



Reduced wiring block manifold Body porting

MN4GA1/2-T* Series

- Applicable cylinder bore size: 20 to 80mm



CAD DATA AVAILABLE.

Manifold common specifications

Descriptions	
Manifold type	Block manifold
Installation method	DIN rail mount type
Air supply/exhaust air method	Common supply/exhaust (check valve incorporated)
Pilot exhaust method	Main/pilot valves' common exhaust (pilot exhaust check valve incorporated)
Piping direction	Valve top direction

Other specifications are as same as MN4GA (Page 248).

Please refer to Page 244 about JIS symbol.

Electrical specifications

Descriptions		
Rated voltage	DC	12, 24
Fluctuation range		±10%
Holding current	DC24V	0.025
	DC12V	0.050
Power consumption	DC24V	0.6
	DC12V	0.6
Heat proof class		B
Temperature rise	°C	50
Surge suppressor		Provided as standard
Indicator		Indicator light

Individual specifications

Descriptions		MN3GA1/MN4GA1								
		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1
Max. station number	STD wiring	14 station	24 station	24 station	16 station	18 station	8 station	24 station	8/16 station	8/16 station
	Double wiring	7 station	12 station	12 station	8 station	9 station	4 station	12 station	4/8 station	4/8 station
Max. solenoid number		14 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points
Port size	Port A/B	Push in joint 4, 6 mm dia.								
	Port P/R	Push in joint 6, 8, 6.4 mm dia.								

Please refer to Page 264 about mass.

Descriptions		MN3GA2/MN4GA2								
		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1
Max. station number	STD wiring	14 station	20 station	20 station	16 station	18 station	8 station	20 station	8/16 station	8/16 station
	Double wiring	7 station	12 station	12 station	8 station	9 station	4 station	12 station	4/8 station	4/8 station
Max. solenoid number		14 points	24 points	24 points	16 points	18 points	8 points	24 points	8/16 points	8/16 points
Port size	Port A/B	Push in joint 4, 6, 8 mm dia.								
	Port P/R	Push in joint 8, 10 mm dia.								

Please refer to Page 264 about mass.

Descriptions			MN3GA1/MN4GA1		MN3GA2/MN4GA2	
			P → A/B	A/B → R	P → A/B	A/B → R
Effective sectional area mm ²	Port size	Port A/B	Push in joint 6 mm dia.			
	2-position		5.0	4.0(5.5)	11	9.0(12)
		3-position	All ports closed	5.0	5.5	10
	ABR connection		5.0	4.0(5.5)	10	9.0(12)
	PAB connection	6.0	5.5	13	10	

- Effective sectional area of 2-position and ABR connection is the value when check valve incorporated.
- When no check valve installed, refer to the value in ().

Ministry wiring specifications

Descriptions	T10	T11	T30	T50	T51	T52	T53
Type	Common gland M3 screw type	Common gland push in fitting type	D-sub connector	20P flat cable connector with power supply terminal	20P flat cable connector no power supply terminal	10P flat cable connector no power supply terminal	26P flat cable connector no power supply terminal
Connector	-	-	MIL standards D-sub connector 25 terminals	MIL-C-83563 standards pressure welding socket 20 P	MIL-C-83563 standards pressure welding socket 20 P	MIL-C-83563 standards pressure welding socket 10 P	MIL-C-83563 standards pressure welding socket 26 P

MN4GA1/2-T* Series

Reduced wiring type block manifold: Body porting

Serial transmission slave unit specifications (Refer to Page 350 about compatible PLC table.)

Descriptions		T621	T631	T6G1	T6K1	T6CO *1 T6C1	T6AO *2 T6A1	T6EO T6E1	T6JO *2 T6J1
Communication maker		OMRON SYSBUS/multi link	mitsubishi MELSEC NET/mini-S3	MITSUBISHI CC-Link	KEYENCE KZ-R	OMRON CompoBus/S	UNIWIRESYSTEM	SUNX S-LINK	UNIWIRESYSTEM
Power voltage	Unit side	DC 24V ±10%					DC 24V +10% -5%		
	Valve side	DC 24V +10% -5%					(unit/valve power supply common terminal)		
Consumption current	Unit side	100mA or less (when all outputs ON)					100mA or less (when all outputs ON)		
	Valve side	15mA or less (when all outputs OFF)					Load current is not included.		
Output No.		16 points				T6 * 0: 8 points T6 * 1: 16 points			
Operating indication		LED (power supply and communication condition)							

- 1. Not compatible with long distance communication mode.
- 2. Transmission point:128 points, transmission distance: 200m. Consult with CKD about other specifications.

Descriptions		T7C0 *3 T7C1	T7E0 T7E1	T7G1	T7L1 *4	T7D1 *5
Communication maker		OMRON CompoBus/S	SUNX S-LINK	MITSUBISHI CC-Link	SAVE NET	DeviceNet (OMRON CompoBus/D)
Power voltage	Unit side	DC 24V ±10%	DC 24V +10% -5%			DC 24V +10% -5%
	Valve side	DC 24V +10% -5%	(unit/valve power supply common terminal)			(unit/valve power supply common terminal)
Consumption current	Unit side	50mA or less (when all outputs ON)	40mA or less (when all outputs ON) Load current is not included.	60mA or less (when all outputs ON)		60mA or less (when all outputs ON)
	Valve side	15mA or less (when all outputs OFF)	load current is not included.		load current is not included.	Communication power supply (V+, V-): DC11V to 25V
Output No.		T7 * 0: 8 points T7 * 1: 16 points		16 points		
Operating indication		LED (power supply and communication condition)				

- 3. Compatible with long distance communication mode.
- 4. Transmission speed: 3Mbps, transmission method: Half duplex. Consult with CKD about other specifications.
- 5. Communication power supply of T7D (V+, V- of DeviceNet cable) is insulated from power supply terminal (unit/valve power supply).

4SA/B0
4SA/B1
4GA/B
MN4GA/B
4GA/B (master)
MN3S0/
MN4S0
4TB
4L2-4/
LMFO
4KA/B
4F
PV5/
CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/
NVP
4F**0E
HNV/
HSV
Uniwire system
SKH
PCD/
FS/FD
3, 5 port pilot operated valve
Reduced wiring block manifold

MN4GA1/2-T* Series

Reduced wiring type block manifold: Body porting

How to order (common gland/D-sub connector/flat cable connector)

Manifold model No.

MN4GA1 1 0 C6 T30 W H 10 3

Discrete valve block with solenoid valve

N4GA1 1 0 C6 A2N*1 H 3

* When cable is necessary, refer to P.297, and designate Cable length (1).
Blank, if not required.

Discrete solenoid valve

4GA1 1 9 C6 A2N H 3

A Solenoid position

Model

B Port size
Note 1

C Reduced wiring connection
• All discrete ordering is "A2N".
• Please refer to Page 247 about circuit diagram.

D Terminal/connector pin array

E Option

F Station #

G Voltage

• Complete "manifold specification sheet" (Page 306 to 308).

		Model							
		Manifold				Discrete valve block with solenoid valve			
		3 port valve		5 port valve		Discrete solenoid valve			
		MN3GA1	MN3GA2	MN4GA1	MN4GA2	N3GA1/3GA1	N3GA2/3GA2	N4GA1/4GA1	N4GA2/4GA2
Symbol	Descriptions								
A Solenoid position									
1	2-position single			●	●			●	●
2	2-position double			●	●			●	●
3	3-position all ports closed			●	●			●	●
4	3-position ABR connection			●	●			●	●
5	3-position PAB connection			●	●			●	●
1	2-position single solenoid, normally closed	●	●			●	●		
11	2-position single solenoid, normally open	●	●			●	●		
8	Mix manifold	●	●	●	●				
B Port size (Port A/B)									
C4	4 mm push in joint	●	●	●	●	●	●	●	●
C6	6 mm push in joint	●	●	●	●	●	●	●	●
C8	8 mm push in joint		●		●		●		●
CX	Mix push in joint	●	●	●	●				
M5	M5 female thread	●		●		●		●	
06	Rc1/8		●		●		●		●
C Reduced wiring connection (light/surge suppressor provided as STD)									
T10	Common gland (M3 screw)	Left	●	●	●	●			
T10R		Right	●	●	●	●			
T11	Common gland (push in fitting)	Left	●	●	●	●			
T11R		Right	●	●	●	●			
T30	D-sub connector	Left	●	●	●	●			
T30R		Right	●	●	●	●			
T50	20 pin flat cable connector (with power supply terminal)	Left	●	●	●	●			
T50R		Right	●	●	●	●			
T51	20 pin flat cable connector (no power supply terminal)	Left	●	●	●	●			
T51R		Right	●	●	●	●			
T52	10 pin flat cable connector (no power supply terminal)	Left	●	●	●	●			
T52R		Right	●	●	●	●			
T53	26 pin flat cable connector (no power supply terminal)	Left	●	●	●	●			
T53R		Right	●	●	●	●			
A2N	A-connector (downward)					●	●	●	●
D Terminal/connector pin array									
Blank	Standard wire	Note 2	●	●	●	●			
W	Double wiring	Note 2	●	●	●	●			
E Option									
Blank	No option		●	●	●	●	●	●	●
H	Check valve (standard)	Note 3	●	●	●	●	●	●	●
K	External pilot	Note 4	●	●	●	●	●	●	●
A	Ozone/coolant proof		●	●	●	●	●	●	●
F	Filter incorporated in Port A/B (Port P: Standard)		●	●	●	●	●	●	●
F Station #									
1	1 station								
to	to		●	●	●	●			
24	24 station (Refer to Page 260 about maximum station number.)								
G Voltage									
3	DC24V		●	●	●	●	●	●	●
4	DC12V		●	●	●	●	●	●	●
is not available.									

