

Ecological pneumatic valves.

Ecological, reliable and flexible.

Small, high performance 3, 5 port pneumatic valve

4G series (metal base type), MN4G series (block manifold type).

G Ecological grade up

No painting (MN4G series)

No particle occurrence caused by pealed paint.

Material name is displayed (MN4G series).

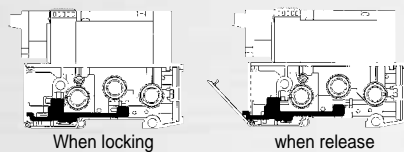
Considering recycle etc., materials names are stamped on main parts.



G Safety grade up

Miss-operation prevention mechanism provided for connection key (MN4G series)

Connection key stored in block of cover. Closing cover automatically interlocks connection keys.



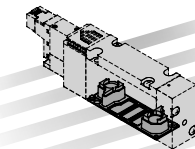
Protective cover provided

Miss-operation by external force etc. prevented. Once locked, protective cover is never closed. PAT.



Check valve incorporated

Preventing back pressure of single acting cylinder. Cylinder malfunction is prevented. Check valve is incorporated in pilot and main exhaust ports. PAT.



Air supplying port filter provided

Foreign matter entry is prevented. Also provided to cylinder port (option).

G Reliability grade up

New sliding structure accumulating valve technology results in remarkable advance in service life, reliability and response time.

Response time 12ms±2ms (CKD comparison for 4G1 series)

New sliding structure results in remarkable advance in service life, reliability and response time.

Service life 60 millions cycles over (0.5 MPa clean air)

60 millions cycles over guaranteed by strict endurance test according to CKD standard.

Metal base 4GA/4GB Series

- Index Page 89
- Series variation Page 90

Block manifold MN4GA/MN4GB Series

- Index Page 243
- Series variation Page 244

Master valve 4GA/4GB Series

- Index Page 315
- Series variation Page 316

G Flexibility grade up

Flexible block construction

Mix manifold of 4G1/2 and multi-pressure use are available.

Flexible increase/decrease of station No.

Metal base manifold
M4G^A_B1/2/3 Series

Block manifold
MN4G^A_B1/2

Block manifold
MN4G^A_BX12

G Easy operation grade up

Serial transmission, slot in and small size slave unit OPP4 is used (MN4G series).

Footprint dramatically reduced.

Body porting and sub base porting types are available.

TAG name plate is available (MN4G series).

For descriptions of solenoid valve type, circuit etc.

Tool not required manual override

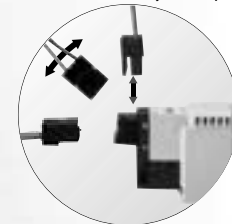
Easy manual operation by a finger. Locking/non-locking common type.

Easily replaced push in joint

Reduced wiring connector radial/axial type

Wiring connector radial/axial common

Radial and axial connector can be switched by insert position. PAT.



10mm wide small size with high performance

4G series			MN4G series		
Series	Width	Effective sectional area	Series	Width	Effective sectional area
4G1	10mm	4mm ²	MN4G1	10.5mm	4mm ²
4G2	15mm	9mm ²	MN4G2	16mm	9mm ²
4G3	18mm	16mm ²	(effective sectional area when check valve incorporated)		

(effective sectional area when check valve incorporated)

4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/ MN4S0

4TB

4L2-4/ LMF0

4KA/B

4F

PV5/ CMF

3MA/B0

3PA/B

P/MB

NP/NAP/ NVP

4F**0E

HMV/ HSV

Uniwire system

SKH

PCD/ FS/FD

3, 5 port pilot operated valve

3, 5 port pilot operated valve

3, 5 port pilot operated valve

3, 5 port pilot operated valve

3, 5 port pilot operated valve

3, 5 port pilot operated valve

3, 5 port pilot operated valve

3, 5 port pilot operated valve

3, 5 port pilot operated valve



Pneumatic components

Safety precautions

Please carefully read this before starting use.

Refer to Page 47 on the introduction about general precautions for valves.

3, 5 port pilot operated valve 4G_B^A/MN4G_B^A series



Warning

About manual override

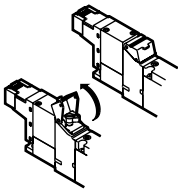
Introduction

- ① 4G series is a internal pilot operated solenoid valve. If compressed air is not supplied to Port P, even the manual override is operated, main valve does not switch.
- ② The protective cover of manual override is provided as standard. When shipping, protective cover of manual override is closed. Initially, manual override is covered. Open protective cover to operate manual override.
If locking manual override is not released, protective cover does not close.
- ③ This is a non-locking/locking manual override. Push and turn the button to lock the manual override. If the button is turned without pushing, damage of the manual override and air leakage may be caused.

How to open/close protective cover of manual override

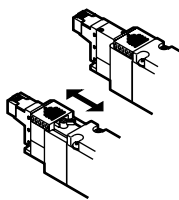
Don't apply too much force to protective cover of manual override when open/close operation. Too much external force may cause failures. (under 5N)

4G1 series



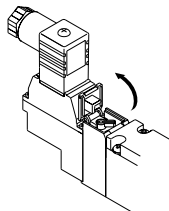
Turn type

4G2/3 series



Slide type

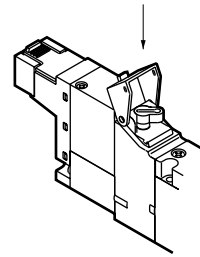
4G2/3 series
DIN terminal box



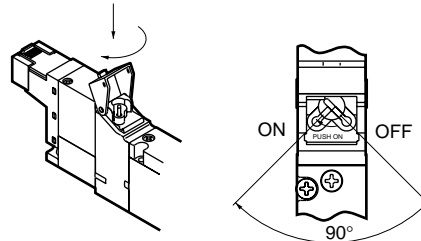
Turn type

How to operate manual override

- ① For non-locking manual override
Push it to arrow direction until it stops.
If the button is released, manual override is released.



