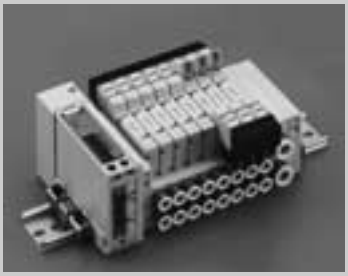


Reduced wiring block manifold
Sub base porting
MN4GB1/2-T* Series

• Applicable cylinder bore size: 20 to 80 mm

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	Sub-base side porting

Other specifications are as same as MN4GB (Page 254).

Please refer to Page 244 about JIS symbol.

Electrical specifications

Descriptions		
Rated voltage DC		12, 24
Fluctuation range		±10%
Holding current A	DC24V	0.025
	DC12V	0.050
Power consumption W	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		MN4GB1								
		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 278 about mass.

Descriptions		MN4GB2								
		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 278 about mass.

Descriptions			MN4GB1		MN4GB2	
			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.		Push in joint 8 mm dia.	
	2-position		4.5	4.0(5.0)	11	9.0(12)
	3-position	All ports closed	4.5	4.5	10	10
		ABR connection	4.5	4.0(5.5)	10	9.0(12)
		PAB connection	4.5	4.5	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 ( ).

Reduced 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

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	UNIWIRE SYSTEM	SUNX S-LINK	UNIWIRE H SYSTEM
Power voltage	Unit side	DC 24V ±10%					DC 24V +10% -5% (unit/valve power supply common terminal)		
	Valve side	DC 24V +10% -5%							
Consumption current	Unit side	100mA or less (when all outputs ON)					100mA or less (when all outputs ON) Load current is not included.		
	Valve side	15mA or less (when OFF)							
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% (unit/valve power supply common terminal)			DC 24V +10% -5% (unit/valve power supply common terminal) Communication Power supply(V+, V-):DC11V to 25V
	Valve side	DC 24V +10% -5%				
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) load current is not included.		60mA or less (when all outputs ON) load current is not included. Communication power supply (V+, V-):50mA or less
	Valve side	15mA or less (when all outputs OFF)				
Output No.		T7 * 0: 8 points T7 * 1: 16 points		16 points		
Operating indication		LED (power supply and communication status)				

• 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).

MN4GB1/2-T* Series

Reduced wiring block manifold; Sub base porting

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

Manifold model No.

MN4GB1 (1) 0 ▪ C6 ▪ T30 (W) (H) ▪ (10) ▪ (3)

Discrete valve block with solenoid valve

N4GB1 (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

4GB1 (1) 9 ▪ 00 ▪ (A2N) (H) — (3)

Ⓐ Solenoid position

Model

Ⓑ Port size
Note 1
Note 2
Note 3

Ⓒ Reduced wiring connection
• When placing an order of discrete valve, indicate "A2N".
• Please refer to Page 247 about circuit diagram.

Ⓓ Terminal/connector pin array

Ⓔ Option

Ⓕ Station #

Ⓖ Voltage

• Complete "manifold specification sheet" (Page 307 to 309).

