

3, 5 port pilot operated valve 4GA/B • 4GD/E R Series



3,5 PORT PILOT OPERATED VALVE 4GA/B 4GD/E R Series



New 4G! Start!

The new 4G is further evolved while inheriting the conventional 4G series concept.

It starts here.



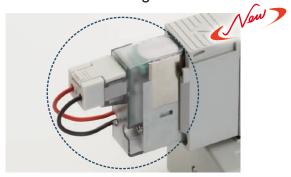


Power Consumption

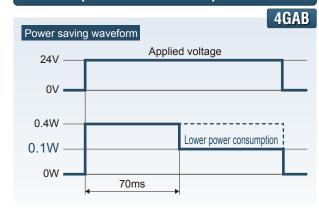
Continuous energization OK (single solenoid type)

Improved Solenoid Design.





Lower power consumption



Safety

Manual override protection

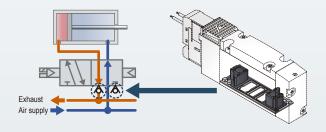
Manual override with protective covers.



Potential for exhaust back-pressure eliminated.

Exhaust malfunction prevention valve.

Standard feature in both metal and plastic base designs.



Contamination prevention

Filter standard equipment (Available on A and B ports as an option)



Internal pilot filter is standard equipment.

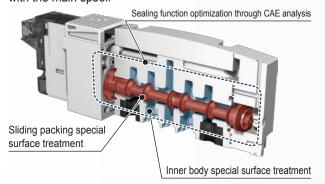




Low friction design with improved life cycle rating

Excellent response time and long life achieved with the main spool.

4GAB



Life Rating
100 million
cycles or more
Single solenoid, through our
predetermined conditions

Response time

12±2ms

4G1 test results

4GAB

Improved response even after weekend shutdown

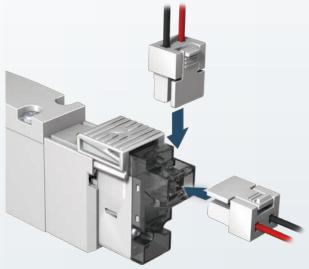
Smooth start-up even after a prolonged shut-down.

4GAB

Flexible Functionality

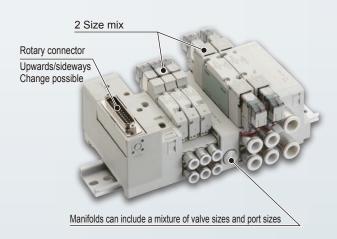
Two-way wiring connector of top or side.

Wire connection orientation is easily adjusted in the field.



Manifold flexibility

Manifolds can include a mixture of valve sizes and port sizes.



Variety of options





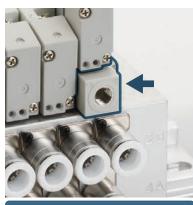
Individual Valve shut-off

Valves are individually replaceable without stopping operation of the production line!



Individual supply spacer

Ideal for cylinder thrust adjustment in the individual valve pressure increase/decrease!



Exhaust spacer

Port size φ10

Prevent malfunction of Single-acting cylinders in the individual exhaust!



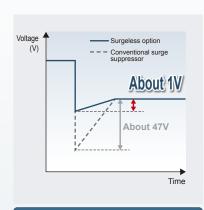
Pilot check valve spacer

For intermediate valve stoppage. Provides a short-term positive lock of a double-acting cylinder



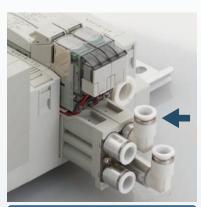
More valve porting options

4G1 now includes 8mm tubing (C8) 4G2 now includes 10mm tubing



Surge Protection

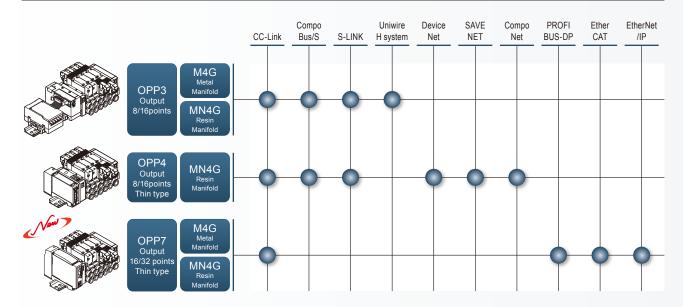
The coil surge voltage is reduced about 1V to protect the output contacts!



Elbow fitting option for block manifold

Improve the flexibility of valve installation with the addition of piping direction

Automation communication protocols supported



Applications/environment table

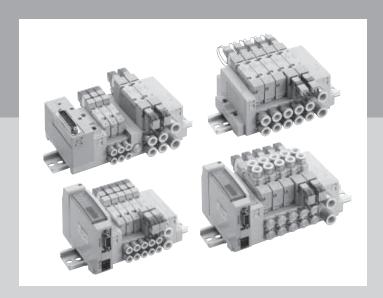
			Multi function type 4GA/B R	Standard type 4GD/E R
		Ultra-dry air • N2		\bigcirc
	Air q	Dry air		\bigcirc
Relia	Air quality	Oil contaminated air/ low ozone	\bigcirc	\bigcirc
Reliability		Drain air		\bigcirc
	Cor afte	untermeasure for the use er weekend shutdown		\bigcirc
	Lov	w vacuum support	\bigcirc	
	Ext fun	naust malfunction prevention oction	\bigcirc	\bigcirc
Safety	Ma	nual override protective cover	\bigcirc	\bigcirc
\	Bui	ilt-in contamination protection	\bigcirc	\bigcirc
	90 cor	degree elbow quick to nnect fittings	\bigcirc	
Usa	Ext	ernal pilot	\bigcirc	
Usability	Two top	o-way wiring connector of //side	\bigcirc	\bigcirc
	Mai	nual operation without tools	\circ	0

Recommended

MN4GA & 4GB

3, 5 port pilot operated valve

Block manifold



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- * Refer to page 5 for the metal base (integrated model).
- * Refer to Page 407 for the master valve.

Model Electrica Number of Valve Position Symbol Valve performance Voltage Voltage Cylinder C											
Model no. Electrical connections Valve Position JIS symbol Characteristics C (dm³/(s bar) Note 1 Note 2		formance	Valve per								
MN4GA1 Connector type MN4GA2 Connector type		Cylinder	characteristics C (dm³/(s·bar)	Valve Position			ance				
Terminal block MN4GA1 (N3GA1) (N4GA1) -T10 (N4GA1) -T11 (N4GA2) (N4GA2) (N4GA2) -T11 (N4GA2) (N4GA2) (N4GA2) -T30 (N4GA2)		φ20 to φ40	1.0 to 1.2	3 port valve 2-position single N.C. type	Blank -E*	MN4GA1		MN4GA180R	oiping	nifold	
Terminal block MN4GA1 (N3GA1) (N4GA1) -T10 (N4GA1) -T11 (N4GA2) (N4GA2) (N4GA2) -T11 (N4GA2) (N4GA2) (N4GA2) -T30 (N4GA2)	24 VDC	φ40 to φ80	2.2 to 2.5	5 1 3 (R ₁) (P) (R ₂)	Blank -E* -B	MN4GA2			Body P	ring ma	
Terminal block MN4GA1 (N3GA1) (N4GA1) -T10 (N4GA1) -T11 (N4GA2) (N4GA2) (N4GA2) -T11 (N4GA2) (N4GA2) (N4GA2) -T30 (N4GA2)	3 VDC	φ20 to φ40	1.0 to 1.2		Blank -E*	MN4GB1		MN4GB180R	guidic	ual wii	
Connector type MN4GA2 (N3GA2) (N4GA1) C-A2N) MN4GA280R MN4GA280R MN4GA2 (N3GA2) (N4GA2) C-A2N) MN4GA2 (N3GA2) C-A2N		φ40 to φ80	2.2 to 2.5	5 port valve 2-position single 4 2	Blank -E* -B				Base	Individ	
MN4GA2 (N3GA2) (N4GA2) (N4GA2) (N4GA2)	24 VDC	φ20 to φ40	1.0 to 1.2	5 1 3 (R ₁) (P) (R ₂)		l (N3GA1)		l .			
MN4GA280R MN4GA280R MN4GA280R MN4GA2	12 VDC	φ40 to φ80	2.2 to 2.5	a (A) (B) b		(N3GA2)					
a May 11/1 III Mb	24 VDC	φ20 to φ40	1.0 to 1.2	(A) (B)		(N3GA1)			piping		
Serial transmission (N3GA1) -T6* (N3GA1) -T6* (N4GA1) -T7* (N4GA1) -T	12 VDC	φ40 to φ80	2.2 to 2.5	5 1 3 (R ₁) (P) (R ₂) 3-position A/B/R connection 4 2 (A) (B)		(N3GA2)	The state of the s		Body		
(N4GA1) -17* Special Collection (A) (A) (B) (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B	24 VDC	φ20 to φ40	1.0 to 1.2	5 1 3 (R ₁) (P) (R ₂) 3-position P/A/B connection	-T7*		ssion	Serial transmis		manifold	
	24 VDC	φ40 to φ80		3 1 3 (R) (P) (R:)		(N3GA2)					
Control Con	ļ ļ	φ20 to φ40	1.0 to 1.2	b 2(B) 3 (R ₂)		MN4GB1 (N4GB1)		l .		sed wir	
b ½(B)	12 VDC	φ40 to φ80	2.2 to 2.5	N.C./N.O. type						Reduc	
Connector type MN4GB1 (N4GB1) -T30 (N4GB1) -T30 (N4GB1) -T5* (N4GB1)		φ20 to φ40	1.0 to 1.2	a 4(A)		MN4GB1 (N4GB1)			piping		
MN4GB2 (N4GB2)	12 VDC	φ40 to φ80	2.2 to 2.5	N.O./N.C. type					Base		
Serial transmission MN4GB1 (N4GB1) -T6* (N4GB1) -T7* -T7* -T8* -	24 VDC	φ20 to φ40	1.0 to 1.2	N.O./N.O. type	-T7*		ssion				
MN4GB2 (N4GB2) (- A2N) (- A2N) (- A2N) (24 VDC (- A2N) (- A2N	 24 VDC	φ40 to φ80	2.2 to 2.5	3 (Rc)		MN4GB2 (N4GB2)					

Note 1: Effective sectional area S and sonic conductance C are converted as S $\stackrel{.}{=}$ 5.0 x C.

Note 2: Grommet lead wire specifications are only for DC voltage.

Note 3: Compatible only with the base piping type.

Note 4: These are specifications for mounting of the reduced wiring manifold.

Valve Position A/B Piping port A/B Piping port A/B Piping port Blectrical connections Discrete, individual wiring Reduced wiring																																										
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2-	pos	siti	on	3-р	osil	ion	rated type		Barbed fitting	Pu	sh-in	fitti	ng	fittin	g (u		h-in ard) 3		fitt	push ing nwa		Fen		Pu	sh-iı	n fitti	ing	Fema	ale ad	Note Z		5	- 1	Note 4	al DIOCK		upply terminal	supply terminal		ion		
peso	pen			pasc	ection	ction	al 3 port valves integrated type																	nch	inch	nch	inch	Ļ	-	Grommet lead	E type connector	oe corniect	UIN terminal box	A type connector	Common terminal block	D-sub connector	Flat cable with power supply terminal	without power s	•	Serial transmission		Page
Normally c	Normally open	Single	Double	All ports clo	ABR connection	PAB connection	ual 3 port v	lix	유 41.8	⊕ 01.8	φ 64	9d 6	% % % %	© 01.8	7d C14	90	80	018	04	90	8 0 0 0 8	SM W5	≅ Rc1/8	☑ φ1/8 inch	≅ φ5/32 inch			1/8NPT		E COM						gns-Q	Hat cable	न् Flat cable	T6*		T8*	
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M4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

4GA/B

M4GA/B

4GA/B Master valve

MN4GD/E

Safety precautions

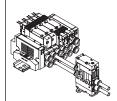
Manifold Specifications

	Electrical o	connections		Manual	Other options
Discrete valve/indivi	idual wiring manifold	Reduced win	ring manifold	operating device	Other options
Grommet lead wire	E type connector with socket/terminal sv	T10 Common terminal block type M3 thread specifications (left side)	T50 Flat cable with power supply terminal (left side)	Locking/non-locking common type	H With check valve
• Lead wire length 300mm				(standard)	Provided as standard for pilot exhaust.
E type connector	A2N A type connector downward without socket	T10R Common terminal block type M3 screw specifications (right side)	T50R Flat cable power supply with terminal (right side)		K External pilot
• Lead wire length 300mm 500mm 1m 2m 3m					Main pressure and pilot pressure individual circuit specifications.
E type connector without socket	for (a) will be 3.5 mm longer than the model	T11 Central terminal block type push tightening specifications (left side)	T52 Flat cable without power supply terminal (left side)	① For non-locking, push to turn ON, release to turn OFF	A Ozone/cutting water compatible product
	for 12/24 VDC.			② For locking, push and turn 90° clockwise to hold the ON state. Turn counterclockwise to unlock and turn OFF	Select this mode for compatibility with inflow of cutting oil and compatibility with ozone.
E type connector with socket/ terminal	B DIN terminal box (BN: without terminal box)	T11R Common terminal block type clamping specifications (right side)	T523 Flat cable power supply without terminal (right side)	M Non-locking type	F AB port filte integrated
				Protective cover Manual button ① Push to turn ON, release to turn OFF	A/B port filter
E type connector	EJ type connector	T30 D-sub connector type (left side)	T6*0 T6*1 Serial transmission		Z1 Supply spacer Exhaust spacer
	• Lead wire length 1m 2m 3m				Supply sp
E type connector without socket sv	EJ type connector	T30R D-sub connector type (right side)	T7*0 Serial transmission T7*1 thin model slot type		In stop valve Spacer
			T8*1 T8*2 Serial transmission thin model slot type		Spacer type Pilot check valve

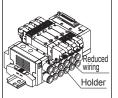
Series variation

Other options

Pilot check valve (separate type) * Refer to page 186



wı	Single reduced	
VVI	wiring	



L With piping adaptor



Reduced wiring mall

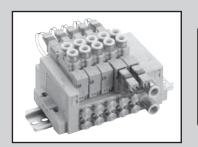


Option S

Option E

Electric connection circuit diagram

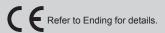
Ele	ctrical connection	Without lead wire	With lead wire	With indicator light	With surge suppressor	Without socket	Circuit diagram		
Blank	Grommet lead wire		•				(±) O DC (∓) O		
E0	E type connector		•				(±) O		
E0*J	EJ type connector		•				DC		
E0N	E type connector					•	(~)		
E1	E type connector	•					100 VAC		
	E type connector		•	•	•		(±) O		
 E2*J	EJ type connector		•	•	•		DC Y Z Y Z		
 E2N	E type connector			•	•	•	(*) \$\sqrt{\frac{1}{2}}\$		
	E type connector	•		•	•		100 VAC \$		
	L type connector						(±) (±)		
A2N	A type connector			•	•	•	DC (#) 0		
В	DIN terminal box	•		•	•		(±) OC (∓) OC (*) OC (*		
BN	DIN terminal box (Without terminal box)						(~) 0 200 VAC (~) 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
E2	E type connector		•	•	•				
E2*J	EJ type connector		•	•	•		DC ZZ		
E2N	E type connector			•	•	•	(‡) 0		
A2N	A type connector			•	•	•			
E2	E type connector		•	•	•		(±) ••••		
E2*J	EJ type connector		•	•	•		DC Sontrol circuit		
E2N	E type connector			•	•	(Ŧ) (Ŧ)			
A2N	A type connector					•			



Individual wiring block manifold Body piping

MN4GA1/2 Series

Applicable cylinder bore size: φ20 to φ80

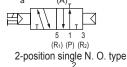






JIS symbol

3 port valve
 2-position single N. C. type



 Dual 3 port valve integrated type. (A side valve: N. C. type, B side valve: N. C. type).



(A side valve: N. O. type, B side valve: N. O. type)



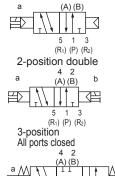
(A side valve: N. O. type, B side valve: N. C. type)



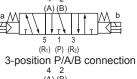
(A side valve: N. O. type, B side valve: N. O. type)



5 port valve
 2-position single



 $\begin{array}{c} \text{(R₁) (P) (R₂)} \\ \text{3-position A/B/R connection} \end{array}$



3-position P/A/B connection 4 2 (A) (B) (R) (P) (R₂)

Manifold common specifications

Descriptions	
Manifold type	Block manifold
Mounting method	DIN rail mount type
Supply and exhaust	Common supply/common exhaust
method	(check valve integrated)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated)
Piping direction	Valve top direction
Valve type and operation method	Pilot-operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2 Note 3
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Containing corrosive gas is not permissible
	·

- Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.
- Note 2 The degree of protection is dust proof. The unit is not water proof. Avoid water drops or oil, etc. during use.
- Note 3 The working pressure range is 0 to 0.7 MPa when the external pilot (option symbol: K) is selected. Set the external pilot pressure between 0.2 to 0.7 MPa.

Electrical specification

DC24	DC12	DC5	DC3	AC100	4.0000					
DC24	DC12	DC5	DC3	AC100	4.0000					
				AC100	AC200					
	±10%									
0.015	0.030	0.072	0.120	0.009	0.006					
(0.017)	(0.034)	(0.082)	(0.136)	(0.009)	(0.006)					
0.005	0.010	-	-							
0.35 (0.40)	0.35 (0.40)	-	-					
0.	1	-	-	_						
_		_		0.93	1.08					
_	•	_		(0.98)	(1.13)					
В										
Option										
Light (option)										
	0.005	0.005	0.005	0.005 0.010 -	0.005 0.010 - - - - - - - - - -					

Note 4: Values in () apply when a light is attached. In addition, the low heat energy-saving circuits only have a light attached.

Individual specifications

maivi	addi ope	Joinioation	0	
Descri	otions		MN3GA1/MN4GA1	MN3GA2/MN4GA2
Max. stat	ion no.		24 stations	20 stations
	Milli fitting/ M5, Rc	A/B port	Barbed fitting φ1.8 push-in fitting φ1.8, φ4, φ6 M5	Push-in fitting φ4, φ6, φ8 Rc1/8
	thread	P/R port	Push-in fitting φ6, φ8	Push-in fitting φ8, φ10
Port size	M5, NPT	A/B port	Push-in fitting φ1/8 inch, φ5/32 inch M5	Push-in fitting φ1/4 inch φ5/16 inch 1/8NPT
	thread	P/R port	Push-in fitting φ1/4 inch, φ5/16 inch	Push-in fitting φ5/16 inch, φ3/8 inch
	Milli fitting/	A/B port	-	G1/8
	G thread	P/R port	-	Push-in fitting φ8, φ10

- Refer to "Mounting attitude" on page 631 for DIN rail mounting.
- Refer to page 224 for weight.

Descripti	ions		MN3GA1	/MN4GA1	MN3GA2/MN4GA2				
Descripti	10115		ON	OFF	ON	OFF			
Response	Dual 3 port valve	e integrated type	9	12	12	29			
time	2-position	Single	12	12	19	19			
	2-position Double		9	-	18	-			
ms	3-position	ABR connection	8	15	17	30			

Values including a light surge suppressor. The response time is the value at 0.5 MPa supply pressure, 20°C, with no lubrication. It varies depending on the pressure and the lubricant quality.

Individual wiring block manifold; body piping

Flow characteristics

Model	Val	ve Position	P→	A/B	A/B→R1/R2				
no.	Vai	ve Fosition	C (dm³/(s-bar)	b	C (dm³/(s-bar)	b			
	Dual 3 po	ort valve integrated type	0.87	0.37	1.0 (0.68)	0.14 (0.22)			
MN3GA1	2-posi	tion	0.98	0.33	1.2 (0.71)	0.11 (0.27)			
MN4GA1		All ports closed	0.92	0.34	1.0 —	0.16 —			
WIN4GA I	3-position	ABR connection	0.92	0.29	1.1 (0.69)	0.13 (0.22)			
		PAB connection	1.1	0.35	1.1 —	0.17 —			
	Dual 3 po	ort valve integrated type	1.7	0.37	2.2 (1.6)	0.13 (0.21)			
MN3GA2	2-posi	tion	2.2	0.21	2.5 (1.7)	0.19 (0.10)			
MN4GA2		All ports closed	2.0	0.25	2.3 —	0.10 —			
WIN4GAZ	3-position	ABR connection	2.0	0.27	2.5 (1.7)	0.18 (0.12)			
		PAB connection	2.3	0.31	2.3 —	0.16 —			

Note 1: Effective sectional area S and sonic conductance C are converted as S \approx 5.0 \times C.

Note 2: Values in () apply when a check valve is integrated.

Ozone specifications / Coolant proof specifications

Select the option "A" of (a) in how to order on page 222.

Clean room specifications (Catalog No. CB-033SA)

Particle generation preventing structure for use in clean rooms

Specifications for secondary battery (Catalog No.CC-947A)

 In order to be applicable for secondary battery manufacturing process, confine materials for air passage and sliding section

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Individual wiring block manifold; body piping How to order A Model No. Discrete block with Manifold model no. Manifold solenoid valve MN4GA1(1) 0 R - (C6) - (E2) H - 10 - (3) Discrete block 3 nort 5 port valve valve Discrete solenoid valve 3 port manifold model no. (N) 3GA2 (N) 4GA1 (N) 3GA1 4GA2 MN4GA2 MN3GA1(1) 0 R - (C6) - (E2) H) - 10 - (3) MN4GA1 MN3GA1 MN3GA2 Discrete valve block with solenoid valve Z Symbol Descriptions (N4GA1)(1) 0 R - (C6) - (E2)(H) **B** Valve Position (3) 2-position single Discrete 3 port valve block with solenoid valve 2 2-position double • • • 3 3-position all ports closed • • • • (N3GA1)(1) 0 R - (C6) - (E2)(H) 4 3-position ABR connection • • Discrete solenoid valve 5 3-position PAB connection • • 1 2-position single normally closed Note 2 • • (4GA1)(1) 9 R - (C6) - (E2)(H) 11 2-position single normally open Note 2 • A side valve: Normally closed Discrete 3 port solenoid valve 66 • . B side valve: Normally closed 3GA1)(1)9R-(C6)-(E2)(H) 3 3 port valve A side valve: Normally closed 67 • • integrated B side valve: Normally open A side valve: Normally open type A Model 76 • Note 2.3 B side valve: Normally closed no. A side valve: Normally open 77 • B Valve Position B side valve: Normally open Mix manifold (In case of multiple Valve Positions) 8 • C Port size (A/B port) Port size Milli fitting/Rc thread Note 1 φ1.8 barbed fitting (applicable tube UP-9102-**) C18 | φ1.8 push-in fitting (applicable tube UP-9402-**) • φ4 push-in fitting • • C4 C6 φ6 push-in fitting • • • • • φ8 push-in fitting C8 Push-in fitting mix Note 4 . . . M5 M5 • • • 06 Rc 1/8 Inch fitting/Inch thread Туре C3N φ1/8 inch push-in fitting A Cautions for model No. selection **C4N** | φ5/32 inch push-in fitting • **C6N** φ1/4 inch push-in fitting Note 1 Designate P/R port sizes with the **C8N** φ5/16 inch push-in fitting • • supply/exhaust block in manifold CXN Push-in fitting mix Note 4 • specifications. 06N 1/8NPT • • • Select MN4GA*80 when mixing with 4, Note 2 G thread Type 5 port valves. Select MN3GA*80 when 06G G1/8 • • • • mixing with the masking plate. Note 3 Combination with the external pilot (K) D Electrical connections Electrical is not available. Refer to the next page for wire connections connections Dimensions are the same as the respective 2-position double. Option The push-in fitting cannot be mixed with Blank Non-locking/locking common manual override the discrete valve's 4 (A) or 2 (B) port. М Non-locking manual override • Note 5 3-position all ports closed and PAB н With check valve Note 5 connection are not provided with check External pilot Note 6 • • • K • valve (H). Refer to page 627 for details A Ozone/cutting oil proof • • • on check valve. s Surgeless Note 7 • • • • Note 6 Contact CKD when using a vacuum Е Low heat and energy saving circuit Note 7, Note 8 • • • with the external pilot (K) F A/B port filter integrated Note 9 • In addition, the surgeless "S" and low Note 7 Note 10 ● ● ● **Z**1 Air supply spacer heat energy-saving circuit "E" cannot In stop valve spacer Note 10, Note 11 \bullet be selected at the same time. 72 Note 10 • • Note 8 This is surgeless specifications. **Z**3 Exhaust spacer Note 9 The P port has a filter built inside as a F Station no. standard. Station 1 stations Note 10 Specify the spacer mounting position no. • to to and quantity in manifold specifications. 24 Stations (The max. station no. of MN3GA2/MN4GA2 is 20.) 24 Stacking multiple spacers is not supported. Combination with the **G** Voltage masking plate is not supported. Refer **G** Voltage 100 VAC (rectifier integrated) to page 287 to 291 for details. 200 VAC (rectifier integrated) Note 12 2 • • Note 11 Combination with the external pilot (K) 3 24 VDC • • 0000 is not available. 4 12 VDC

> 3 VDC 5 VDC is not available

O Contact CKD for price and availability

00000 0000000

Note 12 Only the DIN terminal box are supported

Individual wiring block manifold; body piping

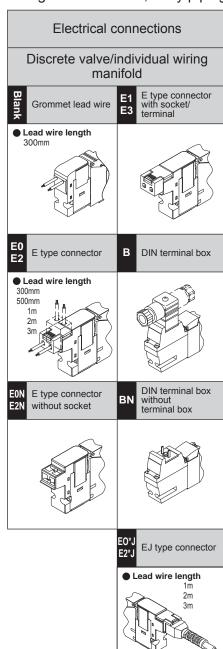
[Electrical connection list]	
	A Model No.

	Manifold						olock	e val with	1
			3 port lve	o p				d val	
			rated	val	ve	Discr		enoid	valve
		3A1	3A2	3A1	3A2	3A1	3GA2	4GA1	3A2
		MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 30	(N) 40	(N) 4GA2
		2	2	2	_	=	=	=	=
	ectrical connections		_						
	Grommet lead wire (300 mm) Note 13	•	•	•	•	•	•	•	•
	DIN terminal box (Pg7) With surge suppressor/light Note 14		•		•		•		•
	DIN terminal box (Pg7) (without terminal box) with surge suppressor Note 14	Ļ			•		•		•
7.	e connector (upward/lateral direction commo	<u> </u>							
E0	Lead wire (300 mm) Note 15	•		•	•	•	•	•	•
E00	Lead wire (500 mm) Note 15	•		•	•	•	•	•	•
E01	Lead wire (1000 mm) Note 15	•		•	•	•	•	•	•
E02	Lead wire (2000 mm) Note 15	•		•	•	•	•	•	•
E03	Lead wire (3000 mm) Note 15	•		•	•	•	•	•	•
E0N	Without lead wire (without socket) Note 15	•		•	•	•	•	•	•
E1	Without lead wire (with socket/terminal) Note 15	•	•	•	•	•	•	•	•
E2	Lead wire (300mm) With surge suppressor/light	•		•	•	•	•	•	•
E20	Lead wire (500mm) With surge suppressor/light	•		•	•	•	•	•	•
E21	Lead wire (1000mm) With surge suppressor/light	•		•	•	•	•	•	•
E22	Lead wire (2000mm) With surge suppressor/light	•		•	•	•	•	•	•
E23	Lead wire (3000mm) With surge suppressor/light	•		•	•	•	•	•	•
E2N	Without lead wire (without socket) With surge suppressor/light	•		•	•	•	•	•	•
E3	Without lead wire (with socket/terminal) With surge suppressor/light	•		•	•	•		•	•
EJ typ	e connector (socket with cover, upward/late	eral	dire	ecti	on	con	nmo	on)	
E01J	Lead wire (1000 mm) Note 15	•		•	•	•	•	•	•
E02J	Lead wire (2000 mm) Note 15	•		•	•	•	•	•	•
E03J	Lead wire (3000 mm) Note 15	•	•	•	•	•	•	•	•
E21J	Lead wire (1000 mm) with surge suppressor/light	•	•	•	•	•	•	•	•
E22J	Lead wire (2000 mm) with surge suppressor/light	•	•	•	•	•	•	•	•
E23J	Lead wire (3000 mm) with surge suppressor/light	•	•	•	•	•	•	•	•

Note 13	Grommet lead	wire specifications	are only for DC voltage.

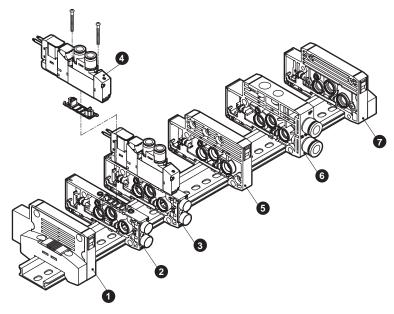
Note 14 Supports AC voltage and 12/24 VDC. The light is also attached to the terminal box.

Note 15 AC voltage comes with a rectifier circuit.



Individual wiring block manifold; body piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

No.	Component name	Model no. (example)	No.	Component name	Model no. (example)
1	End block L	N4G1R-EL	5	Partition block	N4G1R-S
2	Discrete valve block	N4GA1R-V1	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GA110R-C6-H-3	7	End block R	N4G1R-ER
4	Solenoid valve body	4GA119R-C6-H-3			

A type reduced wiring weight

4GA1

Block type		Weight	Block type		Weight
Valve block with solenoid valve	N3GA110R-C6-3	70	Valve block with masking plate	N4GA1R-MP	34
	N3GA1110R-C6-3	70	Supply and exhaust block	N4G1R-Q-8	58
	N4GA110R-C6-3	70	Supply and exhaust block	N4G1R-QK-8	60
	N4GA120R-C6-3	87	End block	N4G1R-E*	60
	N4GA1 ³ / ₅ 0R-C6-3	91	Erid block	N4G1R-EX*	60
	N3GA1660R-C6-3	87	Partition block	N4G1R-S	45

4GA2

Block type			Block type		Weight
Valve block with solenoid valve	N3GA210R-C8-3	129	Valve block with masking plate	N4GA2R-MP	66
	N3GA2110R-C8-3	129	Supply and exhaust block	N4G2R-Q-10	83
	N4GA210R-C8-3	N4GA210R-C8-3 129 Supply and exhaust block		N4G2R-QK-10	85
	N4GA220R-C8-3	147	End block	N4G2R-E*	84
	N4GA2 ³ / ₅ 0R-C8-3	159	Elia block	N4G2R-EX*	85
	N4GA2660R-C8-3	147	Partition block	N4G2R-S	60

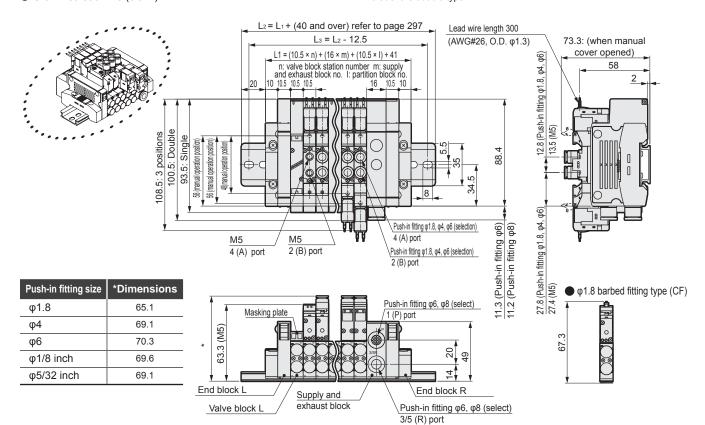
Parts list

Application	Parts name	Model no.	Application	Parts name	Model no.	
	Cartridge fitting φ1.8 barbed type	4G1R-JOINT-CF				
	Cartridge fitting φ1.8 straight type	4G1R-JOINT-C18			4GR-[*1]-[*2]-COIL-[*3]	
	Cartridge fitting φ4 straight type	4G1R-JOINT-C4	1	Coil assembly	*1: Electrical connection (blank, B, E0,), *3: Voltage (1, 2, 3, 4)	
Valve 4G1	Cartridge fitting φ6 straight type	4G1R-JOINT-C6	1		*2: Ozone/cutting oil proof (blank, A)	
101	Cartridge fitting φ1/8 inch straight type	4G1R-JOINT-C3N	Valve		100 000/57 100//541 501	
	Cartridge fitting φ5/32 inch straight type	4G1R-JOINT-C4N		E type connector socket assembly	4GR-SOCKET-ASSY-[*1]-[*3] *1: Electrical connection (E0, E00,), *3: Voltage (1, 3, 4)	
	Plug cartridge	4G1R-JOINT-CPG	1		1. Electrical conflection (E0, E00,), 3. Voltage (1, 3, 4)	
	Cartridge fitting: φ4 straight type	4G2R-JOINT-C4	1	E type connector	4GR-SOCKET-ASSY-[*1]	
	Cartridge fitting: φ6 straight type	4G2R-JOINT-C6	1	socket assembly	*1: Electrical connection (E01J, E002J,)	
Valve	Cartridge fitting: φ8 straight type	4G2R-JOINT-C8				
For 4G2	Cartridge fitting φ1/4 inch straight type	4G2R-JOINT-C6N	Valve	DIN terminal box assembly	4GR-TERMINAL-BOX-[*3]	
	Cartridge fitting φ5/16 inch straight type	4G2R-JOINT-C8N	4G2		*3: Voltage (1,2,3,4)	
	Plug cartridge	4G2R-JOINT-CPG				



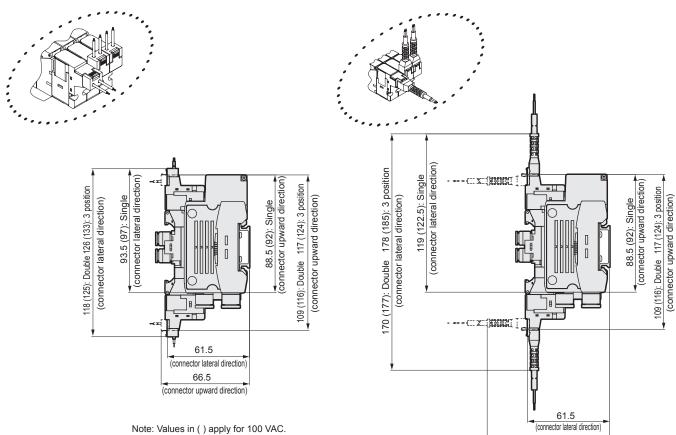
Grommet lead wire (blank)

* For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



■ E type connector type (E)

■ EJ type connector type (E**J)



 $^{^{\}star}$ Refer to page 251 for the dimension drawings of the push-in fitting for supply and exhaust block.