⚠ Precautions for selection guide

- Note 1. Designate port size of Port P/R in supply and exhaust block model No.
- Note 2. Blank : Wired according to mounted valve type.
W : Not depending on mounted valve type, wire for double solenoid is provided.
- Note 3. For 3-position all ports closed and PAB connection, check valve specifications (H) are not available.
- Note 4. Consult with CKD about vacuuming of external pilot (K).

MN4GA1/2-T* Series

Reduced wiring type block manifold: Body porting

How to order (serial transmission)

Manifold model No.

MN4GA1 (1) 0 - C6 - T7E1 W H - 10 - 3

Discrete valve block with solenoid valve

N4GA1 (1) 0 - C6 - A2N (1) H - 3

• When cable is necessary, refer to P.297, and designate Cable length (1). Blank, if not required.

Discrete solenoid valve

4GA1 (1) 9 - C6 - A2N H - 3

A Solenoid position

F Station #

B Port size Note 1

C Serial transmission Note 2

• All discrete ordering is "A2N".
• Please refer to Page 247 about circuit diagram.

D Terminal/connector pin array

E Option

G Voltage

• Complete "manifold specification sheet" (Page 306 to 308).

Symbol	Descriptions	Model								
		Manifold				Discrete valve block with solenoid valve				
		3 port valve	5 port valve	Discrete solenoid valve		Discrete solenoid valve		Discrete solenoid valve		
		MN3GA1	MN3GA2	MN4GA1	MN4GA2	N3GA1/3GA1	N3GA2/3GA2	N4GA1/4GA1	N4GA2/4GA2	
A Solenoid position										
1	2-position single			●	●			●	●	
2	2-position double			●	●			●	●	
3	3-position all ports closed			●	●			●	●	
4	3-position ABR connection			●	●			●	●	
5	3-position PAB connection			●	●			●	●	
1	2-position single solenoid, normally closed	●	●			●	●			
11	2-position single solenoid, normally open	●	●			●	●			
8	Mix manifold	●	●	●	●					
B Port size (Port A/B)										
C4	4 mm push in joint	●	●	●	●	●	●	●	●	
C6	6 mm push in joint	●	●	●	●	●	●	●	●	
C8	8 mm push in joint		●	●	●				●	
CX	Mix push in joint	●	●							
M5	M5 female thread		●	●		●	●		●	
06	Rc1/8		●	●	●	●	●	●	●	
C Serial transmission (light/surge suppressor provided as Standard)										
T621	OMRON SYSBUS/multi link	●	●	●	●					
T631	mitsubishi MELSEC NEC/MINI-S3	●	●	●	●					
T6A0	UNIWIRESYSTEM 8 points	●	●	●	●					
T6A1	UNIWIRESYSTEM 16 points	●	●	●	●					
T6C0	OMRON CompoBus/S8 point	●	●	●	●					
T6C1	OMRON CompoBus/S16 point	●	●	●	●					
T6E0	SUNX S-LINK8 point	●	●	●	●					
T6E1	SUNX S-LINK16 point	●	●	●	●					
T6G1	MITSUBISHI CC-Link	●	●	●	●					
T6J0	UNIWIRESYSTEM H SYSTEM 8 points	●	●	●	●					
T6J1	UNIWIRESYSTEM H SYSTEM 16 points	●	●	●	●					
T6K1	KEYENCE KZ-R	●	●	●	●					
T7C0	Thin type OMRON CompoBus/S8 point	●	●	●	●					
T7C1	Thin type OMRON CompoBus/S16 point	●	●	●	●					
T7D1	Thin type DeviceNet	●	●	●	●					
T7E0	Thin type SUNX S-LINK8 point	●	●	●	●					
T7E1	Thin type SUNX S-LINK16 point	●	●	●	●					
T7G1	Thin type MITSUBISHI CC-Link	●	●	●	●					
T7L1	Thin type SAVE NET	●	●	●	●					
A2N	A-connector (downward)					●	●	●	●	
D Terminal/connector pin array										
Blank	Standard wire Note 3	●	●	●	●					
W	Double wiring Note 3	●	●	●	●					
E Option										
Blank	No option	●	●	●	●	●	●	●	●	●
H	Check valve (standard) Note 4	●	●	●	●	●	●	●	●	●
K	External pilot Note 5	●	●	●	●	●	●	●	●	●
A	Ozone/coolant proof	●	●	●	●	●	●	●	●	●
F	Filter incorporated in Port A/B (Port P: Standard)	●	●	●	●	●	●	●	●	●
F Station #										
1	1 station									
to	to	●	●	●	●					
24	24 station (Refer to Page 260 about maximum station number.)									
G Voltage										
3	DC24V	●	●	●	●	●	●	●	●	●



Precautions for selection guide

- Note 1. Designate port size of Port P/R in supply and exhaust block model No.
- Note 2. Cable connector of thin type serial transmission slave unit (T7**) is attached.
- Note 3. Blank : Wired according to mounted valve type.
W : Not depending on mounted valve type, wire for double solenoid is provided.
- Note 4. For 3-position all ports closed and PAB connection, check valve specifications (H) is not available.
- Note 5. Consult with CKD about vacuuming of external pilot (K).

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

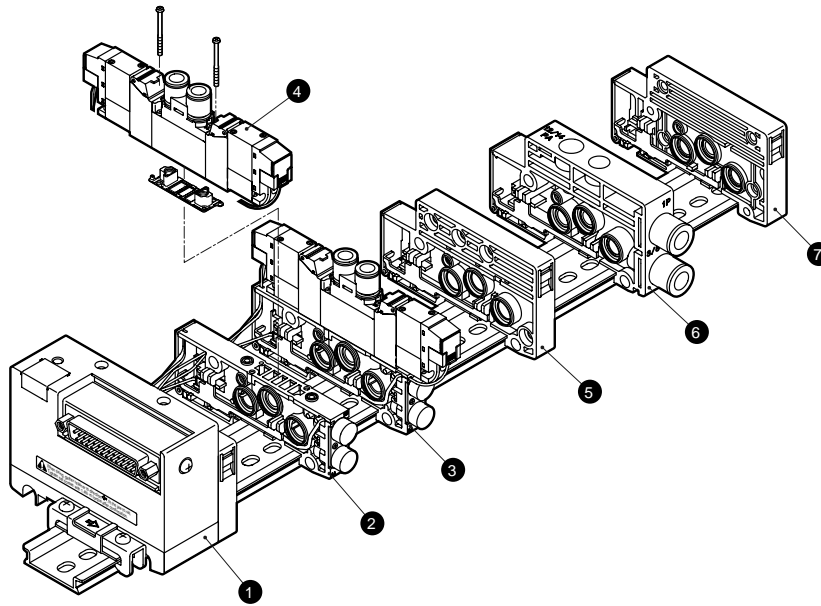
3, 5 port pilot operated valve
Reduced wiring block manifold

is not available.

MN4GA1/2-T* Series

Reduced wiring type block manifold: Body porting

Explanation of manifold components and parts list



Main parts list (please refer to Page 294 to 303 about details.)

No.	Components name	Model No. (e.g.)	No.	Components name	Model No. (e.g.)
1	Wiring block	N4G1-T30	5	Partition block	N4G1-S
2	Discrete valve block	N4GA1-V2	6	Supply and exhaust block	N4G1-Q-8
3	Discrete valve block with solenoid valve	N4GA120-C6-H-3	7	End block R	N4G1-ER
4	Electromagnetic valve body	4GA129-C6-H-3			

A type reduced wiring mass 4GA1

Block type		Mass	Block type		Mass	Block type		Mass
Valve block with solenoid valve	N3GA110-C6NC-A2N	75	Supply and exhaust block	N4G1-Q-8	63	Wiring block	N4G1-T10*	229
	N3GA110-C6NO-A2N	75		N4G1-QK-8	68		N4G1-T30*	163
	N4GA110-C6-A2N	75	End block	N4G1-E*	57		N4G1-T50*	165
	N4GA120-C6-A2N	92		N4G1-EX*	57		N4G1-T6*	293
	N4GA1 $\frac{3}{4}$ 0-C6-A2N	94	Partition block	N4G1-S*	45		N4G1-T7*	185
Valve block with masking plate	N4GA1-MP*	34						

4GA2

Block type		Mass	Block type		Mass	Block type		Mass
Valve block with solenoid valve	N3GA210-C8NC-A2N	143	Supply and exhaust block	N4G2-Q-10	99	Wiring block	N4G2-T10*	244
	N3GA210-C8NC-A2N	143		N4G2-QK-10	104		N4G2-T30*	178
	N4GA210-C8-A2N	143	End block	N4G2-E*	83		N4G2-T50*	180
	N4GA220-C8-A2N	160		N4G2-EX*	84		N4G2-T6*	308
	N4GA2 $\frac{3}{4}$ 0-C8-A2N	172	Partition block	N4G2-S*	60		N4G2-T7*	200
Valve block with masking plate	N4GA2-MP*	66						

