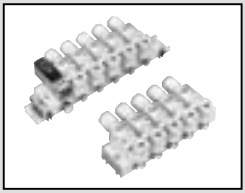


Block manifold regulator

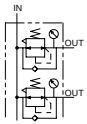
MNRB500 Series

Port size: Push-in joint 4, 6 and 8 dia.

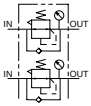
CAD DATA AVAILABLE.

JIS symbol

Common supply type



Individual supply type



Specifications

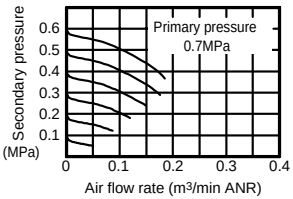
Descriptions		MNRB500A	MNRB500B
Working fluid		Compressed air	
Max. working pressure MPa		0.8	
Withstanding pressure MPa		1.2	
Ambient temperature range °C		5 to 60	
Set pressure range MPa		0.05 to 0.7 (Note 1)	
Relief		With relief mechanism	
Port size	IN	Push-in joint 6, 8 dia.	Push-in joint 4, 6 dia.
	OUT	Push-in joint: 4, 6 dia.	
	GAUGE	Rc1/8	

Note 1: 0.05 to 0.35 for low pressure specifications.

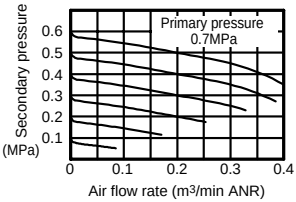
Flow characteristics

For use with 1 or 2 stations

- MNRB500A-SSC64
- MNRB500B-SSC4

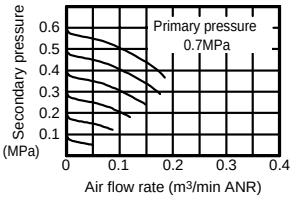


- MNRB500A-SSC86
- MNRB500B-SSC6

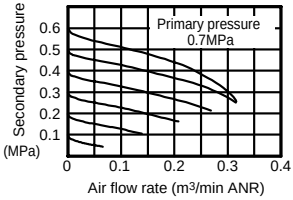


For use with 3 stations

- MNRB500A-SSC64



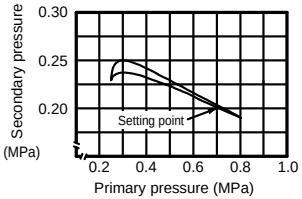
- MNRB500A-SSC86



Note 1: For common supply type, if multiple stations work same time, the pressure could be short temporally. So, install an air supply block per 3 stations. Use an air supply port larger than OUT port size.

Note 2: If 3 stations are used same time, the characteristics apply for the remaining station when consumption of other two stations in three reaches 200L/min.

Pressure characteristics



How to order

MNRB500A - SSC64 - 5 - N G39 - D

Ⓐ Model Note 1

Symbol	Descriptions
Ⓐ Model	
MNRB500A	Common supply type
MNRB500B	Individual supply type

Ⓑ Joint type

Symbol	Descriptions
Ⓑ Joint type	
IN direction	
S	Straight
L	Elbow
OUT direction	
S	Straight
L	Elbow

Ⓒ Port size

Symbol	Descriptions	MNRB500A	MNRB500B
Ⓒ Port size IN-OUT			
C64	IN: 6 dia., OUT: 4 dia.	●	
C66	IN: 6 dia., OUT: 6 dia.	●	
C84	IN: 8 dia., OUT: 4 dia.	●	
C86	IN: 8 dia., OUT: 6 dia.	●	
C4	IN and OUT: 4 dia.		●
C6	IN and OUT: 6 dia.		●

Ⓓ Station No. Note 2

Symbol	Descriptions
Ⓓ Station No.	
1	1 station
2	2 stations
3	3 stations
4	4 stations
5	5 stations

Ⓔ Option Note 3

Symbol	Descriptions	MNRB500A	MNRB500B
Ⓔ Option			
Blank	Standard products	●	
L	For low pressure	●	
N	Non-relief	●	
T	Without pressure gauge	●	
X1	Right IN	●	

Ⓕ Pressure gauge Note 4

Symbol	Descriptions
Ⓕ Pressure gauge	
Blank	21 dia. pressure gauges dia.
	27 dia. pressure gauge for low pressure
G39	27 dia. pressure gauge

Ⓖ Installation method

Symbol	Descriptions
Ⓖ Installation method	
Blank	DIN rail mount
D	Direct mount

Ⓗ Ozone proof

Symbol	Descriptions
Ⓗ Ozone proof	
P11	Ozone proof specifications (custom order)

⚠Note on model No. selection

Note 1: Air supply block is to be 1 station.
Expand an air supply block station per 3 stations when 3 stations and over are used in a common supply type.
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.