92.5 (connector upward direction)

4GA/B

M4GA/B

4GA/B Master valve

MN4GA/B

4GD/E

M4GD/E

MN4GD/E

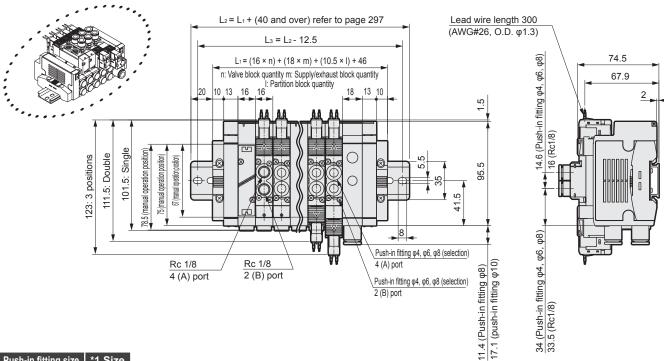
Technical data

Safety precautions

Manifold Specifications

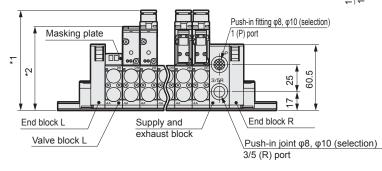
Grommet lead wire (blank)

* For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



Push-in fitting size	*1 Size
φ4	
φ6	91.7
φ8	
φ1/4 inch	92.6
φ5/16 inch	91.9
Female thread size	*2 Size

Female thread size	*2 Size
Rc1/8	76.5
1/8NPT	77.8
G1/8	77.0



4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

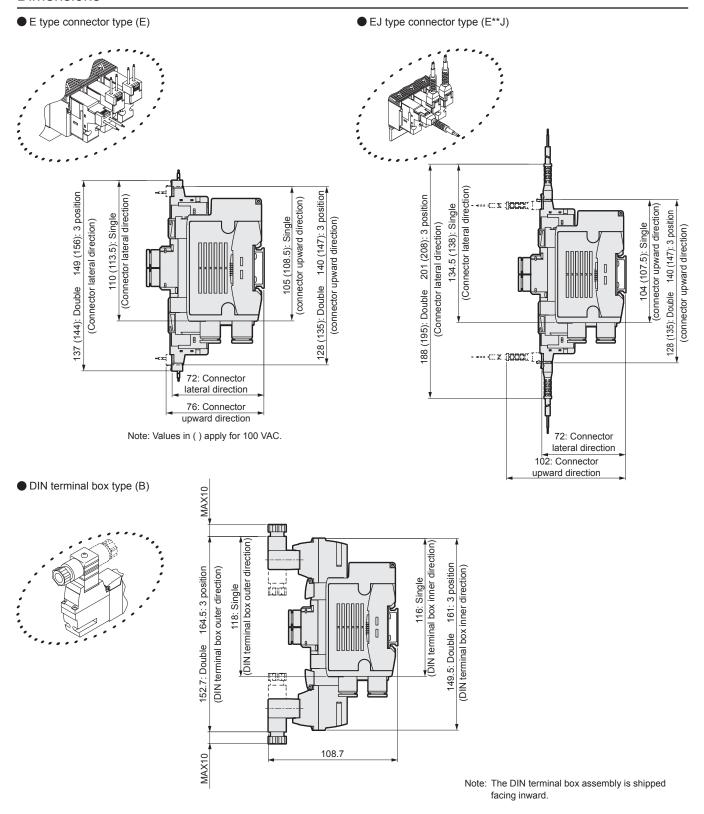
M4GD/E

MN4GD/E

Technical data

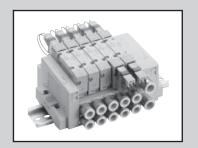
Safety precautions

Dimensions



Manifold Specifications

^{*} Refer to page 251 for the dimension drawings of the L type push-in fitting for supply and exhaust block.



Individual wiring block manifold Base piping

MN4GB1/2 Series

Applicable cylinder bore size: φ20 ~ φ80

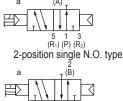






JIS symbol

3 port valve 2-position single N.C. type



5 1 3 (R₁) (P) (R₂)

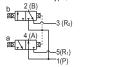
 Dual 3 port valve integrated type (A side valve: N.C. type, B side valve: N.C. type)



(A side valve: N.C. type, B side valve: N.O. type)



(A side valve: N.O. type, B side valve: N.C. type)



(A side valve: N.O. type, B side valve: N.O. type



■ 5 port valve 2-position single



(R₁) (P) (R₂) 2-position double



All ports closed 4 2 (A) (B)

> 5 1 3 (R₁) (P) (R₂) 3-position A/B/R Connection (A) (B)





Manifold common specifications

Marinola oomi	non opcomoationo
Descriptions	
Manifold type	Block manifold
Mounting method	DIN rail mount type
Supply and exhaust method	Common supply/common exhaust (malfunction prevention valve integrated)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated)
Piping direction	Base part lateral direction
Valve type and operation	Pilot operated type soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2 Note 3
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Vibration resistance m/s2	300 or less
Atmosphere	Containing corrosive gas is not permissible

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results

in unstable operation Note 2 The degree of protection is dust proof. The unit is not water proof.

Avoid water drops or oil, etc. during use.

Note 3 The working pressure range is 0 to 0.7 MPa when the external pilot (option symbol: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

Flectrical specification

	Licetifical specification										
	Description	ons									
	Rated voltag	ge V	24 VDC	12 VDC	5 VDC	3 VDC	100 VAC	200 VAC			
Voltage fluctuation range				±10%							
e)	Holding current	Standard	0.015	0.030	0.072	0.120	0.009	0.006			
,		Stariuaru	(0.017)	(0.034)	(0.082)	(0.136)	(0.009)	(0.006)			
	A (Note 4)	With low heat and energy saving circuit	0.005	0.010	-		_				
	Power consumption	ower consumption Standard		0.35 (0.40)		0.35 (0.40)		-			
	W (Note 4)	With low heat and energy saving circuit	0	.1	-		-				
	Apparent power	Standard	_	_			0.93	1.08			
	VA (Note 4)	Note 4)				(0.98)	(1.13)				
Thermal class Surge suppressor			В								
			Option								
	Indicator		Light (option)								

Note 4: Values in () apply when a light is attached. In addition, the low heat energy-saving circuits only have a light attached.

Individual specifications

marriada opocinicatione									
Descriptions			M3GB1/M4GB1	M3GB2/M4GB2					
Max. station no.			24 stations	20 stations					
	Milli fitting	A/B port	Barbed fitting φ1.8 push-in fitting φ1.8, φ4, φ6	Push-in fitting φ4, φ6, φ8					
Port size		P/R port	Push-in fitting φ6, φ8	Push-in fitting φ8, φ10					
Port size	Inch fitting	A/B port	Push-in fitting φ1/8 inch, φ5/32 inch	Push-in fitting φ1/4 inch φ5/16 inch 1/ 8NPT					
		P/R port	Push-in fitting φ1/4 inch, φ5/16 inch	Push-in fitting φ5/16 inch,φ3/8 inch					

- · Refer to "Mounting attitude" on page 631 for DIN rail installation.
- · Refer to page 232 for weight.

Descrint	Descriptions			/MN4GB1	MN3GB2/MN4GB2			
Descriptions		ON	OFF	ON	OFF			
		alve integrated type	9	12	12	29		
	2-position	Single 12		12	19	19		
ms		Double	9	-	18	-		
	3-position	ABR connection	8	15	17	30		

Values including a light surge suppressor. Response time is the value at an air supply of 0.5 MPa, 20 °C, and oil-free. It varies depending on the pressure and the lubricant quality.

Individual wiring manifold; base piping

Flow characteristics

Model	Valve Position		P→	A/B	A/B→	R1/R2
no.	Val	ive Position	C (dm³/(s-bar)	b	C (dm³/(s-bar)	b
	Dual 3 por	rt valve integrated type	0.86	0.35	1.0 (0.66)	0.15 (0.25)
	2-positio	on	1.0	0.30	1.1 (0.72)	0.11 (0.26)
MN3GB1 MN4GB1	3-position	All ports closed	0.96	0.32	1.0 -	0.14 -
		ABR connection	0.96	0.29	1.2 (0.71)	0.11 (0.30)
		PAB connection	1.1	0.31	1.0 -	0.15 -
	Dual 3 port valve integrated type		1.7	0.42	2.2 (1.6)	0.15 (0.19)
	2-positio	on	2.4	0.35	2.5 (1.7)	0.19 (0.19)
MN3GB2 MN4GB2		All ports closed	2.2	0.38	2.3 -	0.17 -
WINTER	3-position	ABR connection	2.2	0.38	2.5 (1.7)	0.18 (0.20)
		PAB connection	2.3	0.29	2.3 -	0.15 -

Note 1: Effective sectional area S and sonic conductance C are converted as S $\stackrel{.}{=}$ 5.0 x C.

Note 2: Values in () apply when a malfunction prevention valve is attached.

Ozone specifications / Cutting oil proof type specifications

Selectthe option "A" of (E) in how to order on page 231.

Clean room specifications (Catalog No. CB-033SA)

Particle generation preventing structure for use in clean rooms

Specifications for secondary battery (Catalog No.CC-947A)

 In order to be applicable for secondary battery manufacturing process, confine materials for air passage and sliding section

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

MN4GB1/2 Series Individual wiring manifold; base piping How to order Manifold model no. (MN4GB1)(1) 0 R - (C6) - (E2)(H) - (10 - (3) 3 port manifold model no.

(MN3GB1)(1) 0 R - (C6) - (E2)(H) - (10) - (3) Discrete valve block with solenoid valve (N4GB1)(1)0R-(C6)-(E2)(H)Discrete 3 port valve block with solenoid valve (N3GB1)(1) 0 R - (C6) - (E2)(H) Discrete solenoid valve (4GB1)(1)9 R - (00)-(E2)(H) Discrete 3 port solenoid valve 3GB1)(1) 9 R -(00)-(E2)(H) 3 **A** Model no. Station B Valve Electrical Position connections no. **G** Voltage Option © Port size

Note 1, Note 2 Note 3

Cautions for model No. selection

Note 1 A or B port plug specifications are available only for the 2-position single. Designate P/R port sizes with the supply/exhaust block in manifold specifications.

Note 2 A/B port sizes do not differ for the mix (CX) of push-in fitting L type.

Note 3 In the case of a discrete solenoid valve, set the port size of "00"

Note 4 Select M4GB*80R when mixing with 4, 5 port valves. Select M3GB*80R when mixing with the masking plate.

Note 5 Combination with the external pilot (K) is not available. Dimensions are the same as the respective 2-position double solenoid.

Note 6 Please select option "L" at the same time as items other than single solenoids.

Note 7 Push-in fitting cannot be mixed with the discrete valve's 4 (A) or 2 (B) port.

Note 8 Only the single solenoid are supported.

				ort valve			noid va		
			integrat	"	valv	-	soleno	— [-
			MN3GB1	MN3GB2	MN4GB1	MIN4GB2 (N)3GB1	N)3GB2	N)4GB	(N)4GB2
Symbol	Descri	ptions	MN3	MN3	NN NN	N (N)	i S	<u>X</u>	<u>Ş</u>
	Ive Position		_	Ī					Ĭ
1	2-position single							•	•
3	2-position double 3-position all ports closed						+		믦
4	3-position ABR connection				-			ě	Ŏ
5	3-position PAB connection	A side valve: Normally closed		_					•
66		B side valve: Normally closed	•	•		•	•		
67	Dual 3 port valve	A side valve: Normally closed B side valve: Normally open	•	lacktriangle		•	•		
76	integrated type	A side valve: Normally open		•					
-	Note 4, 5	B side valve: Normally closed A side valve: Normally open	Ë	_		_	-		-
77	16.11.0	B side valve: Normally open	•	•		•	•		
8	Mix manifold (In case of mu	ultiple valve Positions)		•					9
_	rt size (A/B port)								
Туре	Milli fitting			_					
CF C18	φ1.8 barbed fitting (applicable φ1.8 push-in fitting (applicable)							1	
C4	φ4 push-in fitting	,	Ŏ	•	Ŏ		•	Ŏ	•
C6 C8	φ6 push-in fitting φ8 push-in fitting			-					믦
CL18	L type φ1.8 push-in fitting (•			•			Ĭ
CL4	(applicable tube UP-9402-* L type φ4 push-in fitting (up)	•		•	•		•	
CL6	L type φ6 push-in fitting (up	oward) Note 6	Ŏ	•	-		_	•	•
CL8	L type φ8 push-in fitting (up L type φ1.8 push-in fitting (•			•		9
CD18	(applicable tube UP-9402-*	*)	•		•	•		•	
CD4 CD6	L type φ4 push-in fitting (do L type φ6 push-in fitting (do		•						
CD8	L type φ8 push-in fitting (do	wnward)	Ť	ě			Ŏ		Ŏ
CX Single plug specifications	Push-in fitting mix Port A	Note 8 Port B		•					-
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**)								
C18NC C4NC	φ1.8 push-in fitting (applicable tube UP-9402-**) φ4 push-in fitting	Plug					+		
C6NC	φ6 push-in fitting	3			•	D		Ŏ	•
C8NC	φ8 push-in fitting	φ1.8 barbed fitting					+		9
CFNO		(applicable tube UP-9102-**)			•		1	•	
C18NO	Plug	φ1.8 push-in fitting (applicable tube UP-9402-**)							
C4NO		φ4 push-in fitting						•	•
C6NO C8NO		φ6 push-in fitting φ8 push-in fitting					\vdash		7
CL18NC	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)				•			•	
CL4NC	L type φ4 push-in fitting (upward)	Plug				+	\vdash	•	=
CL6NC CL8NC	L type φ6 push-in fitting (upward) L type φ8 push-in fitting (upward)						\vdash	•	•
CL18NO	L type ψο push-iii litting (upwaiu)	L type φ1.8 push-in fitting (upward)					+		
CL4NO	Plug	(applicable tube UP-9402-**) L type φ4 push-in fitting (upward)				-	\vdash		
CL6NO	i iug	L type φ6 push-in fitting (upward)							
CL8NO	L type φ1.8 push-in fitting (downward)	L type φ8 push-in fitting (upward)							•
CD18NC	(applicable tube UP-9402-**)				•				
CD4NC CD6NC	L type φ4 push-in fitting (downward) L type φ6 push-in fitting (downward)	Plug							
CD8NC	L type φ8 push-in fitting (downward)								Ŏ
CD18NO		L type \(\phi 1.8 \) push-in fitting (downward) (applicable tube UP-9402-**)							
CD4NO	Plug	L type φ4 push-in fitting (downward)						•	
CD6NO CD8NO		L type φ6 push-in fitting (downward) L type φ8 push-in fitting (downward)					+		8
Туре	Inch fitting/								Ĭ
C3N	φ1/8 inch push-in φ5/32 inch push-in				•				
C4N C6N	φ1/4 inch push-in	fitting		•					
C8N CL3N	φ5/16 inch push-in L type φ1/8 inch push-in	fitting fitting (upward) Note 8	0	•	0	0	•	0	•
CL4N	L type φ5/32 inch push-in	fitting (upward) Note 8	6		0	0		0	
CL6N CL8N		fitting (upward) Note 8 fitting (upward) Note 8		00))	0		8
CLSN	Push-in fitting mix	Note 8		•					\preceq
Single plug C3NCN	Port A φ1/8 inch push-in fitting	Port B							
C4NCN	φ5/32 inch push-in fitting	Plug						3	
C6NCN C8NCN	φ1/4 inch push-in fitting φ5/16 inch push-in fitting	. lug							
C3NON	φω το mon push-in illling	φ1/8 inch push-in fitting							
C4NON C6NON	Plug	φ5/32 inch push-in fitting φ1/4 inch push-in fitting							

A Model No.

Discrete block with

Manifold

Plug

L type φ1/8 inch push-in fitting (upward) L type φ5/32 inch push-in fitting (upward)

L type φ1/4 inch push-in fitting (upward)

CL8NCN L type φ5/16 inch push-in fitting (upward)

CL3NCN

CI 6NCN

CL3NON CL4NON

CL6NON CL8NON

00

0

0

0

0

push-in fitting

push-in fitting

push-in fitting (upware

L type φ1/8 inch push-in fitting (upward

L type φ5/32 inch push-in fitting (upward

L type φ5/16 inch push-in fitting (upward

φ5/16 inch

L type φ1/4 inch

Plug

Technical data

Safety

Manifold Specifications

mounting position and quantity in manifold specifications. Stacking multiple spacers is not supported. Combination with the masking plate is not supported. Items other than single solenoids cannot be selected at the same time as the L type push-in fitting (upward). Refer to page 287 to 291 for details. Note15 Combination with the

external pilot (K) is not available.

Note 16 Only the DIN terminal box are supported.

Note17 Grommet lead wire specifications are only for DC voltage.
Note 18 Supports AC voltage and

12/24 VDC. The light is also attached to the terminal box.

Note 19 AC voltage comes with a rectifier circuit.

Note 20 Combination with the push-in fitting L type (upward) is not available.

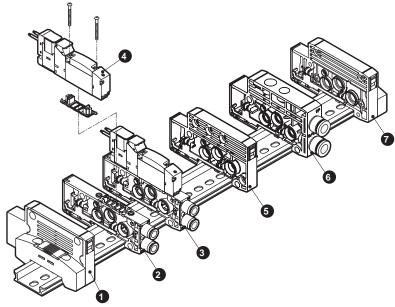
Blank Non-lockinglocking common manual override		n, Station no., Voltage and electrical ction list)	Dual va integ	Man 3 port lve rated pe	ifold 5 p	A Mod fold 5 port valve		lo. cret lock enoi Disc enoi	with d va	h alve
G Option Descriptions G Option Descriptions G Option G			381	3B2	3B1	3B2	;B1	3B2	3B1	3B2
G Option Descriptions G Option Descriptions G Option G	0 1 1		MN3C	MN3C	MN40	MN40	(N)3G	(N)3G	(N)4G	(N)4GB2
Blank Non-locking/locking common manual override		·	_		_	_				
M Non-locking manual override										
H With malfunction prevention valve			•	•	•	•	•	•	•	•
A Ozone/cutting oil proof S Surgeless Note 11 E Low heat and energy saving circuit Note 11, Note 12 L With piping adaptor F A/B port filter integrated Note 13 A/I supply spacer Note 14 Z1 A/I supply spacer Note 14 Z2 In stop valve spacer Note 14, Note 15 Z3 Exhaust spacer Note 14, Note 25 Exhaust spacer Note 14, Note 20 Spacer type pilot check valve Note 14, Note 20 Spacer type pilot check valve Note 14, Note 20 Spacer type pilot check valve Note 14, Note 20 Sylvitage 1 100 VAC (rectifier integrated) 2 200 VAC (rectifier integrated) 2 200 VAC (rectifier integrated) 3 24 VDC 4 12 VDC 4 12 VDC 4 12 VDC 5 Station no. Blank Grommet lead wire (2000 mm) Blank Grommet lead wire (3000 mm) Blank Grommet lead wire (3000 mm) Blank Grommet lead wire (3000 mm) Blow Lead wire (5000 mm) Blow Lead wire (5000 mm) E0 Lead wire (5000 mm) Note 19 E0 Lead wire (50	Н	-	•	•	•	•	•	•	•	•
S Surgeless	К	External pilot Note 10			•	•			•	•
E Low heat and energy saving circuit Note 11, Note 12 L With piping adaptor F Alp bort filter integrated Note 13 C Air supply spacer Note 14, Note 15 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 20 C Spacer type pilot check valve Note 14, Note 16 C Spacer type pilot check valve Note 18 C Spacer type pilot check valve Note 18 C Spacer type pilot check valve Note 19 C Spa	Α	Ozone/cutting oil proof	•	•	•	•	•	•	•	•
L With piping adaptor F A/B port filter integrated		-	•	_	•	•	•	•	_	•
F A/B port filter integrated		, , , , , , , , , , , , , , , , , , ,	<u> </u>	-		•	_	_		•
Z1			H	_		<u> </u>				•
22										
Z3		cappy apare.			•	•				
### Commet lead wire (300 mm)			•	•	•	•				
1		2.2224.23	É			•				
1	Sta	ation no.								
Q Voltage 1 100 VAC (rectifier integrated) 0										
G Voltage 1 100 VAC (rectifier integrated) Note 16 0 </td <td>to</td> <td>to</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td></td> <td></td> <td></td> <td></td>	to	to	•	•	•	•				
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2 200 VAC (rectifier integrated) 3 24 VDC 4 12 VDC 7 3 VDC 8 5 VDC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	G Vo	Itage								
3 24 VDC 4 12 VDC 7 3 VDC 8 5 VDC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1	100 VAC (rectifier integrated)	•	•	•	•	•	•	•	•
4 12 VDC 7 3 VDC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2	200 VAC (rectifier integrated) Note 16		•		•		•		•
7 3 VDC 0 <td>_</td> <td>-</td> <td>•</td> <td>_</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>_</td> <td>•</td>	_	-	•	_	•	•	•	•	_	•
Blank Grommet lead wire (300 mm) Note 17			<u> </u>	_	•	•	_		_	•
D Electrical connections Blank Grommet lead wire (300 mm) Note 17 ■ ■ ● ● ● ● ● ● ● ● ●<				_			_			0
Blank Grommet lead wire (300 mm) Note 17 ●			0	O	0	0	0	0	0	0
B DIN terminal box (Pg7) with surge suppressor/light Note 18 BN DIN terminal box (Pg7) (without terminal box) with surge suppressor/light Note 18 E type connector type (upward/lateral direction common) E0 Lead wire (300 mm) Note 19 E00 Lead wire (500mm) Note 19 E01 Lead wire (1000mm) Note 19 E02 Lead wire (2000mm) Note 19 E03 Lead wire (3000mm) Note 19 E04 Without lead wire (without socket) Note 19 E1 Without lead wire (with socket/terminal) Note 19 E2 Lead wire (300mm) With surge suppressor/light E20 Lead wire (1000mm) With surge suppressor/light E21 Lead wire (1000mm) With surge suppressor/light E22 Lead wire (2000mm) With surge suppressor/light E23 Lead wire (3000mm) With surge suppressor/light E24 Lead wire (2000mm) With surge suppressor/light E25 Lead wire (3000mm) With surge suppressor/light E26 Lead wire (3000mm) With surge suppressor/light E27 Lead wire (3000mm) With surge suppressor/light E28 Lead wire (3000mm) With surge suppressor/light E29 Lead wire (3000mm) With surge suppressor/light E29 Lead wire (3000mm) With surge suppressor/light E20 Lead wire (3000mm) With surge suppressor/light E21 Lead wire (3000mm) With surge suppressor/light E22 Lead wire (3000mm) With surge suppressor/light E23 Lead wire (3000mm) Note 19 E44 Without lead wire (with socket/terminal) with surge suppressor/light E45 Without lead wire (with socket/terminal) with surge suppressor/light E47 Without lead wire (with socket/terminal) with surge suppressor/light E48 Without lead wire (with socket/terminal) Note 19 E49 Lead wire (1000 mm) Note 19 E40 Lead wire (1000 mm) Note 19 E41 Lead wire (1000 mm) Note 19 E42 Lead wire (1000 mm) Note 19 E42 Lead wire (1000 mm) Note 19 E42 Lead wire (2000mm) Note 19 E44 Lead wire (2000mm) Note 19 E45 Lead w										
BN DIN terminal box (Pg7) (without terminal box) with surge suppressor/light Note 18 ● </td <td></td> <td>, ,</td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td>		, ,			•					
E type connector type (upward/lateral direction common) E0		1 2 1		_				•		
E0 Lead wire (300 mm) Note 19 Image: suppressor/light Image: suppress										
E01 Lead wire (1000mm) Note 19 • • • • • • • • • • • • • • • • • • •	E0	Lead wire (300 mm) Note 19	•	•	•	•	•	•	•	•
E02 Lead wire (2000mm) Note 19 • • • • • • • • • • • • • • • • • • •	E00	Lead wire (500mm) Note 19	•	•	•	•	•	•	•	•
E0N Without lead wire (with socket/terminal) E1 Without lead wire (with socket/terminal) E2 Lead wire (300mm) With surge suppressor/light E20 Lead wire (500mm) With surge suppressor/light E21 Lead wire (1000mm) With surge suppressor/light E22 Lead wire (2000mm) With surge suppressor/light E23 Lead wire (3000mm) With surge suppressor/light E24 Lead wire (3000mm) With surge suppressor/light E25 Lead wire (3000mm) With surge suppressor/light E26 Lead wire (3000mm) With surge suppressor/light E27 Lead wire (without socket) Without lead wire (without socket) Without lead wire (with socket/terminal) With surge suppressor/light E3 Without lead wire (with socket/terminal) With surge suppressor/light E4 Without lead wire (with socket/terminal) With surge suppressor/light E4 Note 19 Lead wire (1000 mm) Note 19 Lead wire (3000mm) With surge suppressor/light	E01	Lead wire (1000mm) Note 19	•	•	•	•	•	•	•	•
E0N Without lead wire (without socket) E1 Without lead wire (with socket/terminal) E2 Lead wire (300mm) E3 Lead wire (500mm) E4 Lead wire (1000mm) E5 Lead wire (2000mm) With surge suppressor/light E2 Lead wire (3000mm) With surge suppressor/light E3 Lead wire (without socket) Without lead wire (without socket) Without lead wire (with socket/terminal) E4 Without lead wire (with socket/terminal) E5 Without lead wire (with socket/terminal) E5 Without lead wire (with socket/terminal) E6 Without lead wire (with socket/terminal) E7 Without lead wire (with socket/terminal) E7 Without lead wire (with socket/terminal) E7 Without lead wire (with socket/terminal) E8 Without lead wire (with socket/terminal) E7 Without lead wire (with socket/terminal) E8 Without lead wire (with socket/terminal) E9 Without lead wire (with socket/terminal) With surge suppressor/light E9 Without lead wire (1000mm) With surge suppressor/light With surge suppressor/light E9 Without lead wire (2000mm) With surge suppressor/light Without lead wire (2000mm) With surge suppressor/light		Lead wire (2000mm) Note 19	•	•	•	•	•	•	•	•
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E2 Lead wire (300mm) With surge suppressor/light E20 Lead wire (500mm) With surge suppressor/light E21 Lead wire (1000mm) With surge suppressor/light E22 Lead wire (2000mm) With surge suppressor/light E23 Lead wire (3000mm) With surge suppressor/light E24 Without lead wire (without socket) with surge suppressor/light E27 Without lead wire (without socket) with surge suppressor/light E3 Without lead wire (with socket/terminal) with surge suppressor/light E3 Without lead wire (with socket/terminal) with surge suppressor/light E4 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E6 Without lead wire (1000 mm) E601J Lead wire (1000 mm) E602J Lead wire (3000mm) Note 19 E603J Lead wire (3000mm) With surge suppressor/light E6 Without lead wire (3000mm) With surge suppressor/light E6 Without lead wire (3000mm) With surge suppressor/light E6 Without lead wire (3000mm) With surge suppressor/light E7 Without lead wire (3000mm) With surge suppressor/light		,	<u> </u>	_	•	•	•			•
E20 Lead wire (500mm) With surge suppressor/light E21 Lead wire (1000mm) With surge suppressor/light E22 Lead wire (2000mm) With surge suppressor/light E23 Lead wire (3000mm) With surge suppressor/light E24 Without lead wire (without socket) with surge suppressor/light E3 Without lead wire (with socket/terminal) with surge suppressor/light E3 Without lead wire (with socket/terminal) with surge suppressor/light E4 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E6 Without lead wire (with socket/terminal) with surge suppressor/light E6 Without lead wire (with socket/terminal) with surge suppressor/light E6 Without lead wire (with socket/terminal) with surge suppressor/light E7 Without lead wire (with socket/terminal) with surge suppressor/light E7 Without lead wire (with socket/terminal) with surge suppressor/light E7 Without lead wire (with socket/terminal) with surge suppressor/light E8 Without lead wire (with socket/terminal) with surge suppressor/light E8 Without lead wire (with socket/terminal) with surge suppressor/light E8 Without lead wire (with socket/terminal) with surge suppressor/light E8 Without lead wire (with socket/terminal) with surge suppressor/light E9 Without lead wire (with socket/terminal) with surge suppressor/light E9 Without lead wire (without socket/terminal) with surge suppressor/light E9 Without lead wire (without socket/terminal) with surge suppressor/light E9 Without lead wire (without socket/terminal) with surge suppressor/light E9 Without lead wire (without socket/terminal) with surge suppressor/light E9 Without lead wire (without socket/terminal) with surge suppressor/light E9 Without lead wire (without socket/terminal) with surge suppressor/light		,	<u> </u>	-	_	•				•
E21 Lead wire (1000mm) With surge suppressor/light E22 Lead wire (2000mm) With surge suppressor/light E23 Lead wire (3000mm) With surge suppressor/light E24 Without lead wire (without socket) with surge suppressor/light E3 Without lead wire (with socket/terminal) with surge suppressor/light E4 Without lead wire (with socket/terminal) with surge suppressor/light E5 Without lead wire (with socket/terminal) with surge suppressor/light E5 Uppe connector type (socket with cover, upward/lateral direction common) E6 Uppe Connector type (socket with cover, upward/lateral direction common) E6 Uppe Connector type (socket with cover, upward/lateral direction common) E6 Uppe Connector type (socket with cover, upward/lateral direction common) E7 Uppe Connector type (socket with cover, upward/lateral direction common) E7 Uppe Connector type (socket with cover, upward/lateral direction common) E7 Uppe Connector type (socket with cover, upward/lateral direction common) E8 Uppe Connector type (socket with cover, upward/lateral direction common) E8 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direction common) E9 Uppe Connector type (socket with cover, upward/lateral direc		, ,	Ť	-	_					•
E22 Lead wire (2000mm) With surge suppressor/light • • • • • • • • • • • • • • • • • • •			<u> </u>			-	_			•
E23 Lead wire (3000mm) With surge suppressor/light		, , ,	<u> </u>			-				•
E2N Without lead wire (without socket) with surge suppressor/light		, , ,	-	-	_	•	•			•
EJ type connector type (socket with cover, upward/lateral direction common) E01J Lead wire (1000 mm) Note 19 Lead wire (2000mm) Note 19 Lead wire (3000mm) Note 19 Note 19 Lead wire (3000mm) With surge suppressor/light E21J Lead wire (2000mm) With surge suppressor/light With surge suppressor/light			•	•	•	•	•	•	_	•
E01J Lead wire (1000 mm) Note 19 Image: square (2000 mm) Image: square (2000 mm) Note 19 Image: square (2000 mm)	E3		•	•	•	•	•	•	•	•
E02J Lead wire (2000mm) Note 19 Image: square s	EJ type	connector type (socket with cover, upward/lateral direction common)								
E03J Lead wire (3000mm) Note 19 •<	E01J	Lead wire (1000 mm) Note 19	•	•	•	•	•	•	•	•
E21J Lead wire (1000mm) With surge suppressor/light Image: Lead wire (2000mm)		Lead wire (2000mm) Note 19	•	•	•	•	•	•	•	•
E22J Lead wire (2000mm) With surge suppressor/light • • • • • • •			<u> </u>							•
, ,		, , ,	H	-	_	-	-	_		•
Lead wire (3000mm) with surge suppressor/light		, , ,	•	•	•	•	•	•		•
	E23J	Lead wire (3000mm) With surge suppressor/light			•				•	•

- is not available.
- O Contact CKD for price and availability.

MN4GB1/2 Series

Individual wiring manifold; base piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

Product No.	Component name	Model no. (example)		Component name	Model no. (example)
1	End block L	N4G1R - EL	5	Partition block	N4G1R-S
2	Discrete valve block	N4GB1R-V1-C6	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GB110R-C6-H-3	7	End block R	N4G1R-ER
4	Solenoid valve body	4GB119R-00-H-3			_

B type reduced wiring weight

4GB1 (g)

Block type		Weight	Block type		Weight
Valve block with solenoid valve	N4GB110R-C6	67	Supply and exhaust block	N4G1R-Q-8	58
	N4GB120R-C6	84		N4G1R-QK-8	60
	N4GB1 ³ / ₅ 0R-C6	85	End block	N4G1R-E*	60
	N3GB1660R-C6-3	84		N4G1R-EX*	60
Valve block with masking plate	N4GB1R-MP-C6	37	Partition block	N4G1R-S	45

4GB2 (g)

Block type		Weight	Block type		Weight
Valve block with solenoid valve	N4GB210R-C8	128	Supply and exhaust block	N4G2R-Q-10	83
	N4GB220R-C8	145		N4G2R-QK-10	85
	N4GB2 ³ / ₅ 0R-C8	156	End block	N4G2R-E*	84
	N4GB2660R-C8-3	145		N4G2R-EX*	85
Valve block with masking plate	N4GB2R-MP-C8	69	Partition block	N4G2R-S	60

Parts list

Application	Parts name	Model no.	Application	Parts name	Model no.
	φ1.8 barbed type	4G1R-JOINT-CF	\/al	φ1/4 inch elbow type Note 1	4G2R-JOINT-CL6N
	φ1.8 straight type	4G1R-JOINT-C18	Valve 4G2	φ5/16 inch elbow type Note 1	4G2R-JOINT-CL8N
	φ4 straight type	4G1R-JOINT-C4	1 402	Plug cartridge	4G2R-JOINT-CPG
	φ6 straight type	4G1R-JOINT-C6			4GR-[*1]-[*2]-COIL-[*3]
	φ1.8 elbow type	4G1R-JOINT-CL18,CLL18	1	Coil assembly	*1: Electrical connection (blank, B, E0,),
Valve	φ4 elbow type	4G1R-JOINT-CL4,CLL4	1	Coll assembly	*2: Ozone/cutting oil proof (blank, A)
4G1	φ6 elbow type	4G1R-JOINT-CL6,CLL6	1		*3: Voltage (1,2,3,4)
	φ1/8 inch straight type	4G1R-JOINT-C3N	Valve	E type connector socket	4GR-SOCKET-ASSY-[*1]-[*3]
	φ5/32 inch straight type	4G1R-JOINT-C4N	1	assembly	*1: Electrical connection (E0, E00),
	φ1/8 inch elbow type Note 1	4G1R-JOINT-CL3N	1	doscinory	*3: Voltage (1,3,4)
	φ5/32 inch elbow type Note 1	4G1R-JOINT-CL4N	1	E type connector socket	4GR-SOCKET-ASSY-[*1]
	Plug cartridge	4G1R-JOINT-CPG	1	assembly	*1: Electrical connection (E01J, E02J,)
	φ4 straight type	4G2R-JOINT-C4	Valve	DIN terminal box assembly	4GR-TERMINAL-BOX-[*3]
	φ6 straight type	4G2R-JOINT-C6	4G2	DIN terminal box assembly	*3: Voltage (1,2,3,4)
Value	φ8 straight type	4G2R-JOINT-C8			
Valve 4G2	φ6 elbow type	4G2R-JOINT-CL6,CLL6	1		
402	(ng albow type	ACOD IOINT CL & CL L &	1		

Note 1: This is a available consult factory order.

