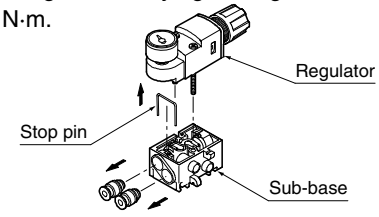
(1) If blocks may be increased, order the DIN rail with a length providing for the increase. If the DIN rail is too short when blocks are increased, replace with a DIN rail that accommodates the increase.
(2) When installing with DIN rails, fix DIN rail brackets. When directly installing without a DIN rail, fix the end block.

Replacing the cartridge joint

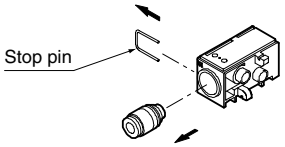
Replacing the compact regulator
(1) Loosen the screw on the regulator body, and disassemble the piping block.
(2) Using a minus screwdriver, etc., remove the lock pin inserted onto the top of the sub base. Replace the cartridge joint. Confirm that there is no dirt, etc., on the joint's O-ring, and then assemble it in the original position.
Tighten the regulator body tightening screw with a torque of 0.5 to 0.8 N·m.



Replacing the block manifold
(1) Disassemble the block following the regulator block and air supply block replacement procedures.
(2) To replace the regulator block's cartridge joint, loosen the screw on the regulator body, and disassemble the sub base. Using a minus screwdriver, etc., remove the lock pin inserted onto the top of the sub-base. Replace the cartridge. Confirm that there is no dirt, etc., on the joint's O-ring, and then assemble it in the original position.
Tighten the regulator body tightening screw with a torque of 0.5 to 0.8 N·m.



To replace the air supply block cartridge joint, remove the lock pin inserted on the air supply block side with a minus driver, etc. Then, replace the cartridge joint.



(3) Check that the cartridge joint is fixed with the lock pin and will not move.

How to fill out mix manifold specifications

● Mix manifold model No.

A mixed manifold consisting of the compact direct acting precision type (RJB500 Series) and general-purpose type (RB500 Series) is available.
Refer to page 632 to 636 for model No. per component.

MNRB500A - MX- 3 -

- **A** Model no.
- **B** number of regulator blocks
- **C** Installation method

Symbol	Descriptions
A Model no.	
MNRJB500A	Common supply type (only compact direct acting precision regulator selected)
MNRB500A	Common supply type (compact direct acting precision regulator, general regulator mixed)
MNRJB500B	Individual supply type (only compact direct acting precision regulator selected)
MNRB500B	Individual supply type (compact direct acting precision regulator, general regulator mixed)
B Number of regulator blocks	
1	1 station
2	2 stations
⋮	⋮
C Installation method	
Blank	DIN rail
D Note 1	Direct mount

⚠Note on model no. selection

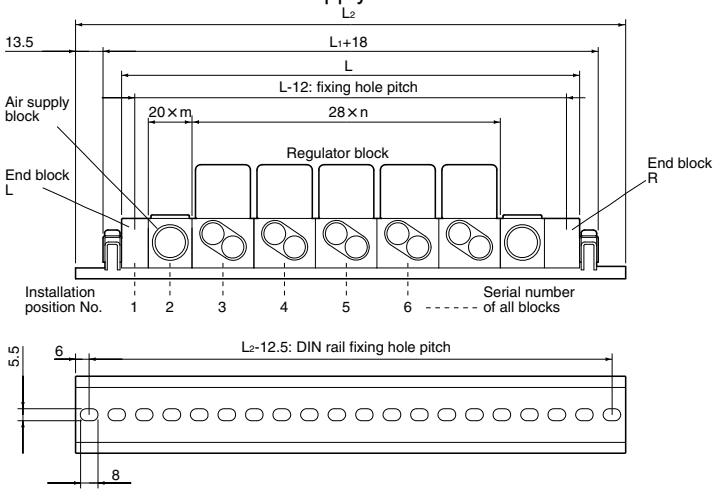
Note 1: Station number of direct mount block is tobe within 6 blocks including regular and air supply blocks. However, a regular block is to be 5 stations or less.
Note 2: Grease-free specifications are not available when the NRB500* and common exhaust block with APS are used. Grease is applied before these are assembled.
Note 3: Consult with CKD if the common supply and the individual supply types are combined.