Symbol	Descriptions		Model: Manifold MN4GB1	Manifold MN4GB2	Discrete valve block with solenoid valve N4GB1	Discrete valve block with solenoid valve N4GB2	Discrete solenoid valve 4GB1	Discrete solenoid valve 4GB2
Ⓐ 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		●	●	●	●	●	●
8	Mix manifold		●	●				
Ⓑ Port size (Port A/B)								
C4	4 mm push in joint		●	●	●	●		
C6	6 mm push in joint		●	●	●	●		
C8	8 mm push in joint			●		●		
CL4	4 mm push in joint radial type (upward)		●		●			
CL6	6 mm push in joint radial type (upward)		●	●	●	●		
CL8	8 mm push in joint radial type (upward)			●		●		
CX	Mix push in joint		●	●				
Single plug	Port A	Port B						
C4NC	4 mm push in joint	Plug	●	●	●	●		
C6NC	6 mm push in joint	Plug	●	●	●	●		
C8NC	8 mm push in joint	Plug		●		●		
C4NO	Plug	4 mm push in joint	●	●	●	●		
C6NO	Plug	6 mm push in joint	●	●	●	●		
C8NO	Plug	8 mm push in joint		●		●		
CL4NC	4 mm push in joint radial (upward)	Plug	●		●			
CL6NC	6 mm push in joint radial (upward)	Plug	●	●	●	●		
CL8NC	8 mm push in joint radial (upward)	Plug		●		●		
CL4NO	Plug	4 mm push in joint radial (upward)	●		●			
CL6NO	Plug	6 mm push in joint radial (upward)	●	●	●	●		
CL8NO	Plug	8 mm push in joint radial (upward)		●		●		
Ⓒ Reduced wiring connection (light/surge suppressor provided as standard)								
T10	Common gland (M3 screw)	Left	●	●				
T10R	Common gland (M3 screw)	Right	●	●				
T11	Common gland (push in fitting)	Left	●	●				
T11R	Common gland (push in fitting)	Right	●	●				
T30	D-sub connector	Left	●	●				
T30R	D-sub connector	Right	●	●				
T50	20 pin flat cable connector (with power supply terminal)	Left	●	●				
T50R	20 pin flat cable connector (with power supply terminal)	Right	●	●				
T51	20 pin flat cable connector (no power supply terminal)	Left	●	●				
T51R	20 pin flat cable connector (no power supply terminal)	Right	●	●				
T52	10 pin flat cable connector (no power supply terminal)	Left	●	●				
T52R	10 pin flat cable connector (no power supply terminal)	Right	●	●				
T53	26 pin flat cable connector (no power supply terminal)	Left	●	●				
T53R	26 pin flat cable connector (no power supply terminal)	Right	●	●				
A2N	A-connector (downward)				●	●	●	●
Ⓓ Terminal/connector pin array								
Blank	Standard wiring	Note 4	●	●				
W	Double wiring	Note 4	●	●				
Ⓔ Option								
Blank	Blank		●	●	●	●	●	●
H	Check valve (standard)	Note 5	●	●	●	●	●	●
K	External pilot	Note 6	●	●	●	●	●	●
A	Ozone/coolant proof		●	●	●	●	●	●
F	Filter incorporated in Port A/B (Port P: Provided as standard)		●	●	●	●	●	●
Ⓕ Station #								
1	1 station		●	●	●	●		
to	to		●	●	●	●		
24	24 station (Refer to Page 274 about maximum station number.)		●	●	●	●		
Ⓖ Voltage								
3	DC24V		●	●	●	●	●	●
4	DC12V		●	●	●	●	●	●

is not available.

Precautions for selection guide

Note 1. Plug specification of Port A or B is available only for 2-position single.
Designate port size of Port P/R in supply and exhaust block model No.

Note 2. CL* push in joint radial type (upward) is available only for single solenoid manifold, while Port A: Long elbow, Port B: short elbow.

Note 3. When mix (CX) push in joint radial type (upward), Port A/B sizes are same.
When CL*NC/NO is designated, short elbow joint is provided.

Note 4. Blank: Wired according to mounted valve type.
W : Not depending on mounted valve type, wire for double solenoid is provided.

Note 5. For 3-position all ports closed and PAB connection, check valve specifications (H) is not available.

Note 6. Consult with CKD about vacuuming of external pilot (K).

How to order (serial transmission)

Manifold model No.

MN4GB1 (1) 0 ▪ (C6) ▪ (T7E1) (W) (H) ▪ (10) ▪ (3)

Discrete valve block with solenoid valve

N4GB1 (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

4GB1 (1) 9 ▪ 00 ▪ (A2N) (H) — (3)

Ⓕ Station #

Ⓐ Solenoid position

Model

Ⓑ Port size
Note 1
Note 2
Note 3

Ⓒ Serial transmission
Note 4
- When placing an order of discrete valve, indicate "A2N".
- Please refer to Page 247 about circuit diagram.

Ⓓ Terminal/connector pin array

Ⓔ Option

Ⓖ Voltage

• Complete "manifold specification sheet" (Page 307 to 309).