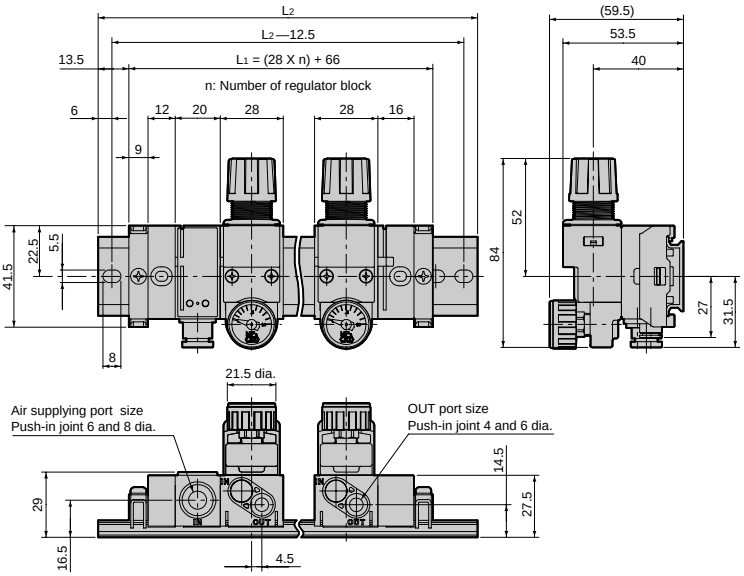
Note 4: 21 dia.; 0 to 1.0MPa pressure gauge is provided as standard.
For low pressure specifications, 27 dia: low pressure gauge with 0 to 0.4MP range is provided.

Note 5: When other than basic model specifications, issue the mix manifold specification sheet on Page 461.

Dimensions

• Common supply type DIN rail mount type (File name: Page 464 or Ending 19)

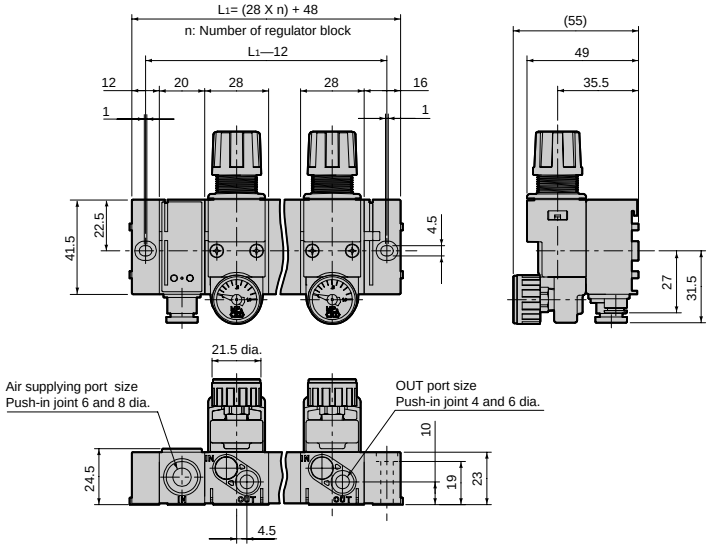
MNRB500A-* * C * *-*



Station No.	L2 dimensions
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 (File name: Page 464 or Ending 19)