Repair parts and related part list


No.	Parts name	Model	No.	Parts name	Model
-	Coil assembly	4G-A2N*-COIL-[Voltage] Blank: Standard A: Ozone proof	-	Socket assembly for expansion Details Page 353	N4G - SOCKET ASSY A - [selection No.] for Solenoid a N4G - relay socket - [selection No.] for Solenoid b
-	Cartridge type quick connector and related parts	4 dia. straight type	4G1-JOINT-C4		
		6 dia. straight type	4G1-JOINT-C6		
		Plug cartridge	4G1-JOINT-CPG		
		4 dia. straight type	4G2-JOINT-C4		
		6 dia. straight type	4G2-JOINT-C6		
		8 dia. straight type	4G2-JOINT-C8		
	Plug cartridge	4G2-JOINT-CPG			

MN4GA1/2-T10 Series

Reduced wiring type block manifold: Body porting

Dimensions

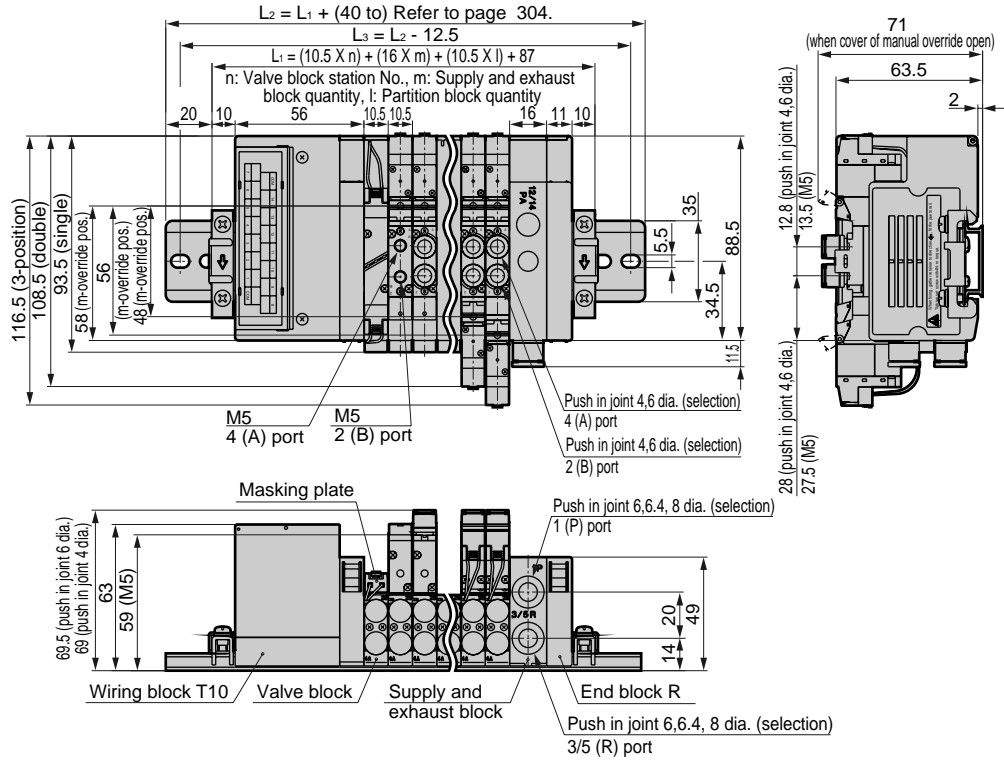
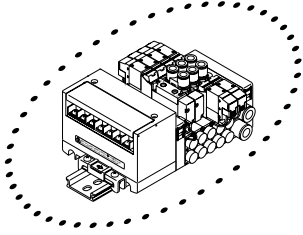
Unit mm

MN4GA1  (File name: Page 314 or Ending 19)

• Common gland (M3 screw) left (T10)

Note 1: Push in fitting type (T11) is also available.
Dimensions are as same as T10.

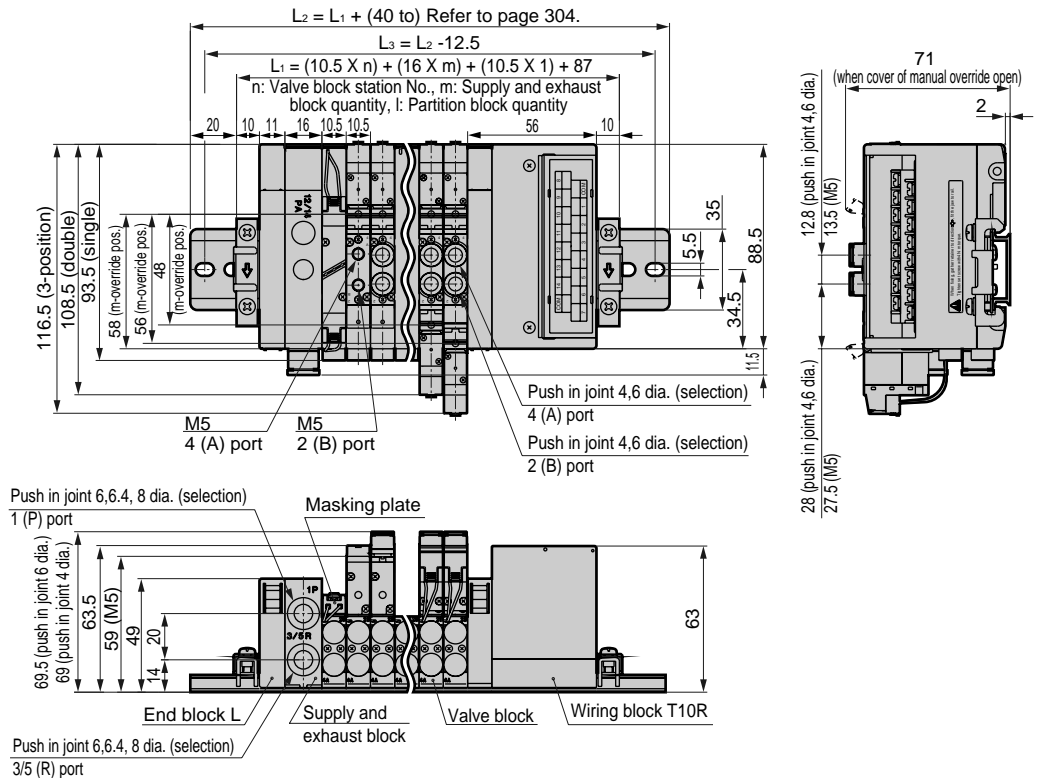
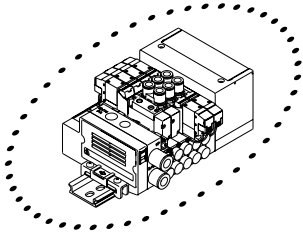
Note 2: For MN3GA1, either Port A or B is blanking plug.



• Common gland (M3 screw) right (T10R)

Note 1: Push in fitting type (T11R) is also available.
Dimensions are as same as T10R.

Note 2: For MN3GA1, either Port A or B is blanking plug.