Symbol	Descriptions		Model: Manifold MN4GB1	Manifold MN4GB2	Discrete valve block with solenoid valve N4GB1	Discrete valve block with solenoid valve N4GB2	Discrete solenoid valve 4GB1	Discrete solenoid valve 4GB2
Ⓐ 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		●	●	●	●	●	●
8	Mix manifold		●	●				
Ⓑ Port size (Port A/B)								
C4	4 mm push in joint		●	●	●	●		
C6	6 mm push in joint		●	●	●	●		
C8	8 mm push in joint			●		●		
CL4	4 mm push in joint radial type (upward)		●		●			
CL6	6 mm push in joint radial type (upward)		●	●	●	●		
CL8	8 mm push in joint radial type (upward)			●		●		
CX	Mix push in joint		●	●				
Single plug	Port A	Port B						
C4NC	4 mm push in joint	Plug	●	●	●	●		
C6NC	6 mm push in joint	Plug	●	●	●	●		
C8NC	8 mm push in joint	Plug		●		●		
C4NO	Plug	4 mm push in joint	●	●	●	●		
C6NO	Plug	6 mm push in joint	●	●	●	●		
C8NO	Plug	8 mm push in joint		●		●		
CL4NC	4 mm push in joint radial (upward)	Plug	●		●			
CL6NC	6 mm push in joint radial (upward)	Plug	●	●	●	●		
CL8NC	8 mm push in joint radial (upward)	Plug		●		●		
CL4NO	Plug	4 mm push in joint radial (upward)	●		●			
CL6NO	Plug	6 mm push in joint radial (upward)	●	●	●	●		
CL8NO	Plug	8 mm push in joint radial (upward)		●		●		
Ⓒ Serial transmission (light/surge suppressor provided as standard)								
T621	OMRON SYSBUS/multi link		●	●				
T631	MITSUBISHI MELSEC NEC/MINI-S3		●	●				
T6A0	UNIWIRE SYSTEM 8 points		●	●				
T6A1	UNIWIRE SYSTEM 16 points		●	●				
T6C0	OMRON CompoBus/S8 points		●	●				
T6C1	OMRON CompoBus/S16 points		●	●				
T6E0	SUNX S-LINK8 points		●	●				
T6E1	SUNX S-LINK16 points		●	●				
T6G1	MITSUBISHI CC-Link		●	●				
T6J0	UNIWIRE H SYSTEM 8 points		●	●				
T6J1	UNIWIRE H SYSTEM 16 points		●	●				
T6K1	KEYENCE KZ-R		●	●				
T7C0	Thin type OMRON CompoBus/S8 points		●	●				
T7C1	Thin type OMRON CompoBus/S16 points		●	●				
T7D1	Thin type DeviceNet		●	●				
T7E0	Thin type SUNX S-LINK8 points		●	●				
T7E1	Thin type SUNX S-LINK16 points		●	●				
T7G1	Thin type MITSUBISHI CC-Link		●	●				
T7L1	Thin type SAVE NET		●	●				
A2N	A-connector (downword)				●	●	●	●
Ⓓ Terminal/connector pin array								
Blank	Standard wire	Note 5	●	●				
W	Double wiring	Note 5	●	●				
Ⓔ Option								
Blank	Blank		●	●	●	●	●	●
H	Check valve (standard)	Note 6	●	●	●	●	●	●
K	External pilot	Note 7	●	●	●	●	●	●
A	Ozone/coolant proof		●	●	●	●	●	●
F	Filter incorporated in Port A/B (Port P: Provided as standard)		●	●	●	●	●	●
Ⓕ Station #								
1 to 24	1 station to 24 station (Refer to Page 274 about maximum station number.)		●	●	●	●		
Ⓖ Voltage								
3	DC24V		●	●	●	●	●	●

is not available.

Precautions for selection guide

Note 1. Plug specification of Port A or B is available only for 2-position single.
Designate port size of Port P/R in supply and exhaust block model No.

Note 2. CL* push in joint radial type (upward) is available only for single solenoid manifold, while Port A: Long elbow, Port B: short elbow.

Note 3. When mix (CX) push in joint radial type (upward), Port A/B sizes are same.
When CL*NC/NO is designated, short elbow joint is provided.

Note 4. Cable connector of thin type serial transmission slave unit (T7**) is attached.

Note 5. Blank: Wired according to mounted valve type.
W : Not depending on mounted valve type, wire for double solenoid is provided.