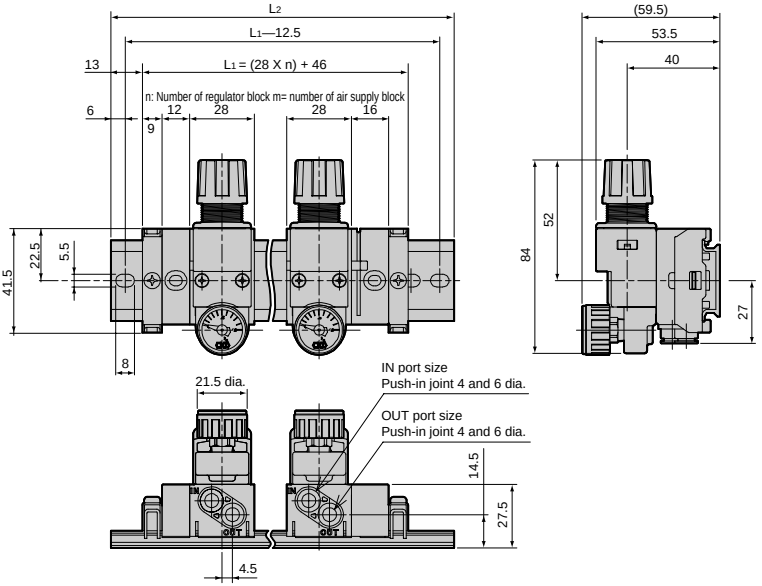
MNRB500A-* * C * *-*-D



Dimensions

• Individual supply type DIN rail mount type (File name: Page 464 or Ending 19)

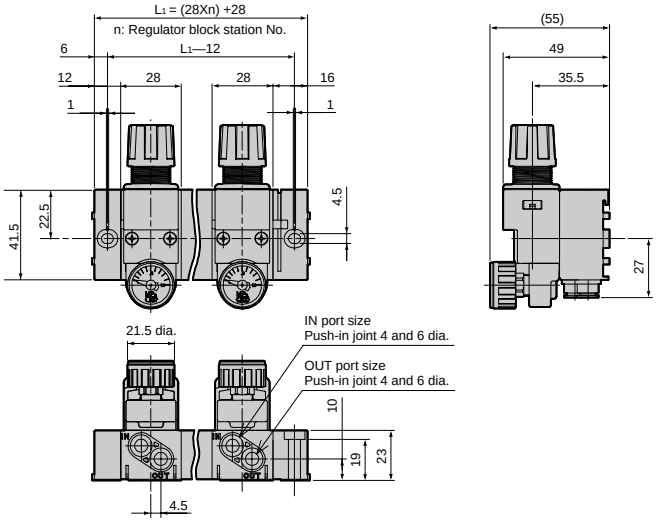
MNRB500B-* * C *-*



Station No.	L2 dimensions
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

• Common supply type direct mount type (File name: Page 464 or Ending 19)

MNRB500A-* * C *-*-D



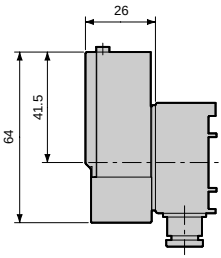
Pressure switch / push-in joint elbow type dimensions

(File name: Page 464 or Ending 19)

• Air supply block with pressure switch

NRB500-APS-* C *

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

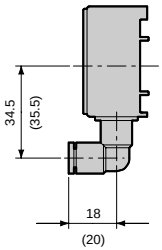


• Air supply block

Push-in joint elbow type

NRB500-NP-LC *

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



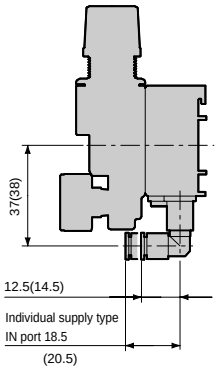
Dimension in ( ) is for C8.

• Regulator block

Push-in joint elbow type

NRB500 *-* * C *

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



Dimension in ( ) is for C6.

Regulator block

How to order

NRB500B - SSC4U N G39

Ⓐ Model

Ⓑ Connection

Ⓒ Option

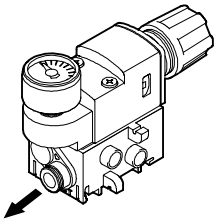
Ⓓ Pressure gauge

Symbol			Descriptions
Ⓐ Model no.			
NRB500A			Common supply type
NRB500B			Individual supply type
Ⓑ Connection			
Direction	IN Note 1	S	Straight
		L	Elbow
	OUT	S	Straight
		L	Elbow
Port size	IN-OUT	C4	4 dia.
		C6	6 dia.
Out side Pipe		Blank	IN-OUT lower piping
		U Note 2	OUT upper porting
Ⓒ Option			
Blank			Standard products
L			For low pressure
N			Non-relief
T			Without pressure gauge
Ⓓ Pressure gauge			
Blank			21 dia. pressure gauges dia.
Note 3			27 dia. pressure gauge for low pressure
G39			27 dia. pressure gauge

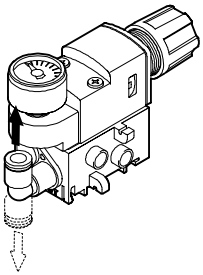
⚠Note on model No. selection

Note 1: For common supply, IN port connection type is not required.
Note 2: Only straight is applicable.
Note 3: A pressure gauge with 21 dia. and 0 to 1.0MPa range is provided as standard. For low pressure specifications, a low pressure gauge with 27 dia. and 0 to 0.4MPa range is provided.