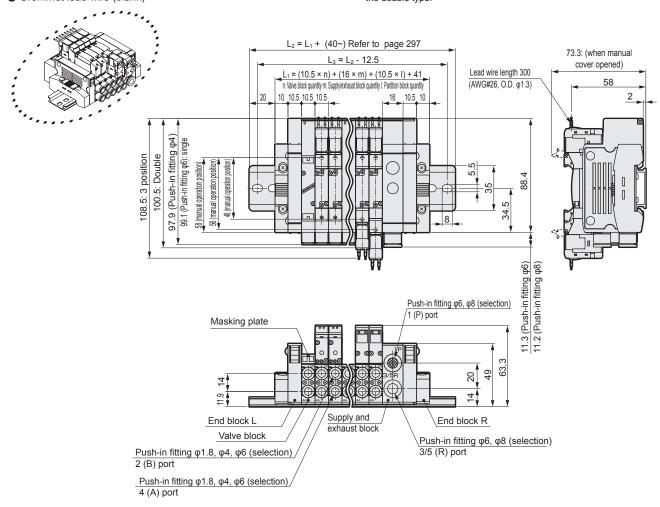
4G2R-JOINT-CL8,CLL8 4G2R-JOINT-C6N

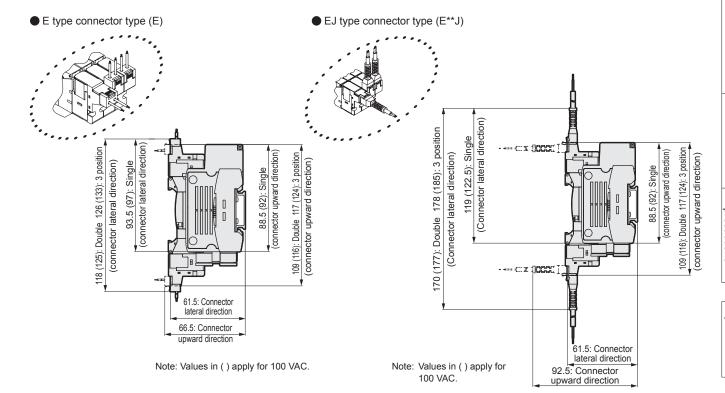
4G2R-JOINT-C8N

φ8 elbow type

φ1/4 inch straight type φ5/16 inch straight type

* For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.





^{*} Refer to page 266 for the dimension drawings of the push-in fitting for valve block and supply/exhaust block.

4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

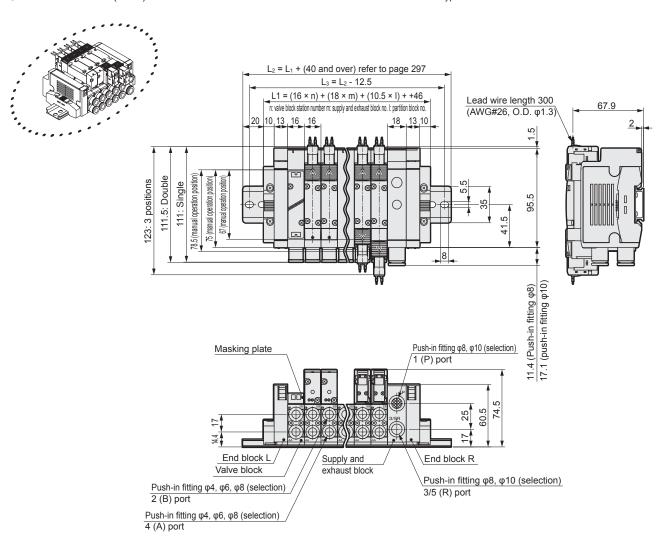
Safety precautions

Manifold Specifications

MN4GB2

Grommet lead wire (blank)

* For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



^{*} Refer to page 268 for the dimension drawings of the push-in fitting for valve block and supply/exhaust block.

4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

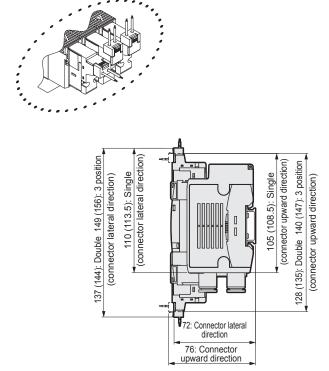
Safety precautions

Individual wiring manifold; base piping

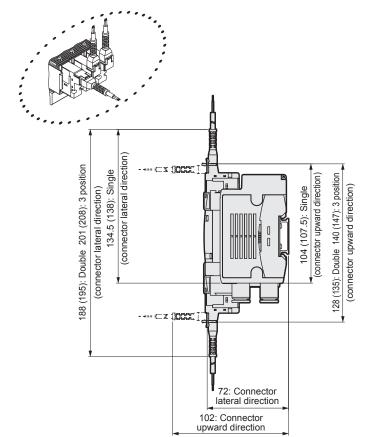
Dimensions

● E type connector type (E)

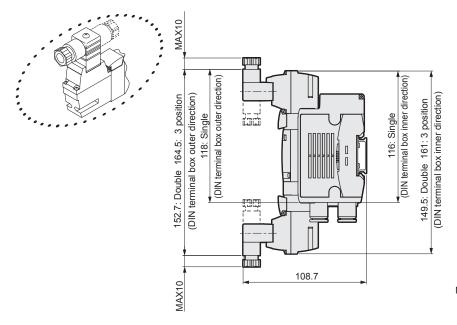
● EJ type connector type (E**J)



Note: Values in () apply for 100 VAC.



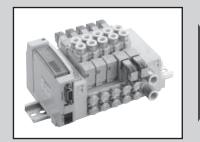
DIN terminal box type (B)



Note: The DIN terminal box assembly is shipped facing inward.

Manifold Specifications





Reduced wiring block manifold **Body piping**

MN4GA1, 2-T* Series

Applicable cylinder bore size: φ20 ~ φ80





JIS symbol

3 port valve 2-position single N.C. type



2-position single N.O. type



Dual 3 port valve integrated type (A side valve: N.C. type, B side valve: N.C. type)



(A side valve: N.C. type, B side valve: N.O. type)





(A side valve: N.O. type, B side valve: N.O. type)



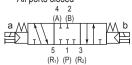
5 port valve 2-position single



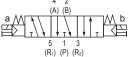
(R₁) (P) (R₂) 2-position double



3-position All ports closed



3-position A/B/R Connection



3-position P/A/B Connection



Manifold common specifications

Manifold type Mounting method Supply and exhaust method Pilot exhaust check valve integrated) Piping direction Valve top direction Valve top direction Valve top direction Pilot-operated soft spool valve Ocompressed air Max. working pressure MPa D.7 Min. working pressure MPa D.2 Note 3 Proof pressure MPa D.2 Note 3 Proof pressure MPa D.5 to 55 Manual operating device Lubrication Note 1 Not required Degree of protection Note 2 Dust proof Vibration resistance m/s² Vibration resistance m/s² So or less Atmosphere DIN rail mount type Common exhaust (Pilot exhaust check valve integrated) Pilot-operated soft spool valve Compressed air Note 3 D.7 Min. working pressure MPa D.7 Note 3 D.7 Note 3 D.7 Note 3 D.7 Vibration resistance m/s² So or less Vibration resistance m/s² So or less Atmosphere		
Mounting method Supply and exhaust method Pilot exhaust method Piping direction Valve type and operation method Working fluid Max. working pressure MPa Proof pressure MPa Ambient temperature °C Fluid temperating device Lubrication Note 1 Degree of protection Note 2 Vibration resistance m/s² Vommon supply/common exhaust (malfunction prevention valve integrated) Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated) Valve top direction Valve	Descriptions	
Supply and exhaust method Common supply/common exhaust (malfunction prevention valve integrated) Pilot exhaust method Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated) Piping direction Valve top direction Valve top direction Valve top direction Valve top direction Pilot-operated soft spool valve Compressed air Max. working pressure MPa 0.7 Min. working pressure MPa 1.05 Ambient temperature °C Fot 55 (no freezing) Fluid temperature °C Manual operating device Lubrication Note 1 Degree of protection Note 2 Dust proof Vibration resistance m/s² Vibration resistance m/s² Vibration resistance m/s² Valve top direction Valve top dir	Manifold type	Block manifold
method (malfunction prevention valve integrated) Pilot exhaust method Pijot exhaust check valve common exhaust (Pijot exhaust check valve integrated) Piping direction Valve top direction Valve top direction Valve top direction Pilot-operated soft spool valve Ocmpressed air Max. working pressure MPa Min. working pressure MPa Proof pressure MPa 1.05 Ambient temperature °C Fluid temperature °C Manual operating device Lubrication Note 1 Degree of protection Note 2 Vibration resistance m/s² Vibration resistance m/s² Valve top direction Valve integrated)	Mounting method	DIN rail mount type
Pilot exhaust method Piping direction Valve top direction Valve type and operation method Working fluid Max. working pressure MPa Min. working pressure MPa Proof pressure MPa Ambient temperature °C Manual operating device Lubrication Note 1 Degree of protection Note 2 Vibration resistance m/s² Vibration resistance m/s² Valve top direction Valve		
Valve type and operation method Working fluid Max. working pressure MPa Min. working pressure MPa Morking fluid temperature °C Fluid temperature °C Foto 55 (no freezing) Morking/locking common type (standard) Morking/locking common type (standard) Morking fluid Morking pressure Mor	Pilot exhaust method	
operation method Prior-operated soft spool valve Working fluid Compressed air Max. working pressure MPa 0.7 Min. working pressure MPa 1.05 Proof pressure MPa 1.05 Ambient temperature °C -5 to 55 (no freezing) Fluid temperature °C 5 to 55 Manual operating device Non-locking/locking common type (standard) Lubrication Note 1 Degree of protection Note 2 Vibration resistance m/s² Vibration resistance m/s² 300 or less	Piping direction	Valve top direction
Max. working pressure MPa 0.7 Min. working pressure MPa 0.2 Note 3 Proof pressure MPa 1.05 Ambient temperature °C -5 to 55 (no freezing) Fluid temperature °C Non-locking/locking common type (standard) Lubrication Note 1 Not required Degree of protection Note 2 Dust proof Vibration resistance m/s² 50 or less Vibration resistance m/s² 300 or less		Pilot-operated soft spool valve
Min. working pressure MPa 0.2 Note 3 Proof pressure MPa 1.05 Ambient temperature °C -5 to 55 (no freezing) Fluid temperature °C 5 to 55 Manual operating device Non-locking/locking common type (standard) Lubrication Note 1 Degree of protection Note 2 Vibration resistance m/s² Vibration resistance m/s² 300 or less	Working fluid	Compressed air
Proof pressure MPa 1.05 Ambient temperature °C -5 to 55 (no freezing) Fluid temperature °C 5 to 55 Manual operating device Non-locking/locking common type (standard) Lubrication Note 1 Degree of protection Note 2 Vibration resistance m/s² Vibration resistance m/s² 300 or less	Max. working pressure MPa	0.7
Ambient temperature °C	Min. working pressure MPa	0.2 Note 3
Fluid temperature °C 5 to 55 Manual operating device Non-locking/locking common type (standard) Lubrication Note 1 Not required Degree of protection Note 2 Dust proof Vibration resistance m/s² 50 or less Vibration resistance m/s² 300 or less	Proof pressure MPa	1.05
Manual operating device Non-locking/locking common type (standard) Lubrication Note 1 Degree of protection Note 2 Vibration resistance m/s² Vibration resistance m/s² 300 or less	Ambient temperature°C	-5 to 55 (no freezing)
Lubrication Note 1 Not required Degree of protection Note 2 Dust proof Vibration resistance m/s² 50 or less Vibration resistance m/s² 300 or less	Fluid temperature °C	5 to 55
Degree of protection Note 2 Dust proof Vibration resistance m/s² 50 or less Vibration resistance m/s² 300 or less	Manual operating device	Non-locking/locking common type (standard)
Vibration resistance m/s² 50 or less Vibration resistance m/s² 300 or less	Lubrication Note 1	Not required
Vibration resistance m/s ² 300 or less	Degree of protection Note 2	Dust proof
	Vibration resistance m/s ²	50 or less
Atmosphere Containing corrosive gas is not permissible	Vibration resistance m/s ²	300 or less
	Atmosphere	Containing corrosive gas is not permissible

Electrical specification

Descrip	tions					
Datad val	logo	T1*, T3	80*, T5*	T6*, T8*		
Rated vol	lage	24 VDC	24 VDC 12 VDC			
Voltage flu (Note 4)	uctuation range	±1	0%	+10%, -5%		
Holding	Standard	0.017	0.034	0.017		
current A	With low heat energy-saving circuit	0.005	0.010	0.005		
Power	Standard		0.4			
consumption	With low heat energy-saving circuit		0.1			
Thermal c	lass		В			
Surge supp	oressor Note 5		Zener dio	de		
Indicator			LED			

Note 4 Please note the voltage fluctuation range since the T6* and T8* (Serial transmission type) have a voltage drop due to the internal circuit.

Note 5 If you select the low heat energy-saving circuit or surgeless, it will become a diode.

- Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.
- Note 2 The degree of protection is dust proof. The unit is not water proof. Avoid water drops or oil, etc. during use.
- Note 3 The working pressure range is 0 to 0.7 MPa when the external pilot (option symbol: K) is selected. Set the external pilot pressure between 0.2 to 0.7 MPa.

(A side valve: N.O. type, B side valve: N.C. type) Individual specifications

Deceri	Descriptions			MN3GA1/MN4GA1									
Descri	puons		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2	
Max.	Standard wiring		16 station	24 station	24 station	16 station	18 station	8 station	24 station	8/16 stations	8/16 stations	16/24 stations	
station no.	Double wiring		8 station	12 station	12 station	8 station	9 station	4 station	12 station	4/8 stations	4/8 stations	8/16 stations	
Max. nun	nber of solenoid		16 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points	16/32 points	
	Milli fitting/M5,	A/B port		Barbed fitting φ1.8 push-in fitting φ1.8, φ4, φ6 M5									
	Rc thread	P/R port					Push-	in fitting	φ6, φ8			_	
Dort oize	Inch fitting/M5,	A/B port				Push-in	fitting φ1	1/8 inch,	φ5/32 in	ch M5			
Port size	NPT thread	P/R port				Pusl	n-in fittin	g φ1/4 ir	rch, φ5/1	6 inch			
	Milli fitting/	A/B port						-					
	G thread	P/R port						-					

Doc	criptions			MN3GA2/MN4GA2									
Des	Criptions		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2	
	Standard wiring		16 station	20 station	20 station	16 station	18 station	8 station	20 station	8/16 stations	8/16 stations	16/20 stations	
station no.	Double wiring		8 station	12 station	12 station	8 station	9 station	4 station	12 station	4/8 stations	4/8 stations	8/16 stations	
	number of solen	oid	16 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points	16/32 points	
	Milli fitting/M5,	A/B port		Push-in fitting φ4, φ6, φ8 Rc1/8									
	Rc thread	P/R port					Push-	in fitting	φ8, φ10				
Port	Inch fitting/M5,	A/B port			Pı	ush-in fitt	ting φ1/4	inch, φ	5/16 inch	1/8NP	Γ		
size	NPT thread	P/R port		Push-in fitting φ5/16 inch, φ3/8 inch									
	Milli fitting/	A/B port		G1/8									
	G thread	P/R port		Push-in fitting φ8, φ10									

Refer to page 240 for weight.

flow characteristics

now characteristics									
Madalna	Vo	lva Dacitian	P→	A/B	A/B→R1/R2				
Model no.	Valve Position		C (dm³/(s⋅bar)	b	C (dm³/(s-bar)	b			
	Dual 3 po	rt valve integrated type	0.87	0.37	1.0 (0.68)	0.14 (0.22)			
	2-position		0.98	0.33	1.2 (0.71)	0.11 (0.27)			
MN3GA1 MN4GA1	3-position	All ports closed	0.92	0.34	1.0 -	0.16 -			
		ABR connection	0.92	0.29	1.1 (0.69)	0.13 (0.22)			
		PAB connection	1.1	0.35	1.1 -	0.17 -			
	Dual 3 po	rt valve integrated type	1.7	0.37	2.2 (1.6)	0.13 (0.21)			
	2-position	on	2.2	0.21	2.5 (1.7)	0.19 (0.10)			
MN3GA2 MN4GA2		All ports closed	2.0	0.25	2.3 -	0.10 -			
	3-position	ABR connection	2.0	0.27	2.5 (1.7)	0.18 (0.12)			
		PAB connection	2.3	0.31	2.3 -	0.16 -			

Note 1: Effective sectional area S and sonic conductance C are converted as S $\stackrel{.}{=}$ 5.0 x C.

Note 2: Values in () apply when a malfunction prevention valve is attached

Reduced wiring specifications

Descriptions	T10	T11	T30	T50	T51	T52	T53
	Common	Common	D	20 pin flat cable	20 pin flat cable	10 pin flat cable	26 pin flat cable
Туре	terminal block	terminal block	sub-connector	connector (with	connector	connector	connector
туре	M3 thread type	push tightening		power supply	(without power	(without power	(without power
		system		terminal)	supply terminal)	supply terminal)	supply terminal)
	-	-	D sub-connector	MIL-C-83503 standard	MIL-C-83503 standard	MIL-C-83503 standard	MIL-C-83503 standard
Connector			25 pin	compliant pressure	compliant pressure	compliant pressure	compliant pressure
				welding 20-pin socket	welding 20-pin socket	welding 10-pin socket	welding 26-pin socket

Serial transmission slave unit specifications (refer to page 611 for applicable PLC table)

Des	criptions	T6G1	T6C0*1	T6C1*1	T6A0*2 T6A1*2 T6J0*2 T6J1*2 T6E0				T6E1	
Netv	work name	CC-Link ver1.10	CompoBus/S		UNIWIRE	SYSTEM	UNIWIRE	H SYSTEM	S-L	INK
Power	Unit side		24 VDC ±10%			24 VDC +10%, -5%				
supply voltage	Valve side	2	24 VDC +10%, -5%			Pov	ver supply to	erminal comr	non	
Current	Unit side	(when	100 mA or less (when all output points are ON)							
consumption	Valve side	(when a	15 mA or less all output points a	are OFF)				s not include		
Outp	out points	16 points	8 points	16 points	8 points	16 points	8 points	16 points	8 points	16 points
Occ	upied iber	1 station	1 node address (8-point mode)	2 node address (8-point mode)	Output 8 points	Output 16 points	Output 8 points	Output 16 points	FAN-in: 3 *3	FAN-in: 3 *3
Oper	ration display			LED (power	er supply and	communica	tion state)			•
Outp	out type				NF	'n				

De	scriptions	T7C0*4	T7C1∗4	T7E0	T7E1	T7G1	T7L1∗5	T7D1	T7S1	T7SP1		
Netv	vork name	Compo	Bus/S	S-L	INK	CC-Link ver1.10	SAVE NET	DeviceNet*6, *7	CompoNet			
Power	Unit side	24 VD0	C ±10%	24 VDC +10%, -5%								
supply	Valve side	24 VDC +	10%, -5%			Power	supply termin	al common				
voltage	Communication side		-		-	-	-	11 VDC to 25 VDC *8	14.0 VDC t	o 26.4 VDC		
	Unit side	50 mA (when all output	or less t points are ON)	90 mA or less 110 mA or less 40 mA or (when all output points are ON) (when all output points are ON)								
Current consumption	Valve side	15 mA (when all output	or less points are OFF)		s not included	`	urrent is not i	,	(when all output points are ON) Load current is not included			
	Communication side		-					50 mA or less	65 mA or less (all p 95 mA or less (all p	,		
Outp	out points	8 points	16 points	8 points	16 points	16 points	16 points	16 points	16 p	oints		
Occi	upied ber	1 node address (8-point mode)	2 node address (8-point mode)	FAN-in: 3 *3	FAN-in: 3 *3	I 1 station I 1 station I 2 bytes I			slave 16 points)			
Oper	ation display			I	LED (power	supply and com	nmunication s	tate)				
Output type NPN NPN					PNP							

Descriptions		T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1
Descrip	ptions	T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2
Network i	name	CC-Link	ver1.10	PROFIBU	S-DP(V0)	EtherCAT		EtherNet/IP	
Power	Unit side				24 V	DC ± 10%			
supply voltage	Valve side				24 VDC	C + 10%, -5%			
	Unit side	60 mA (when all output			or less t points are ON)	110 mA or less (when all output points are ON)		120 mA or less) (when all output points are	
Current consumption	Valve side		(w	/hen all outp	T8*2: 2	5 mA or less 20 mA or less ON) Load curr	ent is not inclu	uded	
Output po	oints					: 16 points :: 32 points			
Occupied	number	ber 1 station							
Operation	n display			LED (p	ower supply	and communic	ation state)		
Output ty	ре	NPN output	PNP output	NPN output	PNP output	output NPN output PNP output NPN output			PNP output

^{*1} The long-distance communication mode is not available.

M4GA/B

4GA/B

MN4GD/E

M4GD/E

Technical data

^{*2} Compatible with 128 transmission points and a transmission distance of 200 m. Contact CKD for other specifications.

^{*3} FAN-in indicates the capacity of the input from the D-G line. It is necessary to calculate the number of units to be connected.

^{*4} The long-distance communication mode is available.

^{*5} Compatible with a transmission bit rate of 128 bits and the transmission method of semi-duplicated communication. Contact CKD for other specifications.

^{*6} Compatible with DeviceNet compliant networks (DLNK, etc.) as well.

^{*7} Contact CKD for EDS file. EDS file: A file containing text for parameters for communication with masters of each company.

4GA/B

M4GA/E

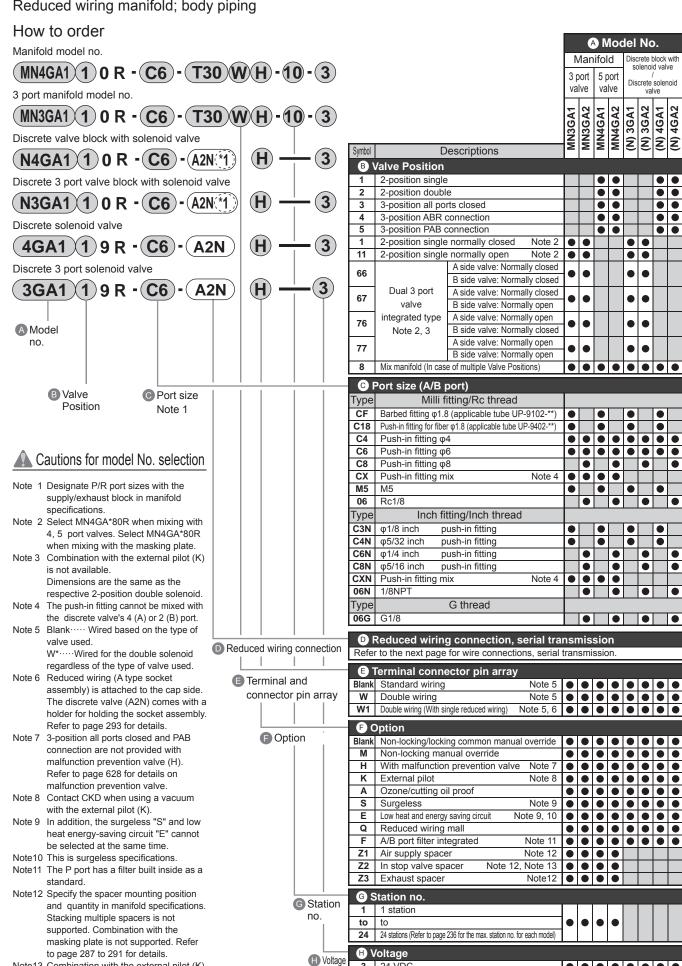
4GA/B Master valve

MN4GD/E

Technical

Safety precautions

Reduced wiring manifold; body piping



3 24 VDC

12 VDC

is not available

is not available.

Note13 Combination with the external pilot (K)

MN4GA1/2-T* Series Reduced wiring manifold; body piping

	A Model No.									
			ifold		Discrete valveblock with					
Dua inte	Dual 3 port valve integrated type 5 port valve					solenoid valve Discrete solenoid valve				
١ ٥٠		A2	3A1	A2	3GA1	3GA2	4GA1	4GA2		
MN3GA		MN3GA2	MN4GA	MN4GA2	(N) 30 (N) 40 (N) 40					
2	•	2	2	2	=	=	=	Ž		

Reduced wiring connection (light and surge suppressor provided as standard) 12/24 VDC											
T10	Common terminal block (M3 thread)	Left side specifications	•	•	•	•					
T10R	Common terminal block (WS thread)	Right side specifications	•	•	•	•					
T11	Common terminal block (push tightening)	Left side specifications	•	•	•	•					
T11R	Common terminal block (pasir lighterning)	Right side specifications	•	•	•	•					
T30	D sub-connector	Left side specifications	•	•	•	•					
T30R	D Sub-connector	Right side specifications	•	•	•	•					
T50	20 pin flat cable connector (with power supply terminal)	Left side specifications	•	•	•	•					
T50R	20 pin nat cable connector (with power supply terminal)	Right side specifications	•	•	•	•					
T51	20 pin flat cable connector (without power supply terminal)	Left side specifications	•	•	•	•					
T51R	20 piii liat cable connector (without power supply terminar)	Right side specifications	•	•	•	•					
T52	10 pin flat cable connector (without power supply terminal)	Left side specifications	•	•	•	•					
T52R	To pin hat cable connector (without power supply terminal)	Right side specifications	•	•	•	•					
T53	26 pin flat cable connector (without power supply terminal)	Left side specifications	•	•	•	•					
T53R	20 piri ilat cable confidector (without power supply terminar)	Right side specifications	•	•	•	•					

Serial transmission (light and surge suppressor provided as standard) 24 VDC											
T6A0	UNIWIRE SYSTEM	NPN 8 points		•	•	•					
T6A1	UNIVIRE STSTEW	NPN 16 points	•		•	•					
T6C0	O	NPN 8 points	•		•	•					
T6C1	CompoBus/S	NPN 16 points	•	•	•	•					
T6E0	S-LINK	NPN 8 points	•	•	•	•					
T6E1	5-LINK	NPN 16 points	•	•	•	•					
T6G1	CC-Link	NPN 16 points		•	•	•					
T6J0	UNIWIRE H SYSTEM	NPN 8 points	•	•	•	•					
T6J1	UNIWIRE H 3131EW	NPN 16 points	•	•	•	•					
T7C0	Thin time CompaDua/C	NPN 8 points		•							
T7C1	Thin type CompoBus/S	NPN 16 points	•	•	•	•					
T7D1	Thin type DeviceNet	NPN 16 points	•	•	•	•					
T7E0	Thin type S-LINK	NPN 8 points		•	•	•					
T7E1	Thin type 3-Link	NPN 16 points		•	•	•					
T7G1	Thin type CC-Link	NPN 16 points									
T7L1	Thin type SAVE NET	NPN 16 points	•	•	•	•					
T7S1	Thin type CompoNet	NPN 16 points	•	•	•	•					
T7SP1	Thin type Componet	PNP 16 points		•	•	•					
T8G1		NPN 16 points	•		•	•					
T8G2	Thin type CC-Link	NPN 32 points	•	•	•	•					
T8GP1	Thin type CO-Link	PNP 16 points	•	•	•	•					
T8GP2		PNP 32 points	•		•	•					
T8P1		NPN 16 points		•		•					
T8P2	Thin type PROFIBUS-DP	NPN 32 points	•	•	•	•					
T8PP1	Tilli type PROFIBUS-DP	PNP 16 points		•	•	•					
T8PP2		PNP 32 points	•	•	•	•					
T8EC1		NPN 16 points			•	•					
T8EC2	Thin type EtherCAT	NPN 32 points	•	•	•	•					
T8ECP1	Thin type EulerCAT	PNP 16 points	•	•	•	•					
T8ECP2		PNP 32 points	•	•	•	•					
T8EN1		NPN 16 points	•	•	•	•					
T8EN2	Thin type EtherNet/IP	NPN 32 points	•	•	•	•					
T8ENP1	Thin type Luletinevir	PNP 16 points	•	•	•	•					
T8ENP2		PNP 32 points			•	•					
A2N	Without lead wire (without socket)	with surge suppressor/light					•	•	•	•	

Ozone specifications /

Coolant proof specifications

Selectthe option "A" of $\widehat{\mathbb{F}}$ in how to order on page 238.

Clean room specifications (Catalog No. CB-033SA)

Specifications for secondary battery (Catalog No.CC-947A)

Clean room specifications

** - Voltage - (**P7***

In order to be applicable for secondary battery manufacturing process, confine materials for air passage and sliding section

** - Voltage -

4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

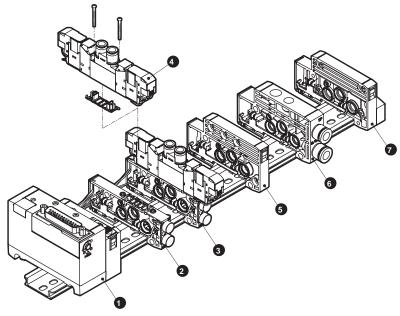
Technical data

Safety precautions

MN4GA1/2-T* Series

Reduced wiring manifold; body piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

Product No.	Component name	Model no. (example)	No.	Component name	Model no. (example)
1	Electrical block	N4G1R-T30	5	Partition block	N4G1R-S
2	Discrete valve block	N4GA1R-V2	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GA120R-C6-A2NH-3	7	End block R	N4G1R-ER
4	Solenoid valve body	4GA129R-C6-A2NH-3			

A type reduced wiring weight

4GA1								(g)
Parts name	Model no.	Weight	Parts name	Model no.	Weight	Parts name	Model no.	Weight
	N3GA110R-C6-A2N-3	72	Supply and exhaust	N4G1R-Q-8	58		N4G1R-T10(R)	207
	N3GA1110R-C6-A2N-3	72	block	N4G1R-QK-8	60		N4G1R-T30(R)	165
Valve block with	N4GA110R-C6-A2N-3	72	End block	N4G1R-E*	60]	N4G1R-T50(R)	167
solenoid valve	N4GA120R-C6-A2N-3	91	Elia biock	N4G1R-EX*	60	Electrical block	N4G1R-T6*	295
	N4GA1 ³ ₅ 0R-C6-A2N-3	95	Partition block	N4G1R-S	45		N4G1R-T7*	203
	N3GA1660R-C6-A2N-3	91					N4G1R-T8*	229
Valve block with masking plate	N4GA1R-MP*-C6	34			•			

4GA2								(g)
Parts name	Model no.	Weight	Parts name	Model no.	Weight	Parts name	Model no.	Weight
	N3GA210R-C8-A2N-3	131	Supply and exhaust	N4G2R-Q-10	83		N4G2R-T10(R)	223
	N3GA2110R-C8-A2N-3	131	block	N4G2R-QK-10	85		N4G2R-T30(R)	182
Valve block with	N4GA210R-C8-A2N-3	131	Fad black	N4G2R-E*	84		N4G2R-T50(R)	184
solenoid valve	N4GA220R-C8-A2N-3	151	End block	N4G2R-EX*	85	Electrical block	N4G2R-T6*	312
	N4GA2 4 0R-C8-A2N-3	163	Partition block	N4G2R-S	60		N4G2R-T7*	204
	N4GA2660R-C8-A2N-3	151		•			N4G2R-T8*	242
Value block with masking plate	NACA2B-MD*-C8	66					•	

Parts list

Application	Parts name	Model no.	Application	Parts name	Model no.
	Cartridge fitting φ1.8 barbed type	4G1R-JOINT-CF			400 401 601 001 601
	Cartridge fitting φ1.8 straight type	4G1R-JOINT-C18	Valve	Coil assembly	4GR-A2N-[*2]-COIL-[*3] *2: Ozone/cutting oil proof (Blank, A)
	Cartridge fitting φ4 straight type	4G1R-JOINT-C4	valve	Coll assembly	*3: Voltage (3,4)
Valve	Cartridge fitting φ6 straight type	4G1R-JOINT-C6			0. vollago (0, 1)
4G1	Cartridge fitting φ1/8 inch straight type	4G1R-JOINT-C3N			Encode advants
	Cartridge fitting φ5/32 inch straight type	4G1R-JOINT-C4N	Manifold	Expansion socket	For a side solenoid N4GR-SOCKET-ASSY-(Selection no.)
	Plug cartridge	4G1R-JOINT-CPG		assembly model no.	144014-0001CL1-A001-(delection no.)
	Cartridge fitting φ4 straight type	4G2R-JOINT-C4		(Details on page 613)	For b side solenoid
	Cartridge fitting φ6 straight type	4G2R-JOINT-C6			N4GR-RELAY-SOCKET-(Selection no.)
Valve	Cartridge fitting φ8 straight type	4G2R-JOINT-C8		·	_
4G2	Cartridge fitting φ1/4 inch straight type	4G2R-JOINT-C6N	1		

4G2R-JOINT-C8N 4G2R-JOINT-CPG

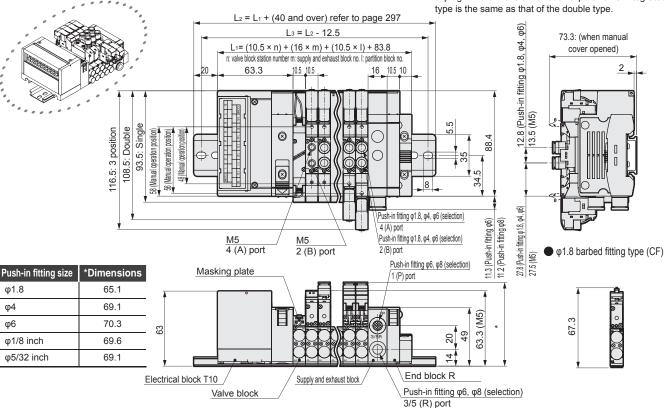
Plug cartridge

Cartridge fitting ϕ 5/16 inch straight type

Common terminal block (M3 thread) Left side (T10)

Note 1: There are push tightening specifications (T11) The dimensions are the same as T10.