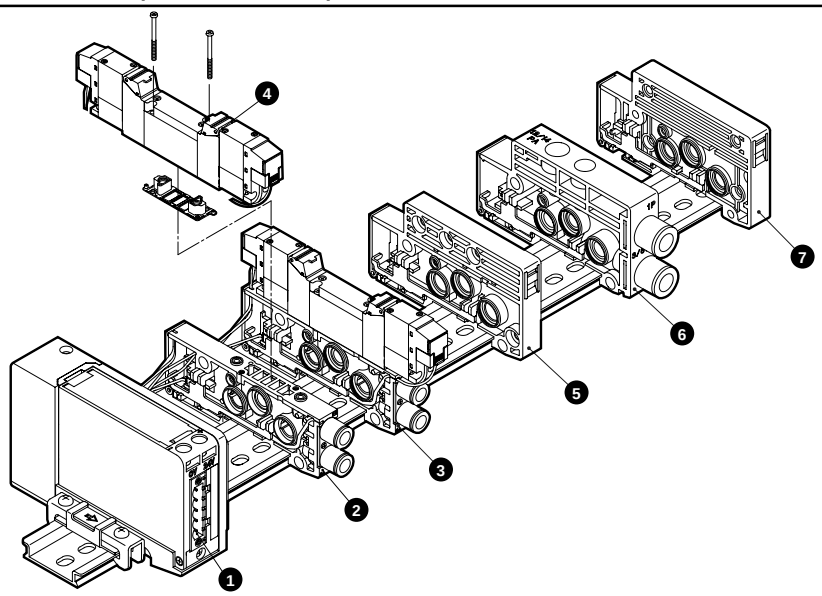
Note 6. For 3-position all ports closed and PAB connection, check valve specifications (H) are not available.

Note 7. Consult with CKD about vacuuming of external pilot (K).

MN4GB1/2-T* Series

Reduced wiring block manifold; Sub base 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-T7D1	5	Partition block	N4G1-S
2	Discrete valve block	N4GB1-V2-C6	6	Supply and exhaust block	N4G1-Q-8
3	Discrete valve block with solenoid valve	N4GB120-C6-H-3	7	End block R	N4G1-ER
4	Electromagnetic valve body	4GB129-00-H-3			

B type reduced wiring mass

4GB1

(g)

Block type		Mass	Block type		Mass	Block type		Mass
Valve block with solenoid valve	N4GB110-C6-A2N	71	Supply and exhaust block	N4G1-Q-8	63	Wiring block	N4G1-T10*	229
	N4GB120-C6-A2N	88		N4G1-QK-8	68		N4G1-T30*	163
	N4GB130-C6-A2N	89	End block	N4G1-E*	57		N4G1-T50*	165
Valve block with masking plate	N4GB1-MP*	37		N4G1-EX*	57		N4G1-T6*	293
			Partition block	N4G1-S*	45		N4G1-T7*	185

4GB2

(g)

Block type		Mass	Block type		Mass	Block type		Mass
Valve block with solenoid valve	N4GB210-C8-A2N	135	Supply and exhaust block	N4G2-Q-10	99	Wiring block	N4G2-T10*	244
	N4GB220-C8-A2N	152		N4G2-QK-10	104		N4G2-T30*	178
	N4GB230-C8-A2N	163	End block	N4G2-E*	83		N4G2-T50*	180
Valve block with masking plate	N4GB2-MP*	76		N4G2-EX*	84		N4G2-T6*	308
			Partition block	N4G2-S*	60		N4G2-T7*	200

Repair parts and related part list

No.	Parts name			Model No.	No.	Parts name	Model No.
-	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	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			
			Blanking plug	For 4 dia: GWP4-B, for 6 dia: GWP6-B			
		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 type	4G2-JOINT-CL8, CLL8			
			Plug cartridge	4G2-JOINT-CPG			
			Blanking plug	For 4 dia: GWP4-B, for 6 dia: GWP6-B, for 8 dia: GWP8-B			