MN4GA1/2-T10 Series

I Reduced wiring type block manifold: Body porting

Dimensions

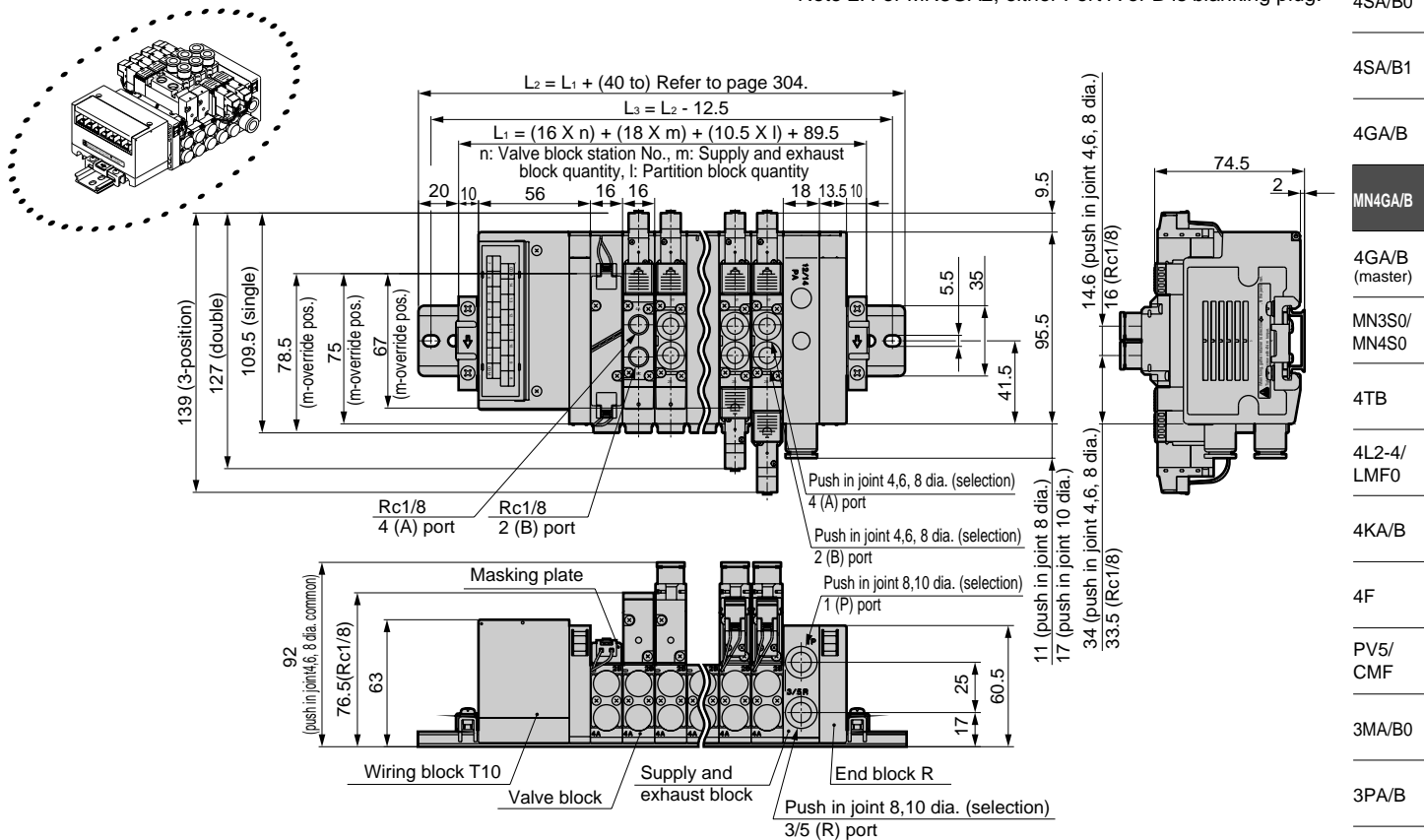
Unit mm

MN4GA2 (File name: Page 314 or Ending 19)

- Common gland (M3 screw) left (T10)

Note 1: Push in fitting type (T11) is also available.
Dimensions are as same as T10.

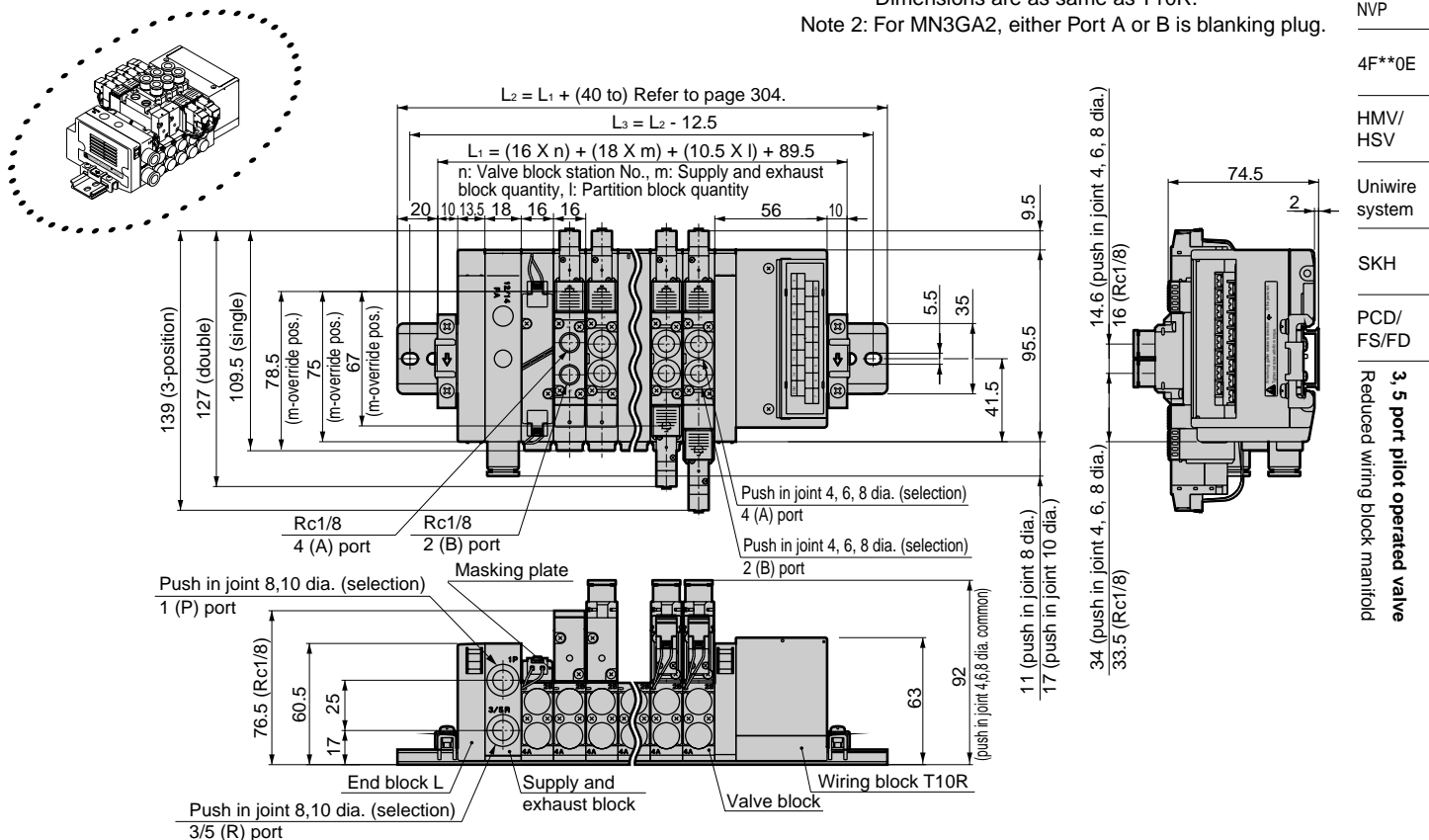
Note 2: For MN3GA2, either Port A or B is blanking plug.



- Common gland (M3 screw) right (T10R)

Note 1: Push in fitting type (T11R) is also available.
Dimensions are as same as T10R.

Note 2: For MN3GA2, either Port A or B is blanking plug.



4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/ MN4S0

4TB

4L2-4/ LMFO

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


Reduced wiring block manifold

MN4GA1/2-T30 Series

Reduced wiring type block manifold: Body porting

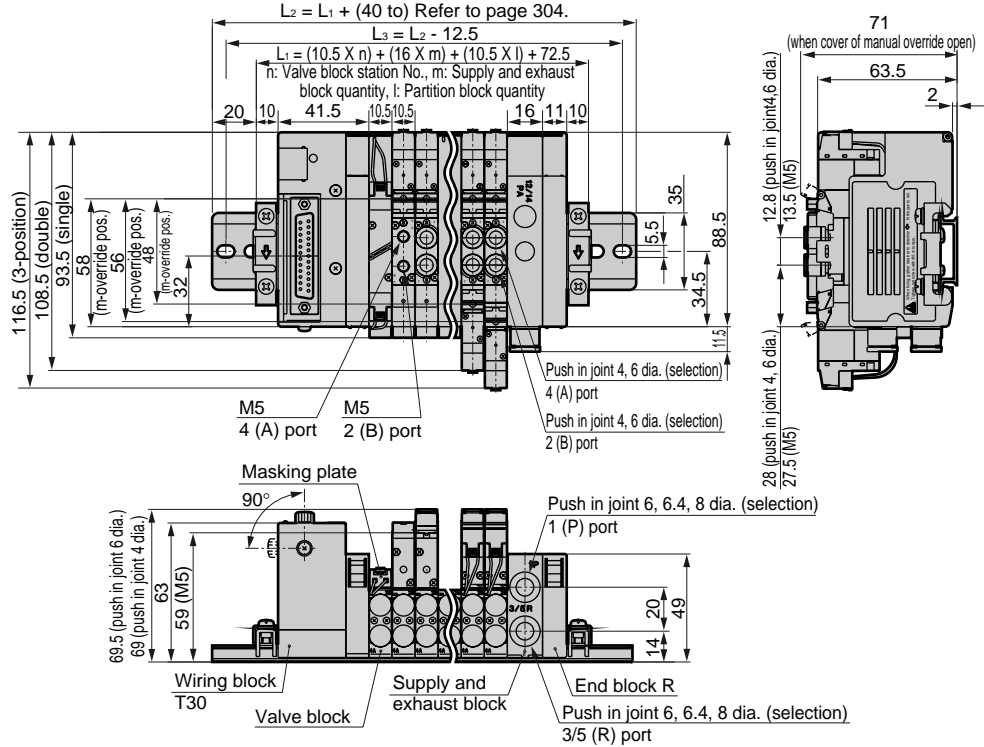
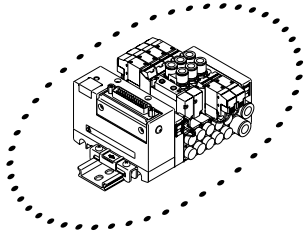
Dimensions