- ② For locking manual override
Push and turn 90° to arrow direction.
Even if the button is released, manual override is not released.



Warning

Confirm that there is no body around the cylinder to be operated before manual operation.

Caution

External pilot (K) piping port

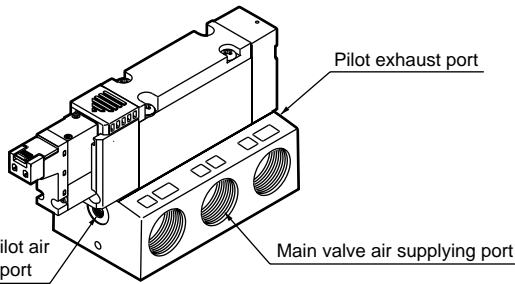
Metal base 4G_B series

For the external pilot (K) type, pilot air supply ports are individually provided. Both port sizes of supply and exhaust air are M5 thread. Be sure port positions when piping. Improper porting may cause malfunctions.

Port display

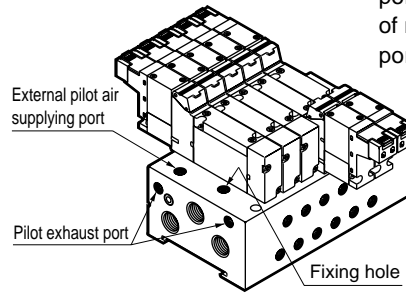
Applications		Display (ISO standards)
Pilot air	Air supplying port	12/14
	Exhaust port	82/84

Sub base porting - discrete valve (4GB1 to 3 common)



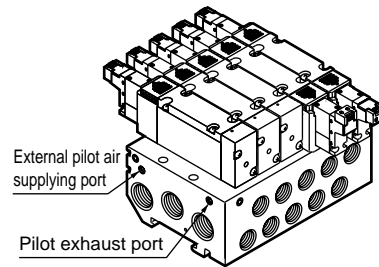
Viewed from main valve air supplying port, external pilot air supplying port is located on the left side.

Manifold M4G1



External pilot air supplying port is located on the top of manifold. There are two ports on both ends.

M4G2/3



External pilot air supplying port is located father side from Port A/B. There are two ports on both ends.

Caution

External pilot (K) piping port

Block manifold MN4G_B series

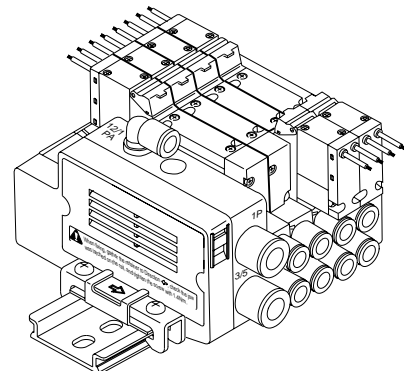
For the external pilot (K) type, pilot air supply ports are individually provided. The port size of pilot air is 6mm dia. push in joint. Improper piping may cause malfunctions.

Port display

Applications		Display (ISO standards)
Pilot air	Air supplying port	12/14

*Port A/B and Port R cannot be pressurized.

MN4G1



External pilot air supplying port is 6 mm push in joint on the top of supply and exhaust block.



Pneumatic components

Safety precautions

Please carefully read this before starting use.

Refer to Page 47 on the introduction about general precautions for valves.

3, 5 port pilot operated valve 4G_B^A/MN4G_B^A series

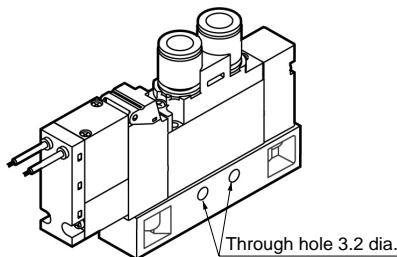
⚠ Caution How to install body porting (A) discrete valve 1

For direct mount

For body porting discrete valve 4GA2/3 series, (a) through hole, or (b) female thread hole is available for installation. When using thread hole, observe tightening torque.

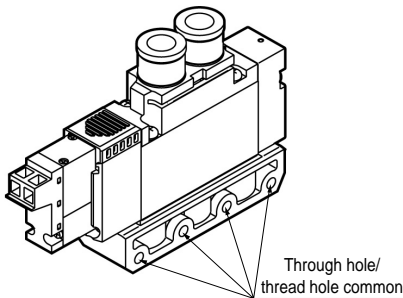
4GA1 series

2- (a) through hole



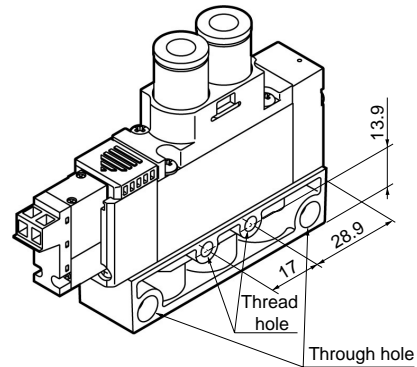
4GA2 series

4- (a) through hole, (b) screw hole common



4GA3 series

2- (a) through hole, (b) female thread



Tightening torque 0.7 to 1.2N·m

Fixing hole shape

	4GA2		4GA3	
	(A) (b) common	(A) through hole	(A) through hole	(B) thread hole
Fixing hole sectional view				

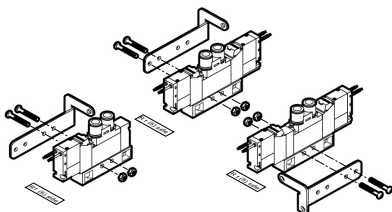
⚠ Caution How to install body porting (A) discrete valve 2

When installation with Mounting plate (P)

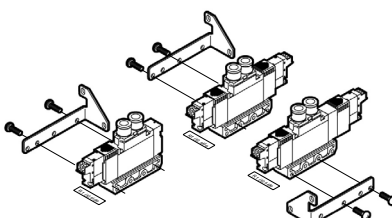
For mounting plate (P) of body porting discrete valve, installation method may differ depending on single, double or 3-position. Incorrect installation may cause failures.