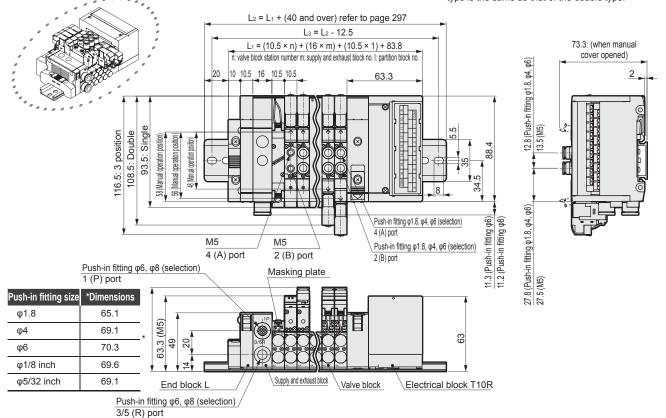
Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated



Common terminal block (M3 thread) Right side (T10R)

Note 1: There are push tightening specifications (T11R). The dimensions are the same as T10R.

Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.

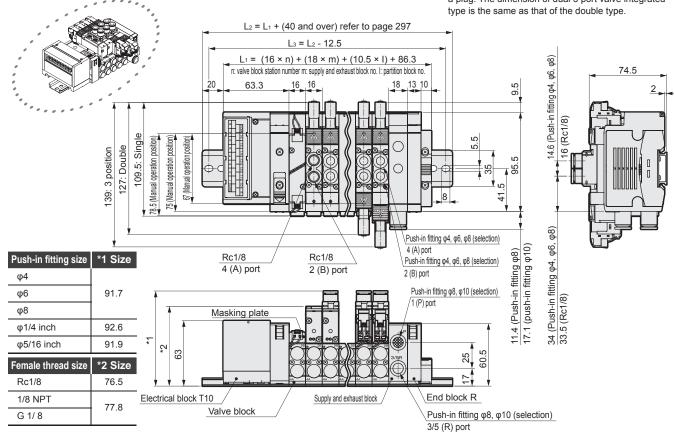




Common terminal block (M3 thread) Left side (T10)

Note 1: There are push tightening specifications (T11) The dimensions are the same as T10.

Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated

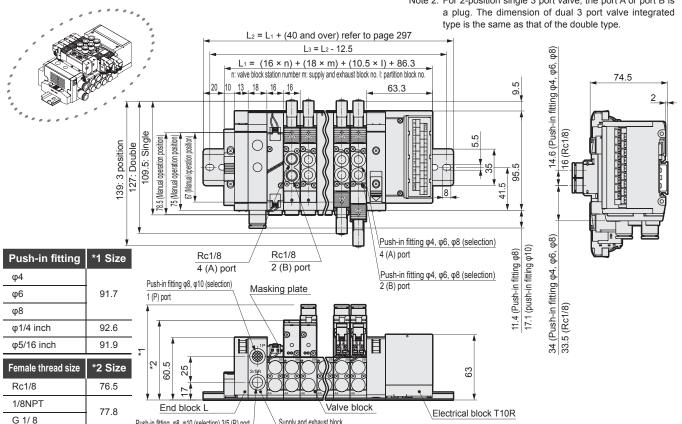


Common terminal block (M3 thread) Right side (T10R)

Push-in fitting $\,\phi 8,\,\phi 10$ (selection) 3/5 (R) port

Note 1: There are push tightening specifications (T11R). The dimensions are the same as T10R.

Note 2: For 2-position single 3 port valve, the port A or port B is



4GA/B

M4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

4GA/B

M4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

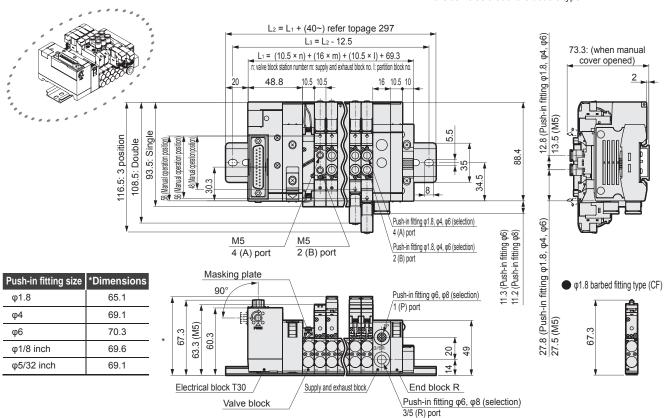
Technical data

Safety precautions

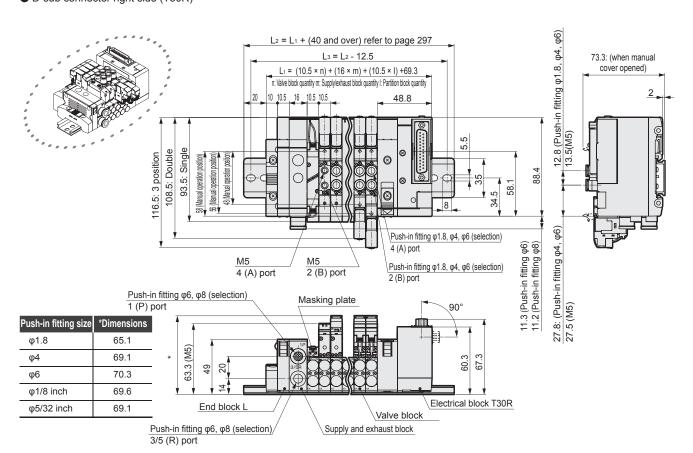
Manifold Specifications

D-sub connector left side (T30)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



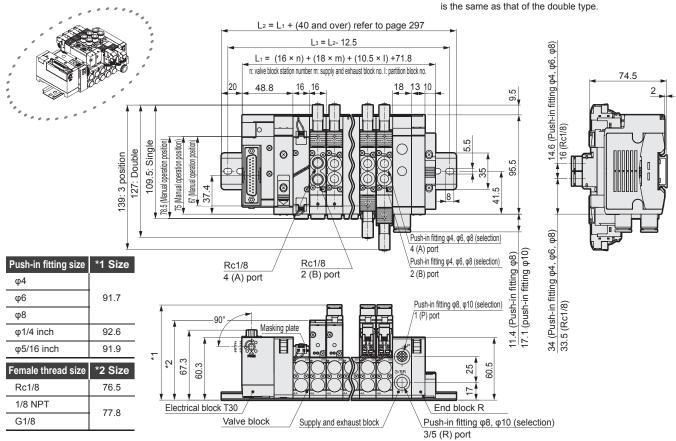
D-sub connector right side (T30R)



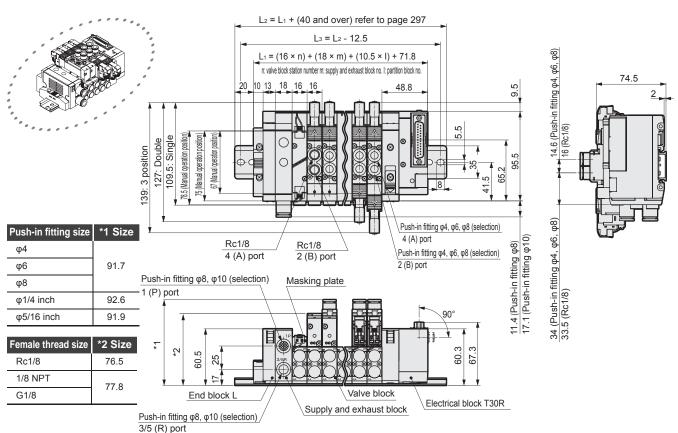


D-sub connector left side (T30)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



D-sub connector right side (T30R)



4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications

M4GD/E

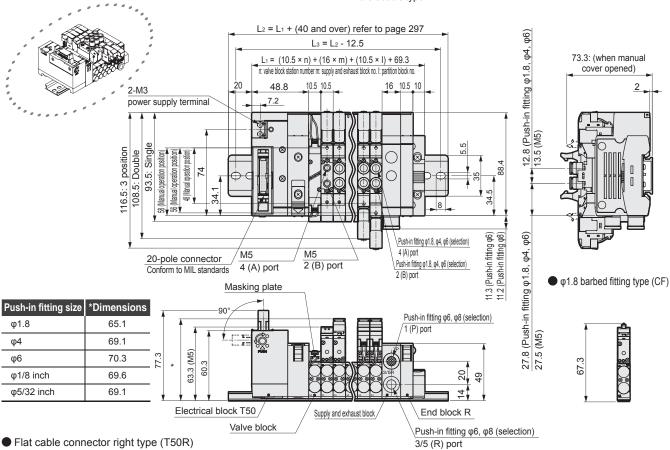
Dimensions

CAD

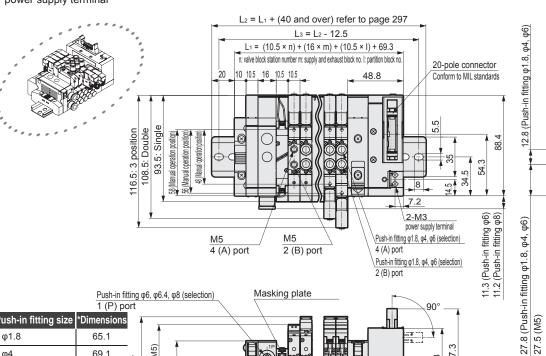
MN4GA1

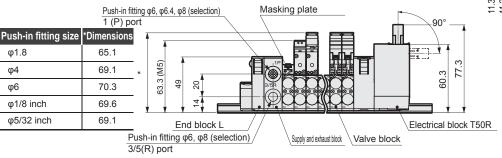
 Flat cable connector left side (T50) With power supply terminal

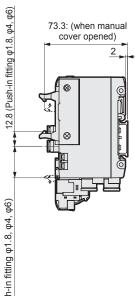
- Note 1: T51 T52 and T53 flat cable connectors are also available. The dimensions are the same as T50.
- Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



 Flat cable connector right type (T50R) power supply terminal







4GA/B

M4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

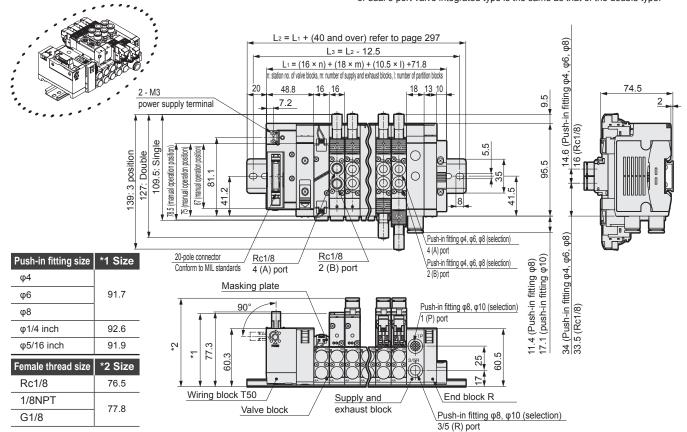
precautions

Manifold Specifications

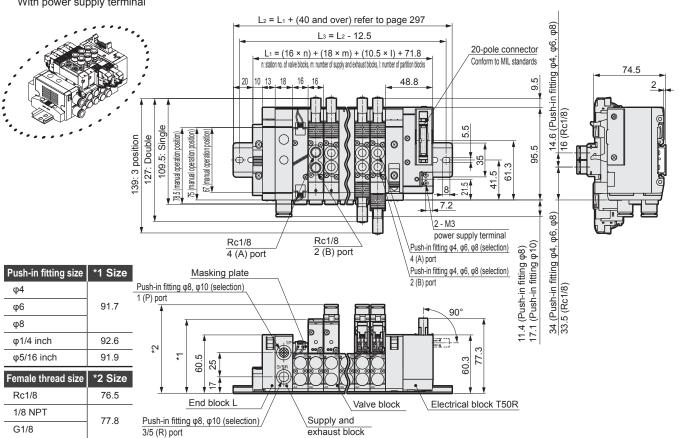
MN4GA2

Flat cable connector left side (T50)
 With power supply terminal

- Note 1: T51, T52, and T53 flat cable connectors are also available. The dimensions are the same as T50.
- Note 2: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



Flat cable connector right type (T50R)
 With power supply terminal



MN4GA1

4GA/B

M4GA/B

4GA/B Master valve

4GD/E

M4GD/E

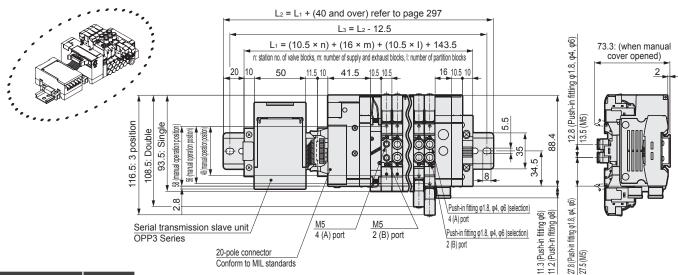
MN4GD/E

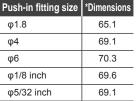
Technical data

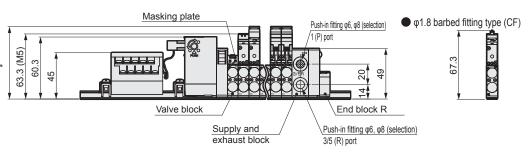
Safety precautions

Manifold Specifications Serial transmission (T6*)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.

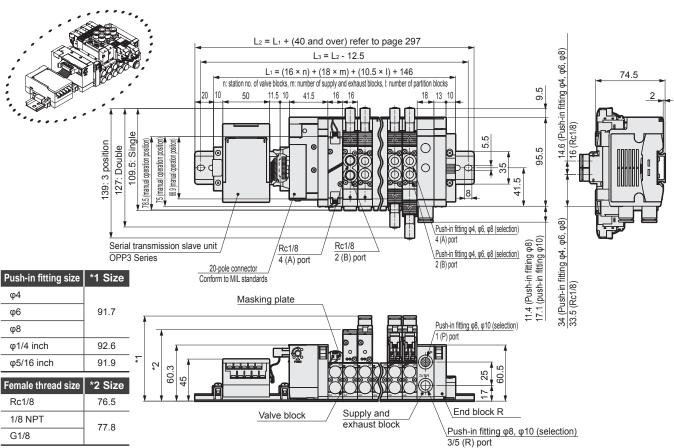






MN4GA2

Serial transmission (T6*)

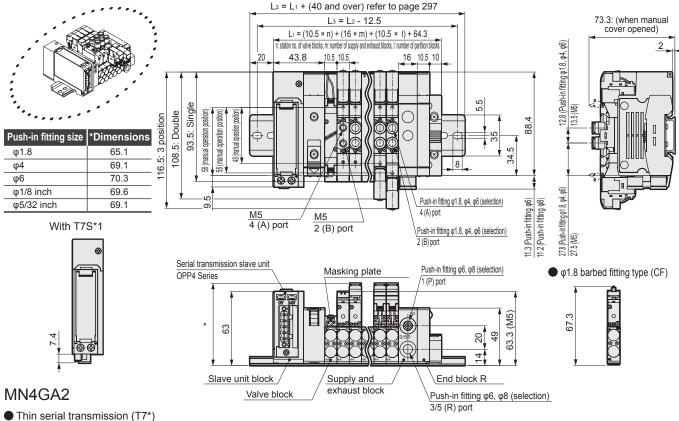


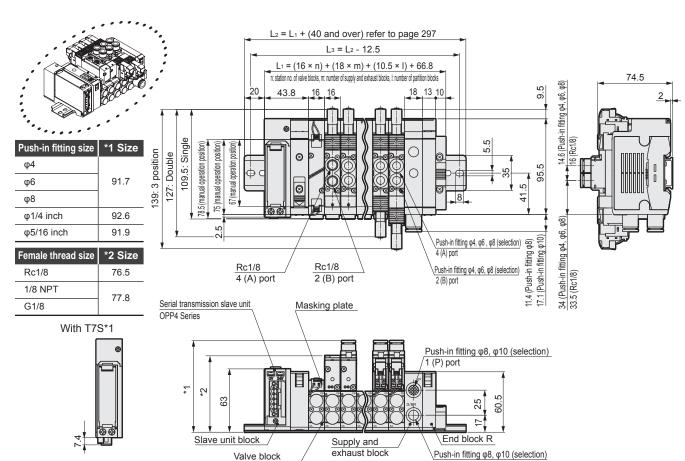


MN4GA1

Thin serial transmission (T7*)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.





3/5 (R) port

4GA/B

M4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Dimensions

MN4GA1

4GA/B

M4GA/B

4GA/B Master valve

M4GD/E

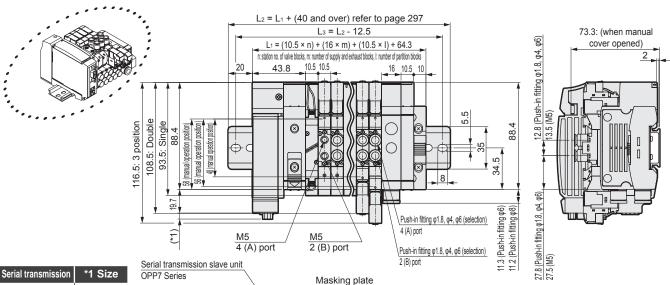
MN4GD/E

Technical data

Safety precautions

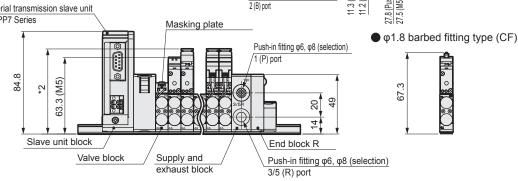
Manifold Specifications Thin serial transmission (T8*)

Note: For 2-position single 3 port valve, the port A or port B is a plug. The dimension of dual 3 port valve integrated type is the same as that of the double type.



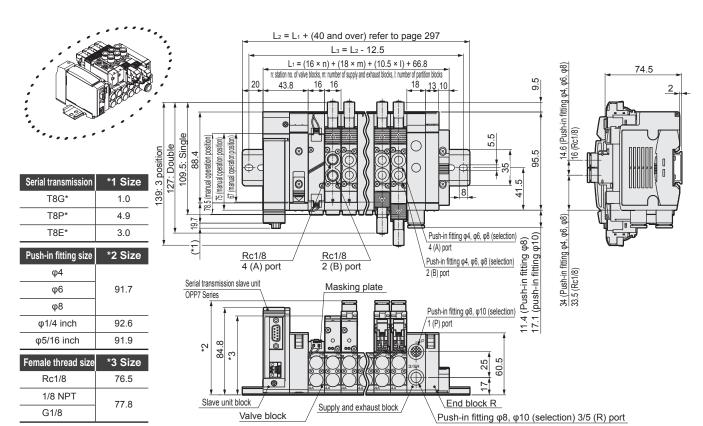
Serial transmission	*1 Size
T8G*	1.0
T8P*	4.9
T8E*	3.0

Female thread size	*2 Size
Rc1/8	76.5
1/8 NPT	77.8
G1/8	77.0



MN4GA2

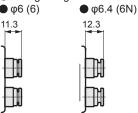
Serial transmission (T8*)

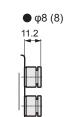


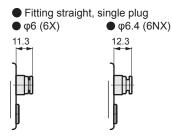
Dimensions

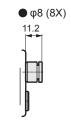
MN4G1 Supply/exhaust block

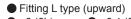


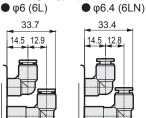


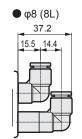


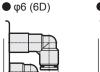




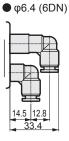


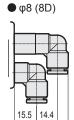




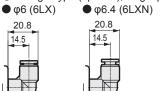


Fitting L type (downward)



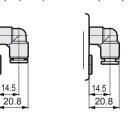


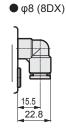
Fitting L type (upward), single plug





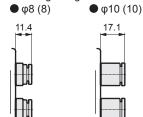
● Fitting L type (downward), single plug • φ6 (6DX) • φ6.4 (6DXN)





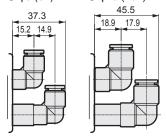
MN4G2 Supply/exhaust block

Fitting straight

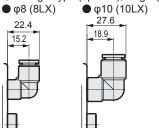




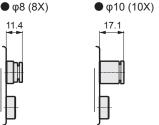
Fitting L type (upward) • φ8 (8L) • φ10 (10L)



Fitting L type (upward), single plug

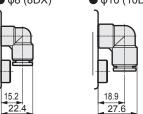


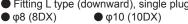
Fitting straight, single plug

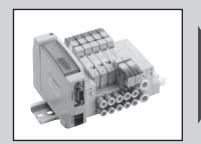


- Fitting L type (downward) ● φ8 (8D) • φ10 (10D)
 - 18.9 17.9









Reduced wiring block manifold Base piping

MN4GB1/2-T* Series

Applicable cylinder bore size: φ20 to φ80





JIS symbol 3 port valve

2-position single N.C. type



2-position single N.O. type



Dual 3 port valve integrated type (A side valve: N.C. type, B side valve: N.C. type)



(A side valve: N.C. type, B side valve: N.O. type)



(A side valve: N.O. type, B side valve: N.C. type)



(A side valve: N.O. type, B side valve: N.O. type)



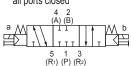
5 port valve 2-position single



2-position double



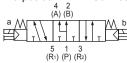
3-position all ports closed



3-position A/B/R connection



3-position P/A/B Connection



Manifold common specifications

	•
Descriptions	
Manifold type	Block manifold
Mounting method	DIN rail mount type
Supply and exhaust method	Common supply/common exhaust (malfunction prevention valve integrated)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve integrated)
Piping direction	Base part lateral direction
Valve type and operation	Pilot operated type soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2 Note 3
Proof pressure MPa	1.05
Ambient temperature°C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual operating device	Non-locking/locking common type (standard)
Lubrication Note 1	Not required
Degree of protection Note 2	Dust proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Containing corrosive gas is not permissible

Electrical specification

	.ca. opco.			
Desc	riptions			
Rated v	roltage	T1*, T3	0*, T5*	T6*, T8*
ixaleu v	ollage	24 VDC	12 VDC	24 VDC
Voltage flucti	uation range (Note 4)	±10	0%	+10%, - 5%
Holding	Standard	0.017	0.034	0.017
current	low heat/	0.005	0.010	0.005
_A	With energy-saving circuit	0.000	0.010	0.000
Power	Standard		0.	4
consumption	low heat/		0	1
W	With energy-saving circuit		0.	'
Therma	l class		Е	3
Surge su	opressor (Note 5)		Zener	diode
Indicato	or		LE	:D

Note 1 Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.

Note 2The degree of protection is dust proof. The unit is not water proof. Avoid water drops or oil, etc. during use.

Note 3The working pressure range is 0 to 0.7 MPa when the external pilot (option symbol: K) is selected. Set the external pilot pressure between 0.2 to 0.7 MPa.

Note 4 Please note the voltage fluctuation range since the T6* and T8* (Serial transmission type) have a voltage drop due to the internal circuit. Note 5 If you select the low heat energy-saving circuit or

Individual specifications

Indi	vidual	specifica	tions	ions surgeless, it will become a diode.									
Dog	Descriptions		MN3GB1/MN4GB1										
Des	scriptioi	15	T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2	
Max.	station	Standard wiring	16 stations	24 stations	24 stations	16 stations	18 stations	8 stations	24 stations	8/16 stations	8/16 stations	16/24 stations	
no.		Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations			8/16 stations	
Maxi	mum sole	noid number	16 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points	16/32 points	
	Mini A/B port				Barbec	l fitting φ	1.8 Pu	sh-in fitti	ng φ1.8	, φ4, φ6			
Port	fitting	P/R port		Push-in fitting φ6, φ8									
size	Inch	A/B port			F	ush-in fi	tting φ1/	/8 inch, o	p5/32 ind	ch			

Push-in fitting φ1/4 inch, φ5/16 inch

· Refer to page 256 for weight

P/R port

fitting

Dos	scription	ne .	MN3GB2/MN4GB2										
Des	scription	15	T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2	
Max.	station	Standard wiring	16 stations	20 stations	20 stations	16 stations	18 stations	8 stations	20 stations	8/16 stations	8/16 stations	16/20 stations	
no.	no. Double v		8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	4/8 stations	4/8 stations	8/16 stations	
Maxir	mum solend		16 points	24 points	24 points	16 points		8 points		8/16 points	8/16 points	16/32 points	
	Milli fitting	A/B port				Pu	sh-in fittir	ng φ4, φ6	, φ8				
Port	Port Milli fitting P/R port			Push-in fitting φ8, φ10									
size Inch A/B port				Push-in fittingφ1/4 inch, φ5/16 inch 1/8NPT									
	fitting	P/R port				Push-in	fitting φ5.	/16 inch,	φ3/8 incl	า			

· Refer to page 256 for weight.

Flow characteristics

1 10W CI	TOT OF OTO !		D 4/D		A/D	04/00				
Model	Val	ve Position	P→A/B		A/B→R1/R2					
no.	Vai	ve rosition	C (dm³/(s-bar))	b	C (dm³/(s-bar))	b				
	Dual 3 port	valve integrated type	0.86	0.35	1.0 (0.66)	0.15 (0.25)				
MN3GB1	2-position		1.0	0.30	1.1 (0.72)	0.11 (0.26)				
MN4GB1	3-position	All ports closed	0.96	0.32	1.0 -	0.14 -				
WIN4GD I		ABR connection	0.96	0.29	1.2 (0.71)	0.11 (0.30)				
		PAB connection	1.1	0.31	1.0 -	0.15 -				
	Dual 3 port	valve integrated type	1.7	0.42	2.2 (1.6)	0.15 (0.19)				
MN3GB2	2-position		2.4	0.35	2.5 (1.7)	0.19 (0.19)				
MN4GB2		All ports closed	2.2	0.38	2.3 -	0.17 -				
WIN4GB2	3-position	ABR connection	2.2	0.38	2.5 (1.7)	0.18 (0.20)				
		PAB connection	2.3	0.29	2.3 -	0.15 -				

Note 1: Effective sectional area S and sonic conductance C are converted as S \approx 5.0 \times C.

Note 2: Values in () apply when a malfunction prevention valve is attached.

Reduced wiring block manifold; base piping

Reduced wiring specifications

Descriptions	T10	T11	T30	T50	T51	T52	T53
Туре	Common terminal block M3 thread type	Common terminal block push tightening system	D sub-connector	connector with power		10 pin flat cable connector without power supply terminal	26 pin flat cable connector without power supply terminal
Connector	1	-	D sub-connector 25 pin		MIL-C-83503 standards conformed pressure welding socket 20 pin	MIL-C-83503 standards conformed pressure welding socket 10 pin	MIL-C-83503 standards conformed pressure welding socket 26 pin

Serial transmission slave unit specifications (refer to page 611 for applicable PLC table)

Descripti	ons	T6G1	T6C0∗1	T6C1*1	T6A0*2	T6A1 ²	T6J0*2	T6J1∗₂	T6E0	T6E1			
Network na	ame	CC-Link ver1.10	Compo	Bus/S	UNIWIRE	SYSTEM	UNIWIRE	H SYSTEM	S-L	INK			
Power	Unit side		24 VDC ±10%				24 VDC +	100/ 50/					
supply voltage	Valve side	24	VDC +10%, -5%	6		Powe		rminal comn	non				
Current	Unit side	(when a	100mA or less Il output points a	re ON)	(when all output points are ON) Load current is not included								
consumption	Valve side	(when al	15mA or less I output points ar	e OFF)									
Output poir	nts	16 points	8 points	16 points	8 points	16 points	8 points	16 points	8 points	16 points			
Occupied r	number	1 station	1 node address (8 point mode)	2 node address (8 point mode)	Output 8 points								
Operation	display		LED	power supply a	nd commun	ication state))						
Output type	е				NPI	٧							

Descript	ions	T7C0∗₄	T7C1*4	T7E0	T7E1	T7G1	T7L1∗5	T7D1	T7S1	T7SP1		
Network n	ame	Comp	oBus/S	S-L	INK	CC-Link ver1.10	SAVE NET	Device Net *6, *7	Comp	oNet		
	Unit side	24 VD0	C ±10%			24	VDC +10%	, -5%				
Power	Valve side	24 VDC +	10%, -5%			Power si						
voltage	Communication side		-	-		-	-	11 VDC to 25 VDC *8	14.0 VDC to 26.4 VDC			
	Unit side		50 mA or less 90 mA or less all output points are ON) (when all output poin				10 mA or les	-	40mA or less			
Current consumption	Valve side		or less points are OFF)	are Load current is	,	`	output point rrent is not i	,	(when all output points are ON Load current is not included			
	Communication side		-	-		-	-	50mA or less	65mA or less (all po 95mA or less (all po	,		
Output poi	nts	8 points	16 points	8 points	16 points	16 points	16 points	16 points	16 pc	oints		
Occupied	number	1 node address (8 point mode)	2 node address (8 point mode)	FAN-in: 3 *3	FAN-in: 3 *3	1 station	1 station	2 byte	Word node (1			
Operating	indication			LED (powe	r supply and	communication	n state)	•				
Output typ	e		NPN PNP									

Dogovintia	.	T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1		
Description)IIS	T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2		
Network na	me	CC-Link	ver1.10	PROFIBU	S-DP (V0)	Ethe	rCAT	Ether	Net/IP		
Power supply	Unit side				24 VDC	C ± 10%					
voltage	Valve side				24 VDC +	10%, -5%					
	Unit side	60 mA	60 mA or less 110 mA or less 120 mA or less								
Current	Offic Side	(when all output	t points are ON)	(when all output	t points are ON)	(when all output	t points are ON)	(when all output	points are ON)		
consumption					T8*1: 15r	nA or less					
consumption	Valve side				T8*2: 20r	nA or less					
				(when all outpu	it points are Of	N) Load current	is not included	d			
Output poin	te				T8*1: 1	6 points					
Output poin	ıs				T8*2: 3	2 points					
Occupied n	umber		1 station								
Operation d	isplay		LED (power supply and communication state)								
Output type		NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output		

^{*1} Long-distance communication mode is not supported.

M4GA/B

4GA/B

MN4GA/B

4GA/B ⁄laster valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Satety

Manifc Specifica

^{*2} The number of transmission points of 128 points and the transmission distance of 200 m are supported. Contact CKD for other specifications.

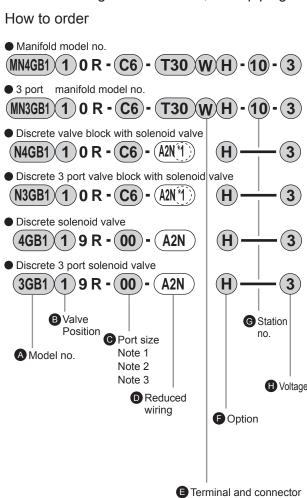
^{*3} FAN-in indicates the capacity of the input from the D-G line. It is necessary to calculate the number of units to be connected.

^{*4} The long-distance communication mode is available.

^{*5} Compatible with a transmission bit rate of 128 bits and the transmission method of semi-duplicated communication. Contact CKD for other specifications.

^{*6} Compatible with DeviceNet compliant networks (DLNK, etc.) as well.

^{*7} Contact CKD for EDS file. EDS file: A file containing text for parameters for communication with masters of each company.



pin array

A Cautions for model No. selection

Note 1 A or B port plug specifications are available only for the 2-position single.

Designate P/R port sizes with the supply/exhaust block in manifold specifications.

A/B port sizes do not differ for the push-in fitting L type Note 2 (upward) mix (CX). Note 3 In the case of a discrete solenoid valve, set the port size of

"00" Note 4 Select M4GB*80R when mixing with 4, 5 port valves. Select

MN3GB*80R when mixing with the masking plate. Combination with the external pilot (K) is not available. Note 5

Dimensions are the same as the respective 2-position double. Note 6 Please select option "L" at the same time as items other than

single solenoids.

The push-in fitting cannot be mixed with the discrete valve's 4 (A) or 2 (B) port.

Note 8 Only the single solenoid are supported.