Unit mm

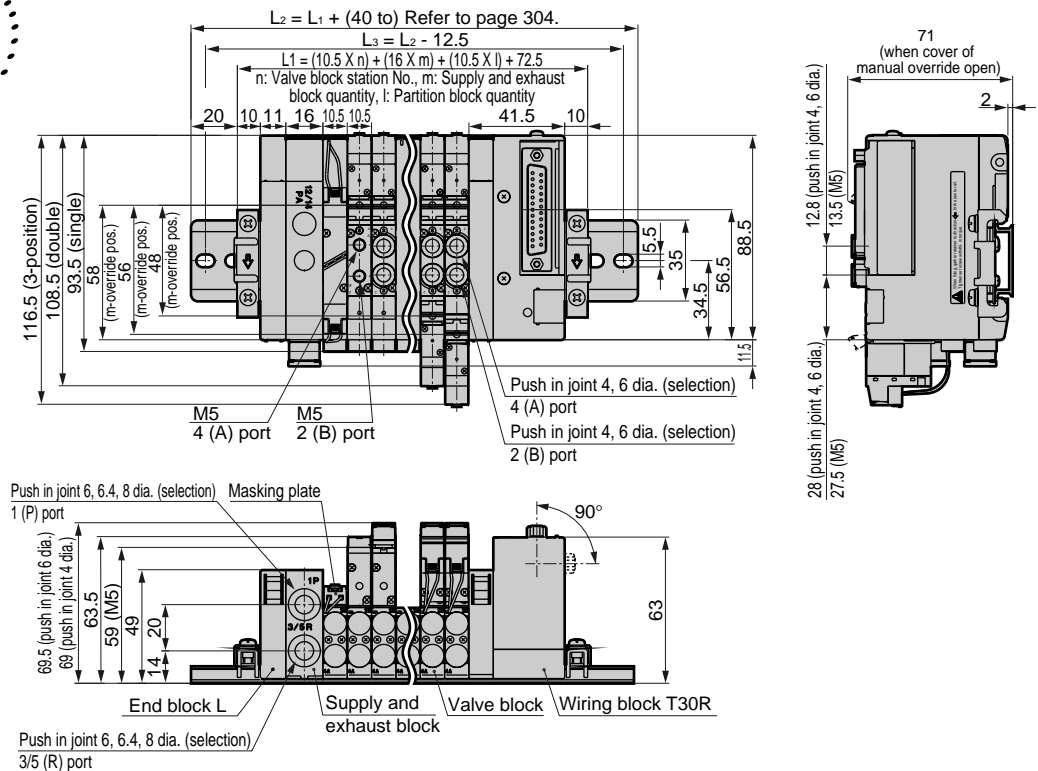
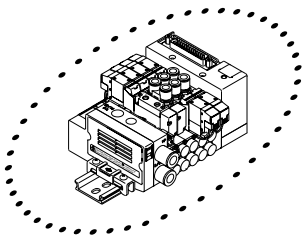
MN4GA1  (File name: Page 314 or Ending 19)

• D-sub connector left (T30)

• For MN3GA1, either Port A or B is blanking plug.



• D-sub connector right (T30R)




MN4GA1/2-T30 Series

Reduced wiring type block manifold: Body porting

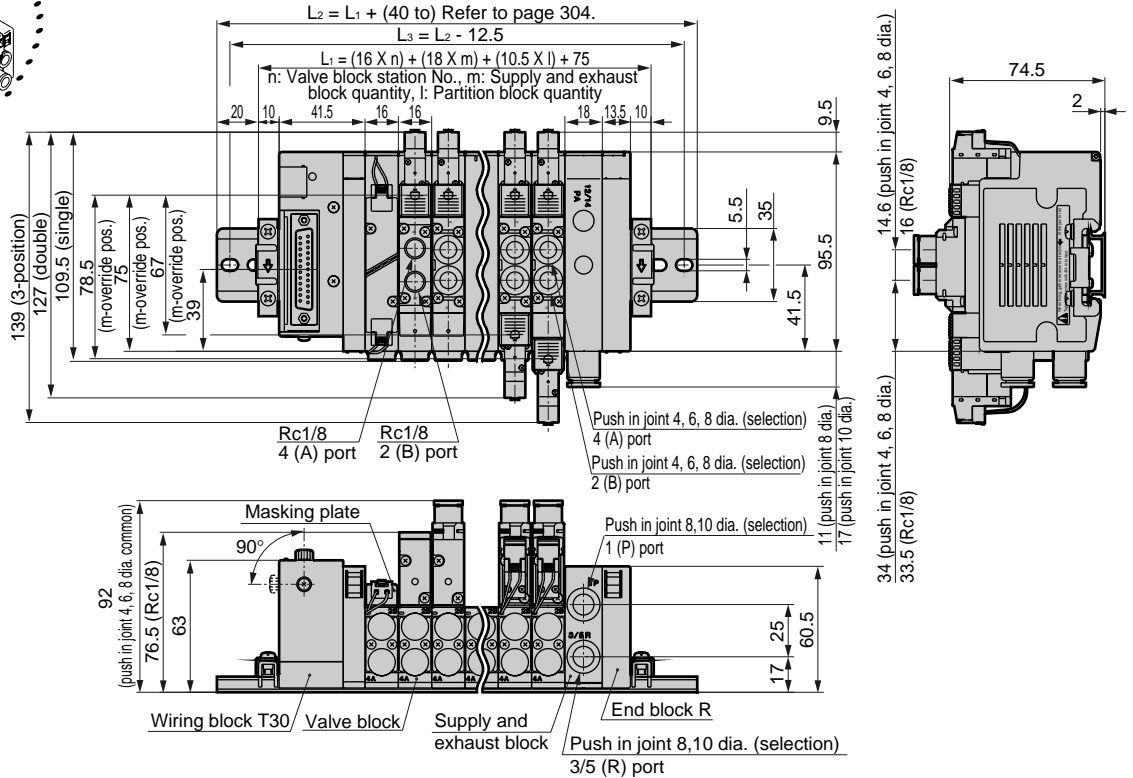
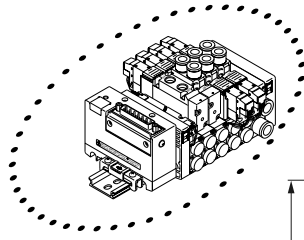
Dimensions

Unit mm

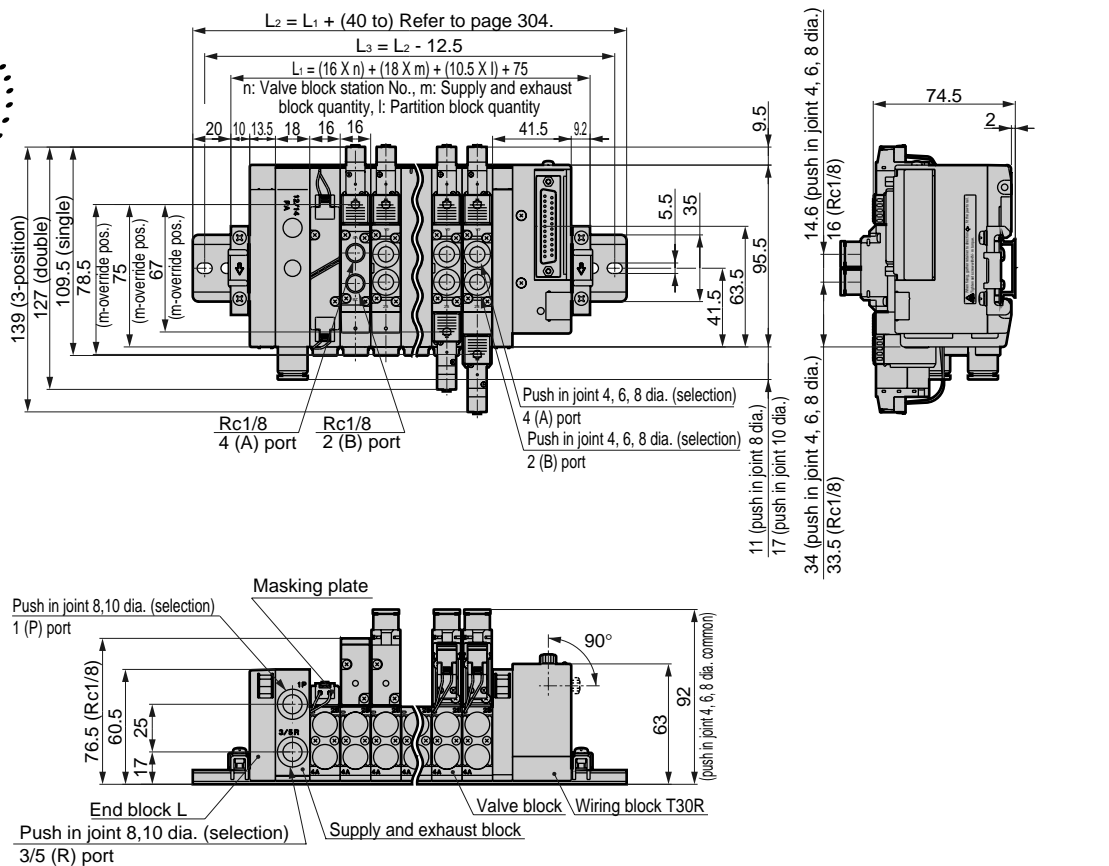
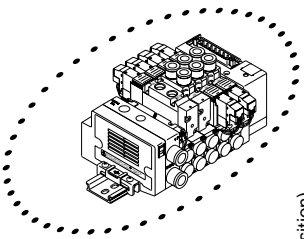
MN4GA2  (File name: Page 314 or Ending 19)

• D-sub connector left (T30)

Note: For MN3GA2, either Port A or B is blanking plug.