How to install Mounting plate (P)

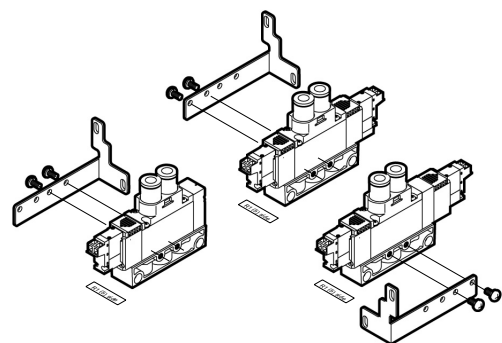
4GA1 series



4GA2 series



4GA3 series



Mounting plate (P) kit

	Kit model No.	Set part
4GA1	4G1-MOUNTING PLATE KIT	Mounting plate, set screw 2 pcs., nuts 2 pcs.
4GA2	4G2-MOUNTING PLATE KIT	Mounting plate, set screw 2 pcs.
4GA3	4G3-MOUNTING PLATE KIT	Mounting plate, set screw 2 pcs.

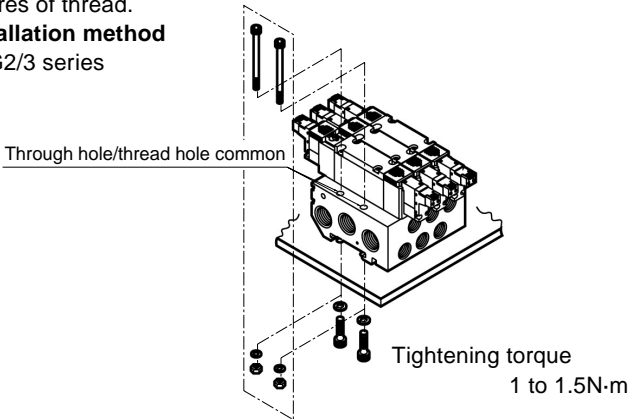
⚠ Caution How to install manifold 1 (metal base 4GA/B series)

For direct mount

For M4G2/3 series installation, tighten the top of manifold base with through bolts or the rear with bolts.

When using female thread on the right table, confirm thread depth, ridge (should be screwed more than 10 ridges) and tightening torque. Improper screw selection may cause failures of thread.

Installation method M4G2/3 series



Fixing hole shape (sectional view)

	Standard manifold (internal pilot operated)		External pilot
	M4GA (body porting)	M4GB (sub base porting)	M4G-K
M4G2			
M4G3			

⚠ Caution How to install manifold 2 (metal base 4GA/B series)

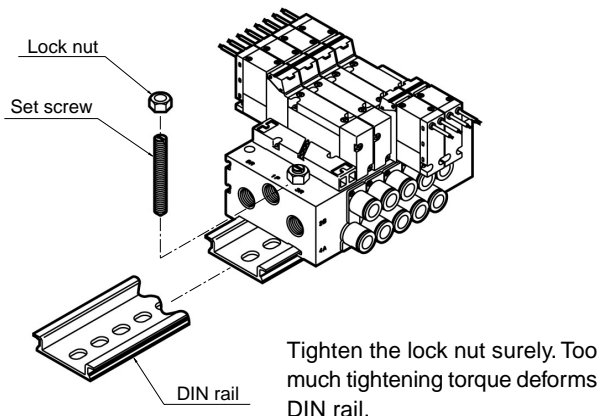
When installation with DIN rail

For M4G series, direct mount type can be replaced with DIN rail mount type. In this case, improper DIN rail installation may cause drop or damage of manifold. If the weight of manifold is more than 1kg or the working environment is subject to vibration or impact, fix the DIN rail 50 to 100mm pitch and confirm that the manifold is properly installed before starting use. Find the weight of manifold according to individual specifications. (Note: For M4GB1 (Page 174), direct mount only.) DIN rail installation is available up to 16 station.

How to install DIN rail

M4G1 series (Note. For M4GB1 (page 174), direct mount only .).

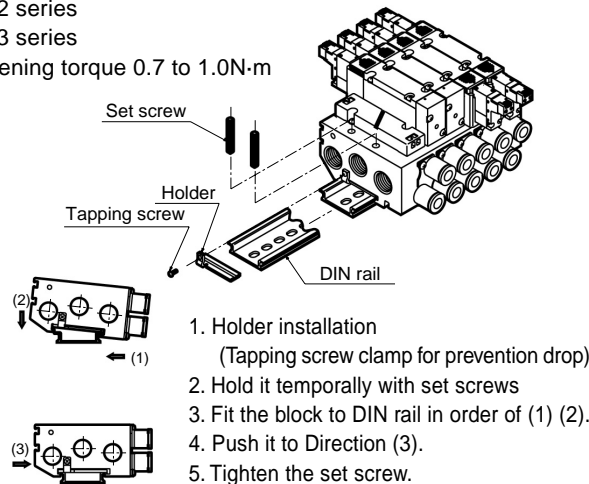
Tightening torque 0.3 to 0.5N·m



M4G2 series

M4G3 series

Tightening torque 0.7 to 1.0N·m



DIN rail kit

	Model No.	Descriptions
M4G1	4GA1-BAA[Length]-[Option]D	DIN rail, set screw 2 pcs.
	4GB1-BAA[Length]-[Option]D	Lock nut 2 pcs.
M4G2	4GA2-BAA[Length]-[Option]D	Two DIN rail/holder
	4GB2-BAA[Length]-[Option]D	
M4G3	4GA3-BAA[Length]-[Option]D	Tapping screw 2 pcs., set screw 4 pcs.
	4GB3-BAA[Length]-[Option]D	

When DIN rail is not required, designate length as "0".
When using manifold for external pilot base, designate [Option] "K".
To decide DIN rail length according to your manifold length, refer to annex on Page 225.