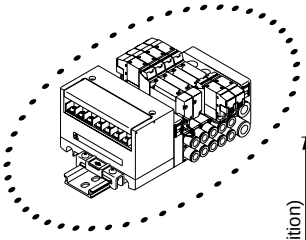
Dimensions

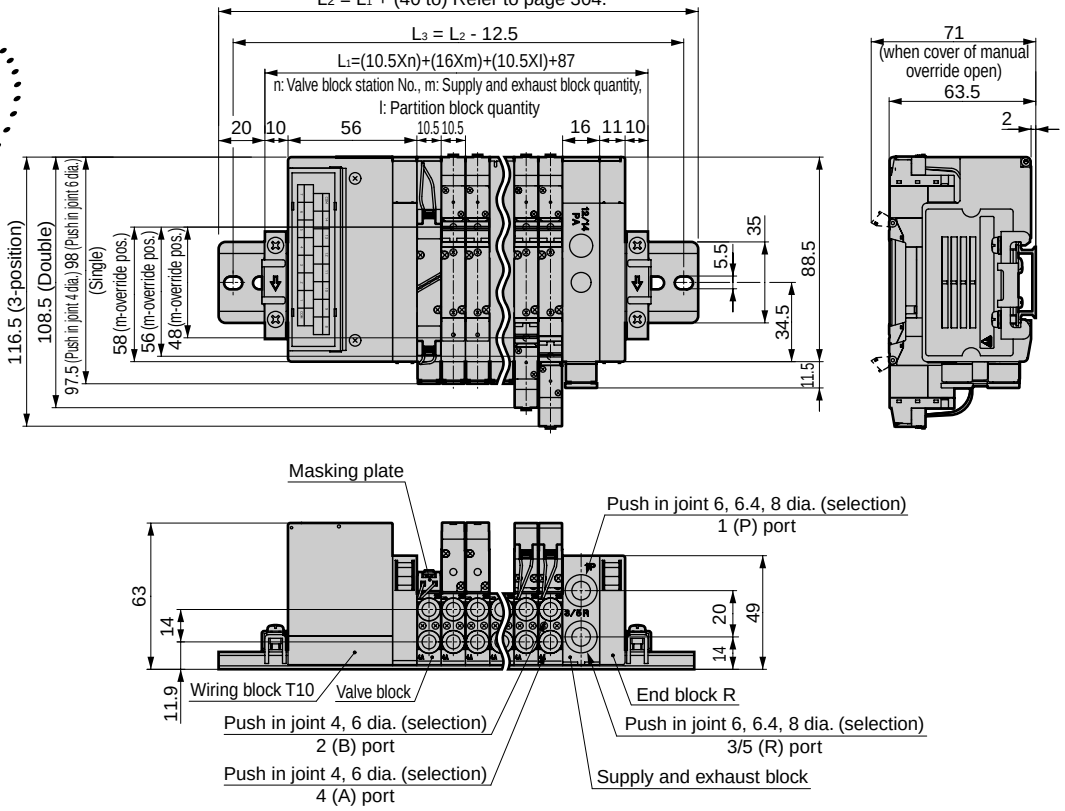
Unit mm

MN4GB1 (File name: Page 314 or Ending 19)

• Common gland (M3 screw) left (T10)