• D-sub connector right (T30R)




- 4SA/B0
- 4SA/B1
- 4GA/B
- MN4GA/B**
- 4GA/B (master)
- MN3S0/ MN4S0
- 4TB
- 4L2-4/ LMFO
- 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
- Reduced wiring block manifold

MN4GA1/2-T50 Series

Reduced wiring type block manifold: Body porting

Dimensions

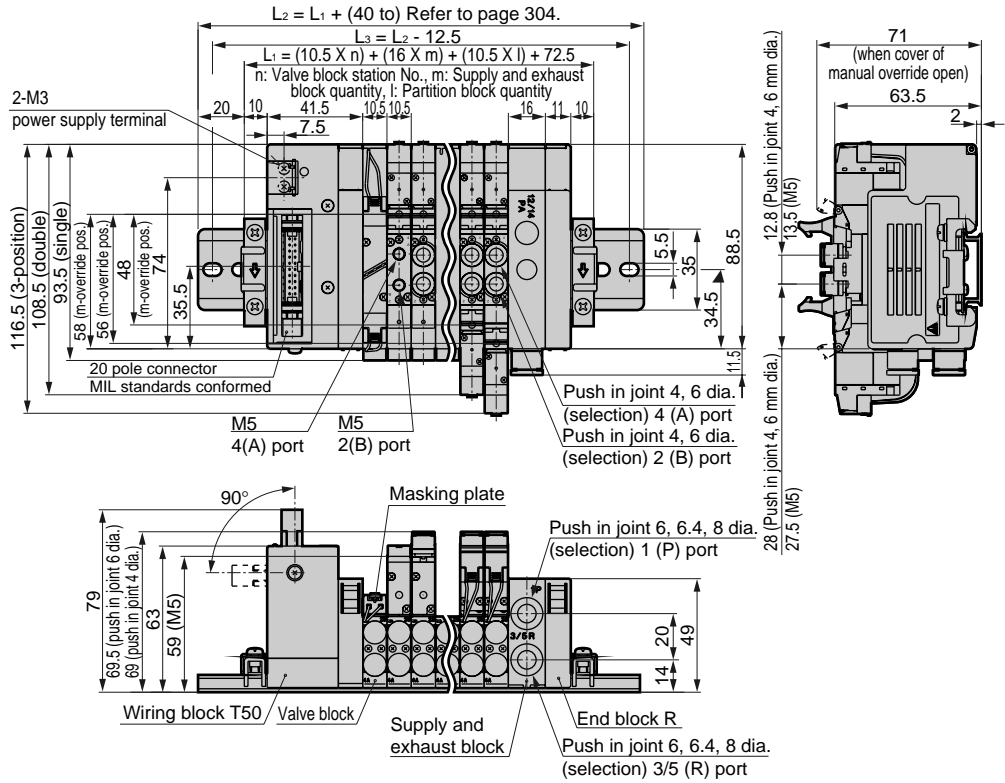
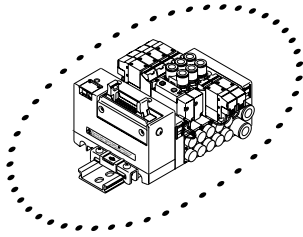
Unit mm

MN4GA1  (File name: Page 314 or Ending 19)

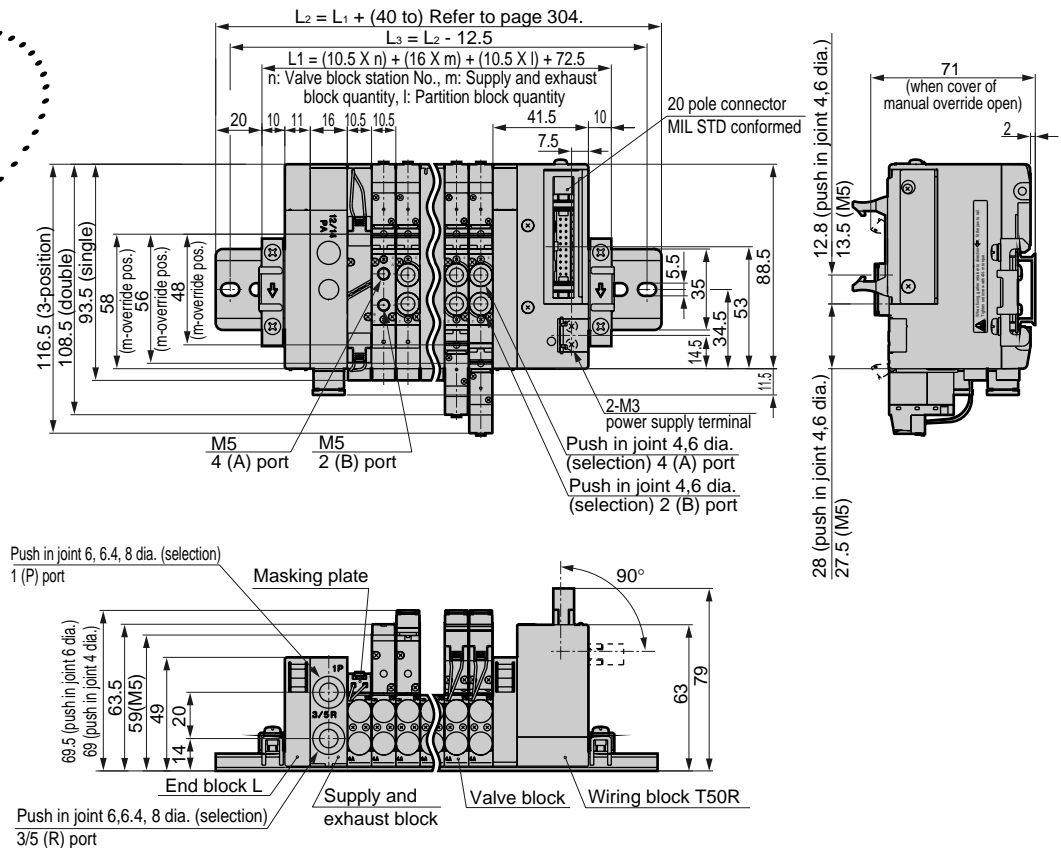
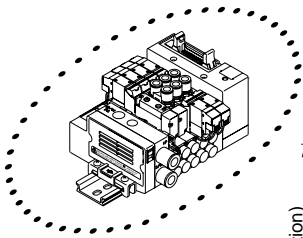
- Flat cable connector left (T50)
Power supply terminal

Note 1: For flat cable connector, T51, T52 and T53 are available.
Dimensions are as same as T50.

Note 2: For MN3GA1, either Port A or B is blanking plug.



- Flat cable connector right (T50R)
Power supply terminal



MN4GA1/2-T50 Series

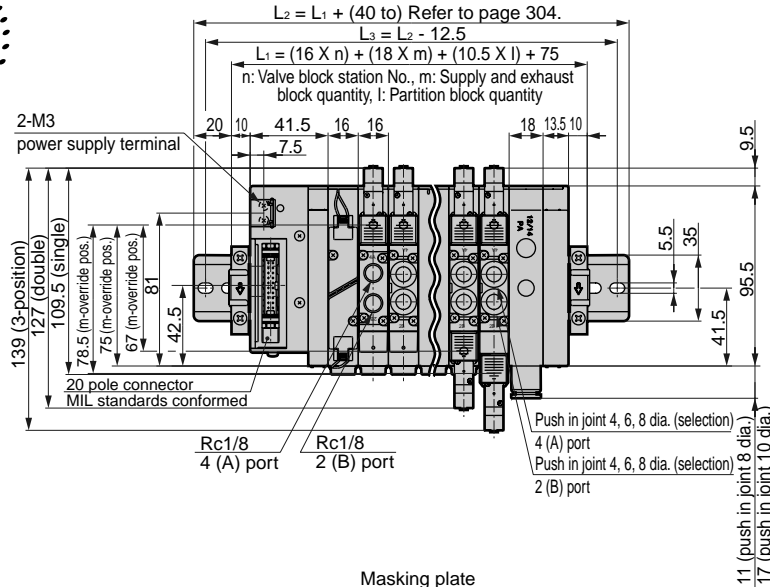
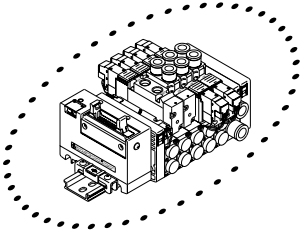
Reduced wiring type block manifold: Body porting

Dimensions

Unit mm

MN4GA2 (File name: Page 314 or Ending 19)