Pneumatic components

Safety precautions

Please carefully read this before starting use.

Refer to Page 47 on the introduction about general precautions for valves.

3, 5 port pilot operated valve 4G_B^A/MN4G_B^A series



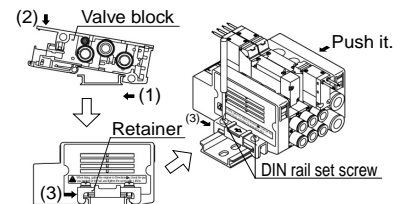
Caution

How to install manifold 3 (block manifold)

About installation attitude

- Due to DIN rail installation, if the weight of manifold is more than 1kg or the working environment is subject to vibration or impact, fix the DIN rail 50 to 100mm pitch and confirm that the manifold is properly installed before starting use. There is no restriction for installation attitude, however loosened set screw by resonance of vibration may cause drop of manifold. Confirm the conditions at operation.
- How to dismount manifold
Dismounting
Loosen DIN rail set screws (two both left and right/total 4 pcs).
Mounting
 1. Fit the block to DIN rail in order of (1) (2).
 2. Push retainer to Direction (3) .
 3. Holding blocks without clearance, tighten DIN rail set screw (recommended tightening torque 1.2 to 1.6N·m).

- If the jaw of retainer does not latch, air leaking or drop of product may be caused.

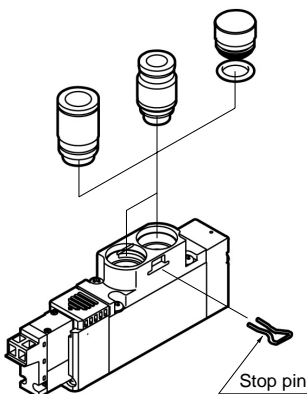


Caution

How to replace cartridge joint

When changing sizes of push in joint, confirm the procedure to replace the joint properly. Improper installation, such as insufficient tightening torque, may cause air leakage.

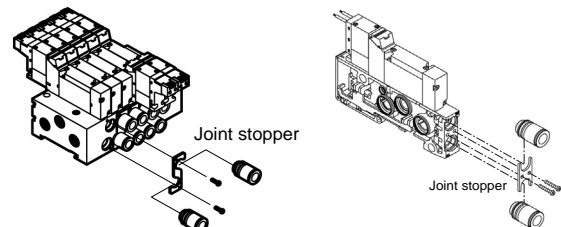
Body porting (A) type



- (1) Remove the stop pin with a screw driver etc.
- (2) Pull the joint.
- (3) Insert a joint for replacement vertically until it stops.
- (4) Insert the stop pin. Pull the joint to check it was installed properly.

	Size	Tightening torque (N·m)
4G1	M1.7	0.18 to 0.22
4G2	M2.5	0.25 to 0.30
4G3	M3	0.6 to 0.7

Sub-base porting (B) type



- (1) Remove set screws.
- (2) Pull the stopper plate and the joint at the same time.
- (3) Match the stopper plate to the groove of a joint for replacement, and assemble them temporarily.
- (4) Assemble stopper plate and joint at the same time, and tighten them with set screws. Pull joint to confirm proper installation.

Cartridge type quick connector model No.

Model	Part name	Model No.
4G1	4 dia. straight type	4G1-JOINT-C4
	6 dia. straight type	4G1-JOINT-C6
	4 dia. radial	4G1-JOINT-CL4, CLL4
	6 dia. radial	4G1-JOINT-CL6, CLL6
	Plug cartridge	4G1-JOINT-CPG
4G2	4 dia. straight type	4G2-JOINT-C4
	6 dia. straight type	4G2-JOINT-C6
	8 dia. straight type	4G2-JOINT-C8
	6 dia. radial	4G2-JOINT-CL6, CLL6
	8 dia. radial	4G2-JOINT-CL8, CLL8
	Plug cartridge	4G2-JOINT-CPG
4G3	6 dia. straight type	4G3-JOINT-C6
	8 dia. straight type	4G3-JOINT-C8
	10 dia. straight type	4G3-JOINT-C10
	8 dia. radial	4G3-JOINT-CL8, CLL8
	10 dia. radial	4G3-JOINT-CL10, CLL10
	Plug cartridge	4G3-JOINT-CPG



Caution

How to change piping specifications

When replacing mounting plate or joint adaptor, changing body porting to/from sub base porting, or push in joint of body porting to/from female thread etc, if set screws are not properly tightened, air leakage may be caused. Observe tightening torque as following.

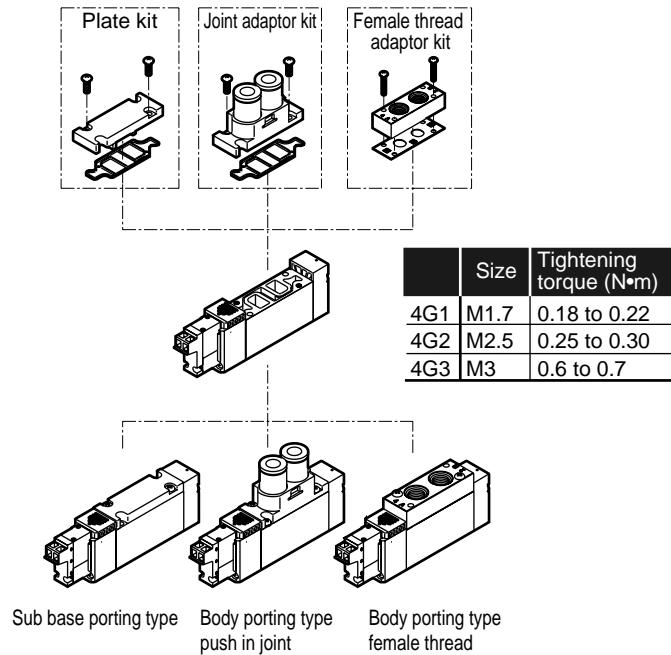


Plate kit

Model	Kit model No.	Set part
4G1	4G1-PLATE KIT	Plate, gasket, set screw 2 pcs.
4G2	4G2-PLATE KIT	Plate, gasket, set screw 2 pcs.
4G3	4G3-PLATE KIT	Plate, gasket, set screw 2 pcs.