					_	Мо				
			Dual 3	3 port	ifold 5 r	ort	bloc	k with	e val	noid
			val integi typ	rated be		lve			liscre d val	
			GB1	MN3GB2	GB1	MN4GB2	3GB1	3B2	3B1	4GB2
Symbol	Desc	riptions	MN3GB1	MN3	MN4GB1	MN4	(N)	(N)3GB2	(N)4GB1	(N)
B Valv	e Position	прионо								
1 2	2-position single 2-position double				•	•			•	•
3	3-position all ports closed				ŏ				ě	•
5	3-position ABR connection 3-position PAB connection				•	•	_		•	•
66	o position 1712 connection	A side valve: Normally closed		•	Ĭ		•	•		Ĭ
	Dual 3 port	B side valve: Normally closed A side valve: Normally closed		_			_			
67	valve	B side valve: Normally open	•	•			•	•		
76	integrated type	A side valve: Normally open B side valve: Normally closed	•	•			•	•		
77	Note 4, 5	A side valve: Normally open	•	•			•	•		
8	Mix manifold (In case of m	B side valve: Normally open nultiple Valve Positions)	•	•	•	•	•	•	•	•
⊚ Port	size (A/B port)									
Туре	Milli fittin	g/Rc thread								
CF C18	 φ1.8 barbed fitting (applied pf.8 push-in fitting pf.8 push-in fitting (applied pf.8 push-in fitting pf.8 push-in fitt	cable tube UP-9102-**)			•		•		•	
C4	φ4 push-in fitting	ouble tabe of 0402)	•	•	ě	•	ě	•	ě	•
C6 C8	φ6 push-in fitting φ8 push-in fitting		•	•	•	•	•	•	•	•
CL18	L type φ1.8 push-in fitting		•		•		•		•	
CL4	(applicable tube UP-9402 L type φ4 push-in fitting (upward) Note 6	•		•		•		•	
CL6 CL8	L type φ6 push-in fitting (L type φ8 push-in fitting (upward) Note 6	•	•	•	•	•	•	•	•
CD18	L type φ1.8 push-in fitting (down	ward) (applicable tube UP-9402-**)	•		•		•		•	
CD4 CD6	L type φ4 push-in fitting (L type φ6 push-in fitting (•		•		•		•	
CD8	L type φ8 push-in fitting (downward)		•		•		•		•
CX Single plug	Push-in fitting mix	Note 7	•	•	•	•				
Single plug specifications CFNC	A Port p1.8 barbed fitting (applicable tube UP-9102-**)	B Port			•		_			
C18NC	φ1.8 push-in fitting (applicable tube UP-9402-**)				•				•	
C4NC C6NC	φ4 push-in fitting φ6 push-in fitting	Plug			•	•			•	•
C8NC	φ8 push-in fitting					•			Ť	•
CFNO C18NO	_	φ1.8 barbed fitting (applicable tube UP-9102-**) φ1.8 push-in fitting (applicable tube UP-9402-**)			•					
C4NO	Plug	φ4 push-in fitting			•	•				•
C6NO C8NO	_	φ6 push-in fitting φ8 push-in fitting			•	•			•	•
CL18NC	L type q1.8 push-in fitting (upward) (applicable tube UP-9402-**	4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			•				•	Ě
CL4NC CL6NC	L type φ4 push-in fitting (upward) L type φ6 push-in fitting (upward)	Plug			•	•			•	
CL8NC CL18NO	L type φ8 push-in fitting (upward)	1 to - 40 - t - DE- () / - E- t - t - ID 0/00 H				•				•
CL4NO	Phon	L type φ1.8 push-in fiting (upward) (applicable tube UP-9402-**) L type φ4 push-in fitting (upward)			•				•	
CL6NO CL8NO	Plug	L type φ6 push-in fitting (upward) L type φ8 push-in fitting (upward)			•	•			•	•
CD18NC	L type of 8 push-in fitting (downward) (applicable tube UP-9402-**)	L type φο push-in litting (upward)			•	•			•	
CD4NC	L type φ4 push-in fitting (downward)	Plug			•				•	
CD8NC	L type φ6 push-in fitting (downward) L type φ8 push-in fitting (downward)					•				•
CD18NO CD4NO		L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**) L type φ4 push-in fitting (downward)			•				•	
CD6NO	Plug	L type φ6 push-in fitting (downward)			ě	•			ě	•
CD8NO	Inch fitting	L type φ8 push-in fitting (downward) /Inch thread				•				•
Type C3N		n fitting	•		•		•		•	
C4N C6N		n fitting n fitting	•	•	•	•	•	•	•	•
C8N	φ5/16 inch push-i	n fitting		•		•		ě		•
CL3N CL4N		n fitting (upward) Note 8 n fitting (upward) Note 8	0		00		00		00	
CL6N	L type φ1/4 inch push-i	n fitting (upward) Note 8	Ĭ	0		0	Ĭ	0	Ĭ	0
CL8N CXN	L type φ5/16 inch push-i Push-in fitting mix	n fitting (upward) Note 8 Note 7	•	0	•	0		0		0
Single plug specifications	A Port	B Port		Í						
C3NCN	φ1/8 inch push-in fitting				•				•	
C4NCN C6NCN	φ5/32 inch push-in fitting φ1/4 inch push-in fitting	Plug			•	•			•	
CONCN	φ5/16 inch push-in fitting					•				•
C3NON		φ1/8 inch push-in fitting			•	Ĺ			•	
C4NON	Plug	φ5/32 inch push-in fitting			•				•	
C6NON C8NON	-	φ1/4 inch push-in fitting φ5/16 inch push-in fitting				•				•
CL3NCN	L type φ1/8 inchpush-in fitting (upward)	φωτιο inion publi-iii littiilg			0				0	
CL4NCN	L type φ5/32 inchpush-in fitting (upward)	Plug			ō				0	
CL6NCN	L type φ1/4 inchpush-in fitting (upward)	ı iuy				0				0
CL8NCN CL3NON	L type φ5/16 inchpush-in fitting (upward)	L type φ1/8 inchpush-in fitting (upward)			0	0			0	0
CL4NON	Divis	L type φ5/32 inchpush-in fitting (upward)			0				0	
CL6NON	Plug	L type φ1/4 inchpush-in fitting (upward)				0				0
CL8NON	Diseasete value for any	L type φ5/16 inchpush-in fitting (upward)				0				0
00	Discrete valve for mounti						•	•		•
		is not a	avail	able	١.					

O Contact CKD for price and availability.

Reduced wiring block manifold; base piping

(Port s	size, Wiring method list)		Dual	Mani 3 port		old blo	Discret ck with	e valv sole	noid		
Cum			wa integer ty	MN3GB2 add	valv	- 1 '	valve/d solenoi				
Sym- bol	Descriptions		NS NS	MN3	M S	ž S	E	(N	ŝ		
	ninal and connector pin array										
Blank W	Standard wiring	Note 9				•					
W1	Double wiring Double wiring (With single spare wiring)	Note 9 Note 9, Note 10	•			• • • •					
Option											
Blank	Non-locking/locking common manual over	ride	1	•	•	•		•	•		
M H	Non-locking manual override With malfunction prevention valve	Note 11		•	•	• •		•			
K	External pilot	Note 12	1						-		
Α	Ozone/cutting oil proof		•	•	•	• •	•	•	•		
S E	Surgeless Low heat and energy saving circuit	Note 13 Note 13, Note14	-			• •			릚		
-	With piping adaptor	Note 15, Note 14	10	•		• •		ŏ	•		
Q	Reduced wiring mall	Note 18	•	•	-	• •	-	•	•		
F Z1	A/B port filter integrated Air supply spacer	Note 15 Note 16	1			• •		•	•		
Z2	In stop valve spacer	Note 16, Note 17	ě	•	•						
Z3	Exhaust spacer	Note 16	•	•	•	•					
Z6	Spacer type pilot check valve	Note 16				•					
© Stati											
to	1 station		-			•					
24	24 Stations (The max. station no.	of MN4GB2 is 20.)	1	الّ							
(†) Volta	age	<u> </u>									
3	24 VDC		•	•	•	• •		•	•		
4	12 VDC		•	•	•	• •		•	•		
Redu	uced wiring connection (light and su	urge suppressor provic	ded a	as si	tand	ard)	12/24	4 V C	C		
T10	Common terminal block (M3 thread)	Left side specifications	•	•	•	•					
T10R T11	· · · · ·	Right side specifications Left side specifications	1				+				
T11R	Common terminal block (push tightening) -	Right side specifications				•	+				
T30	- D sub-connector -	Left side specifications	•		•	•					
T30R T50	20 pin flat cable connector	Right side specifications Left side specifications	-	•	•	•	+				
T50R	(with power supply terminal)	Right side specifications	15		_	•					
T51	20 pin flat cable connector	Left side specifications	•	•	•	•					
T51R T52	(without power supply terminal) 10 pin flat cable connector	Right side specifications Left side specifications			_	•			_		
T52R	(without power supply terminal)	Right side specifications	10			_				Λ C	autions for model No. selection
T53	26 pin flat cable connector	Left side specifications			•						autions for model No. Selection
T53R	(without power supply terminal)	Right side specifications			•					Note 9	Blank····Wired based on the type of valve
D Seria	al transmission (light and surge sup	pressor provided as so NPN 8 points			24 \						used.
T6A1	- UNIWIRE SYSTEM -	NPN 16 points	15	_							W*····Wired for the double solenoid
T6C0	- CompoBus/S	NPN 8 points	•	-	_	•				Note10	regardless of the type of valve used. Spare wiring (A type socket assembly) is
T6C1 T6E0		NPN 16 points NPN 8 points	-			•	+			Note to	attached to the cap side.
T6E1	- S-LINK -	NPN 16 points	•								The discrete valve (A2N) comes with a holder
T6G1	CC-Link	NPN 16 points	•		•						for holding the socket assembly. Refer to page
T6J0 T6J1	UNIWIRE H SYSTEM -	NPN 8 points NPN 16 points	-			•				Nota 14	293 for details.
T7C0	CompoBus/S -	NPN 8 points	•	•	•	•				Note11	3-position all ports closed and PAB connection are not provided with exhaust malfunction
T7C1 T7D1	<u>'</u>	NPN 16 points NPN 16 points			_	•					prevention valve (H). Refer to Page 628 for
T7E0	DeviceNet (Thin type)	NPN 8 points			_	•					details on the check valve.
T7E1	- S-LINK (Thin type) -	NPN 16 points	•	•	•	•				Note12	Contact CKD when using a vacuum with the
T7G1 T7L1	CC-Link (Thin type)	NPN 16 points NPN 16 points	•	•	_	•				Nota 10	external pilot (K).
T7S1	SAVE NET (Thin type)	NPN 16 points	1							NOTE 13	In addition, the surgeless "S" and low heat energy-saving circuit "E" cannot be selected at
T7SP1	CompoNet (Thin type)	PNP 16 points	•	•	•	•					the same time.
T8G1 T8G2	-	NPN 16 points NPN 32 points	+			•					This is surgeless specifications.
T8GP1	CC-Link (Thin type)	PNP 16 points	•		_					Note15	The P port has a filter built inside as a
T8GP2		PNP 32 points	•	•	•	•				Nota10	standard.
T8P1 T8P2	-	NPN 16 points NPN 32 points	•	•	_	•				NOTE 16	Specify the spacer mounting location and quantity in manifold specifications.
T8PP1	PROFIBUS-DP (Thin type)	PNP 16 points	•								Stacking multiple spacers is not supported.
T8PP2		PNP 32 points	•	•	•	•					Combination with the masking plate is not
T8EC1 T8EC2	-	NPN 16 points NPN 32 points	•	•		•					supported.
T8ECP1	EtherCAT (Thin type)	PNP 16 points	1								L type push-in fitting (upward) cannot be
T8ECP2		PNP 32 points	•	•	•	•					selected at the same time. Refer to page 287 to 291 for details.
T8EN1 T8EN2	-	NPN 16 points NPN 32 points	-		_	•				Note17	Combination with the external pilot (K) is not
T8ENP1	EtherNet/IP (Thin type)	PNP 16 points	•	•	•	•				*****	available.
T8ENP2	MGH	PNP 32 points	•	•	•					Note18	L type push-in fitting are available only for the
A2N	Without lead wire (without socket)	with surge suppressor/light	l I						• 1		2-position single

Without lead wire (without socket) Ozone specifications / Coolant proof specifications

Select the option "A" of \bigcirc in how to order

Clean room specifications (Catalog No. CB-033SA)

Clean room specifications

** - Voltage - (**P7***

Specification for secondary battery production (Catalog No. CC-947A)

 In order to be applicable for secondary battery manufacturing process, confine materials for air passage and liding section

** - Voltage -**P4**

with surge suppressor/light

L type push-in fitting are available only for the 2-position single.

Manifold Specifications

4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

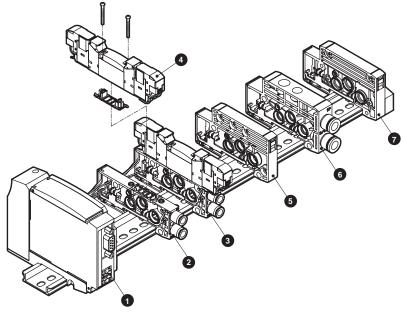
precautions

Safety

MN4GB1/2-T* Series

Reduced wiring block manifold; base piping

Manifold components explanation and parts list



Main parts list (refer to page 276 to 294 for details)

			,		
Product No.	Component name	Model no. (example)	No.	Component name	Model no. (example)
1	Electrical block	N4G1R-T8P1	5	Partition block	N4G1R-S
2	Discrete valve block	N4GB1R-V2-C6	6	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GB120R-C6-A2NH-3	7	End block R	N4G1R - ER
4	Solenoid valve body	4GB129R-00-A2NH-3			

B type reduced wiring weight 4GB1

4GBT								(g)
Product name	Model no.	Weight	Product name	Model no.	Weight	Product name	Model no.	Weight
Valve block with	N4GB110R-C6-A2N-3	69	Supply and exhaust	N4G1R-Q-8	58	Electrical block	N4G1R-T10(R)	207
solenoid valve	N4GB120R-C6-A2N-3	88	block	N4G1R-QK-8	60		N4G1R-T30(R)	165
	N4GB1 4 0R-C6-A2N-3	89	End block	N4G1R-E*	60		N4G1R-T50(R)	167
	N3GB1660R-C6-A2N-3	88	LIIU DIOCK	N4G1R-EX*	60		N4G1R-T6*	295
Valve block with masking plat	te N4GB1R-MP*-C6	37	Partition block	N4G1R-S	45		N4G1R-T7*	203
			•				N4G1R-T8*	229

4GB2 (g)

.002								(3)
Product name	Model no.	Weight	Product name	Model no.	Weight	Product name	Model no.	Weight
Valve block with	N4GB210R-C8-A2N-3	130	Supply and exhaust	N4G2R-Q-10	83	Electrical block	N4G2R-T10 (R)	223
solenoid valve	N4GB220R-C8-A2N-3	149	block	N4G2R-QK-10	85		N4G2R-T30 (R)	182
	N4GB2 3 0R-C8-A2N-3	160	End block	N4G2R-E*	84		N4G2R-T50 (R)	184
	N4GB2660R-C8-A2N-3	149		N4G2R-EX*	85		N4G2R-T6*	312
Valve block with masking plate	N4GB2R-MP*-C8	69	Partition block	N4G2R-S	60		N4G2R-T7*	204
							N4G2R-T8*	242

Parts list

Applica- tion	Parts name	Model no.	Application	Parts name	Model no.	
	φ1.8 barbed type	4G1R-JOINT-CF	Valve	φ1/4 inch elbow type Note 1	4G2R-JOINT-CL6N	
	φ1.8 straight type	4G1R-JOINT-C18	4G2	φ5/16 inch elbow type Note 1	4G2R-JOINT-CL8N	
	φ4 straight type	4G1R-JOINT-C4	1402	Plug cartridge	4G2R-JOINT-CPG	
	φ6 straight type	4G1R-JOINT-C6	d)	Coil assembly	4GR-A2N-[*2]-COIL-[*3]	
	φ1.8 elbow type	4G1R-JOINT-CL18, CLL18	/alve		*2: Ozone/cutting oil proof (blank, A)	
Valve	φ4 elbow type	4G1R-JOINT-CL4, CLL4] >		*3: Voltage (1, 3, 4)	
4G1	φ6 elbow type	4G1R-JOINT-CL6, CLL6	70		For a side solenoid	
	φ1/8 inch straight type	4G1R-JOINT-C3N	ifold	Expansion socket assembly (Details on page 401)	N4GR-SOCKET-ASSY- (Selection no.)	
	φ5/32 inch straight type	4G1R-JOINT-C4N	Man		For b side solenoid	
	φ1/8 inch elbow type Note 1	4G1R-JOINT-CL3N	≥		N4GR-RELAY-SOCKET-(Selection no.)	
	φ5/32 inch elbow type Note 1	4G1R-JOINT-CL4N	Note 1. This is a qualishly consult factory order			

4G1R-JOINT-CPG

4G2R-JOINT-C4

4G2R-JOINT-C6

4G2R-JOINT-C8

4G2R-JOINT-C6N 4G2R-JOINT-C8N

4G2R-JOINT-CL6, CLL6

4G2R-JOINT-CL8, CLL8

Note 1: This is a available consult factory order.

Plug cartridge

φ4 straight type φ6 straight type

φ8 straight type

φ6 elbow type

φ8 elbow type φ1/4 inch straight type

φ5/16 inch straight type

Valve

4G2

Common terminal block (M3 thread) Left side (T10)
 Note: There are push tightening specifications (T11)

Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.

4GA/B

M4GA/B

MN4GA/B

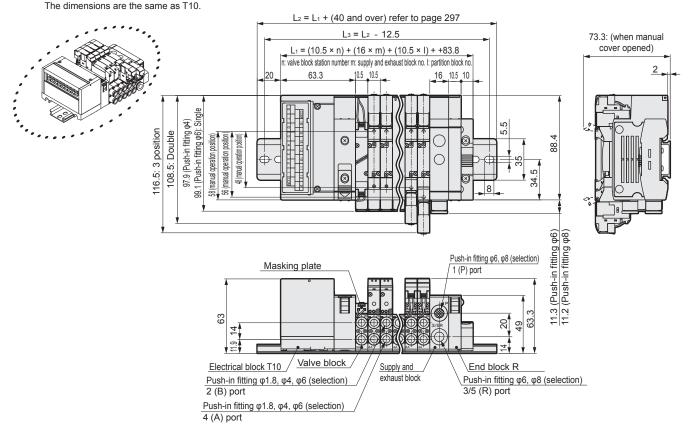
4GA/B Master valve

4GD/E

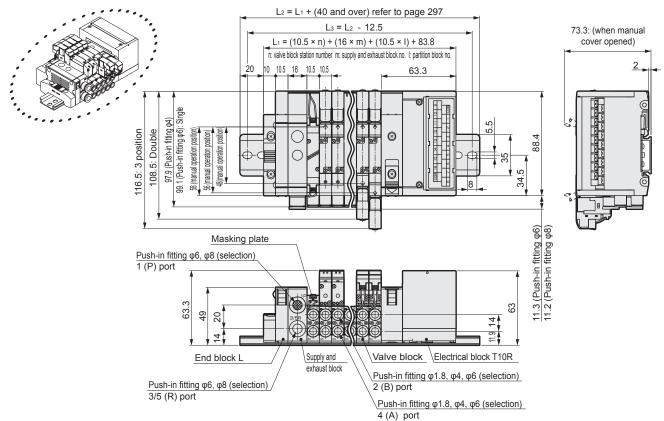
M4GD/E

MN4GD/E

Technical data



 Common terminal block (M3 thread) Right side (T10R) Note: There are push tightening specifications (T11R).
 The dimensions are the same as T10R. Note: Refer to 266 pagefor details on L type push-in fitting.



Safety precautions

4GA/B

M4GA/B

4GA/B Master valve

M4GD/E

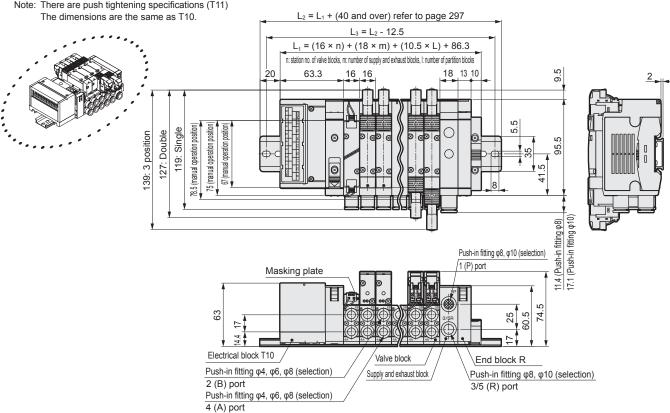
MN4GD/E

Technical data

Safety precautions

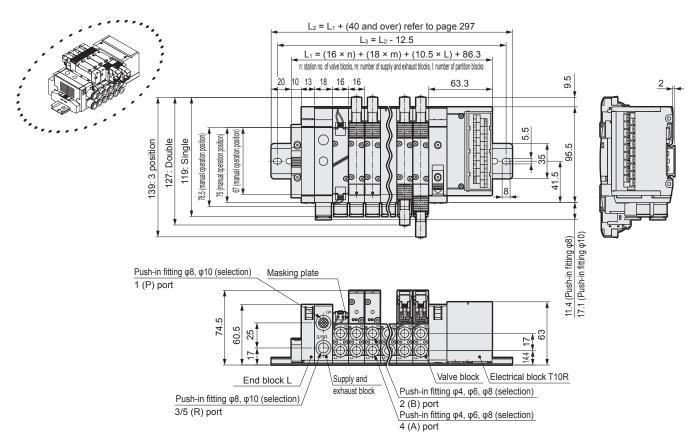
Manifold Specifications Common terminal block (M3 thread) left side (T10)
 Note: There are push tightening specifications (T11)

Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



Common terminal block (M3 thread) right side (T10R)
 Note: There are push tightening specifications (T11R).
 The dimensions are the same as T10R.

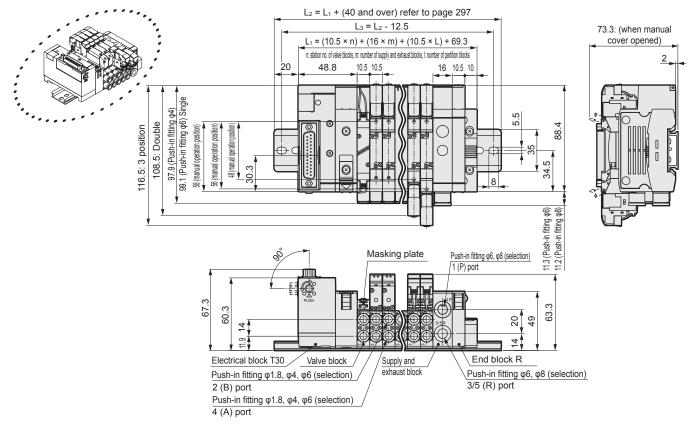
Note: Refer to 268 page for details on L type push-in fitting.





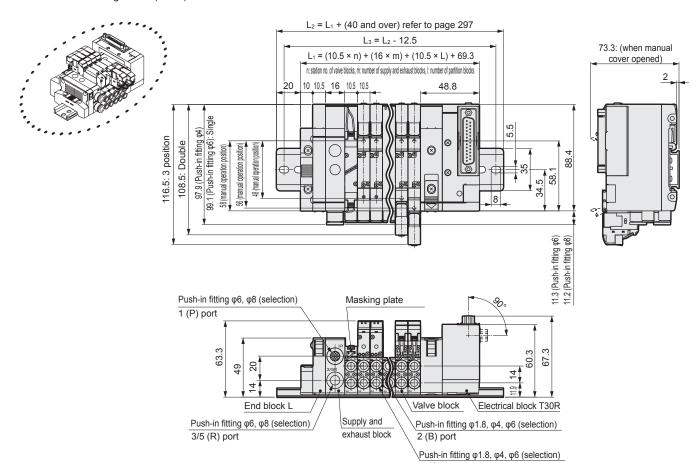
D-sub connector left side (T30)

Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



D-sub connector right side (T30R)

Note: Refer to 266 page for details on L type push-in fitting.



4 (A) port

4GA/B

M4GA/B

A/B

4GA/B Master valve

4GD/E

M4GD/E

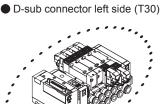
MN4GD/E

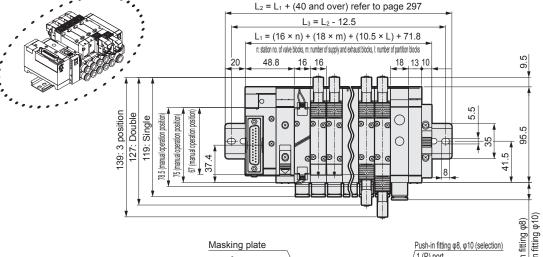
Technical data

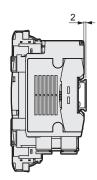
Safety

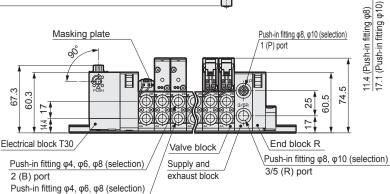
Note: The dimension of dual 3 port valve integrated type is the same as that of

the double type.







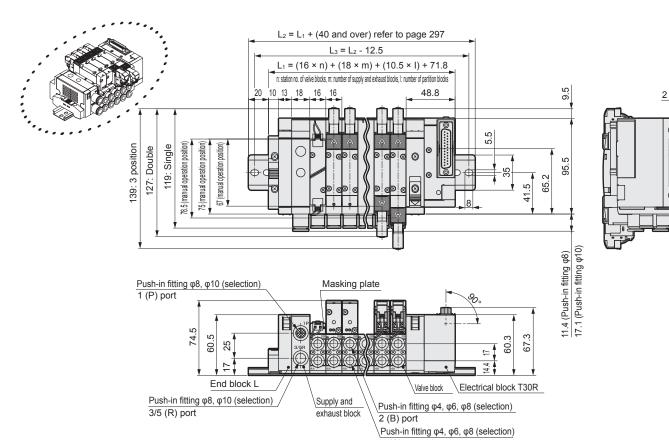


D-sub connector right side (T30R)

4 (A) port

Note: Refer to 268 page for details on L type push-in fitting.

4 (A) port



M4GA/B

4GA/B Master valve

M4GD/E

MN4GD/E

Technical data

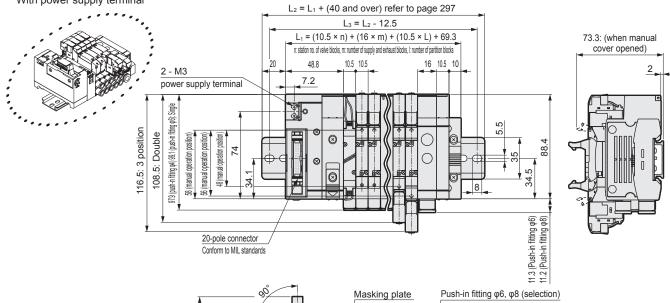
Safety precautions

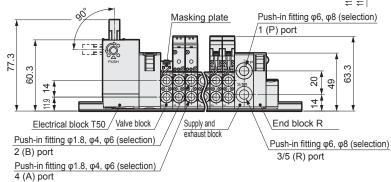


Flat cable connector left side (T50)
 With power supply terminal

Note 1: T51, T52, and T53 flat cable connectors are also available. The dimensions are the same as T50.

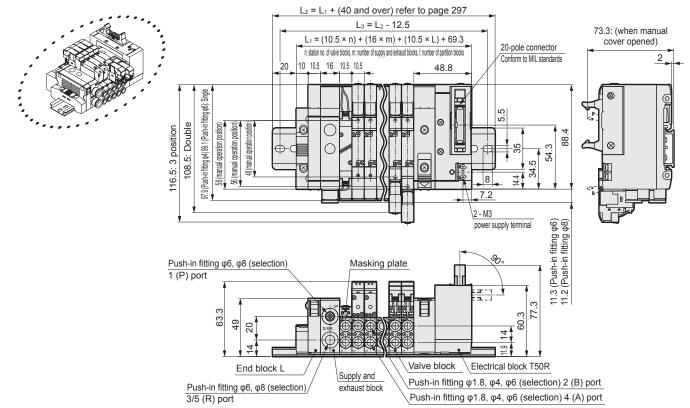
Note 2: The dimension of dual 3 port valve integrated type is the same as that of the double type.





Flat cable connector right type (T50R)
 With power supply terminal

Note: Refer to 266 page for details on L type push-in fitting.



4GA/B

M4GA/B

1N4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

Safety precautions

4GA/B

M4GA/B

4GA/B Master valve

M4GD/E

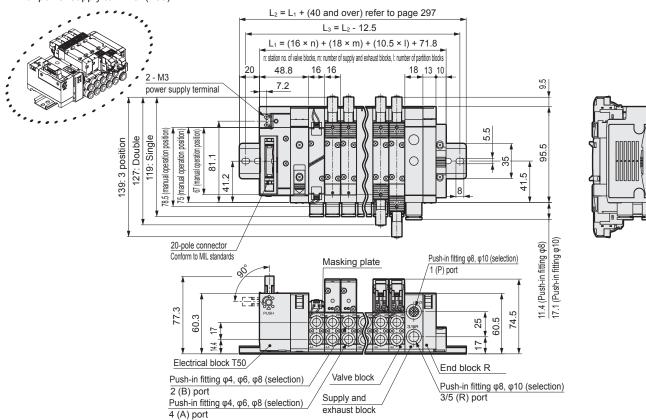
MN4GD/E

Technical data

Safety precautions

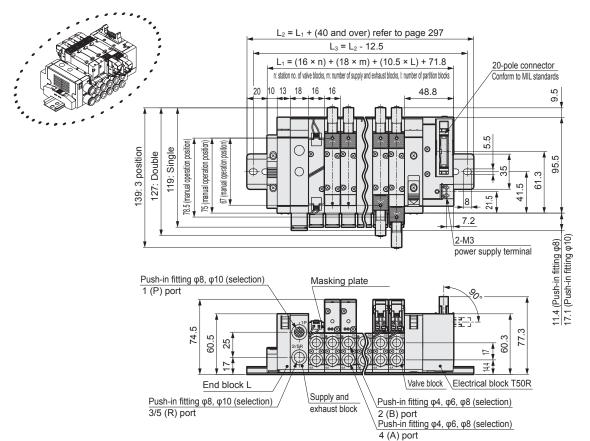
Flat cable connector left side
 With power supply terminal (T50)

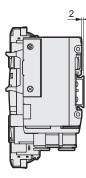
- Note 1: T51, T52, and T53 flat cable connectors are also available. The dimensions are the same as T50.
- Note 2 The dimension of dual 3 port valve integrated type is the same as that of the double type.



Flat cable connector right type
With power supply terminal (T50R)

Note: Refer to 268 page for details on L type push-in fitting.

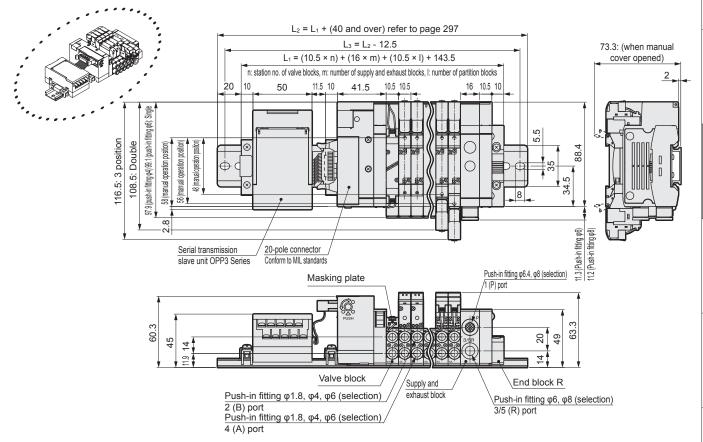






Serial transmission (T6*)

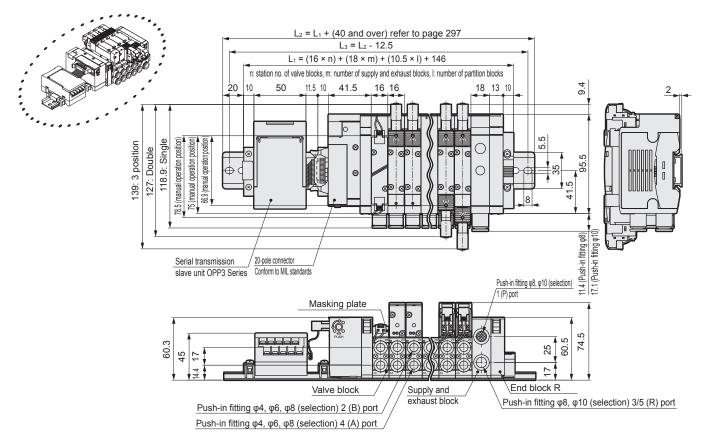
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

Serial transmission (T6*)

Note: Refer to 266 page for details on L type push-in fitting.



4GA/B

M4GA/B

₽B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data

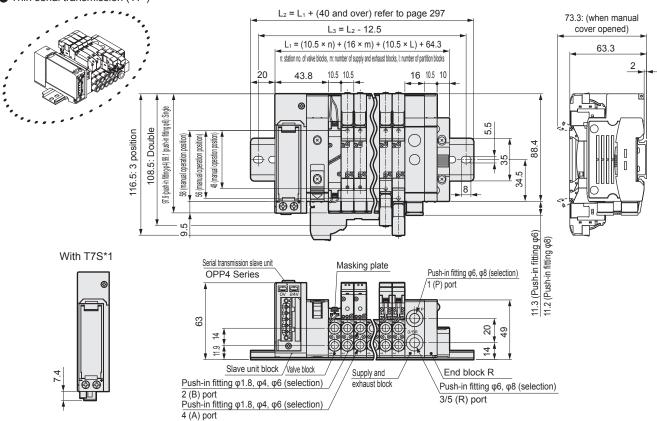
Safety precautions

4GA/B

M4GA/B

4GA/B Master valve

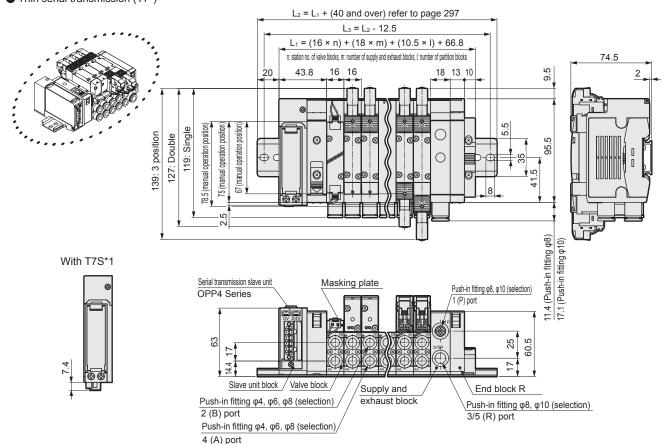
Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

■ Thin serial transmission (T7*)

Note: Refer to 266 page for details on L type push-in fitting.

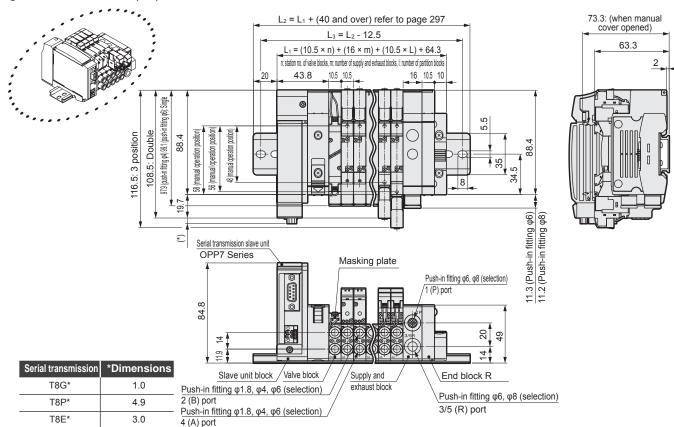


MN4GD/E

M4GD/E

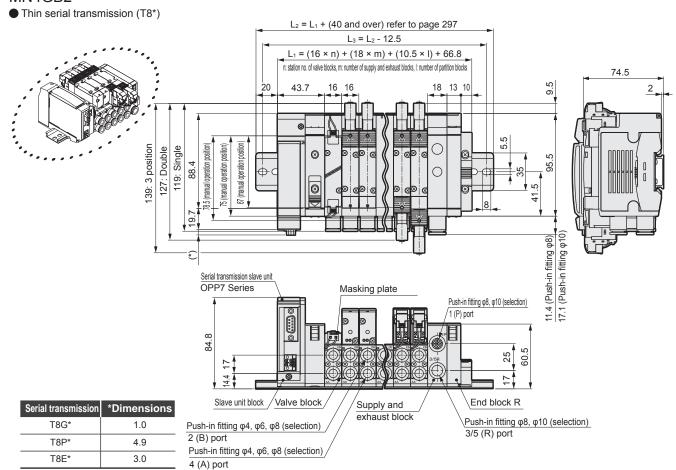
■ Thin serial transmission (T8*)

Note: The dimension of dual 3 port valve integrated type is the same as that of the double type.