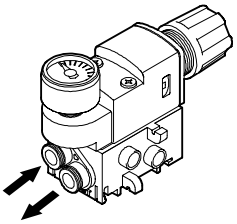
• Common supply straight type
Downward piping is enabled with OUT port with straight joint.



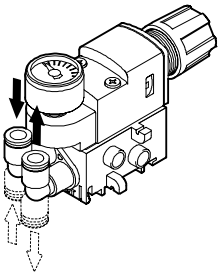
• Common supply elbow type
Front or rear piping is enabled with OUT port with elbow joint.



• Individual supply straight type
Downward piping is enabled with OUT port 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

NRB500A - NS - SSC4 MP

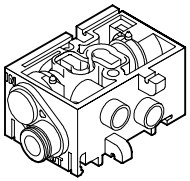
Ⓐ Model
Ⓑ Connection
Ⓒ Option

Symbol			Descriptions
Ⓐ Model no.			
NRB500A			Common supply
NRB500B			Individual supply
Ⓑ Connection			
Direction	IN Note 1	S	Straight
		L	Elbow
	OUT	S	Straight
		L	Elbow
Port size	IN-OUT	C4	4 dia.
		C6	6 dia.
Out side Pipe		Blank	IN-OUT lower piping
		U Note 2	OUT upper porting
Ⓒ Option			
Blank			Without masking plate
MP Note 3			With masking plate

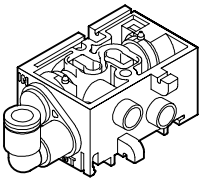
Note on model No. selection

Note 1: For common supply type, IN port connection type is not required.
Note 2: Straight only
Note 3: When a masking plate is installed, the mix manifold specifications sheet is required.

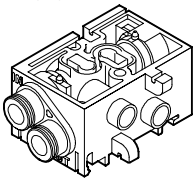
• Straight for common supply
OUT port with straight joint



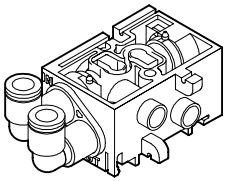
• Elbow for common supply
OUT port with elbow joint



• Straight for individual supply
IN and OUT ports with straight joint



• Elbow for individual supply
IN and OUT with elbow joint



Regulator body

How to order

RB500 - 00 S - N G39

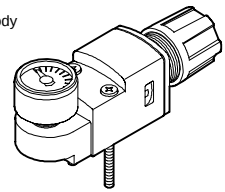
Ⓐ Connection
Ⓑ Option
Ⓒ Pressure gauge

Symbol	Descriptions
Ⓐ Connection	
S	Discrete (RB500)
M	Manifold (MNRB500A, B)
Ⓑ Option	
Blank	Standard products
L	For low pressure
N	Non-relief
T	Without pressure gauge
P	Panel mount
Ⓒ Pressure gauge	
Blank	21 dia. pressure gauge
Note 1	27 dia. pressure gauge for low pressure
G39	27 dia. pressure gauge

Note on model No. selection

Note 1: A pressure gauge with 21 dia. and 0 to 1.0MPa is provided as standard. For low pressure specifications, a low pressure gauge with 27 dia. and 0 to 0.4MPa range is provided.

• Regulator body



Common air supply block

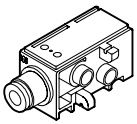
How to order

NRB500 - NP - SC6

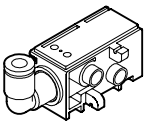
Ⓐ Connection

Symbol		Descriptions
Ⓐ Connection		
Direc.	S	Straight
	L	Elbow
Size	C6	6 dia.
	C8	8 dia.

• Straight type
Air supplying port with straight joint



• Elbow type
Air supplying port with elbow joint



Common air supply block with pressure switch

How to order

NRB500 - APS - SC6 - 3

Ⓐ Connection

Ⓑ Lead wire length

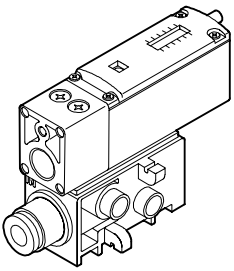
Symbol		Descriptions
Ⓐ Connection		
Direc.	S	Straight
	L	Elbow
Size	C6	6 dia.
	C8	8 dia.