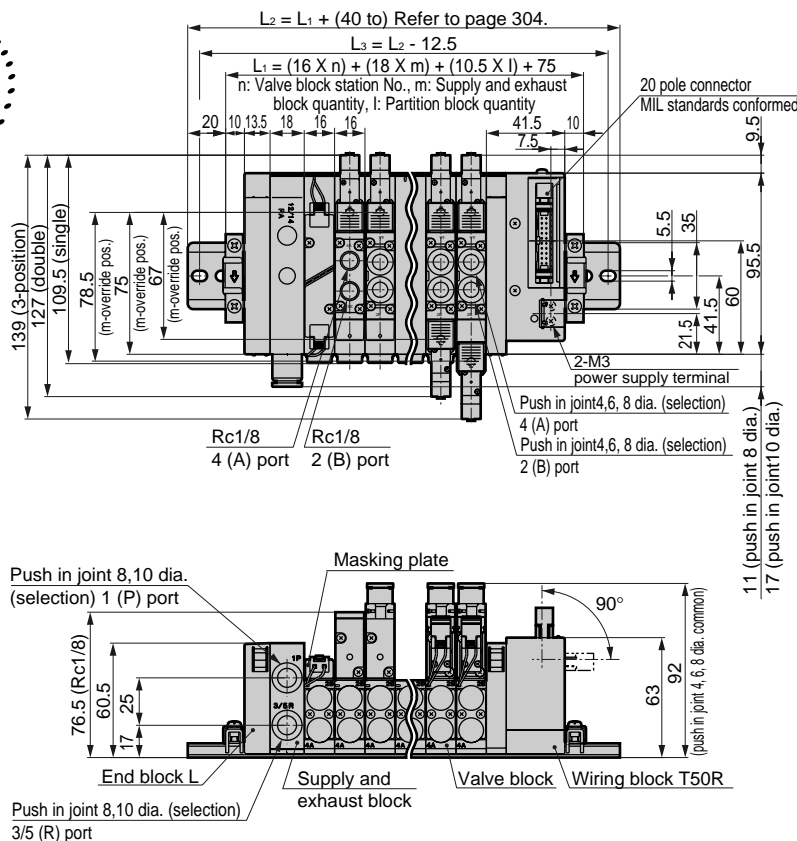
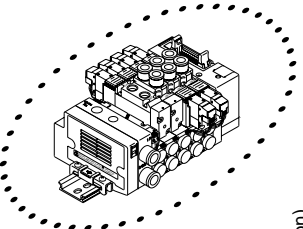
- Flat cable connector left (T50)
- Power supply terminal



Note 1: For flat cable connector, T51, T52 and T53 are available. Dimensions are as same as T50.

Note 2: For MN3GA2, either Port A or B is blanking plug.

- Flat cable connector right (T50R)
- Power supply terminal



4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/
MN4S0

4TB

4L2-4/
LMFO

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
Reduced wiring block manifold

MN4GA1/2-T6* Series

Reduced wiring type block manifold: Body porting

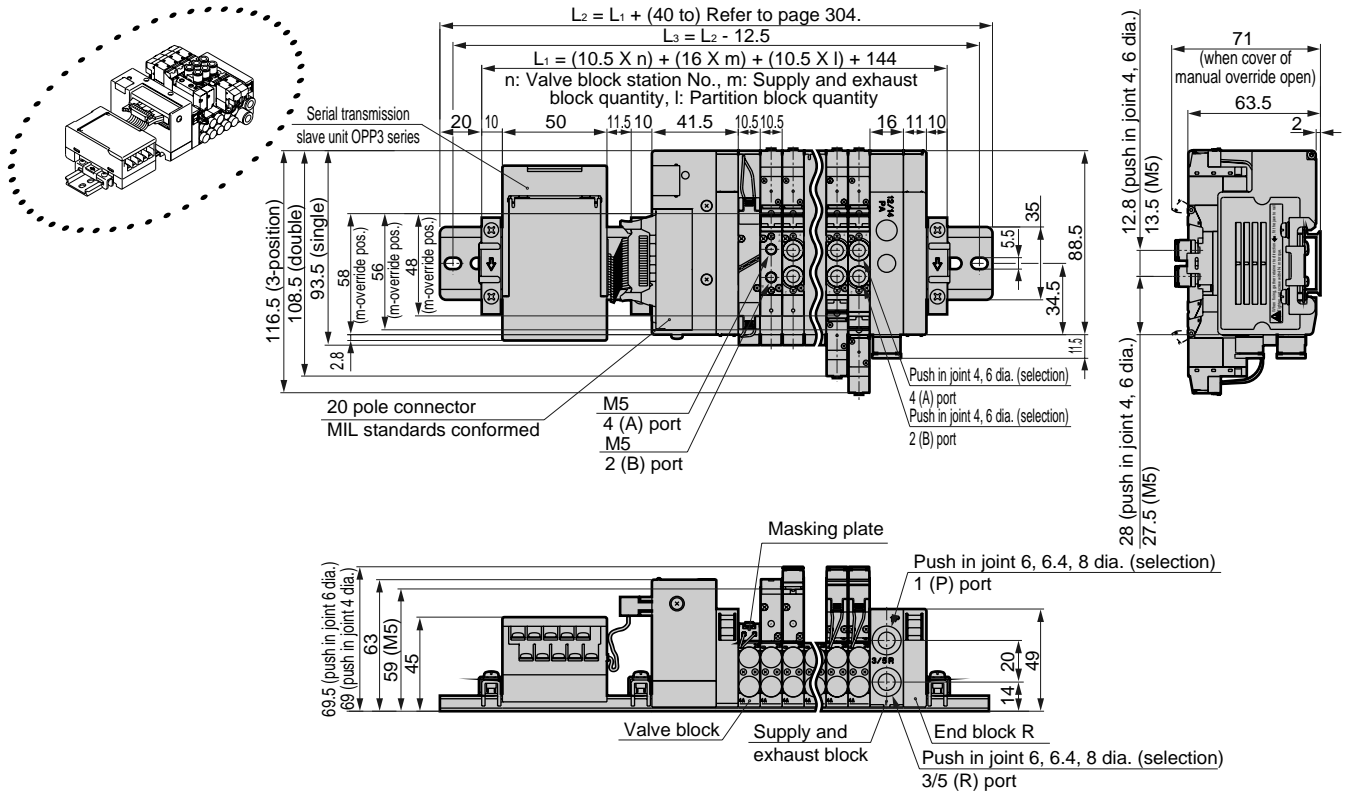
Dimensions

Unit mm

MN4GA1  (File name: Page 314 or Ending 19)

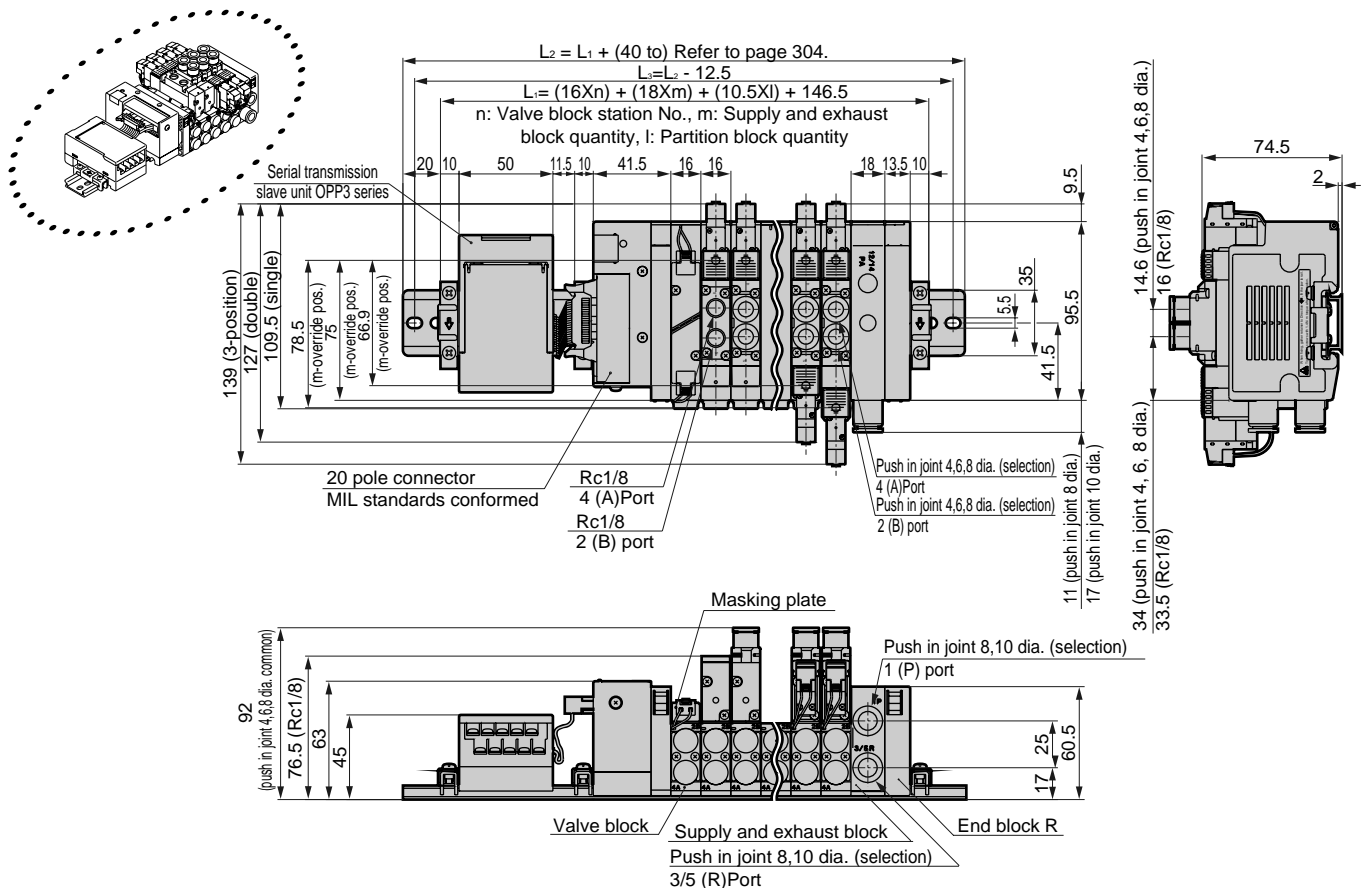
• Serial transmission (T6 *)

Note: For MN3GA1, either Port A or B is blanking plug.