Joint adaptor kit

Model	Part name	Kit model No.	Set part
4G1	4 mm dia. joint adaptor kit	NC	4G1-JOINT ADAPTOR KIT-C4NC-[OPTION]
		NO	4G1-JOINT ADAPTOR KIT-C4NO-[OPTION]
			4G1-JOINT ADAPTOR KIT-C4-[OPTION]
	6 mm dia. joint adaptors kit	NC	4G1-JOINT ADAPTOR KIT-C6NC-[OPTION]
		NO	4G1-JOINT ADAPTOR KIT-C6NO-[OPTION]
			4G1-JOINT ADAPTOR KIT-C6-[OPTION]
4G2	6 mm dia. joint adaptors kit	NC	4G2-JOINT ADAPTOR KIT-C6NC-[OPTION]
		NO	4G2-JOINT ADAPTOR KIT-C6NO-[OPTION]
			4G2-JOINT ADAPTOR KIT-C6-[OPTION]
	8 mm dia. joint adaptor kit	NC	4G2-JOINT ADAPTOR KIT-C8NC-[OPTION]
		NO	4G2-JOINT ADAPTOR KIT-C8NO-[OPTION]
			4G2-JOINT ADAPTOR KIT-C8-[OPTION]
4G3	8 mm dia. joint adaptor kit	NC	4G3-JOINT ADAPTOR KIT-C8NC-[OPTION]
		NO	4G3-JOINT ADAPTOR KIT-C8NO-[OPTION]
			4G3-JOINT ADAPTOR KIT-C8-[OPTION]
	10 mm dia. joint adaptor kit	NC	4G3-JOINT ADAPTOR KIT-C10NC-[OPTION]
		NO	4G3-JOINT ADAPTOR KIT-C10NO-[OPTION]
			4G3-JOINT ADAPTOR KIT-C10-[OPTION]

Female thread adaptor kit

Model	Kit model No.	Set part
4G1	4G1-FEMALE THREAD ADAPTOR KIT-[Port size]-[OPTION]	Female thread adaptor, gasket, set screw 2 pcs.
4G2	4G2-FEMALE THREAD ADAPTOR KIT-[Port size]-[OPTION]	Female thread adaptor, gasket, set screw 2 pcs.
4G3	4G3-FEMALE THREAD ADAPTOR KIT-[Port size]-[OPTION]	Female thread adaptor, gasket, set screw 2 pcs., body set screw 2 pcs.

When using filter incorporated in Port A/B type, designate [Option] "F".

4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/
MN4S0

4TB

4L2-4/
LMF0

4KA/B

4F

PV5/
CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F**0E

HMV/
HSV

Uniwire
system

SKH

PCD/
FS/FD

3, 5 port pilot operated valve



Pneumatic components

Safety precautions

Please carefully read this before starting use.

Refer to Page 47 on the introduction about general precautions for valves.

3, 5 port pilot operated valve 4G_B^A/MN4G_B^A series



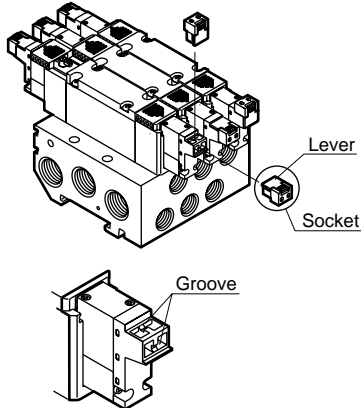
Caution

How to use E-connector

E-connector is a radial/axial connector. When shipping, the socket assembly is attached, select the proper socket direction according to the installation conditions.

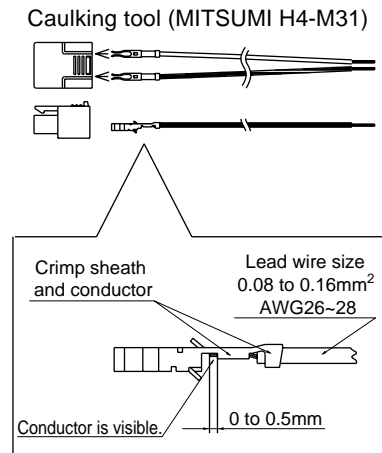
How to dismount/mount socket

- (1) When installing a socket, hold the lever and the socket unit using your fingers, and insert them into the socket hole of connector. Set the jaw of lever onto the connector groove and lock them. Set socket attitude properly according to connector type (for radial type, put the lever front, while for axial type, put the lever top).
- (2) When removing the socket, down the lever, remove the jaw from groove, and pull the socket straight.



How to wire lead wire

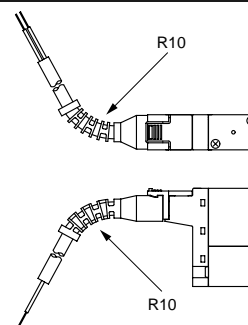
- (1) Peel sheath of lead wire 3mm from the top, arrange the top of conductor, and insert the conductor into the crimp terminal and crimp them with a crimping tool. Both sheath and conductor should be crimped. The margin of conductor should be 0 to 0.5mm.
- (2) After crimping, turn the crimp terminal as the following diagram, and insert it into the socket hole until the position is locked. Pull the wire lightly to confirm the terminal was locked.