MN4GB2

Note: Refer to 266 page for details on L type push-in fitting.



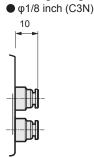
14.5

13.5

Dimensions

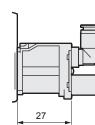
MN4GB1 Valve block

Fitting straight



φ5/32 inch (C4N)

Option L (With piping adaptor) Add 27mm during selection.

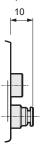


• φ1/8 inch (C3NON)

•Fitting straight, single plug



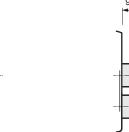
φ5/32 inch (C4NCN)

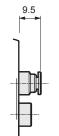






• φ5/32 inch (C4NON)





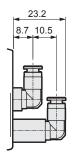
Fitting L type (upward)

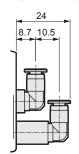
• φ1/8 inch (CL3N)

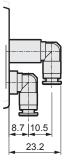
• φ5/32 inch (CL4N)

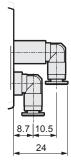
• φ1/8 inch (CD3N)

• φ5/32 inch (CD4N)









• Fitting L type (upward), single plug

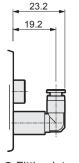
φ1/8 inch (CL3NCN)

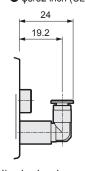
• φ5/32 inch (CL4NCN)

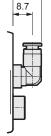
• φ1/8 inch (CL3NON)

8.7

 φ5/32 inch (CL4NON) 13.5









• Fitting L type (downward), single plug

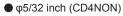
• φ1/8 inch (CD3NCN)

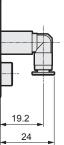
• φ5/32 inch (CD4NCN)

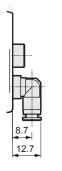
• φ1/8 inch (CD3NON)

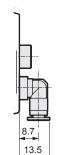
23.2









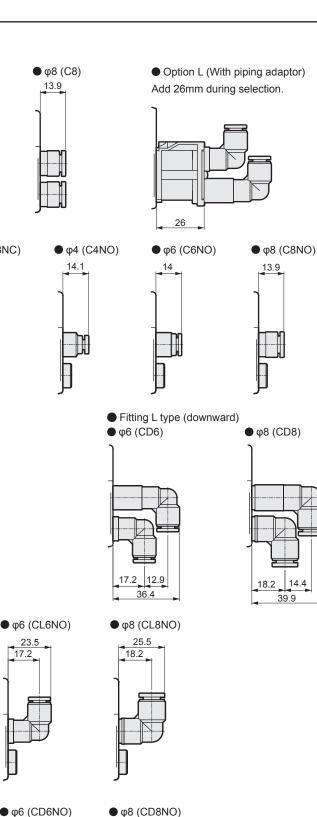


23.5

268

CKD

25.1

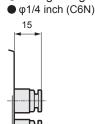


18.2 25.5

Dimensions

MN4GB2 Valve block

Fitting straight



• φ5/16 inch (C8N)



Fitting straight, single plug

• φ1/4 inch (C6NNC)



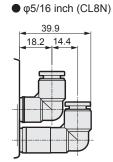






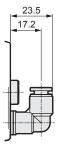
Fitting L type (upward)

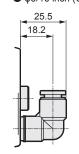
• φ1/4 inch (CL6N)



36.3 17.2 12.8

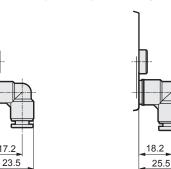
- Fitting L type (upward), single plug
- φ1/4 inch (CL6NNC)
- φ5/16 inch (CL8NNC)



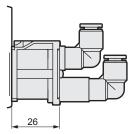


- Fitting L type (downward), single plug
- φ1/4 inch (CD6NNC)

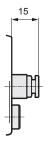




Option L (With piping adaptor) Add 26mm during selection.

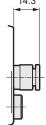


• φ1/4 inch (C6NON)

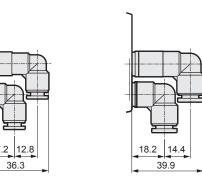


φ5/16 inch (C8NON)

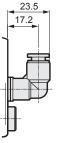
• φ5/32 inch (CD8N)

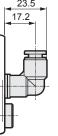


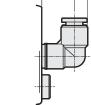
- Fitting L type (downward)
- φ1/8 inch (CD6N)



φ1/4 inch (CL6NON)

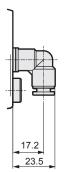






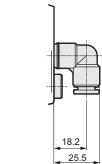
18.2

• φ1/4 inch (CD6NON)



• φ5/16 inch (CD8NON)

φ5/16 inch (CL8NON)

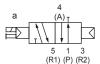


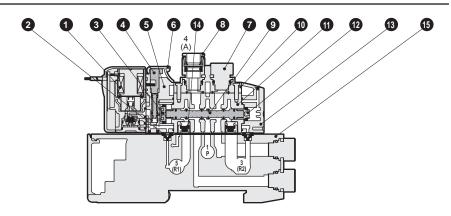


Internal structure and parts list

N3GA110R/N3GA210R

 2-position single: Normally closed Grommet lead wire (blank)

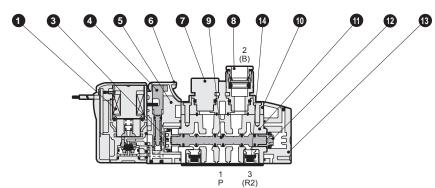




N3GA1110R/N3GA2110R

 2-position single: Normally closed Grommet lead wire (blank)

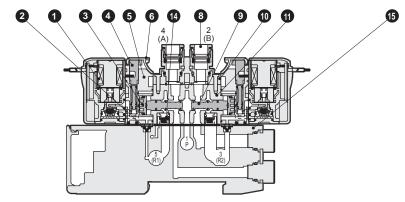




N3GA1660R/N3GA2660R

Dual 3 port valve integrated type
 A side valve: Normally closed, B side valve: Normally closed
 Grommet lead wire (blank)





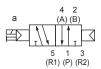
Main parts list

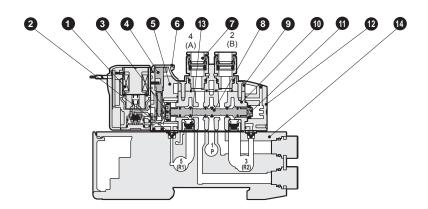
No.	Parts name	Material	No.	Parts nar	ne		Model no.
1	Coil assembly	-		ĺ			4GR-Electrical connections -*-COIL- Voltage
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR	1	1 Coil assembly			Blank: Standard
3	Piston D assembly	-					A: Ozone specifications
4	Manual operating device	Plastic	8 Pt			φ1.8 barbed type	4G1R-JOINT-CF
5	Piston room	Plastic				φ1.8 straight type	4G1R-JOINT-C18
6	Manual protection cover	Plastic			3G1	φ4 straight type	4G1R-JOINT-C4
7	Plug cartridge	Aluminum			4G1	φ6 straight type	4G1R-JOINT-C6
8	Cartridge type push-in fitting	-		Cartridge type	101	φ1/8 inch straight type	4G1R-JOINT-C3N
9	Spool assembly	-		Push-in fitting and related		φ5/32 inch straight type	4G1R-JOINT-C4N
10	Fitting adaptor	Plastic				Plug cartridge	4G1R-JOINT-CPG
11	Body	Aluminum alloy die-casting				φ4 straight type	4G2R-JOINT-C4
12	Piston S assembly	-		parts	3G2	φ6 straight type	4G2R-JOINT-C6
13	Сар	Plastic				φ8 straight type	4G2R-JOINT-C8
14	Malfunction prevention valve	-			4G2	φ1/4 inch straight type	4G2R-JOINT-C6N
15	Valve block	Plastic				φ5/16 inch straight type	4G2R-JOINT-C8N
						Plug cartridge	4G2R-JOINT-CPG
			-	E type conne	ctor s	ocket assembly	4GR-SOCKET-ASSY-Electrical connection - Voltage
			-	EJ type connector socket assembly 4GR		socket assembly	4GR-SOCKET-ASSY-Electrical connections
			-	DIN terminal be	ox ass	embly (only 3GA2)	4GR-TERMINAL-BOX-Voltage

Internal structure and parts list

N4GA110R/N4GA210R

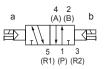
2-position single Grommet lead wire (blank)

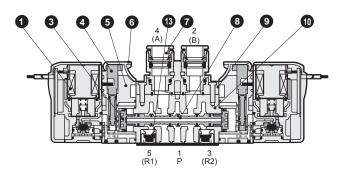




N4GA120R/N4GA220R

2-position double Grommet lead wire (blank)

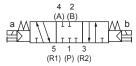




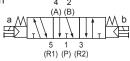
N4GA1³₅0R/N4GA2³₅0R

3-positionGrommet lead wire (blank)

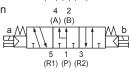
All ports closed



A/B/R connection



P/A/B Connection



3 4 5 6 7 8 9 10 (A) 2B (B) 3 1 3 (R1) P (R2)

Main parts list

parts list			o not			
Parts name	Material	No.	Parts nan	ne		Model no.
Coil assembly	-		ĺ			4GR-Electrical connections -*-COIL-Voltage
Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR	1	Coil assemb	ly		Blank: Standard
Piston D assembly	-					A: Ozone specifications
Manual operating device	Plastic				φ1.8 barbed type	4G1R-JOINT-CF
Piston room	Plastic				φ1.8 straight type	4G1R-JOINT-C18
Manual protection cover	Plastic			201	φ4 straight type	4G1R-JOINT-C4
Cartridge type push-in fitting	-				φ6 straight type	4G1R-JOINT-C6
Spool assembly	-		Cartridge type Push-in fitting and related parts	401	φ1/8 inch straight type	4G1R-JOINT-C3N
Fitting adaptor	Plastic				φ5/32 inch straight type	4G1R-JOINT-C4N
Body	Aluminum alloy die-casting	7			Plug cartridge	4G1R-JOINT-CPG
Piston S assembly	-				φ4 straight type	4G2R-JOINT-C4
Сар	Plastic		ļ ·		φ6 straight type	4G2R-JOINT-C6
Malfunction prevention valve	-			3G2	φ8 straight type	4G2R-JOINT-C8
Valve block	Plastic			4G2	φ1/4 inch straight type	4G2R-JOINT-C6N
					φ5/16 inch straight type	4G2R-JOINT-C8N
					Plug cartridge	4G2R-JOINT-CPG
		-	E type conne	ctor s	ocket assembly	4GR-SOCKET-ASSY-Electrical connection - Voltage
		-	EJ type conn	ector	socket assembly	4GR-SOCKET-ASSY-Electrical connections
		-	DIN terminal bo	ox asse	embly (only 4GA2)	4GR-TERMINAL-BOX-Voltage
	Parts name Coil assembly Pilot exhaust check valve Piston D assembly Manual operating device Piston room Manual protection cover Cartridge type push-in fitting Spool assembly Fitting adaptor Body Piston S assembly Cap Malfunction prevention valve	Parts name Coil assembly - Pilot exhaust check valve Piston D assembly - Manual operating device Pistor room Plastic Manual protection cover Cartridge type push-in fitting Spool assembly - Fitting adaptor Body Piston S assembly - Piston S assembly - Cap Plastic Aluminum alloy die-casting Plastic Aluminum alloy die-casting Piston S assembly - Cap Plastic Malfunction prevention valve -	Parts name Coil assembly - Pilot exhaust check valve Piston D assembly - Manual operating device Piston room Plastic Manual protection cover Cartridge type push-in fitting Fitting adaptor Body Plastic Body Aluminum alloy die-casting 7 Piston S assembly Cap Plastic	Parts name Coil assembly - Pilot exhaust check valve Piston D assembly - Manual operating device Piston room Manual protection cover Cartridge type push-in fitting Spool assembly - Fitting adaptor Plastic Body Aluminum alloy die-casting Piston S assembly - Cap Plastic Malfunction prevention valve Valve block Material No. Parts name Coil assemble 1 Coil assemble 1 Coil assemble 1 Cartridge type push-in fitting - Cartridge type push-in fitting - Plastic Aluminum alloy die-casting - Plastic - E type conne	Parts name Coil assembly Pilot exhaust check valve Pilot exhaust check valve Piston D assembly Manual operating device Piston room Plastic Manual protection cover Cartridge type push-in fitting Piston S assembly Plastic Malfunction prevention valve Valve block Plastic Fitting adaptor Plastic Aluminum alloy die-casting Plastic Malfunction prevention valve Plastic Fitting adaptor Plastic Aluminum alloy die-casting Plastic Fitting adaptor Plastic Aluminum alloy die-casting Plastic Fitting adaptor Plastic Fitt	Parts name Coil assembly Pilot exhaust check valve Pilot exhaust check valve Piston D assembly Manual operating device Plastic Piston room Plastic Cartridge type push-in fitting Spool assembly Piston S assemb

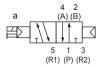
Internal structure and parts list

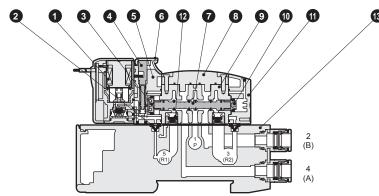
N3GB1660R/N3GB2660R

Dual 3 port valve integrated type A side valve: Normally closed, B side valve: Normally closed Grommet lead wire (Blank) Refer to page 273.

N4GB110R/N4GB210R

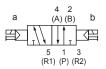
2-position single Grommet lead wire (blank)

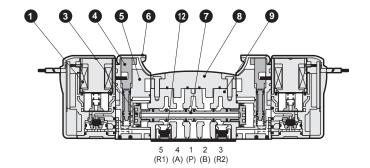




N4GB120R/N4GB220R

2-position double Grommet lead wire (blank)

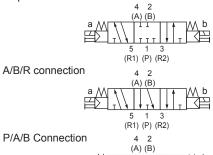




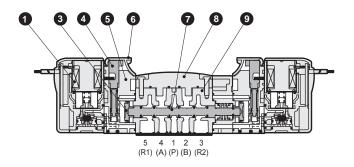
N4GB1³₅0R/N4GB2³₅0R

3-position
 Grommet lead wire (blank)

All ports closed







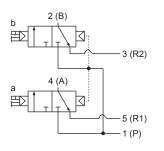
IVIAII	Mail Parts list			Fai is iisi				
No.	Parts name	Material	No.	Parts name	Model no.			
1	Coil assembly	-			4GR-Electrical connections -*-COIL-Voltage			
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR						
3	Piston D assembly	-	1	Coil assembly	Blank: Standard A: Ozone specifications			
4	Manual operating device	Plastic						
5	Piston room	Plastic						
6	Manual protection cover	Plastic						
7	Spool assembly	-	-	E type connector socket assembly	4GR-SOCKET-ASSY-Electrical connection-Voltage			
8	Plate	Plastic						
9	Body	Aluminum alloy die-casting		EJ type connector socket	4GR-SOCKET- ASSY-Electrical connections			
10	Piston S assembly	-		assembly	4GR-SOCKET- ASST- Electrical conflections			
11	Сар	Plastic		DIN terminal box assembly	4GR-TERMINAL-BOX-Voltage			
12	Malfunction prevention valve	-		(only 4GB2)	4GIX-1 LIXIVIIIVAL-BOX-[Voltage]			
13	Valve block	Plastic						

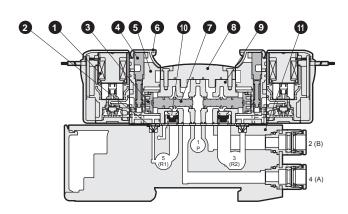
and parts list

N3GB1660R/N3GB2660R

Internal structure and parts list

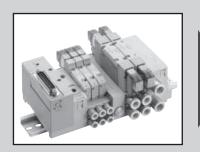
 Dual 3 port valve integrated type A side valve: Normally closed, B side valve: Normally closed Grommet lead wire (blank)





Main parts list

No.	Parts name	Material	No.	Parts name	Model no.	
1	Coil assembly	-			4GR-Electrical connections -*-COIL-Voltage	
2	Pilot exhaust check valve	Hydrogenated nitrile rubber, HNBR		Coil assembly	Blank: Standard	
3	Piston assembly	-	1		A: Ozone specifications	
4	Manual operating device	Plastic				
5	Piston room	Plastic				
6	Manual protection cover	Plastic				
7	Spool assembly	-	-	E type connector socket assembly	4GR-SOCKET-ASSY-Electrical connection - Voltage	
8	Plate	Plastic				
9	Body	Aluminum alloy die-casting		EJ type connector socket	4GR-SOCKET-ASSY-Electrical connections	
10	Malfunction prevention valve	-	_	assembly	4GR-SOCKET-ASSY- Electrical connections	
11	Valve block	Plastic		DIN terminal box	4GR-TERMINAL-BOX-Voltage	
	•		-	assembly (only 3GB2)		



4G1/2 Mix manifold

MN3GAX12, MN4GAX12 MN4GBX12 Series

Applicable cylinder bore size: φ20 to φ80



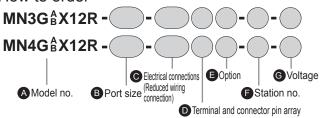


Specifications

Common to each series.

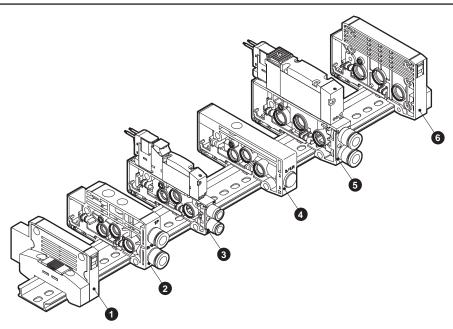
For individual wiring, refer to page 220 (body piping) or page 228 (base piping), and for reduced wiring, refer to page 236 (body piping) or page 252 (base piping).

How to order



* The model no. will be "MN*G*X12R-". Other items are common with the example of model no. for each series. For individual wiring, refer to page 222 (body piping) or page 230 (base piping), and for reduced wiring, refer to page 238 (body piping) or page 254 (base piping).

Manifold components explanation and parts list



* Precautions regarding 4G1/2 mix manifolds
With the fitting facing forward, the left side of the mix block will be 4G1 Series while the right side will be the 4G2 Series.
(Note that a reverse position cannot be set.)

Main parts list (refer to page 276 to 294 for details)

No.	Component name	Model no. (example)
1	End block L	N4G1R - EL
2	Supply and exhaust block	N4G1R-Q-8
3	Discrete valve block with solenoid valve	N4GB110R-C6-H-3
4	Mix block	N4G12R-MIX
5	Discrete valve block with solenoid valve	N4GB210R-C8-H-3
6	End block R	N4G2R-ER

Weight

N4G12R-MIX: 49g

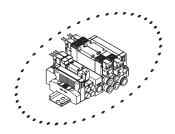
Refer to the specifications of each series for other components.

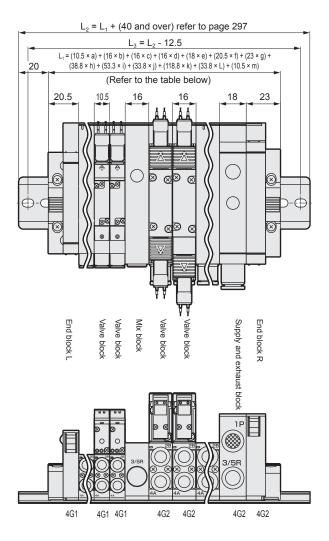
Mix block: dimensions

MN4GBX12R

Note: For details regarding E type connector, EJ type connector, and DIN terminal box, refer to the pages of each model (MN4GA: from page 225~, MN4GB: from page 233~).

Note: Refer to pages 266 to 269 for details of the L type push-in fitting.





This diagram is an example of a mix manifold. The combinations can be configured freely. As the dimensions are as listed below, configure combinations while referring to the previous page.

	Part name	Dimensions
a: 4G1	number of valve blocks	10.5 × a
b: 4G2	number of valve blocks	16 × b
c: number	of mix blocks	16 × c
d: 4G1	number of supply and exhaust blocks	16 × d
e: 4G2	number of supply and exhaust blocks	18 × e
f: 4G1	number of end block L	20.5 × f
g: 4G2	number of end block R	23 × g
h: 4G1/2	number of T30/T5* reduced wiring	38.8 × h
i: 4G1/2	number of T10 reduced wiring	53.3 × i
j: 4G1/2	number of T7* reduced wiring	33.8 × j
k: 4G1/2	number of T6* reduced wiring	118. 8 × K
I: 4G1/2	number of T8* reduced wiring	33. 8 × L
m: 4G1/2	number of partition blocks	10. 5 × m

Note 1: The mix block is placed between 4G1 and 4G2.

Note 2: The max. station no. is 20.

4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

MN4GA & 4GB Series

Block configurations

Block manifold; block configuration

Flexible assembly enables expansion of stations and maintenance.

Valve block with solenoid valve

- (1) The required types of solenoid valves for the required number of stations can be arranged on a DIN rail. Note that the number of stations is determined based on the wiring method. (Refer to Page 236, 252.)
- (2) The solenoid valve no. is numbered in a series as 1, 2, 3 and so forth from the left side with the fitting facing forward.

Supply and exhaust block

- (1) A necessary number of these can be freely arranged at the connecting sections of each block.
- (2) As there are blocks for internal pilots and external pilots, configure an appropriate model depending on the type of solenoid valve.

End block

- (1) Install end blocks on both sides for individual wiring specifications.
- (2) Install end blocks on only the opposite side of the wiring block for reduced wiring specifications.

Partition block

(1) Install as a combination with supply and exhaust blocks when using different pressure specifications.

Mix block

(1) Install when combining 4G1 and 4G2 as a mix on the same DIN rail. This effectively reduces piping.

MN4GA & 4GB Series Block configurations

4GA/B

M4GA/B

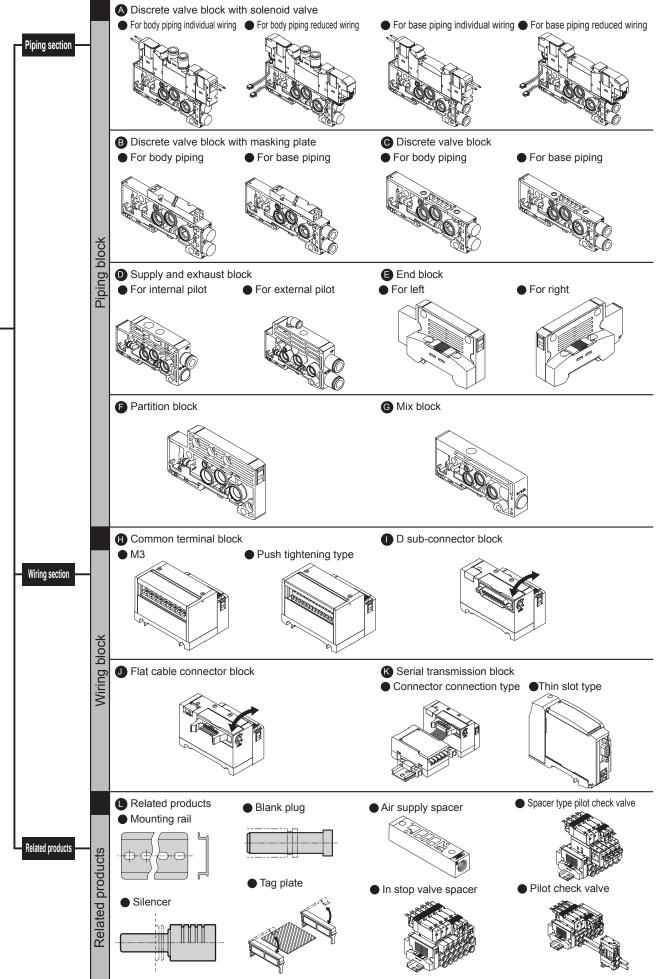
4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Technical data



Block manifold configuration

Safety precautions

Block manifold: piping section

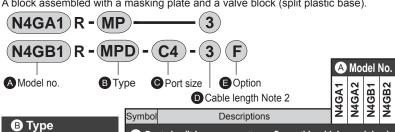
Piping section

A. Discrete valve block with solenoid valve

A block assembled with solenoid valve and a valve block (split plastic base). For selection guides, refer to the following pages. Body piping individual wiring: page 222, base piping individual wiring: page 230, body piping reduced wiring: page 238, base piping reduced wiring: page 254

B. Discrete valve block with masking plate

A block assembled with a masking plate and a valve block (split plastic base).



1411 C	i or reduced wiring single						
MPD For reduced wiring double/3-po							
D Cable length Note 3							
Blan	ık	For individual wiring					
2 to 10	Select a length from page 280.						

For individual wiring For reduced wiring single

Option					
Blank	No option				
L	With piping adaptor				
F	A/B port filter integrated				

Note 2 When a purchase is made for the expansion of stations of reduced wiring, a socket assembly will be attached to the product, select "2 to 10". Select a cable length from the following **①** page 280 and indicate the length in the field for the D cable length. When ordering the part with the manifold specifications, the cable length does not need to be filled in.

Symbol	Descri	ptions	Z	z	Ż	Ž
© Pos		to configure this witl	h ba	se p	ipin	g.)
Туре	Milli fitting	/Rc thread				
CF	φ1.8 barbed fitting (applicable tube UP-91	(02-**)			•	
C18	φ1.8 push-in fitting (applicable tube UP-94	102-**)			•	
C4	φ4 push-in fitting	,				
C6	φ6 push-in fitting					
C8	φ8 push-in fitting					
CL18	L type φ1.8 push-in fitti (applicable tube UP-94	102-**)			•	
CL4	L type φ4 push-in fitting					
CL6	L type φ6 push-in fitting					
CL8	L type φ8 push-in fitting					
CD18	L type φ1.8 push-in fitti (applicable tube UP-94	02-**)			•	
CD4	L type φ4 push-in fitting					
CD6	L type φ6 push-in fitting					
CD8	L type φ8 push-in fitting	(downward)				
Single side plugged pecifications	A Port	B Port				
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**)				•	
C18NC	φ1.8 push-in fitting (applicable tube UP-9402-**)	Plug			•	
C4NC	φ4 push-in fitting					
C6NC	φ6 push-in fitting					
C8NC	φ8 push-in fitting					
CFNO		φ1.8 barbed fitting (applicable tube UP-9102-**)			•	
C18NO	Plug	φ1.8 push-in fitting (applicable tube UP-9402-**)			•	
C4NO		φ4 push-in fitting				
C6NO		φ6 push-in fitting				
C8NO		φ8 push-in fitting				
CL18NC	L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)			•		
CL4NC	L type φ4 push-in fitting (upward) Plug					
CL6NC	L type φ6 push-in fitting (upward)					
CL8NC	L type φ8 push-in fitting (upward)					
CL18NO		L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)			•	
CL4NO	Plug	L type φ4 push-in fitting (upward)			•	
CL6NO	-	L type φ6 push-in fitting (upward)			Ŏ	•
CL8NO		L type ø8 push-in fitting (upward)			Ť	

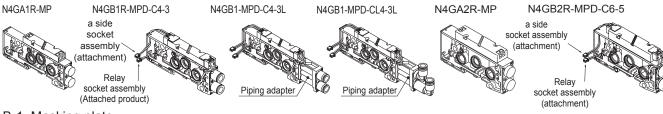
			\sim			-
			N4GA1	N4GA2	N4GB1	N4GB2
Symbol	Descr	iptions	-	_	_	_
Туре	Milli fitting	/Rc thread				
Single side plugged specifications	A Port	B Port				
CD18NC	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**)				•	
CD4NC	L type φ4 push-in fitting (downward)	Plug				
CD6NC	L type φ6 push-in fitting (downward)					
CD8NC	L type φ8 push-in fitting (downward)					
CD18NO		L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**)			•	
CD4NO	Plug	L type φ4 push-in fitting (downward)				
CD6NO		L type φ6 push-in fitting (downward)				
020.10		L type φ8 push-in fitting (downward)				
Туре		Inch thread				
C3N		in fitting				
C4N		in fitting			•	
C6N		in fitting				•
C8N		in fitting				
CL3N		in fitting (upward) Note 1			00	
CL4N CL6N	L type φ5/32 inch push- L type φ1/4 inch push-	in fitting (upward) Note 1 in fitting (upward) Note 1			0	
CL8N		in fitting (upward) Note 1				0
	, · · · · ·	1 7				
Single side plugged specifications	A Port	B Port				
C3NCN	φ1/8 inch push-in fitting					
C4NCN	φ5/32 inch push-in fitting	Plug				
C6NCN	φ1/4 inch push-in fitting	Flug				
C8NCN	φ5/16 inch push-in fitting					
C3NON		φ1/8 inch push-in fitting				
C4NON	Plug	φ5/32 inch push-in fitting				
C6NON	9	φ1/4 inch push-in fitting				•
C8NON	11. 400 1 1 1 00 4 0 11 1	φ5/16 inch push-in fitting				
CL3NCN					0	
	L type q5/32 inch push-in fitting (upward) Note 1	Plug			U	
CL6NCN	L type q5/16 inch push-in fitting (upward) Note 1 L type q5/16 inch push-in fitting (upward) Note 1	-				0
CL3NON	L type yor to thos posi-in tung (upward). Note 1	Litype of 18 inch oush-in fitting (upward) Note 1			0	U
CL4NON		L type g 5/32 inch push-in fitting (upward) Note 1			8	
CL6NON		L type q1/4 inch push-in fitting (upward) Note 1			\vdash	0
CL8NON		Livoe o5/16 inch oush-in fiting (upward) Note 1				0
320.1011	ļ	1-34-4-3 mm bean at usual (abuses) 1600				
	This is a susilable se					

A Model No.

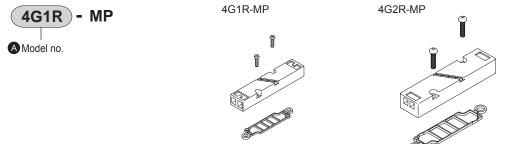
Note 1: This is a available consult factory order.

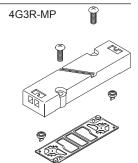
is not available.

0 Contact CKD for price and availability.



B-1. Masking plate



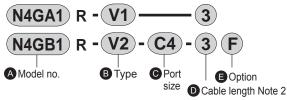


Block manifold: piping section

Piping section

C. Discrete valve block (discrete only)

A discrete valve block (split plastic base).



Symbol

В Туре						
V1	For individual wiring For reduced wiring single					
V2	For reduced wiring double/3-position					

O	Ca	ble length	Note 3	
Blar	ık	For individu	ial wiring	
2 to 10	Sofre	elect a length om page 280	n	
C Outlan				

Option					
Blank	No option				
L	With piping adaptor				
F	A/B port filter integrated				

Note 2When a purchase is made for the expansion of stations of reduced wiring, a socket assembly will be attached to the product, select "2 to 10" Select a cable length from the following **D** page 280 and indicate the length in the field for the D cable length. However, it will not be necessary to include the cable length when making arrangements with the manifold specifications.