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

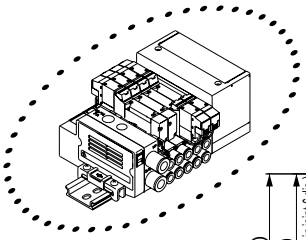


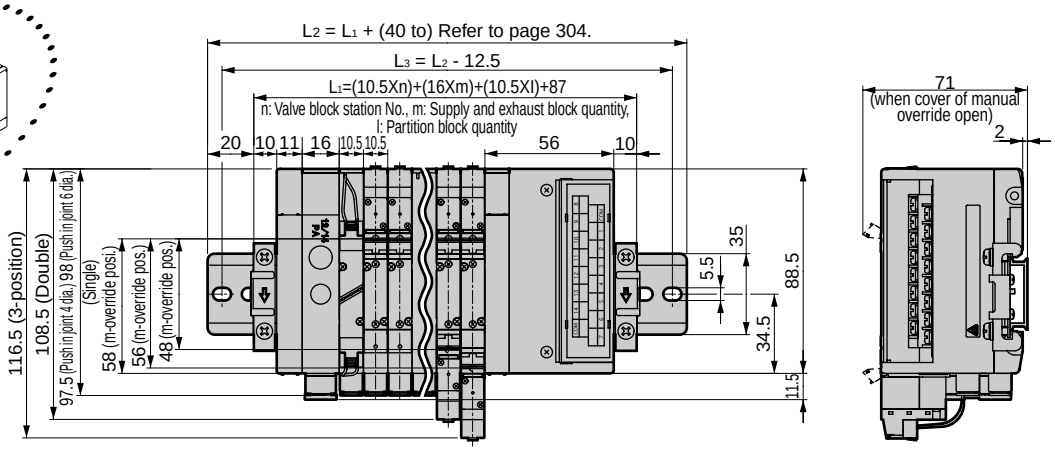


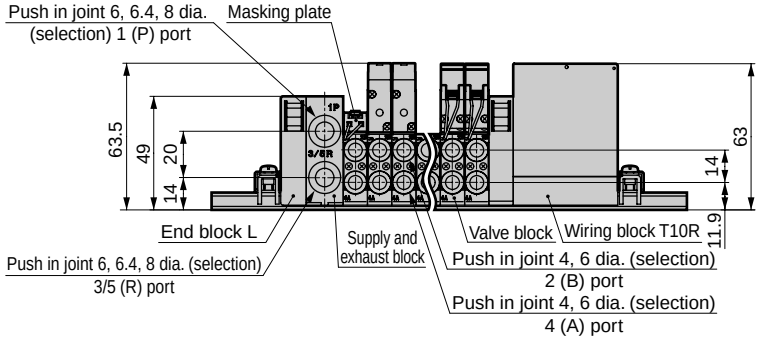
Note: Please refer to Page 287 about CL* push in joint radial type (upward).

• Common gland (M3 screw) right (T10R)

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







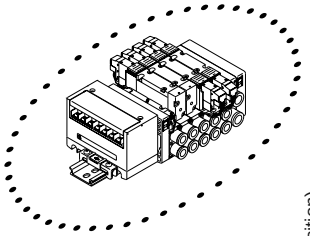
Dimensions

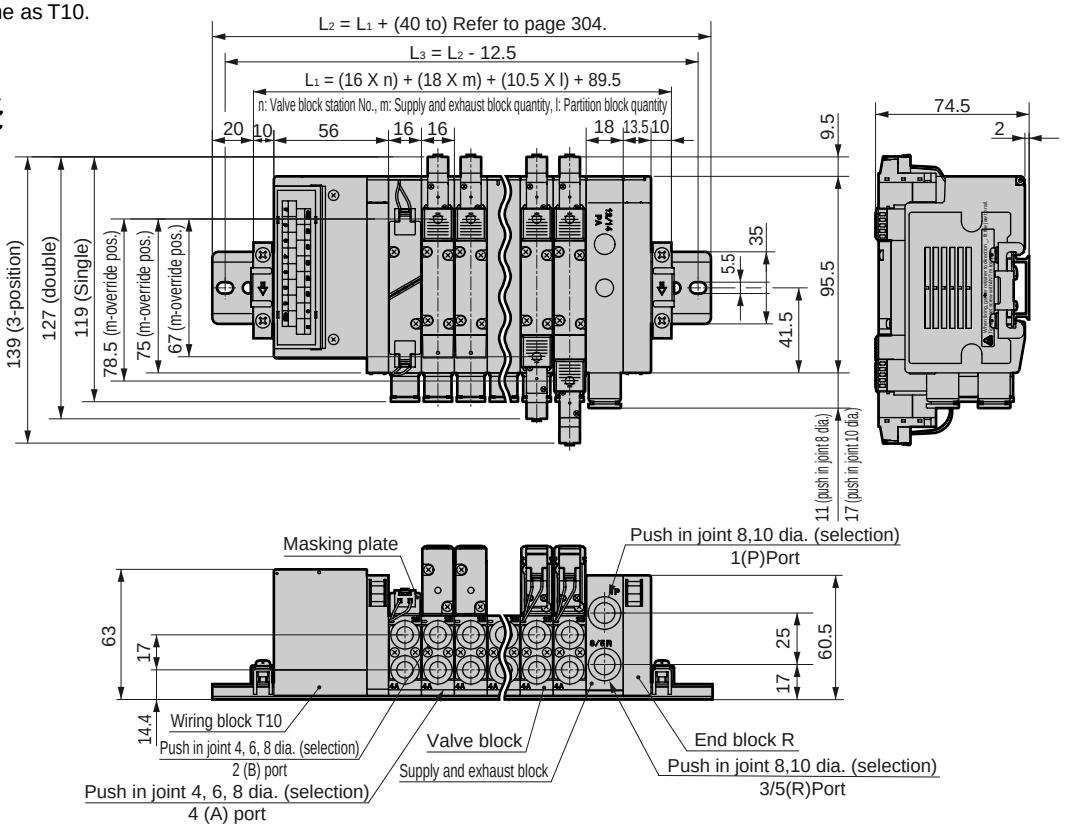
Unit mm

MN4GB2 CAD (File name: Page 314 or Ending 19)