Caution

How to use E*J-connector

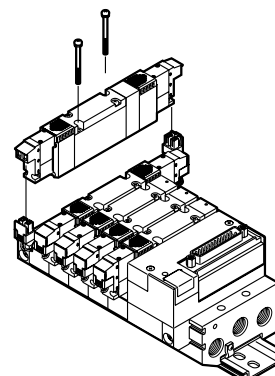
The bending rate of lead wire of E*J-connector should be below than the dimensions of right diagram.



Caution

How to use A-connector

A-connector is designed for downward radial connector of reduced wiring manifold. When installing/removing the socket, observe the instructions as well as E-connector.



Warning How to disassemble/wire/assemble DIN terminal box

When disassembling/assembling terminal box, there is a risk of electric shock. Please turn power off.

Caution How to disassemble/wire/assemble DIN terminal box

1 Disassembling

- ① Loosen Screw (1), pull Cover (2) to direction of Screw (1), then connector is removed from coil assembly (12).
- ② Remove Screws (1) from Cover (2).
- ③ Insert a small minus screw driver into the notch at the bottom of Gland (3) (be side of GDSN mark) between Housing (2) and Gland (3), and turn the screw driver to remove Gland (3) from Cover (2). (Refer to Figure 1.) Don't apply too much torque to avoid the damage.
- ④ Remove Cable gland (4), and pick Washer (5) and Rubber packing seal (6) out.

2 Wiring

① Wiring preparations

- Applicable dimensions of cable (7) is VCTF2 (3) conductor (3.5 to 7 mm dia.) conformable with JISC3306.
- Peeling sheath length of lead wire is 10mm.
- Both twist wire and single conductor are available.
- When using twist wire, avoid wiring with a soldered lead wire.
- When using Crimping sleeve (10) on the top of twist wire, select H0.5/6 (0.3 to 0.5mm²), H0.75/6 (0.75mm²), of Wide Muller Japan or equivalent. Please prepare crimping sleeve by yourself.

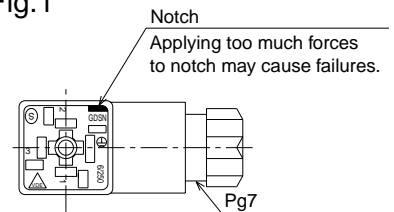
② Wiring

- Put Cable gland (4), Washer (5), Rubber packing seal (6) through Cable (7) in turn, and insert them into Cover (2).
- Wire Terminal 1 and 2. They are not polarized.
- Recommended tightening torque is 0.2 to 0.25N·m.

3 Assembly

- ① Set wired Gland (3) to Cover (2). (Push it with a snap.)
*4 directions are available for gland (Fig.2).
- ② Put rubber packing seal (6), washer (5) into the cable inlet of Cover (2) in turn, and tighten Cable gland (4) surely.
Remarks: Tightening torque of cable gland should be 1.0 to 1.5N·m.
Pull the cable to check not coming off.
- ③ Put gasket (8) between bottom of gland (3) and plug of coil assembly (12), insert the connector, tighten them with set screw (1) through cover (2).
Remarks: Recommended tightening torque of screw is 0.2 to 0.25N·m.

Fig.1



Deal drawing

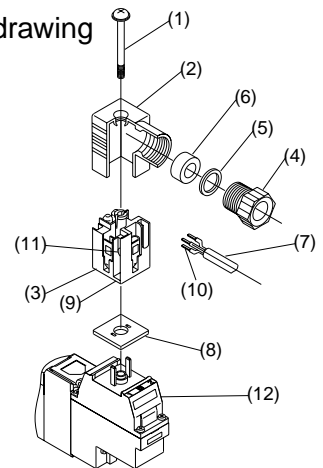
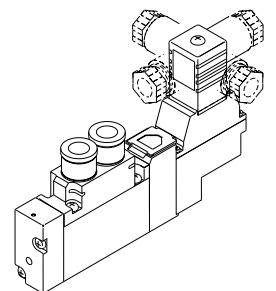


Fig.2



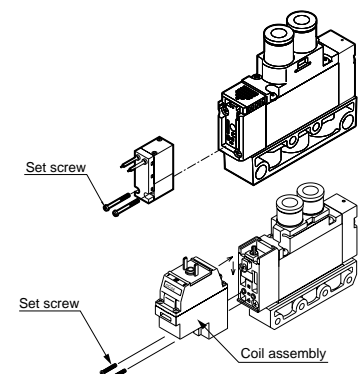
Warning How to replace coil

1 Grommet lead wire, E, EJ-connector coil assembly

Remove set screws shown in the right figure to replace a coil. Never remove other set screws because malfunction will be caused. When installing a new coil, confirm that the gasket on coil assembly side is fitted and observe the tightening torque. Improper installation may cause air leakage or malfunction.

2 DIN terminal box coil assembly

Remove set screws shown in the right figure to replace a coil assembly. Never remove other set screws because malfunction will be caused. When installing a new coil, confirm gasket on coil assembly side is fitted and observe the tightening torque. Improper installation may cause air leakage or malfunction. Coil assemblies of grommet lead wire, E-connector specifications and DIN terminal box specifications are not compatible.





Pneumatic components

Safety precautions

Please carefully read this before starting use.

Refer to Page 47 on the introduction about general precautions for valves.

3, 5 port pilot operated valve 4G^A_B/MN4G^A_B series



Caution

About surge suppressor

The purpose of the surge suppressor of a solenoid valve is protecting the contact of output for driving the solenoid valve, but not protecting peripheral devices. The surge effect (damage or malfunction) may be applied to these peripheral devices. On the contrary, a surge suppressor absorbing the surge generated by other components may be burnt or damaged. Please observe following matters.