Configurations	Model no. \ Installation position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Quantity
End block L	N RB 500-NE	○														1
Common air supply block	N RB 500-NP-		○													
Common air supply block with APS	NRB500-APS- SC6 - 3			○												1
Regulator block	N RB 500 A - SC6 -				○	○										1
	N RJB 500 A - SC6 -															2
	N 500 - -															
	N 500 - -															
	N 500 - -															
	N 500 - -															
	N 500 - -															
	N 500 - -															
Sub-base with masking plate	N 500 -NS- -MP															
End block R	N RB 500-NE						○									1
DIN rail	L2 = 175 mm	Accessories Blanking plug				GWP4-B Piece GWP6-B Piece					GWP8-B Piece					

● DIN rail length and manifold dimensions

Manifold length L2: Refer to the table on the right.

L=(28×n)+(20×m)+28
n: Regulator block number
m: Air supply block number



● Common supply type Manifold L2 dimensions

Station number	Dimension of m = 1	Dimension of m = 2	Dimension of m = 3
1	125		
2	150		
3	175	200	
4	212.5	225	
5	237.5	262.5	275
6	262.5	287.5	300
7	287.5	312.5	337.5
8	325	337.5	362.5
9	350	375	387.5
10	375	400	412.5

● Individual supply type Manifold L2 dimensions

Station number	L2 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

MNRJB500 mix manifold specifications

Issue date / /

Your company name

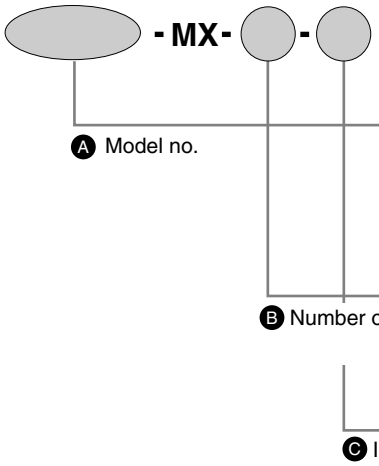
Contact

Order No.

Contact

Slip No. Quantity Set Delivery /

● Mix manifold model No.



Symbol	Descriptions
Ⓐ Model no.	
MNRJB500A	Common supply type (only compact direct acting precision regulator selected)
MNRB500A	Common supply type (compact direct acting precision regulator, general regulator mixed)
MNRJB500B	Individual supply type (only compact direct acting precision regulator selected)
MNRB500B	Individual supply type (compact direct acting precision regulator, general regulator mixed)
Ⓑ Number of regulator blocks	
1	1 station
2	2 stations
⋮	⋮
Ⓒ Installation method	
Blank	DIN rail
D Note 1	Direct mount

⚠Note on model no. selection

Note 1: Station number of direct mount block is tobe within 6 blocks including regular and air supply blocks.
However, a regular block is to be 5 stations or less.
Note 2: Grease-free specifications are not available when the NRB500* and common exhaust block with APS are used. Grease is applied before these are assembled.
Note 3: Consult with CKD if the common supply and the individual supply types are combined.

● Mix manifold specifications

Configurations	Installation position / Model no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Quantity
End block L	N □ 500-NE															
Common air supply block	N □ 500-NP- □															
Common air supply block with APS	NRB500-APS- □ - □															
Regulator block	N □ 500 □ - □ - □															
	N □ 500 □ - □ - □															
	N □ 500 □ - □ - □															
	N □ 500 □ - □ - □															
	N □ 500 □ - □ - □															
	N □ 500 □ - □ - □															
	N □ 500 □ - □ - □															
	N □ 500 □ - □ - □															
Sub-base with masking plate	N □ 500 □ - NS- □ -MP															
End block R	N □ 500-NE															
DIN rail Note 4	L_2 = mm	Accessories				GWP4-B				Piece	GWP8-B				Piece	
		Blanking plug				GWP6-B				Piece						

Note 3: Select the DIN rail L_2 dimensions from the L_2 dimensions given on page 638.