Ⓐ Lead wire length	
Blank	1m
3	3m
5	5m

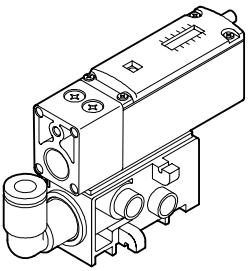
⚠Note on model No. selection

Note 1: When using common air supply block with pressure switch, issue the mix manifold specification sheet on Page 461.

• Straight type
Air supplying port with straight joint



• Elbow type
Air supplying port with elbow joint



End block

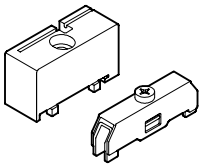
How to order

NRB500 - NE (D)

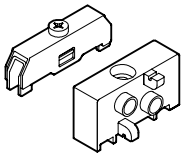
Ⓐ Connection

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

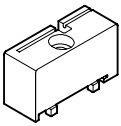
• End block for DIN rail R



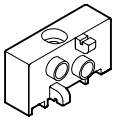
• End block for DIN rail L



• 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

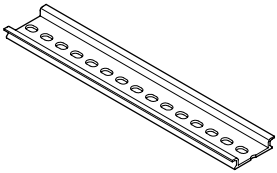
How to order

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 complete mix manifold specification sheet" and DIN rail length and manifold dimension for determining DIN rail dimension, and indicate the dimension on the sheet with mm unit.

Push in cartridge joint (regulator block)

How to order

NRB500 - JOINT - CL4

Ⓐ Type

Symbol	Descriptions	
Ⓐ Type		
C4	Straight 4 dia.	
C6	Straight 6 dia.	
CL4	Elbow 4 dia. (for discrete)	
CL6	Elbow 6 dia. (for discrete)	
CLL4	Long elbow 4 dia. (manifold)	
CLL6	Long elbow 6 dia. (manifold)	

Cartridge joint (common air supply block)

How to order

NRB500 - Q-JOINT - L6

Ⓐ Type

Symbol	Descriptions	
Ⓐ Type		
6	Straight 6 dia.	
8	Straight 8 dia.	
L6	Elbow 6 dia.	
L8	Elbow 8 dia.	

Pressure gauge

How to order

G 29 D - 6 - P10

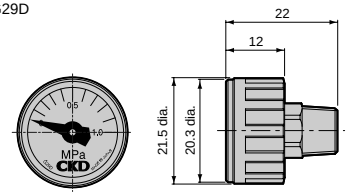
Ⓐ Model no.

Ⓑ Pressure display

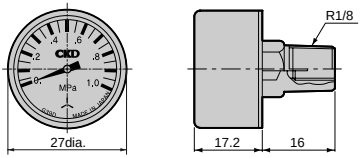
Symbol	Descriptions
Ⓐ Model no.	
G29D	
G39D	
Ⓑ Pressure display	
P10	0 to 1.0MPa
P04	0 to 0.4MPa (G39D only)

Dimensions

• G29D



• G39D



Blanking plug

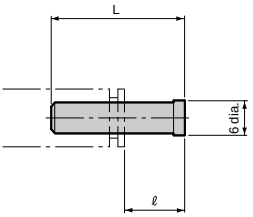
How to order

GWP 4 - B

Ⓐ Connection

Symbol	Descriptions
Ⓐ Connection	
4	4 dia.
6	6 dia.
8	8 dia.

Dimensions



⚠Note on model No. selection

Note 1: Sales unit is 10 pieces per unit.

Model no.	Connecting joint diameter	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

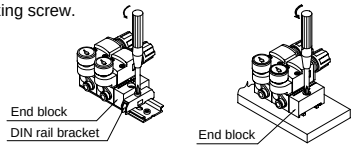
⚠ CAUTION

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

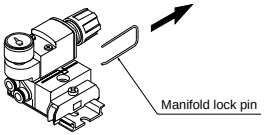
To change the regulator block when the regulator body or regulator block specifications change or when life has been reached, or when adding an air supply block, use the following procedures to expand, disassemble, and assemble parts. Refer to the separate instruction manual for details.
Stop the air 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 a DIN rail installing, confirm that the DIN rail bracket is securely fixed onto the end block with no gaps. When directly installing without a DIN rail, check that the end block is fixed with screws before starting use. Air could leak between blocks if the end block is not securely fixed.