(1) Surge suppressor suppresses surge voltage amounting to hundred volts to a low level which the output contact withstands. Depending on output circuits, this protection may be insufficient, and damages and malfunctions may be caused. Please confirm this surge suppressor is usable or not according to surge voltage limiting level of solenoid valve, withstanding voltage and circuit configuration of output devices. If necessary, another additional surge suppression should be provided. 4G series solenoid valve with surge suppressor suppresses the reverse voltage surge to the level on the following table.

Specifications voltage	Reverse voltage value when OFF
DC12V	Approximate 27V
DC24V	Approximate 47V

(2) Connecting other components or solenoid valves to a solenoid valve in parallel, reverse voltage surge which occurs when the solenoid turns OFF will be applied to these components. Even with 24V DC solenoid valve with surge suppressor, the surge voltage may amount to 60 to 70 volt and may cause damage or malfunction of components connected in parallel. Please avoid the connection to components weak to voltage of reversed polarity (e.g. LED display). When many solenoid valves are connected in parallel, surge from other solenoid valves will be applied to a solenoid valve with surge suppressor. Depending on current, the surge suppressor may be burnt. While many solenoid valves with surge suppressor are connected in parallel, surge will be concentrated to the suppressor whose surge voltage limit is lowest and the suppressor may be burnt. Even same model number, the dispersion of suppressed voltage may cause burning. Please avoid connection of many solenoid valves in parallel.

(3) The surge suppressor incorporated in a solenoid valve may short when the suppressor is damaged by over voltage or over current from other equipment. Large current will be applied when turning output ON after damaged. This may cause failures in output circuit or solenoid valves and may lead to fire. Don't continue to energize after failure. Install protective circuit of over current on power supply or drive circuit, or use power supply with over current protection.



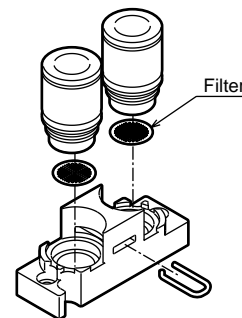
Caution

About port filter

This port filter prevents foreign matters intrusion and troubles inside of valve, but does not improve the quality of compressed air. Please read safety precautions on the introduction 49 to 54 before starting use.

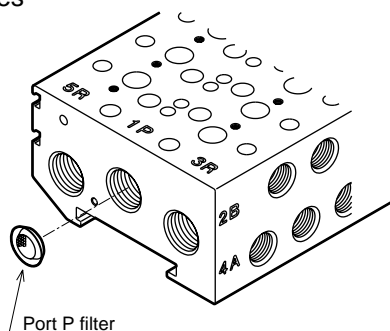
Don't apply too much force to the port filter in order to remove or hold it.

Deformed filter may cause malfunctions. If dirt or foreign matters are found on the surface of filter, flush the filter or remove these matters by tweezers.



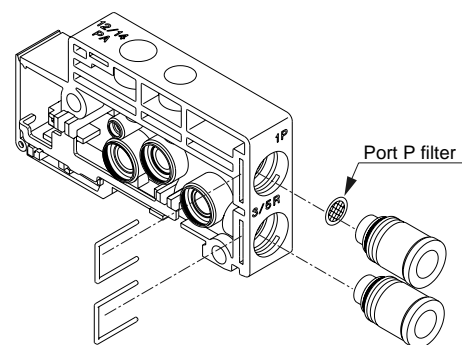
Port A/B filter option example

M4G series



Port P filter (standard) example

MN4G series



Port P filter (standard) example

4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/ MN4S0

4TB

4L2-4/ LMF0

4KA/B

4F

PV5/ CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/ NVP

4F**0E

HMV/ HSV

Uniwire system

SKH

PCD/ FS/FD

3, 5 port pilot operated valve



Caution

About lead wire wiring

Since standards of lead wire may differ depending on electric connection type, wire lead wire compatible with specifications.

4G series lead wire is followings.

Electric connection symbol	Descriptions	Conductor size	Conductor cross-section areas	Isolator O.D.	Sheath O.D.
Blank	Grommet lead wire	AWG#26	Equivalent to 0.13	1.35	-
E*	E-connector (with lead wire)	AWG#26	Equivalent to 0.13	1.35	-
E*J	EJ-connector	AWG#25	Equivalent to 0.2	1.14	3.7



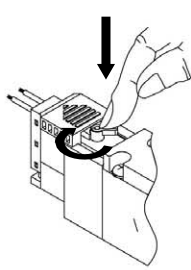
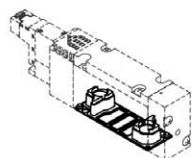
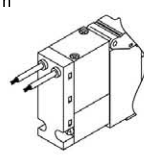
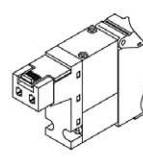
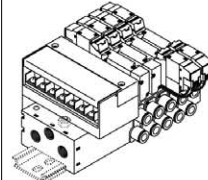
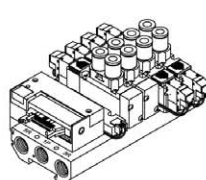
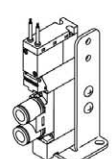
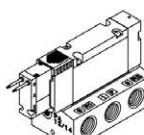
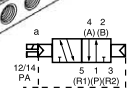
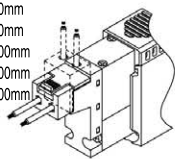
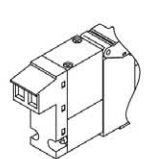
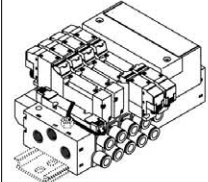
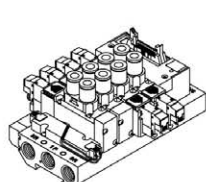
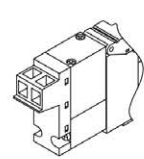
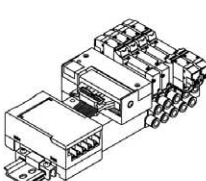
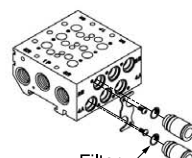
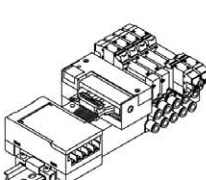
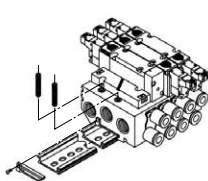
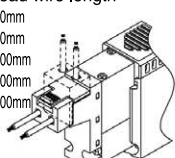
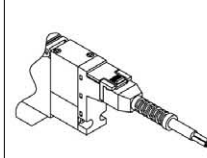
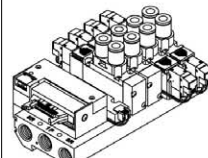
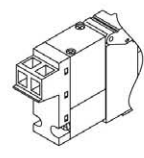
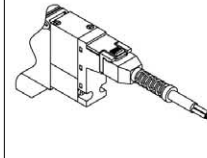
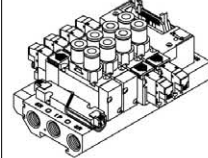
Caution