		0 / / [SOL	eno	id v	alve	2) (8	70	CL6NO CL8NO	
	Д										
			_				•				
_	L	_		5_	<u> </u>	5_	5_	5_		12/14 (PA	۹)
						[[_		5 (R1)	
			•		ζ	7	ζı				
					7		7	7		1 (P)	
_							H	_		3(R2)	
				_	_						
4 (A) 2 (B)											

Discrete valve lock circuit diagram

© Post size (it is necessary to configure this with base piping.)						
Туре	Milli fitting	/Rc thread				
CF	φ1.8 barbed fitting (applicable tube UP-9	102-**)			•	
C18	φ1.8 push-in fitting (applicable tube UP-9	402-**)			•	
C4	φ4 push-in fitting				•	
C6	φ6 push-in fitting				•	
C8	φ8 push-in fitting					
CL18	L type φ1.8 push-in fitti (applicable tube UP-9				•	
CL4	L type φ4 push-in fitting	(upward)				
CL6	L type φ6 push-in fitting	(upward)				
CL8	L type φ8 push-in fitting	(upward)				
CD18	L type φ1.8 push-in fitti (applicable tube UP-9			•		
CD4	L type φ4 push-in fitting				•	
CD6	L type φ6 push-in fitting			•		
CD8	L type φ8 push-in fitting	(downward)				
Single side plugged specifications	A Port	B Port				
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**)				•	

Descriptions

CL4	L type φ4 push-in fitting				
CL6	L type φ6 push-in fitting				
CL8	L type φ8 push-in fitting				
CD18	L type φ1.8 push-in fitti	ng (downward)			
	(applicable tube UP-9			▼	
CD4	L type φ4 push-in fitting	(downward)			
CD6	L type φ6 push-in fitting	(downward)			
CD8	L type φ8 push-in fitting	(downward)		T	
Single side plugged specifications	A Port	B Port			
CFNC	φ1.8 barbed fitting (applicable tube UP-9102-**)			•	
C18NC	φ1.8 push-in fitting				
CIONC	(applicable tube UP-9402-**)	Plug			
C4NC	φ4 push-in fitting				
C6NC	φ6 push-in fitting				
C8NC	φ8 push-in fitting				
CFNO		φ1.8 barbed fitting (applicable tube UP-9102-**)		•	
C18NO	Plug	φ1.8 push-in fitting (applicable tube UP-9402-**)		•	
C4NO	ag	φ4 push-in fitting	\vdash		
C6NO		φ6 push-in fitting		Ĭ	
C8NO		Φ8 push-in fitting		1	
	L type o1.8 push-in fitting (upward)				
CL18NC	(applicable tube UP-9402-**)				
CL4NC	L type o4 push-in fitting (upward)	Plug			
CL6NC	L type o6 push-in fitting (upward)	Ŭ		Ĭ	Ó
CL8NC	L type φ8 push-in fitting (upward)				
CL18NO		L type φ1.8 push-in fitting (upward) (applicable tube UP-9402-**)		•	
CL4NO	Plug	L type φ4 push-in fitting (upward)			
CL6NO	-	L type φ6 push-in fitting (upward)			
CL8NO		L type φ8 push-in fitting (upward)			

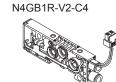
			14GA1	14GA2	N4GB1	14GB2
Symbol	Descri	iptions		~	_	_
Туре	Milli fitting.	/Rc thread				
Single side plugged specifications	A Port	B Port				
CD18NC	L type φ1.8 push-in fitting (downward) (applicable tube UP-9402-**)				•	
CD4NC	L type φ4 push-in fitting (downward)	Plug			•	
CD6NC	L type φ6 push-in fitting (downward)					
CD8NC	L type φ8 push-in fitting (downward)	L type \phi1.8 push-in fitting (downward)	-			_
CD18NO		(applicable tube UP-9402-**)			•	
CD4NO	Plug	L type φ4 push-in fitting (downward)				
CD6NO	-	L type φ6 push-in fitting (downward)			•	
CD8NO		L type φ8 push-in fitting (downward)				
Type	Inch fitting/	Inch thread				
C3N	φ1/8 inch push-	in fitting				
C4N		in fitting				
C6N		in fitting				•
C8N	φ5/16 inch push-	_			•	
CL3N CL4N		n fitting (upward) Note 1 n fitting (upward) Note 1	_		00	
CL4N	L type ϕ 5/32 inch push-in fitting		_		U	
CL8N		n fitting (upward) Note 1	-			00
Single side	, , ,	J	Н			_
plugged specifications	A Port	B Port				
C3NCN	φ1/8 inch push-in fitting		_			_
C4NCN C6NCN	φ5/32 inch push-in fitting φ1/4 inch push-in fitting	Plug	_		•	
C8NCN	φ5/16 inch push-in fitting	-				-
C3NON	yours more pusitiff fitting	φ1/8 inch push-in fitting				
C4NON		φ5/32 inch push-in fitting			ě	
C6NON	Plug	φ1/4 inch push-in fitting				
C8NON		φ5/16 inch push-in fitting				Ŏ
CL3NCN					0	
	L type q5/32 inch push-in fitting (upward) Note 1	Plug			0	
CL6NCN		9				00
	L type q5/16 inch push-in fitting (upward) Note 1	The state of the s				0
CL3NON		L type q1/8 inch push-in fitting (upward) Note 1			8	
CL4NON CL6NON	Plug	L type q5/32 inch push-in fitting (upward) Note 1 L type q1/4 inch push-in fitting (upward) Note 1			U	0
CL8NON		L type q 114 inch push-in fitting (upward) Note 1				片
CLONON		Light As in their hearth times (nhuran) i vote t				

Note 1: This is a available consult factory order.

is not available.

Contact CKD for price and availability.





A Model No.

N4GB1

N4GB2

N4GA2

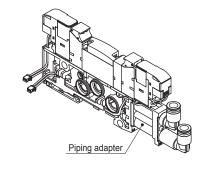


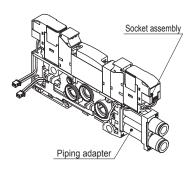


Option L (With piping adaptor)

Select L (with piping adapter) if using a L type push-in fitting (upward) in 2 or 3 positions.

In addition, tube desorption workability is improved for fittings that protrude from the socket assembly in the combination of the push-in fitting straight type and piping adapter.





CKD

4GA/B

M4GA/B

A Model No.

WN4GA/B

4GA/B Master valve

M4GD/E

MN4GD/E

Technical data

Safety

Block manifold: piping section

Piping section

Problems could arise depending on the structure, so the function of each block should be studied in detail before making a selection.

C. Discrete valve block (discrete only)

Valve block for expansion, cable length

Calculate the distance W between the expansion position and the electrical block (Fig. 1), and select a cable of an appropriate length from <Table 1>. Please be aware that the required socket assembly is different between a side solenoid and b side solenoid.

Although Fig. 1 shows specifications where the electrical block is on the left side, similarly calculate the distance W between the expansion position and the electrical block with right side specifications.

Calculation of W

· For MN4G1

 $W = (10.5 \times n) + (16 \times m) + (10.5 \times l)$

· For MN4G2

 $W = (16 \times n) + (18 \times m) + (10.5 \times I)$

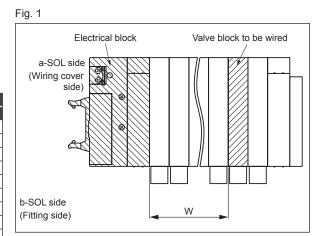
n: station no. of valve blocks, m: number of supply and exhaust blocks, I: number of partition blocks

· For MN4GX

Calculate using 16 for the mix block width.

<Table 1> W length - selection no. compatibility table

Selection	Wiring type					
no.	T10/11 (R)	T30/5*/6*(R)	T7*/T8*			
2		0	25 or less			
3	20 or less	Over 0 to 30	Over 25 to 55			
4	Over 20 to 70	Over 30 to 80	Over 55 to 105			
5	Over 70 to 120	Over 80 to 130	Over 105 to 155			
6	Over 120 to 170	Over 130 to 180	Over 155 to 205			
7	Over 170 to 260	Over 180 to 270	Over 205 to 295			
8	Over 260 to 350	Over 270 to 360	Over 295 to 385			
9	Over 350 to 450	Over 360 to 460	Over 385 to 485			
10	Over 450 to 570	Over 460 to 580	Over 485 to 605			



D. Supply/exhaust block

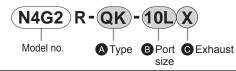
The supply and exhaust block can be installed at any position adjacent to the valve block.

As there is no set number of units, install two or more units when reguiring combinations with partition blocks or when increasing the flow rate for supply and exhaust. In order to prevent foreign matters from entering in, P port is equipped with a filter.

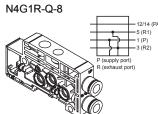


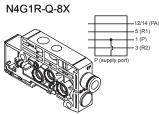


Internal pilot	6	o6 oush-in fittina	Note 2	K purt yo pusir-in nung
		11111	6LM	P port φ1/4 inch push-in fitting (upward)
External pilot	6L	φ6 push-in fitting (upward)	Note 1, Note 2	R port φ6 push-in fitting (upward)
: This is a	6D	φ6 push-in fitting (downward)	6DM Note 1. Note 2	P port φ1/4 inch push-in fitting (downward) R port φ6 push-in fitting (downward)
available consult factory	8	ø8 push in fitting	,	1 11 0 1 7
order.	8L	o8 cush-in fitino (uoward)	8M	P port φ5/16 inch push-in fitting
: Select 6*M	OL	φ8 push-in fitting (upward)	Note 2	R port φ8 push-in fitting Note 2
and 8*M if using a	8D	φ8 push-in fitting (downward)	8LM Note 1. Note 2	P port φ5/16 inch push-in fitting (upward) R port φ8 push-in fitting (upward)
silencer in the	6N	o1/4 inch push-in fitting		11-1 3(1)
inch fitting	01.11	AND THE A DESIGN	8DM	P port φ5/16 inch push-in fitting (downward)
specifications. : When	6LN	φ1/4 inch push-in fitting (upward) Note 1	Note 1, Note 2	R port φ8 push-in fitting (downward)
designating X,	6DN	φ1/4 inch push-in fitting (downward) Note 1	G E	xhaust
select the atmosphere	8N	q5/16 inch push-in fitting	Blank	Common exhaust
release (EX) for the end block.	8LN	q5/16 inch push-in fitting (upward) Note 1	X Note 3	Atmospheric release
	8DN	q5/16 inch push-in fitting (downward) Note 1		
			•	

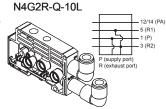


A Type		B Port size		8M Note 2	P port φ5/16 inch push-in fitting R port φ8 push-in fitting	
Q	Internal pilot	8	φ8 push-in fitting		8ML	P port φ5/16 inch push-in fitting (upward)
QK	External pilot	8L	φ8 push-in fitting (upv	ard)	Note 1, Note 2	R port φ8 push-in fitting (upward)
Note 1:		8D	φ8 push-in fitting (down)	ard)	8DM Note 1. Note 2	P port φ5/16 inch push-in fitting (downward) R port φ8 push-in fitting (downward)
	available consult factory	10	Ф10 push-in fitting		10M	1 11 00 7
Note 2:	order.	10L	φ10 push-in fitting (upv	ard)	Note 2	P port φ3/8 inch push-in fitting R port φ10 push-in fitting
. 1010 2.	and 8*M if using a silencer in the inch fitting specifications. When designating X, select the atmosphere release (EX) for the end	10D	φ10 push-in fitting (down)	ard)	10LM	P port ø3/8 inch push-in fitting (upward)
		8N	q5/16 inch push-in fitting		Note 1, Note 2	R port \(\phi\)10 push-in fitting (upward)
Note 3:		8LN		ard) Note 1	10DM Note 1, Note 2	P port φ3/8 inch push-in fitting (downward) R port φ10 push-in fitting (downward)
		8DN	φ5/16 inch push-in fitting (downward) Note 1		© Exhaust	
		10N	φ3/8 inch push-in fitting		Blank	Common exhaust
		10LN	φ3/8 inch push-in fitting (upv	ard) Note 1	X Note 3	Atmospheric release
		10DN	q3/8 inch push-in fitting (down)	ard) Note 1		





N4G1R-QK-8LX

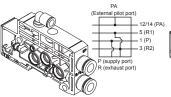


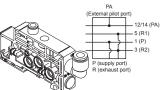


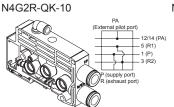
N4G1R-QK-8

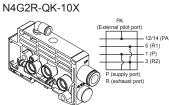
Q Internal **QK** External Note 1: This is a

Note 3:

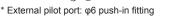








*External pilot port: φ6 push-in fitting



MN4GA & 4GB Series

Block manifold: piping section

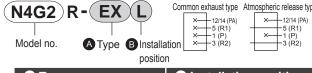
Piping section

E. End block

Install the units on both ends of the manifold with individual wiring. Install the units on opposite sides of the electrical block with reduced wiring. An exhaust muffler is built into the released to air type.



A Type		B Installation position		
Е	Common exhaust	L	Left	
EX	Atmospheric release	R	Right	



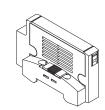
A Ty	ре	B Installation position		
Е	Common exhaust	L	Left	
EX	Atmospheric release	R	Right	



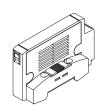


N4G1R - EL





N4G2R-EL



N4G2R-ER

F. Partition block

It is possible to implement measures to prevent mixture of different pressures and increase of back pressure by using the combination of a partition block and a supply and exhaust block.

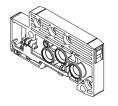




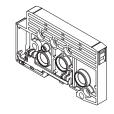


N4G2-S	

(A) Туре			
SA	P/R/PA stop		
S	P/R stop PA through		
SP P stop R/PA through			
SE	R stop P/PA through		



(Туре			
SA P/R/PA/ stop			
S P/R stop PA through			
SP	P stop R/PA through		
SE	R stop P/PA through		



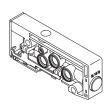
-SA	-S	-SP	-SE
12/14 (PA) 	12/14 (PA) 5 (R1) 	12/14 (PA) 5 (R1) 1 (P) 3 (R2)	12/14 (PA)

G. Mix block

Installed in cases when 4G1 and 4G2 coexist in the same manifold.

The installation positions will be 4G1 on the left side of the mix block and 4G2 on the right side.







Atmospheric release type

M3 thread specifications

N4G1R-T10

4GA/B

M4GA/B

4GA/B Master valve

4GD/E

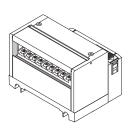
M4GD/E

MN4GD/E

Technical data

Safety precautions

N4G1R-T10R

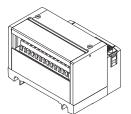


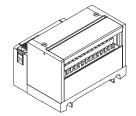


Push tightening specifications

N4G1R-T11

N4G1R-T11R





M3 thread specifications

N4G2R-T10

N4G2R-T10R





Push tightening specifications

N4G2R-T11

N4G2R-T11R

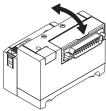




I. D sub-connector block

N4G1R-T30





N4G2R-T30



N4G2R-T30R

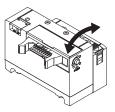
*Refer to page 597 for cable model no. with D-sub connector.

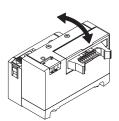
J. Flat cable connector block

With power supply terminal

N4G1R-T50

N4G1R-T50R



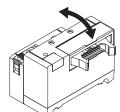


Without power supply terminal

N4G1R-T51 (N4G1R-T52) (N4G1R-T53)

CKD

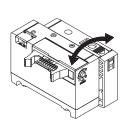
N4G1R-T51R (N4G1R-T52R) (N4G1R-T53R)

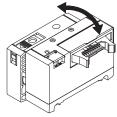


With power supply terminal

N4G2R-T50



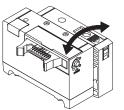


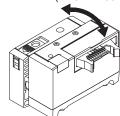


Without power supply terminal

N4G2R-T51 (N4G2R-T52) (N4G2R-T53)

N4G2R-T51R (N4G2R-T52R) (N4G2R-T53R)





* The appearance of the connector section varies with T52 and T53.

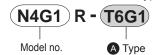


Wiring section

(Electrical block) * Orders cannot be placed for only an electrical block.

K. Serial transmission block

Connector connection type



(Туре							
T6A0/1	UNIWIRE SYSTEM		8 points/16 points				
T6C0/1	CompoBus/S		8 points/16 points				
T6G1	CC-Link	NPN	16 points				
T6E0/1	T6E0/1 S-LINK 8 points/16 points						
T6J0/1 UNIWIRE H SYSTEM 8 points/16 points							
* T6C0/	1 doos not suppo	rt tha	long distance				

T6C0/1 does not support the long-distance communication mode.

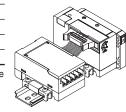


A Type				
T6A0/1	UNIWIRE SYSTEM		8 points/16 points	
T6C0/1	CompoBus/S		8 points/16 points	
T6G1	CC-Link	NPN	16 points	
T6E0/1	S-LINK		8 points/16 points	
T6J0/1	UNIWIRE H SYSTEM		8 points/16 points	

^{*} T6C0/1 does not support the long-distance communication mode.

(N4G2) R - (T7G1)

Model no.



N4G2R-T7*

N4G2R-T6*

Thin slot type



A Ty	pe		
T7C0/1	CompoBus/S		8 points/16 points
T7D1	DeviceNet		16 points
T7E0/1	S-LINK	NPN	8 points/16 points
T7G1	CC-Link		16 points
T7L1	SAVE NET		16 points
T7S1	CompoNet	NPN	16 points
T7SP1	Componer	PNP	To politio

N4G1R-T7*

N4G1R-T6*

 Discrete serial transmission slave unit (Thin slot-insertion type)



A Wiring method

32 points

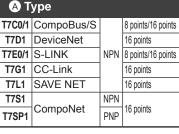
A William and a l			
(A) W	iring method	t	
T8G1		NPN	16 points
T8G2	CC-Link (Thin type)	INIIN	32 points
T8GP1		PNP	16 points
T8GP2		FINE	32 points
T8P1	PROFIBUS-DP (Thin type)	NPN	16 points
T8P2		INFIN	32 points
T8PP1		PNP	16 points
T8PP2			32 points
T8EC1		NPN	16 points
T8EC2	EtherCAT	INFIN	32 points
T8ECP1	(Thin type)	PNP	16 points
T8ECP2		FINE	32 points
T8EN1	EtherNet/IP	NPN	16 points
T8EN2		INITIN	32 points
T8ENP1	(Thin type)	PNP	16 points
	1	ו אוא ו	

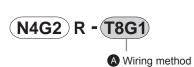
T8ENP2



A Type					
T7C0/1	CompoBus/S		8 points/16 points		
T7D1	DeviceNet		16 points		
T7E0/1	S-LINK	NPN	8 points/16 points		
T7G1	CC-Link		16 points		
T7L1	SAVE NET		16 points		
T7S1	0	NPN	40 malata		
T7SP1	T7SP1 CompoNet		16 points		

A Type





A Wiring method					
T8G1		NPN	16 points		
	CC-Link	INI IN	32 points		
T8GP1	(Thin type)	PNP	16 points		
T8GP2		FINE	32 points		
T8P1		NPN	16 points		
T8P2	PROFIBUS-DP (Thin type)	INFIN	32 points		
T8PP1		PNP	16 points		
T8PP2			32 points		
T8EC1		NPN	16 points		
T8EC2	EtherCAT		32 points		
T8ECP1	(Thin type)	PNP	16 points		
T8ECP2			32 points		
T8EN1		NPN	16 points		
T8EN2	EtherNet/IP	INFIN	32 points		
T8ENP1	(Thin type)	PNP	16 points		
T8ENP2		FINE	32 points		



CKD

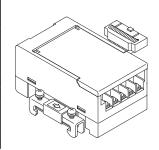
Block manifold: wiring section

- L. Serial transmission slave unit * It is possible to place an order for only the serial transmission slave unit.
- Discrete serial transmission slave unit (Connector connection type)



A Wiring method

	Symbol	Descriptions						
1	A Wir	Wiring method						
	0A	T6A0	UNIWIRE SYSTEM		8 points			
Γ	1A	T6A1	UNIVIRE STOTEW		16 points			
Γ	0C	T6C0	CompoBus/S		8 points			
Γ	1C	T6C1	Сотровия/З		16 points			
ſ	0E	T6E0	S-LINK	NPN	8 points			
ſ	1E	T6E1	S-LINK		16 points			
ſ	1G	T6G1	CC-Link		16 points			
ſ	0J	T6J0	UNIWIRE H SYSTEM		8 points			
	1J	T6J1	UNIVIKETISISIEW		16 points			

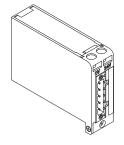


Discrete serial transmission slave unit (Thin slot-insertion type)



A Wiring method

Sy	mbol	Descriptions				
A	Wiring method					
П	CA	T7C0 CompoBus/S		NPN	8 points	
	CA	T7C1	(Thin type)	INFIN	16 points	
	1D	T7D1	DeviceNet (Thin type)	NPN	16 points	
	0E	T7ED	S-LINK	NPN	8 points	
	1E	T7E1 (Thin type)		INFIN	16 points	
	1G	T7G1	CC-Link (Thin type)	NPN	16 points	
	1L	T7L1	SAVE NET (Thin type)		16 points	
	1S	T7S1	CompoNet	NPN	16 points	
1	S-P	T7SP1	(Thin type)	PNP	16 points	

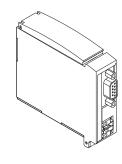


● Discrete serial transmission slave unit (Thin slot-insertion type)



A Wiring method

Symbol	Descriptions						
A Wir	ng method						
1G	T8G1		NPN	16 points			
2G	T8G2	CC-Link	141 14	32 points			
1G-P	T8GP1	(Thin type)	PNP	16 points			
2G-P	T8GP2		FINE	32 points			
1P	T8P1		NPN	16 points			
2P	T8P2	PROFIBUS-DP (Thin type)	INFIN	32 points			
1P-P	T8PP1		PNP	16 points			
2P-P	T8PP2			32 points			
1EC	T8EC1		NPN	16 points			
2EC	T8EC2	EtherCAT	141 14	32 points			
1EC-P	T8ECP1	(Thin type)	PNP	16 points			
2EC-P	T8ECP2		1 141	32 points			
1EN	T8EN1	EtherNet/IP	NPN	16 points			
2EN	T8EN2		141 14	32 points			
1EN-P	T8ENP1	(Thin type)	PNP	16 points			
2EN-P	T8ENP2			32 points			

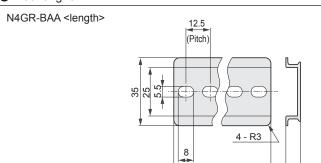


Block manifold: related products

Related products

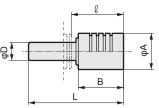
Mounting rail, silencer, blank plug, tag plate

Mounting rail



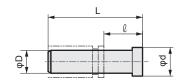
- ·The min. length is 87.5 mm.
- · Select the length in pitches of 12.5 mm.
- · Refer to page 297 for details.

Silencer



Model no.	D	L	Α	В	l
SLW-H6	φ6	41	16	20	23.5
SLW-H8	φ8	42	16	20	23
SLW-H10	φ10	53	20	27	31.5

Blanking plug



Model no.	D	L	l	d
GWP4-B	φ4	27	16	6
GWP6-B	φ6	29	11.5	8
GWP8-B	φ8	33	14	10
GWP10-B	φ10	40	18.5	12

■ Tag plate Shipped upon being attached to the manifold.

When required, place a circle on the field for tag plates in the manifold specifications on pages 299 to 302.

<Tag holder>



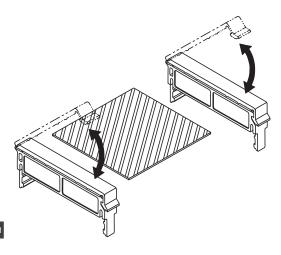
<Tag plate>

(Available in sets of 2.)



A Model No.	В Туре		C Length (mm) Note1
	Α	MN4GA1/2 shared	200
N4G1	B1	Wide type for MN4GB1	300
	B2	Narrow type for MN4GB1 Note 2	400
N4G2	В	For MN4GB2	

- Note 1: As the <length> of the plates are available in the three different lengths of 200, 300, and 400, cut the plates to suit the product length. Note 2: With the narrow type, manual operations are possible even with the tag plate covering the unit.
- Note 3: Tag plates cannot be attached when spacers are used in the manifold specifications.



4GA/B

M4GA/B

M4GD/E

MN4GD/E

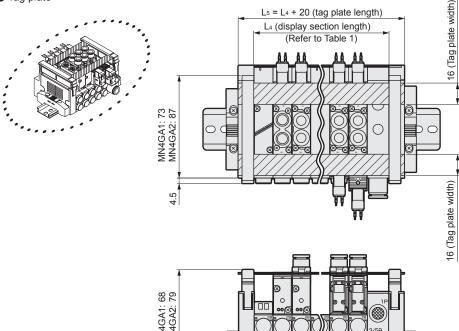
Technical data

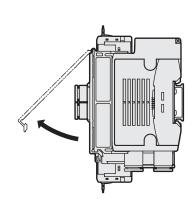
Block manifold; related products

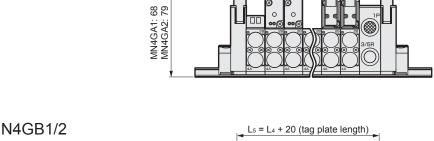
Dimensions: tag plate

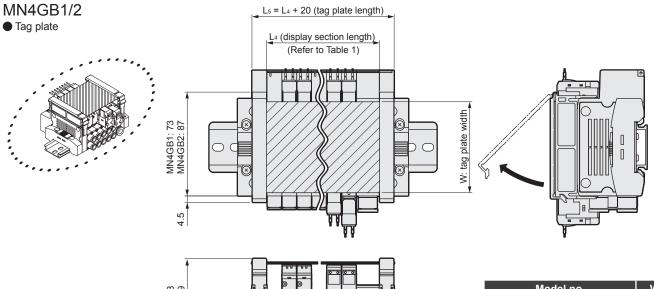
MN4GA1/2

Tag plate









B1: 68 B2: 79	2 2 2 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 62 6 1F	
MN4GB MN4GB		3/5R	

Model no.	W
N4G1R-TAG-PLATE-B1-length	64
N4G1R-TAG-PLATE-B2-length	30
N4G2R-TAG-PLATE-B-length	45

Table 1: Formula for calculation of L₅ (tag plate length)

	MN4GA		MN4GB
MN4GA1	$L_5 = (10.5 \times n) + (16 \times m) + (10.5 \times l) + 20$	MN4GB1	L ₅ = (10.5 × n) + (16 × m) + (10.5 × l) + 20
MN4GA2	L ₅ = (16 × n) + (18 × m) + (10.5 × l) + 20	MN4GB2	L ₅ = (16 × n) + (18 × m) + (10.5 × l) + 20

n: number of valve blocks

m: number of supply and exhaust blocks

I: number of partition blocks

M4GA/B

M4GD/E

MN4GD/E

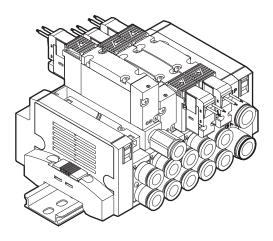
Technical data

Safety precautions

Related products

Air supply spacer

Air supply spacer



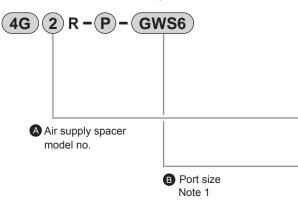
Specifications

Model no	P→A/B		A/B	Weight	
Model no.	C (dm³/(s·bar))	b	C (dm³/(s·bar))	b	g
4G1	0.70	0.23	0.93	0.16	8
4G2	1.6	0.17	1.8	0.16	35

Note 1: These are values when a valve is mounted.

Note 2: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 × C.

How to order discrete part



A Cautions for model No. selection

- Note 1 Blank indicates (1) M5, (2) Rc1/8.
- Note 2 Indicate the mounting positions and quantity of the air supply spacers for manifolds in the manifold specifications.
- Note 3 When the A/B port fitting is an elbow type, the intake port of the air supply spacer will be faced towards the opposite side (a solenoid side).
- Note 4 With the reduced wiring manifold, when the A/B port fitting is an elbow type (upward), the air supply spacer cannot be selected.
- Note 5 Combination with the masking plate is not available.

			Mode	el no.	
		4GA1	4GB1	4GA2	4GB2
Symbol	Descriptions	4	4	4	4
A Aiı	supply spacer model no.				
1	For 4G1				
2	For 4G2				
В Ро	ort size				
Blank	M5 thread (4G1), Rc thread (4G2)	(1	1)	(2	2)
GWS4	φ4 fitting				
GWS6	S6 φ6 fitting • •				
GWS8	φ8 fitting				
06N	1/8NPT thread				
06G	G 1/8 thread				

is not available.

Accessories: 4G1 set screws (2), dedicated gasket (1) 4G2 set screws (2), PR check valves (2), body gasket (1)

MN4GA & 4GB series Block manifold; related products

Dimensions

4GA/B

M4GA/B

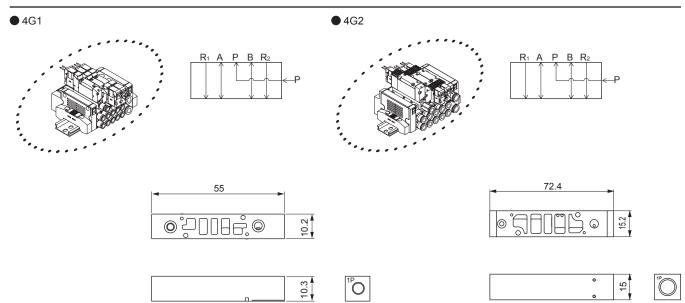
4GA/B Master valve

4GD/E

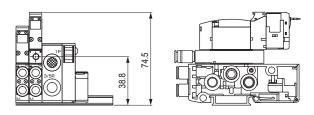
M4GD/E

MN4GD/E

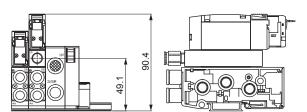
Technical data



Dimensions when mounted



Dimensions when mounted



M4GA/B

MN4GA/B

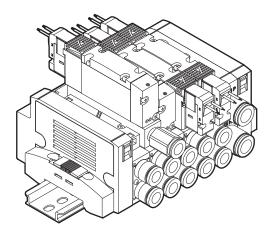
4GA/B Master valve

M4GD/E

MN4GD/E

Technical data

Safety precautions



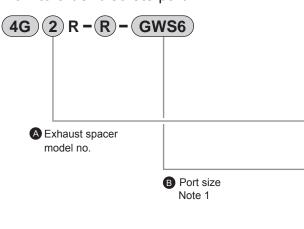
Specifications

Model no.	P→	A/B	A/B	→R	Woight a
woder no.	C (dm³/(s·bar))	b	C (dm³/(s·bar))	b	Weight g
4G1	0.94	0.28	0.68	0.33	7
4G2	1.5	0.24	1.9	0.24	34

Note 1: These are values when a valve is mounted.

Note 2: Effective cross-sectional area S and sonic conductance C are converted as S≈5.0 × C.

How to order discrete part



Cautions for model No. selection

- Note 1 Blank indicates (1) M5, (2) Rc1/8.
- Note 2 Indicate the mounting positions and quantity of the air supply spacers for manifolds in the manifold specifications.
- Note 3 When the A/B port fitting is an elbow type, the intake port of the air supply spacer will be faced towards the opposite side (a solenoid side).
- Note 4 With the reduced wiring manifold, when the A/B port fitting is an elbow type (upward), the air supply spacer cannot be selected.
- Note 5 Combination with the masking plate is not available.

			Mode	el no.	
		4GA1	4GB1	4GA2	4GB2
Symbol	Descriptions				
A Ex	haust spacer model no.				
1	For 4G1				
2	For 4G2				
ВР	ort size				
Blank	M5 thread (4G1), Rc thread (4G2)	('	1)	(2	2)
GWS4	φ4 fitting				
GWS6	φ6 fitting				
GWS8	φ8 fitting				
06N	1/8NPT thread			•	
06G	G 1/8 thread				

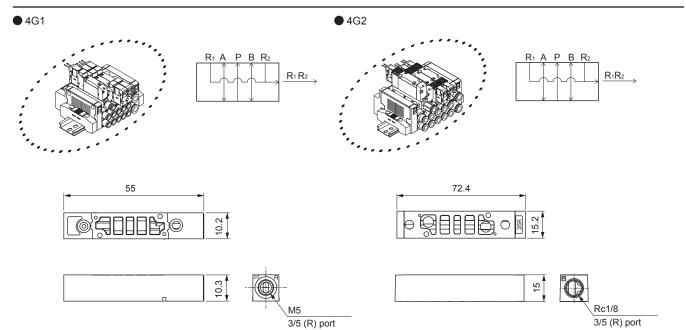
is not available.

Accessories: 4G1 set screws (2), dedicated gasket (1)

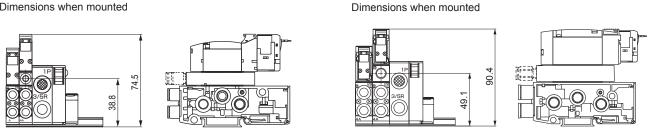
4G2 set screws (2), PR check valves (2), body gasket (1)

MN4GA & 4GB series Block manifold; related products

Dimensions



Dimensions when mounted



4GA/B Master valve

4GA/B

M4GA/B

M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications

Block manifold; related products

Related products

In stop valve spacer

In stop valve spacer

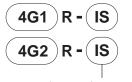
Specifications

Model no.	P→	A/B	A/B	Weight	
wiodei iio.	C (dm³/(s·bar))	b	C (dm³/(s⋅bar))	b	g
4G*1	0.54	0.03	0.82	0.27	17
4G*2	1.5	0.17	1.6	0.20	63

- Note 1: These are values when base piping and 2-position valve are mounted.
- Note 2: The effective cross-sectional area when discharging residual pressure is 1.0 mm² (reference value).
- Note 3: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

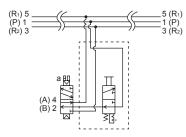
Attached product: PR check valve 2, body gasket 1

How to order discrete part



In stop valve spacer

JIS symbol

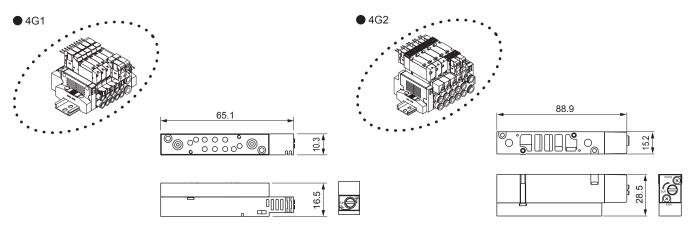


A Note on model no. selection

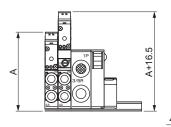
- Note 1: Specify the spacer mounting position and quantity in manifold specifications.
- Note 2: If the A/B port fitting is the elbow type (upward), turn the operation part of the in stop valve spacer toward the reverse side (a solenoid side).
- Note 3: If the elbow type (upward) A/B port fitting is used for the reduced wiring manifold, the in stop valve spacer cannot be selected.
- Note 4: The in stop valve spacer cannot be used with the external pilot (K).
- Note 5 When adding to the reduced wiring manifold, the existing electric wire may be too short.

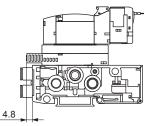
 Contact CKD for details.

Dimensions

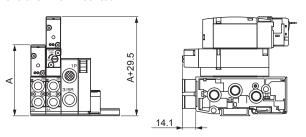


Dimensions when mounted





Dimensions when mounted



4GA/B

M4GA/B

MN4GA/E

4GA/B Master valve

4GD/E

M4GD/E

MN4GD/E

Related products

4GA/B

M4GA/B

4GA/B Master valve

4GD/E

M4GD/E

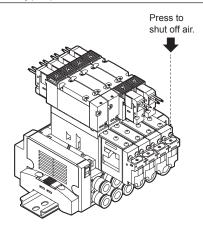
MN4GD/E

Technical data

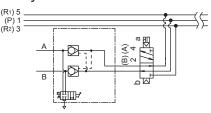
Safety precautions

Spacer type pilot check valve

Spacer type pilot check valve



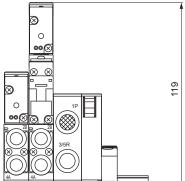
JIS symbol

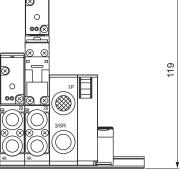


Note: Please be careful since this may lead to a bad intermediate stop as well as a decline in the used intermediate stop frequency in the diameter of a large cylinder (standard more than $\phi 50$) that has almost no diaphragm on the exhaust side (ex: no speed controller, no silencer).