Replacing the regulator block and air supply block

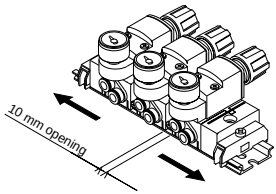
(1) When using the DIN rail installing, loosen the DIN rail bracket set screw.
When directly installing without a DIN rail, remove the end block fixing screw.



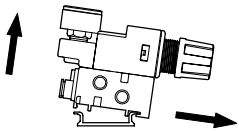
(2) Using a tip of a thin screwdriver, pull out the manifold lock pin coupling the regulator block and air supply block to be replaced.



(3) Slide the block toward the end block, and make an approximately 10 mm 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 2 mm 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.

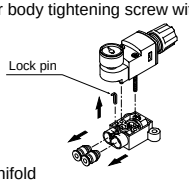
Increasing the regulator block and air supply block rows

(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.

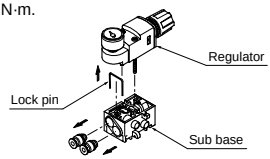
(2) When installing with DIN rails, fix DIN rail brackets. When directly installing without a DIN rail, fix the end block.

Replacing the cartridge joint

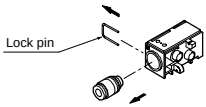
Replacing the miniature regulator
(1) Loosen the screw on the regulator body, and disassemble the piping block.
(2) Using a minus screwdriver, etc., remove the lock pin inserted onto the top of the sub base. Replace the cartridge joint. Confirm that there is no dirt, etc., on the joint's O-ring, and 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 joint. Confirm that there is no dirt, etc., on the joint 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 screwdriver, etc. Then, replace the cartridge joint.



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

How to complete the mix manifold specification sheet

• Mix manifold model No.

Refer to Page 454 to 458 for model no. per component.

MNRB500 (A) - MX - (3) - ( )

Ⓐ Model no.

Ⓑ Number of regulator block

Ⓒ Installation method

Symbol	Descriptions
Ⓐ Model no.	
MNRB500A	Common supply type
MNRB500B	Individual supply type
Ⓑ Number of regulator block	
1	1 station
2	2 stations
⋮	⋮
Ⓒ Installation method	
Blank	DIN rail
D Note 1	Direct mount

⚠Note on model No. selection

Note 1: Station no. of direct mount block is to be within 6 blocks including regulator and air supply blocks. However, a regulator block is to be 5 stations or less.

Note 2: If common supply and individual supply types are combined, please consult with CKD.

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

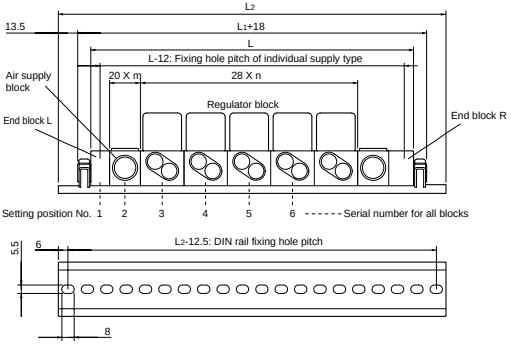
• DIN rail length and manifold dimensions

Manifold length L2: Refer to below table.

L= (28 ∗ n) + (20 ∗ m) + 28

n: Regulator block No.

m: Air supply block No.



• Common supply type

L2 dimension of manifold

Sta. No.	For m=1	For m=2	For 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

L2 dimension of manifold

Sta. No.	L2
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

MNRB500 mix manifold specification sheet

Issue date / / /
Your company name

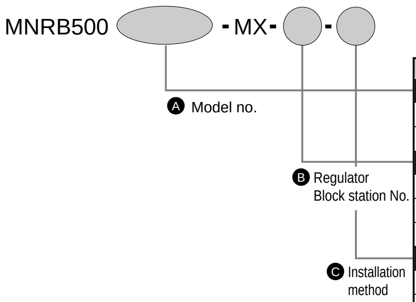
Contact

Slip No. Quantity Delivery / /

Contact

Order No.

• Mix manifold model no.



Symbol	Descriptions
A Model no.	
MNRB500A	Common supply type
MNRB500B	Individual supply type
B Number of regulator block	
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 no. of direct mount block is to be within 6 blocks including regulator and air supply blocks. However, a regulator block is to be 5 stations or less.
Note 2: If common supply and individual supply types are combined, please consult with CKD.

• Mix manifold specification sheet

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