About AC100V specifications

For AC100V, all wave rectified bridge is incorporated.

When using SSR for ON/OFF solenoid valve, return failure may be caused depending on type of solenoid valve.

Be careful for SSR selection. (Please consult with relay or PLC maker.)

Electric connection				Manual override	Other options
Discrete valve/individual wiring manifold		Reduced wiring manifold			
Blank Grommet lead wire (W)	E3 E-connector, socket terminal attached (S) (L)	T10 Common gland(left) T11 M3 thread/push in fitting	T51 T52 T53 Flat cable w/o power supply terminal (left)	•Non-locking/locking type (standard) 	H Check valve  Pilot exhaust provided as standard.
•Lead wire length 300mm 					P Mounting plate  (Body porting only)
E0 E-connector (W)	A2N A-connector radial, downward, no socket	T10R Common gland(right) T11R M3 thread/push in fitting	T51R T52R T53R Flat cable w/o power supply terminal (right)	(1) For non-locking Push to turn ON Release to turn OFF (2) For locking Push+turn 90° clockwise to hold ON Turn counterclockwise to release locking OFF.  	K External pilot
•Lead wire length 300mm 500mm 1000mm 2000mm 3000mm 					A Ozone/coolant proof Coolant proof, ozone proof
E0N E-connector, no socket	•For AC 100V, Dimension (a) is 3.5mm longer than DC 12/24V. 	T30 D-sub connector (left)	T6*0 Serial transmission (8 points) 		F Filter incorporated in Port AB  Filter
E1 E-connector, socket terminal attached	B DIN terminal box	T30R D-sub connector (right)	T6*1 Serial transmission (16 points) 	D DIN rail mount 	
E2 E-connector (W) (S) (L)	E0*J EJ-connector (W)	T50 Flat cable w/power supply terminal (left)			
• Lead wire length 300mm 500mm 1000mm 2000mm 3000mm 					
E2N E-connector, no socket (S) (L)	E2*J EJ-connector (W) (S) (L)	T50R Flat cable w/power supply terminal (right)			
					

Electric connection circuit diagram

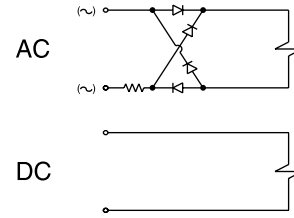
Electric connection

- (B): No lead wire (W): Lead wire (L): Indicator light
 (S): Surge suppressor (N): No socket

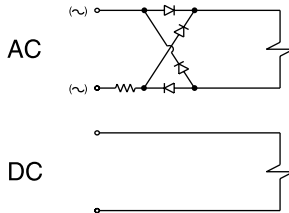
Blank Grommet lead wire
(W)



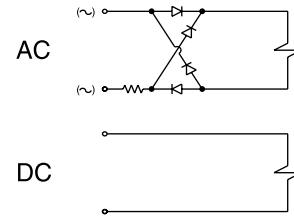
E0 E-connector/EJ-connector
E0^J (W)



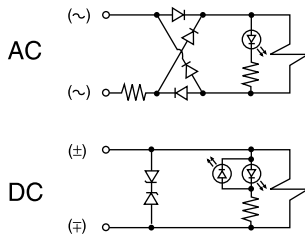
E0N E-connector
(N)



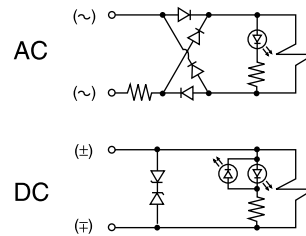
E1 E-connector
(B)



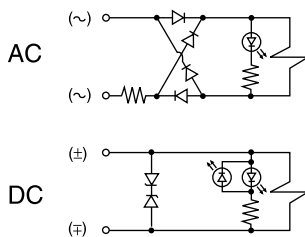
E2 E-connector/EJ-connector
E2^J (W) (L) (S)



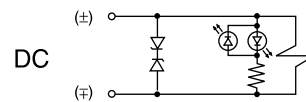
E2N E-connector
(L) (S) (N)



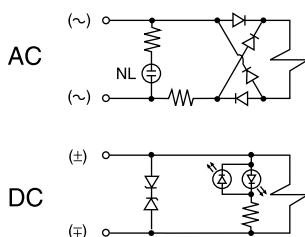
E3 E-connector
(B) (L) (S)



A2N A-connector
(L) (S) (N)



B DIN terminal box
(W) (L) (S)



• Zener diode is used for surge suppressor.

4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/
MN4S0

4TB

4L2-4/
LMF0

4KA/B

4F

PV5/
CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F**0E

HMV/
HSV

Uniwire
system

SKH

PCD/
FS/FD

3, 5 port pilot operated valve