Dimensions







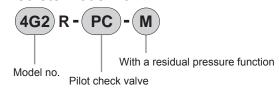
Pilot check valve

Specifications

<u>'</u>		
Pilot check valve		4G2R-PC-M
Working fluid		Compressed air
Max. working pressure	MPa	0.7
Min. working pressure	MPa	0.2
Proof pressure	MPa	1.05
Effective sectional area	mm²	4 (With solenoid valve)
Ambient temperature	°C	-5 to 55 (no freezing)
Fluid temperature	°C	5 to 55
Lubrication	Note 1	Not required
Atmosphere		Containing corrosive gas is not permissible
Weight	g	182.5

Note 1: Use the turbine oil Class 1 ISO VG32 if lubricated. Excessive or intermittent lubrication results in unstable operation.

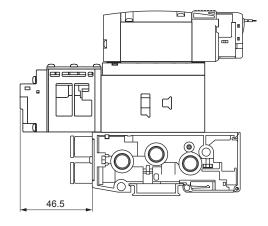
Discrete model no.

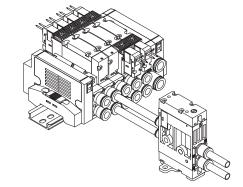


Note on model no. selection

- Note 1: Specify the spacer mounting position and quantity in manifold specifications.
- Note 2: The spacer type pilot check valve cannot be selected in the case of an elbow A/B port fitting.
- Note 3: Stacking multiple spacers is not supported.
- Note 4: The spacer and masking plate can not be combined.

 Note 5: The spacer type pilot check valve that can be installed in the piping system is only the base piping type.





Refer to page 186 for details.

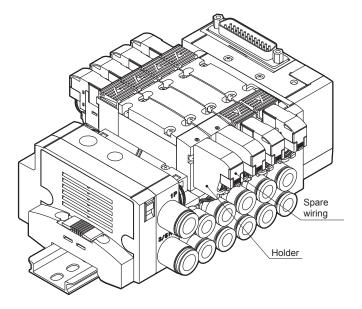
Block manifold; related products

Related products

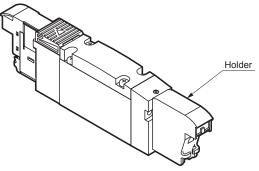
Double wiring (With single spare wiring)

Double wiring (With single spare wiring) (W1)

Manifold



Discrete valve (A2N)



This comes with a holder for holding the socket assembly. (The A type socket assembly is not attached.) If you want to change the valve from a double solenoid to a single solenoid, the unnecessary socket assembly is assembled and held.

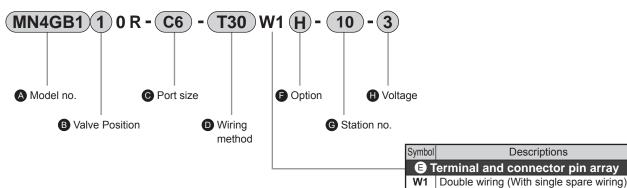
Descriptions

The single solenoid valve cap side spare wiring (holder and A type socket assembly) is attached.

If you want to change the valve from the from a single solenoid to a double solenoid, valve change work is easier because there is no need to arrange the A type socket assembly separately.

Example of model no.

Manifold model no. (example)



^{*} Refer to How to order of each series for details.

MN4GD/E

M4GD/E

4GA/B

M4GA/B

MN4GA/B

4GA/B Master valve

Technical data

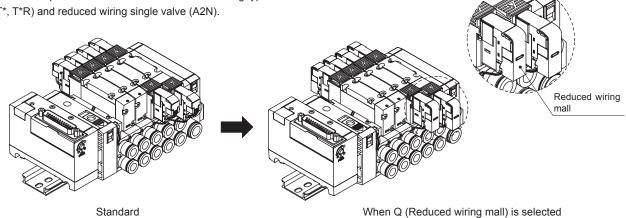
Related products

Reduced wiring mall

Reduced wiring mall (Q)

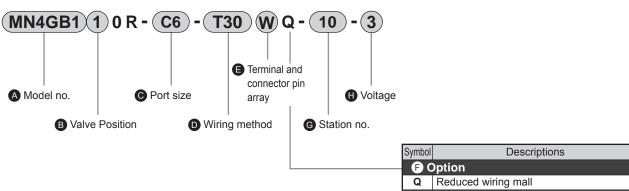
This will protect the A-connector lead wire portion.

· Selection is possible in the case of the reduced wiring type manifold (T*, T*R) and reduced wiring single valve (A2N).

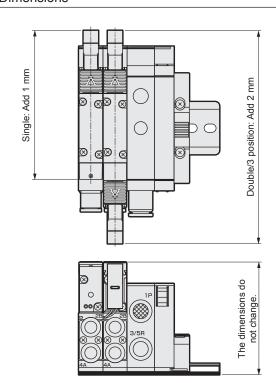


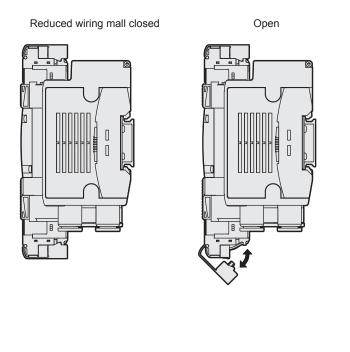
Example of model no.

Manifold model no. (example)



Dimensions





M4GA/B

4GA/B Master valve

4GD/E

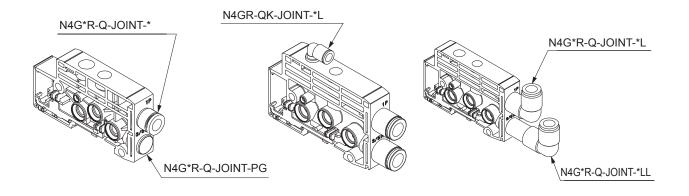
M4GD/E

MN4GD/E

Technical data

Safety precautions

Manifold Specifications



1.1 MN4G1 supply and exhaust block, fitting for 1(P), 3/5(R)

Port size	Part model no.
φ6 straight type	N4G1R-Q-JOINT-6
φ8 straight type	N4G1R-Q-JOINT-8
φ6 elbow type	N4G1R-Q-JOINT-6L,6LL
φ8 elbow type	N4G1R-Q-JOINT-8L,8LL
φ1/4 inch straight type	N4G1R-Q-JOINT-6N
φ5/16 inch straight type	N4G1R-Q-JOINT-8N
φ1/4 inch elbow type	N4G1R-Q-JOINT-6LN, 6LLN
φ5/16 inch elbow type	N4G1R-Q-JOINT-8LN, 8LLN
Plug cartridge	N4G1R-Q-JOINT-PG
	<u> </u>

1.2 MN4G2 supply and exhaust block, fitting for 1(P), 3/5(R)

Port size	Part model no.
φ8 straight type	N4G2R-Q-JOINT-8
φ10 straight type	N4G2R-Q-JOINT-10
φ8 elbow type	N4G2R-Q-JOINT-8L,8LL
φ10 elbow type	N4G2R-Q-JOINT-10L,10LL
φ5/16 inch straight type	N4G2R-Q-JOINT-8N
φ3/8 inch straight type	N4G2R-Q-JOINT-10N
φ5/16 inch elbow type	N4G2R-Q-JOINT-8LN,8LLN
φ3/8 inch elbow type	N4G2R-Q-JOINT-10LN,10LLN
Plug cartridge	N4G2R-Q-JOINT-PG

1.3 MN4G1/2 common, fitting for 12/14(PA)

Port size	Part model no.
φ6 straight type	N4GR-QK-JOINT-6
φ6 elbow type	N4GR-QK-JOINT-6L

How to prepare block manifold MN4G Series manifold specifications

Example of manifold model no.

MN 4GA1 8	OR- CX	- T50	W	Н –	8 -	3
A Model No. B Valve Position			Terminal/connector pin Array (Note: Indicate for red		6 Station no.	Woltag

When filling in this field, select the model no. from "Block configurations" (pages 277 to 294)

	field, select the model no. from	D.	OOK	001111	guru		(pu;	JOU 2	.,, ,	0 20	.,.				La	yout	posit	tion														
Part name	Model no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14		_		18	19	20	21	22	23	24	25	26	27	28	29	30	Quantit
Electrical block (page 282, 283)	N4G1R-T [50]	0																														1
Valve block	N4GA1 1 0R- [C4]		0	0																												2
with	N4GA1 2 0R- C6					0																										1
solenoid valve	N4GA1 3 0R- C4				0																											1
(page 278)	N4GA1 0R-																															
	N4GA1 0R-																															
	N4GA1 0R-																															
	N3GA1 [1] 0R- [C4]									0	0	0																				3
	N3GA1 0R-																															
Valve block with	N4GA1R-MP																															
masking plate	N4GA1R-MPS																															
(page 278)	N4GA1R-MPD						0																									1
Supply and	N4G1R-Q - 8L							0					0																			2
exhaust blocks	N4G1R-Q																															
(page 280)	N4G1R-Q																															
Partition blocks	N4G1R-S A								0																							1
(page 281)	N4G1R-S																															
	N4G1R-S																															
End block	N4G1R-E [R]													0																		1
(page 281)	N4G1R-E																															
								Blan	king	plug	1										Siler	ncer					Taç	g plaí	te (a	ttach	ed)	A
Mounting rail	L ₂ = [] (How to calculate length on next page)	G١	NP4	l-B			G١	NP6	-B			G١	WP8	-В			SI	LW-I	H6			SI	W-F	18				Α				Acces
	(Flow to calculate length off flext page)	C	able	with	D-sı	np cc	nne	ctor			4GF	R-CA	BLE-	-D0*-	*				Push	ı-in f	itting	tube	e ren	nove	r (sta	anda	rd) 🖟	3 Not	requ	uired		sories

Check if the tube remover (standard attached product) is

not required.

Preparing the manifold specifications

- Fill in order from the left with the piping port facing forward.
 (Please include the model no. of the block selected from block configurations (pages 277 to 294) and instructions for the arrangement.)
- Indicate the total number of blocks specified in the quantity on the right end of the table.
- Place a circle on the required accessories.
- Indicate the mounting rail length. (indicate only when a length other than the standard length is required.)
- Manifold specifications are available for individual series, so fill out corresponding specifications.
 - -MN4GA1: Page 299
 - -MN4GB1: Page 300
 - MN4GA2: Page 301
 - -MN4GB2: Page 302
 - -MN4GA × 1/2 (mix manifold): Page 303
 - MN4GB × 1/2 (mix manifold): Page 304

A circuit diagram of the above manifold model no. (example) is provided on the next page. Use this for reference.

Mounting rail length (L2)

- (1) Determine the rail length using the calculation method shown below. The obtained length is standard.
- (2) For the standard length, it is not necessary to indicate the length (L2) in the specifications.

Indicate the length when using a non-standard length.

Calculating the mounting rail length

L2':
$$\frac{\text{L1 + 40}}{\text{12.5}}$$
 \rightarrow rounded up to integer

Rail mounting pitch (L3) = L2 - 12.5

Block length (width) dimensions table

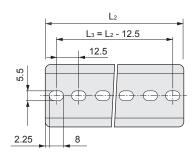
			MN4GA/B1	MN4GA/B2	MN4G1	/2MIX
			MIN4GA/DI	WIN4GA/DZ	MN4GA/B1	MN4GA/B2
Α	Valve block	k	10.5	16	10.5	16
В	Supply and	exhaust block	16	18	16	18
С	Partition bl	ock	10.5	10.5	10.5	10.5
	Individual v	wiring	41	46	44	.5
		T10/T11	83.8	86.3	86	.3
	Electrical	T10R/T11R	83.8	86.3	83	.8
	block	T30/T5*	69.3	71.8	71	.8
D	for	T30R/T5*R	69.3	71.8	69	.3
	reduced	T6*	143.5	146	14	6
	wiring	T7*	64.3	66.8	66	.8
		T8*	64.3	66.8	66	.8
F	Mix block	•			16	3

^{*} The end block is included in the electrical block.

DIN rail length quick reference table

Manifold ength		Over 47.5	60	72.5	85	97.5	110	122.5	135	147.5	160	172.5	185	197.5	210	222.5	235	247.5	260	272.5	285	297.5	310	322.5	335	347.5
Manifo		to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
_ ژ	47.5 or less	60 or less	72.5	85	97.5	110	122.5	135	147.5	160	172.5	185	197.5	210	222.5	235	247.5	260	272.5	285	297.5	310	322.5	335	347.5	360
L ₂ : Rail Iength	87.5	100	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5	400
Pitch L ₃	75	87.5	100	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5

Note 1: When L1 exceeds this table, calculate the length by referring to "How to calculate the length of the mounting rail".



How to fill out wiring specifications form

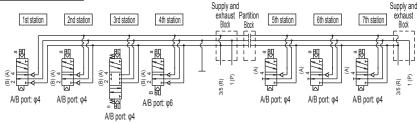
This is not required for standard wiring and double wiring.

- Wiring specifications (example)
 - * The following example is completed based on the previous page's manifold specifications.

	Connecto	or pin no.													Valve	e No			-1-								
T50/T50R	T51/T51R	T52/T52R	T53/T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1	а																							
2	2	2	2		а																						
3	3	3	3				а																				
4	4	4	4				b																				
5	5	5	5					а																			
6	6	6	6					b																			
7	7	7	7			а																					
8	8	8	8			b																					
9 - Power supply	9	9 сом	9																								
10 + (COM) Power supply	10	10 _{COM}	10																								
11	11		11						а																		
12	12		12							а																	
13	13		13								а																
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 - Power supply	19 _{сом}		19																								
20 + (COM) Power supply	20 _{COM}		20																								
			21																								
			22																								
			23																							<u> </u>	
			24																								
			25 _{COM}																								
			26 _{COM}																								

- * When selecting T50/T50R wiring, the COM polarity will be + (plus).
- Precaution regarding wiring specifications
 - (1) Fill in and attach the form to the manifold specifications for those other than the standard wiring or double wiring. Contact CKD since products will be prepared as available consult factory order in such case.
 - (2) The valve no. is determined by counting the valve blocks only in order from the left with the ports facing forward. This will differ from the numbers for the installation positions.
 - (3) As the connector pin no. and valve no. will differ for every reduced wiring method (T1*/T30/T5*/T6*/T7*/T8*), fill out the form upon reviewing the precautions (pages 593 to 611) for each reduced wiring method.
 - (4) Wiring (socket assembly) will be included in the valve blocks with masking plates. A side only for "-MPS". On both the A and B sides for "-MPD".
 - (5) It is not possible to assemble a double solenoid or 3-position solenoid valve to "-MPS". Make arrangements for the valve block with solenoid valve and perform the task of expansion.
 - (6) It is not possible to install spare wires for expansions of stations in advance. Wire the socket assembly of the solenoid valve for expansion of stations. Refer to page 612 for instructions on how to expand stations.

Reference circuit diagram | Simplified circuit diagram of manifold model no. (example) from previous page



- * Manifold stations are set in order from the left with the piping port facing forward.
 - (The electrical blocks, supply and exhaust blocks, partition block, and end block are not included in the number of manifold stations)
- * Select the model no. from block configurations (pages 277 to 294) and the page for model nos. of each of the specifications.
- The positions of arrangements are set in order from the left with the piping port facing forward.



																											loo:	10		,			/	
Contact			•	Qι	ıant	ity		S	et						Red	que	st d	ate		mo	nth		day	, 			Issu		omp	/				
Slip No.												(Orde	er N	lo.												Cor			arry	IIIa	IIIE		
Manifold n		,	,																								Ord							
MN	GA1	! ! !		OF	₹-	•					<u>.</u>									- []											
A Model I	No. B Va	lve Position	on		C	Por	t siz	ze (B T fon) Arr									St	ation	no.	•	Vol	tag	е							
When completing t	his form, select	the type fro	om the	"Bloc	k cor	nfigur	ation'	" (pag					u) (110	7.0. III	aioato	101 100		······y-																
Part name (Reference	Mod	del no.															La	yout	posi	tion														Quantity
page)				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	dounting
Electrical block (page 282, 283)	N4G1R-T																																	
Valve block with solenoid	N4GA1	0R-																																
valve (page 278)	N4GA1	0R-																																
(page 270)	N4GA1	0R-																																
	N4GA1	0R-																																
	N4GA1	0R-																																
	N4GA1	0R-																																
	N3GA1	0R-																																
1	N3GA1	0R-																																
Valve block with masking	N4GA1R-	MP																																
plate (page 278)	N4GA1R-	MPS																																
	N4GA1R-	MPD																																
Air supply spacer	4G1R-P-	!																																
(page 287)	4G1R-P-	! ! !																																
Exhaust spacer (page 289)	4G1R-R-																																	
In stop valve spacer (page 291)	4G1R-IS																																	
Supply and exhaust block	N4G1R-Q																																	
(page 280)	N4G1R-Q	1 1 1																																
	N4G1R-Q	1 11																																
Partition block (page 281)	N4G1R-S																																	
	N4G1R-S																																	
	N4G1R-S																																	
End block (page 281)	N4G1R-E																																	
	N4G1R-E																																	
Mounting rail	L ₂ =									Blar	king	plug											Sile	ncer					Тад	g pla	ite (a	ttach	ed)	Attache
	* Fill in the in multiple of 1 (How to dete	2.5.	enath	G	WP4	-В			G	WP6	-В			G	WP8	3-B			SI	LW -	6S			SI	_W -	6S				Α				Part
	refer to page		crigiii		Cable	with	n D-s	ub c	onne	ctor			4GI	R-CA	ABLE	-D0*	-*			Pus	h-in	fitting	tub	e ren	nove	r (sta	andaı	rd)	□No	ot red	quire	d (ch	neck)	l

Contact			• 0	Qua	ntity		S	et				(● F	Requ	ues	t da	te	n	non	th	d	ay			ls	ssue	9		/		1	
Slip No.											0	rde	r No	٥.											Υ	our	COI	mpa	any	nar	ne	
Manifold n	nodel no.																								C	ont	act					
MN40	GB1		0R	-			-											-				-			C)rde	er no	0.				
A Model I	No. B Val	ve Position		C	Poi	t siz	ze (ector pi cate fo				n	G	Stat	ion r	10. (/olta	age							
hen completing the	nis form, select th	e type from t	he "Blo	ck co	onfigura	ation"	(pages				ii) Alla	y (140ti	J. IIIUI	Jale IV	TCuut																	
Part name (Reference page)	Mod	del no.		1	2 3	3 4	5	6	7	8	9	10	11	12	13	Lay 14	out/ 15	posit 16	ion 17	18	19	20	21	22	23	24	25	26	27	28	29	Qua
Electrical block (page 282, 283)	N4G1R-T																															
Valve block with solenoid	N4GB1	0R-																														
valve (page 278)	N4GB1	0R-																														
(page 270)	N4GB1	0R-																														
	N4GB1	0R-																														
	N4GB1	0R-																														\perp
	N4GB1	0R-																														
	N3GB1	0R-				_																										\perp
	N3GB1	0R-				<u> </u>																										<u> </u>
Valve block with masking	N4GB1R-N	1P-																														
plate (page 278)	N4GB1R-N	IPS-																														
	N4GB1R-N	IPD-				_																										<u> </u>
Air supply spacer (page 287)	4G1R-P-																															
	4G1R-P-																															
Exhaust spacer (page 289)	4G1R-R-																															
In stop valve Spacer (page 291)	4G1R-IS																															
Supply and exhaust block	N4G1R-Q	-																														
(page 280)	N4G1R-Q	-																														
	N4G1R-Q	-																														
Partition block (page 281)	N4G1R-S																															
	N4G1R-S																															
	N4G1R-S																															
End block (page 281)	N4G1R-E																															\perp
	N4G1R-E																															\perp
Mounting rail	L ₂ =					_			Blan	ıking	plug											Sile	ncer					Тас	plat	te (at	tache	ed) Attac
	* Fill in the ir multiple of 1: (How to deter	2.5.	ngth	GW	/P4-B			G	WP6	-В			G	WP8	-В			SI	LW-H	16			S	LW-I	18			В1		E	32	— Pa
	refer to page		3	Ca	able w	ith D-	sub c	onne	ctor			4GF	R-CA	BLE	-D0*	-*			Push	n-in f	itting	tube	e rem	nove	r (sta	ndar	d)	□ No	ot rec	quire	d (che	

Part

MN4G	A2 Block m	nanifold	specific	cations		
Contact		Ougntity	aat	■ Deguest data	month day	Issue / /
Slip No.		Quantity	set	Request date Order No.	month day	Your company name
Manifold r	nodol no			Order No.		Contact
		NR-				Order no.
A Model				rs 🖨 Terminal/connector pin 🗗 Optic		
	nis form, select the type from th		(Reduced wiring conn	nection) Array (Note: Indicate for reduced wiring.)	or octation no.	gc
Part name	is form, select the type from the	Block corniguratio	11 (pages 211 to 254	,	position	
(Reference page)	Model no.	1 2 3	4 5 6 7 8	9 10 11 12 13 14 15	16 17 18 19 20 21 22 2	Quantity 23 24 25 26 27 28 29 30
Electrical block (page 282, 283)	N4G2R-T					
Valve block	N4GA2 0R-					
with solenoid valve	N4GA2 0R-					
(page 278)	N4GA2 0R-					
	N4GA2 0R-					
	N4GA2 0R-	===				
	N4GA2 0R-					
	N3GA2 0R-					
	N3GA2 0R-					
Valve block with masking	N4GA2R-MP					
plate (page 278)	N4GA2R-MPS					
(page 270)	N4GA2R-MPD					
Air supply spacer	4G2R-P-					
(Note 287)	4G2R-P-					
Exhaust spacer (page 289)	4G2R-R-					
In stop valve Spacer (page 291)	4G2R-IS					
Supply and exhaust block	N4G2R-Q -					
(page 280)	N4G2R-Q -					
	N4G2R-Q -					
Partition block (page 281)	N4G2R-S					
(page 201)	N4G2R-S					
	N4G2R-S					
End block (page 281)	N4G2R-E					
· · · · · · · · · · · · · · · · · · ·	N4G2R-E					
Mounting rail	L ₂ =		Blankin		Silencer	Tag plate (attached) Attached
	* Fill in the integral multiple of 12.5.	GWP4-B		GWP8-B	SLW-H8	Allacieu
	(How to determine the leng refer to page 297)		-sub connector	GWP10-B 4GR-CABLE-D0*-*	SLW-H10	Part
	I	1			1 1	

MN4GB2 Block manifold specifications
-

Contact		Quan	tity	set			● F	Requ	est c	late	moi	nth	day		-	lssu	_		/		/	
Slip No.						Or	der No	٥.								You	r co	mpa	any	nan	ne	
Manifold m	nodel no.				·											Con	tact	İ				
MN40	GB2	0R-		-							_		-		(Orde	er n	0.				
A Model N	No. B Valve Position				ed wiring connect						n ©	Station	n no.	A Vo	oltage	е						
Part name (Reference page)	Model no.	1 2	3 4	5 6	7 8	9 /	10 11	12	13 14		position	18 1	9 20	21 2	2 23	24	25	26	27	28	29 3	Quantit
Electrical block (page 282, 283)	N4G2R-T									+											+	
Valve block	N4GB2 0R-																				Ť	
with solenoid valve (page 278)	N4GB2 0R-																					
(6-9)	N4GB2 0R-																					
	N4GB2 0R-																				_	
	N4GB2 0R-																					
	N4GB2 0R- N3GB2 0R-																				-	
	N3GB2 0R-																					
Valve block	N4GB2R-MP-																					
with masking plate	N4GB2R-MPS-																					
(page 278)	N4GB2R-MPD-	1																				
Air supply spacer	4G2R-P-																					
(page 287)	4G2R-P-																					
Exhaust spacer (page 289)	4G2R-R-																					
In stop valve Spacer (page 291) Spacer type	4G2R-IS																				_	
Pilot check valve (page •••)	1 1 1												+								<u> </u>	
Supply and exhaust block	N4G2R-Q -																					
(page 280)	N4G2R-Q -																					
Partition block	N4G2R-S																					
(page 281)	N4G2R-S																					
	N4G2R-S																					
End block	N4G2R-E									+											\dagger	
(page 281)	N4G2R-E																					
Mounting rail	L ₂ =	GWI	P4-B		Blanking	plug GWP	8-B				SLW		lencer				Та	g pla	te (at	tache	ed)	Attache
	* Fill in the integral multiple of 12.5.	-	P6-B		+	GWP			+-		SLW			+		1		В				
	(How to determine the I	ength		sub conne	ctor		GR-CA	BLE-I	D0*-*													Part

MUSICIA VOIVO		4070
	4GD/E	ה ה
	M4GU/F	2 2 2
	MN4GD/II	
	echnical data	Table: 101 date
2700		0

M4GA/B

MN4G	A1/2 Mix m	an	ifo	olc	1 8	sp	ec	cif	ic	at	io	ns	S																			
Contact		● Q	uani	titv		•	et						Rec	1116	et d	ate.		mo	nth	,	day			ı	ssu	ie		/			/	
Slip No.			uaii	LILY		3	CL			(Orde	er N		que	ot u	aic		11101	11(11		uay			,	You	r co	mp	any	na	me	_	
Manifold n	nodel no																							(Con	itac	t					
_	GAX12R	_ [_		[1	í			1	[_	[. [. (Ord	er n	Ю.					
A Model I				Port					nections	: (Termina	al/conr	! nector	 oin G	• 0	ptic	on.		Sta	ation	no.	(Vol	tage	9							
	form, select the type from the "Blo						(Red			ion) Ari														3								
Part name		T		0											La	yout	posit	tion													\Box	
(Reference page)	Model no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Quantity
Electrical block (page 282, 283)	N4G R-T																															
Valve block	N4GA 0R-																															
with solenoid valve	N4GA 0R-																															
(page 278)	N4GA 0R-																															
	N4GA 0R-																															
	N4GA 0R-																															
	N4GA 0R-																															
	N3GA OR-																															
	N3GA OR-																															
Valve block	N4GA R-MP																															
with masking plate	N4GA R-MPS																															
(page 278)	N4GA R-MPD																															
Air supply spacer (page 287)	4G1R-P-																															
(page 201)	4G2R-P-																															
Exhaust spacer	4G1R-R-																															
(page 289)	4G2R-R-																															
In stop valve spacer	4G1R-1S																															
(page 291)	4G2R-1S																															
Mix block (page 765)	N4G12R-MIX																															
Supply and exhaust blocks	N4G R-Q -																															
(page 280)	N4G R-Q -																															
	N4G R-Q -																															
Partition blocks (page	N4G R-S																															
	N4G R-S																															
	N4G R-S																															
End block (page 281)	N4G R-E																															
(1000 201)	N4G R-E	1																														
Mounting rail	L ₂ =			-,					-,	ВІ	anki	ng pl	ug						-,					,		Sile	ncer		,			Attached
	* Fill in the integral multiple of 12.5.	GV	VP	-В			GW	Р	-в			GW	Р	-в			GW	Р	-В			SLV	V-H				SLW	<i>I</i> -H				Part
	(How to determine the leng refer to page 297)	ın	Cable	e with	D-sı	ub co	onne	ctor			4G	R-CA	ABLE	-D0*	-*			Pus	h-in f	itting	tube	e ren	nove	r (sta	ındar	d)	□ No	ot rec	quire	d (ch	eck)	. αιι

Contact				Qua	ntity	′		set	t							ues	t da	ite	r	non	th	d	ay	\neg		-	SSU			/		/		
Slip No.												0	rde	r No	٥.											_		tact	mpa	any	nar	ne		
Manifold m		IAD	;		1		[[í			;		[1		[1	-		er n						
MN4	GBX'	IZK-	i				İ		i		i			į			_j •		i		j	_	i		j	-								
A Model N	lo.				Po	rt :	size			cal connec ed wiring c									n	G	Sta	tion i	10.	•	/olta	age								
When completing this for	orm, select the t	ype from the "BI	ock confi	guratio	n" (page	es 27	77 to 29					,	., (3.7																
Part name	l N	lodel no.															La	yout	posit	ion							ı						ı	Quant
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Electrical block (page 282, 283)	N4G	R-T																																
Valve block	N4GB	0R-																																
with solenoid valve	N4GB	0R-																																
(page 278)	N4GB	0R-																																
	N4GB	0R-																																
	N4GB	0R-																																
	N4GB	0R-																																
	N3GB	0R-																																
	N3GB	0R-																																
Valve block	N4GB	R-MP-						<u> </u>																										
with masking plate	N4GB	R-MPS-																																
(page 278)	N4GB	R-MPD-																																
Air supply spacer	<u> </u>	<u>i</u>																																
(page 287)	4G1R-P-	ļ																																
Mix block	4G2R-P-	<u> </u>																																
(page 765)	N4G12R	-MIX																																
Supply and exhaust blocks	N4G	R-Q -																																
(page 280)	N4G	R-Q -																																
	N4G	R-Q -																																
Partition	N4G	R-S																																
blocks (page 281)	N4G	R-S																																
	N4G	R-S																																
End block	N4G	R-E				1	\dashv	+																										
(page 281)	N4G	R-E				\dashv	+	+																										_
Mounting rail	<u> </u>	K-L											lon!:	20 = "														Cile	noor					
Mounting rail						Т					1	RI	ankii		-	1					1					1-1		SIIE	ncer					Attache
	* Fill in the	integral f 12.5.		GWI	2	-в			GWI	P	-B			GW	P	-В			GW	P	-B			SLV	V-H				SLW	/-H				

Common terminal block type (T10/T11) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)

* This is not required for standard wiring/double wiring.

Connect	or pin no.												Valve	e No.											
T10	T11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1																								
2	2																								
3	3																								
4	4																								
5	5																								
6	6																								
7	7																								
8	8																								
9	9																								
10	10																								
11	11																								
12	12																								
13	13																								
14	14																								
15	15																								
16	16																								
СОМ	17																								
COM	18																								
	19																							ш	
	20																								
	21																							ш	
	22																							ш	
	23																							ш	
	24																							ш	
	COM																								
	COM																								

D sub-connector type (T30) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)

* This is not required for standard wiring/double wiring.

This is not requ	iii Cu	101 31	ariuu	I G VVI	illig/c	JOUDI	C WIII	ng.																
Connector pin no.												Valve												
T30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1																								
14																								
2																								
15																								
3																								
16																								
4																								
17																								
5																								
18																								
6																								
19																								
7																								
20																								
8																								
21																								
9																								
22																								
10																								
23																								
11																								
24																								
12																								
25																								
13 (COM)																								

Flat cable connector type (T50/T51/T52/T53) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)

* This is not required for standard wiring/double wiring.

11110 10 110	Connecto	or pin no.	www.ig/acas			9.									Valve	e No											
T50/ T50R	T51/ T51R	T52/ T52R	T53/ T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1																								П
2	2	2	2																								
3	3	3	3																								
4	4	4	4																								
5	5	5	5																								
6	6	6	6																								
7	7	7	7																								
8	8	8	8																								
9 - Power supply	9	9 _{COM}	9																								
10 + (COM) Power supply	10	10 _{COM}	10																								
11	11		11																								
12	12		12																								
13	13		13																								
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 - Power supply	19 _{COM}		19																								
20 + (COM) Power supply	20 _{COM}		20																								
			21																								
			22																								
			23																								
			24																								
			25 _{COM}																								
			26 _{COM}																								

^{*} When selecting T50/T50R wiring, the COM polarity will be + (plus).

Serial transmission (T6*/T7*) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)

* This is not required for standard wiring/double wiring.

Carial transmission type	Connecto	or pin no.								Valve	e No.							
Serial transmission type	T6*	T7*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connector connection type	1	1																
T6A0: UNIWIRE SYSTEM 8 points	2	2																
T6A1: UNIWIRE SYSTEM 16 points	3	3																
T6C0: CompoBus/S 8 points	4	4																
T6C1: CompoBus/S 16 points	5	5																
T6G1: CC-Link 16 points	6	6																
T6E0: S-LINK 8 points	7	7																
T6E1: S-LINK 16 points	8	8																
T6J0: UNIWIRE H SYSTEM 8 points T6J1: UNIWIRE H SYSTEM 16 points	9	9																
1001. GIVIVINE IT OT OTEM TO POINTS	10 _{COM}	10																
	11	11																
	12	12																
Thin slot-insertion type	13	13																
T7C0: CompoBus/S 8 points	14	14																
T7C1: CompoBus/S 16 points	15	15																
T7D1: DeviceNet 16 points	16	16																
T7E0: S-LINK 8 points	17	17																
T7E1: S-LINK 16 points	18	18																
T7G1: CC-Link 16 points	19	19																
T7L1: SAVE NET 16 points	20 _{COM}	20																

Serial transmission (T8*) wiring specifications

* Please fill in and attach to the manifold specifications for those other than the standard wiring or double wiring. (Available consult factory order)

* This is not required for standard wiring/double wiring.

	not required			Connector	_		9	•								Valve	e No.											
	Serial transmiss	sion ty	/pe	pin no. T8*	1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24
T8G1			16 points	1 1																						+	+	\vdash
T8G2	-	NPN	32 points	2																							+	\vdash
T8GP1	CC-Link		16 points	l																				-			+	
T8GP2	1	PNP	32 points	3																		_					\perp	
T8P1			16 points	4																							\perp	
T8P2	PROFIBUS-DP	NPN	32 points	5																								
T8PP1	- FROFIBUS-DF	PNP	16 points	6																								
T8PP2		1 141	32 points	7																							\top	
T8EC1		NPN	16 points	8																							+	t
T8EC2	EtherCAT		32 points	9																							+	\vdash
T8ECP1 T8ECP2	-	PNP	16 points 32 points		\vdash																	\vdash	\vdash	-	-	\vdash	+	
T8EN1			16 noints	10																		_	-	-		_	\perp	\perp
T8EN2	+	NPN	32 points	11																							╙	
T8ENP1	EtherNet/IP	DND	16 noints	12																								
T8ENP2		PNP	32 points	13																								
				14																							Т	
				15																							+	\vdash
				16																							+	\vdash
				-																							+	_
				17																		_	-		-	-	\vdash	<u> </u>
				18																							$oxed{\bot}$	
				19																								
				20																								
				21																								
				22																							+	\vdash
				23																	\vdash		+	\vdash	1	+	+	\vdash
				24																	-		+	+		+	+	\vdash
																						-	+	-	-	+	+	\vdash
				25	_				_									_		_	_	_	\vdash	-	_	_	\vdash	<u> </u>
				26																	<u> </u>		_			_	\perp	<u> </u>
				27		L						L			L													
				28																								
				29																								
				30																							\top	\vdash
				31																	\vdash	\vdash	+	+		+	+	\vdash
																						\vdash	\vdash	+	-	\vdash	+	\vdash
				32																							\perp	