MN4GA2

• Serial transmission (T6 *)




MN4GA1/2-T7* Series

Reduced wiring type block manifold: Body porting

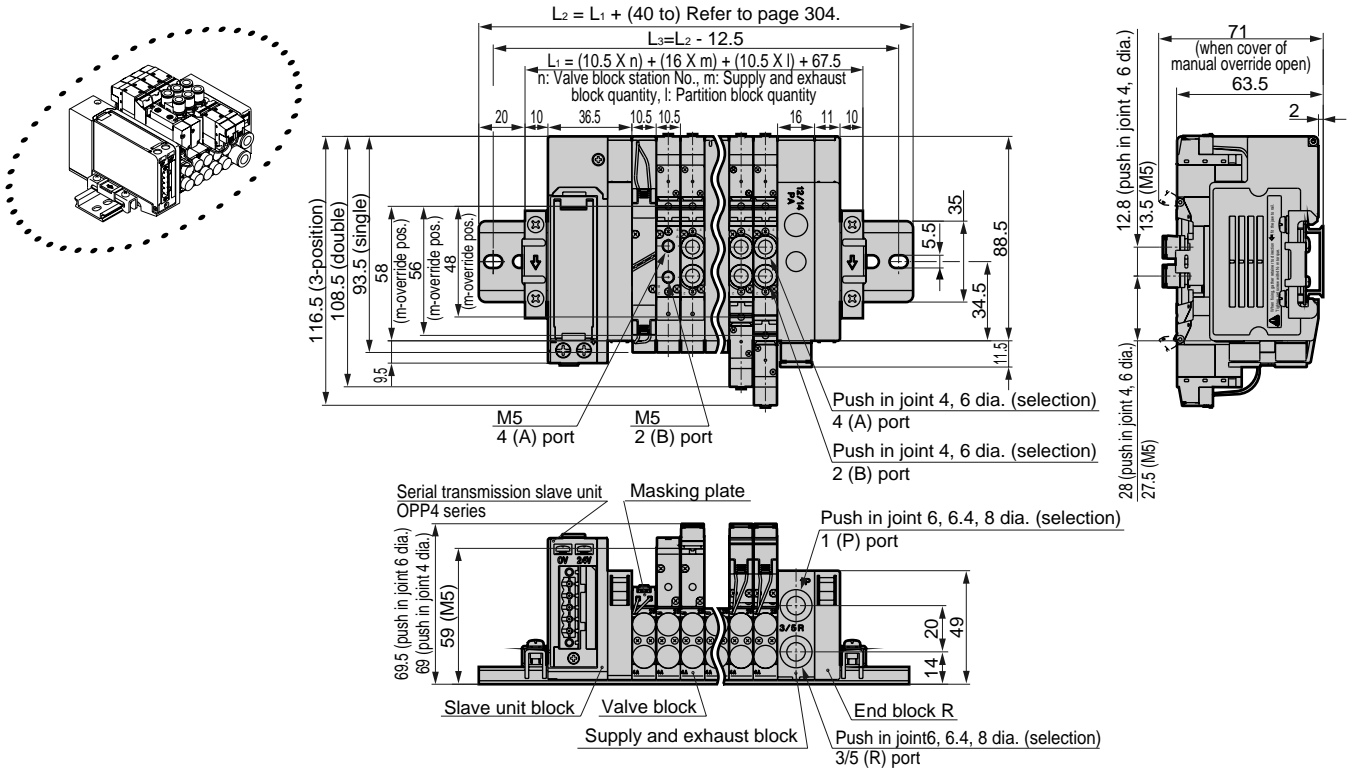
Dimensions

Unit mm

MN4GA1  (File name: Page 314 or Ending 19)

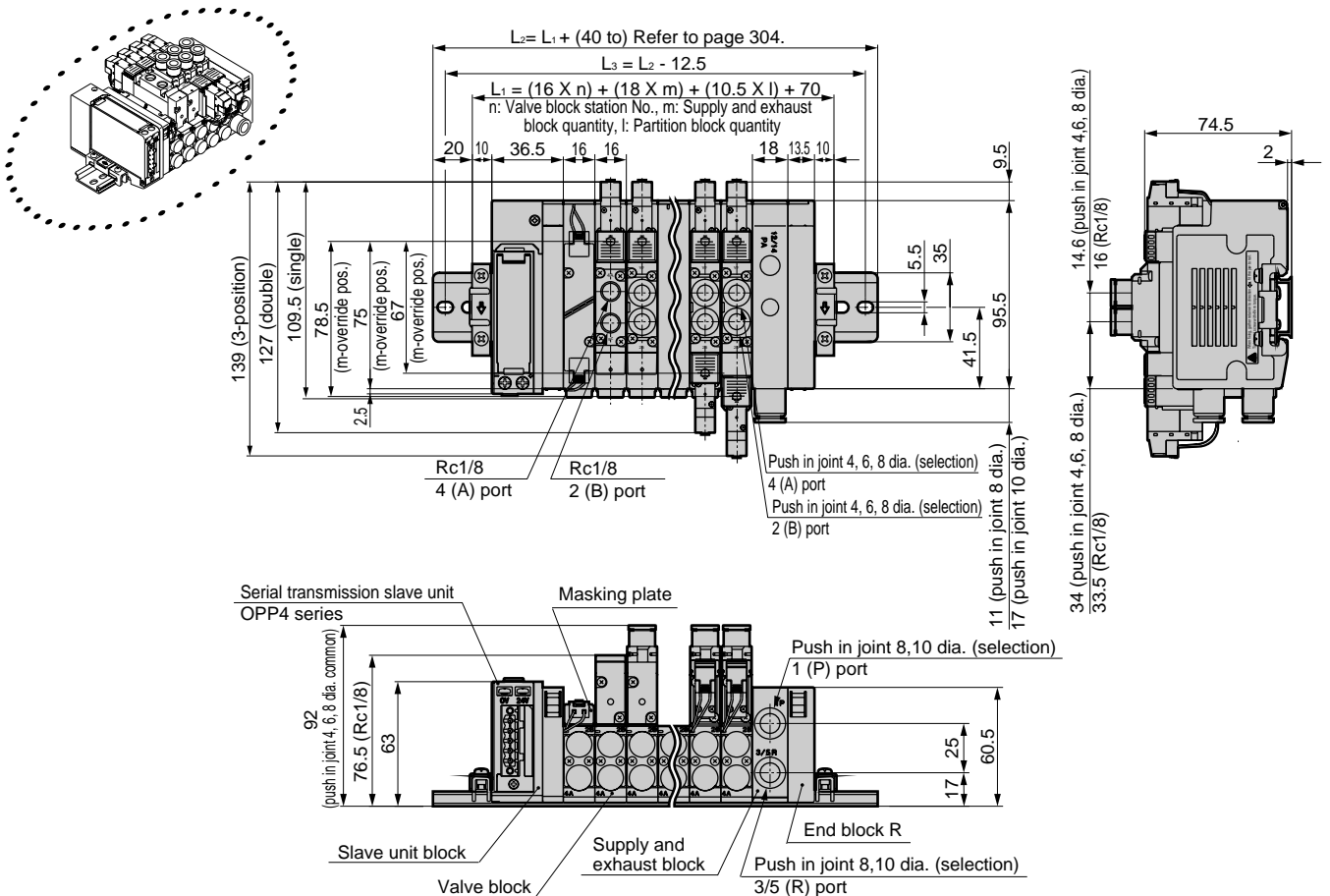
• Thin type serial transmission (T7 *)

Note: For MN3GA1, either Port A or B is blanking plug.



MN4GA2

• Thin type serial transmission (T7 *)



- 4SA/B0
- 4SA/B1
- 4GA/B
- MN4GA/B**
- 4GA/B (master)
- MN3S0/ MN4S0
- 4TB
- 4L2-4/ LMFO
- 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
- Reduced wiring block manifold