• Common gland (M3 screw) left (T10)

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

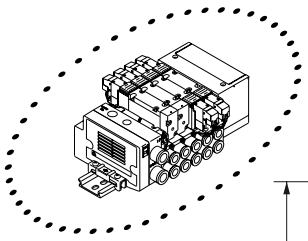


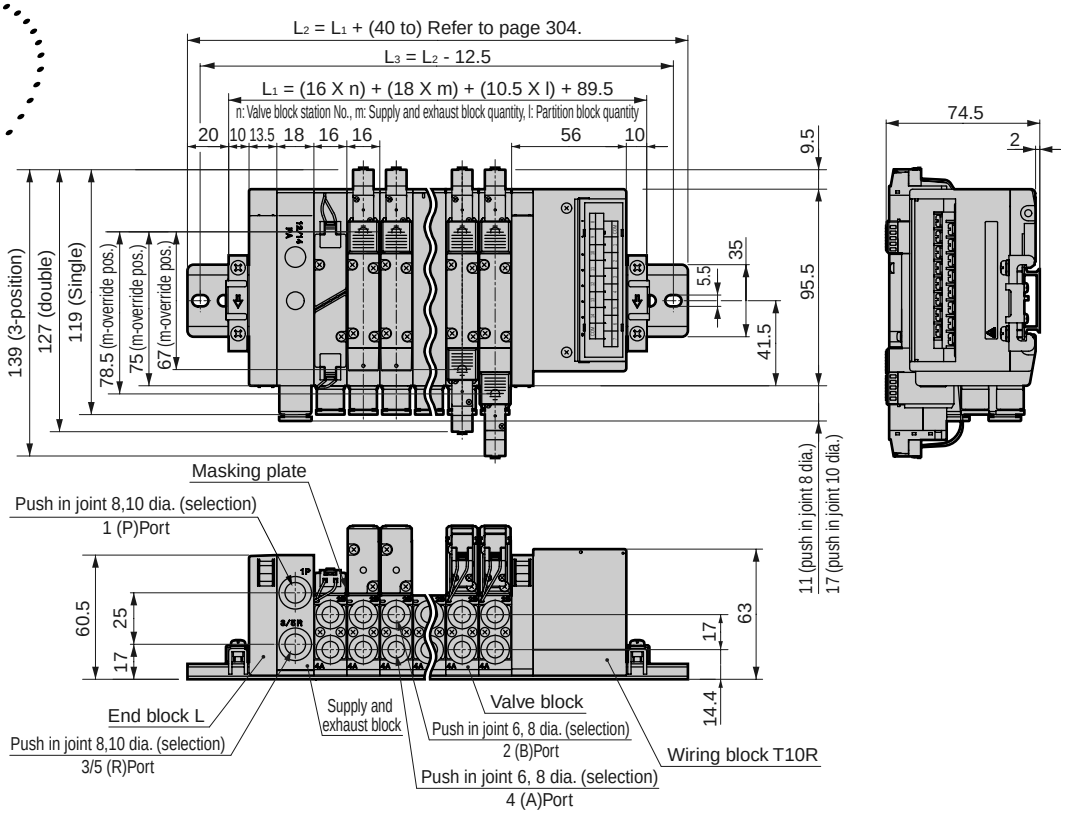


• Common gland (M3 screw) right (T10R)

Note: Please refer to Page 287 about CL* push in joint radial type (upward).

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



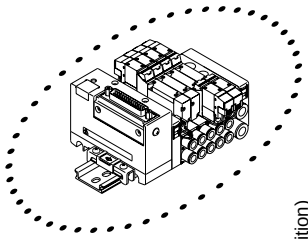


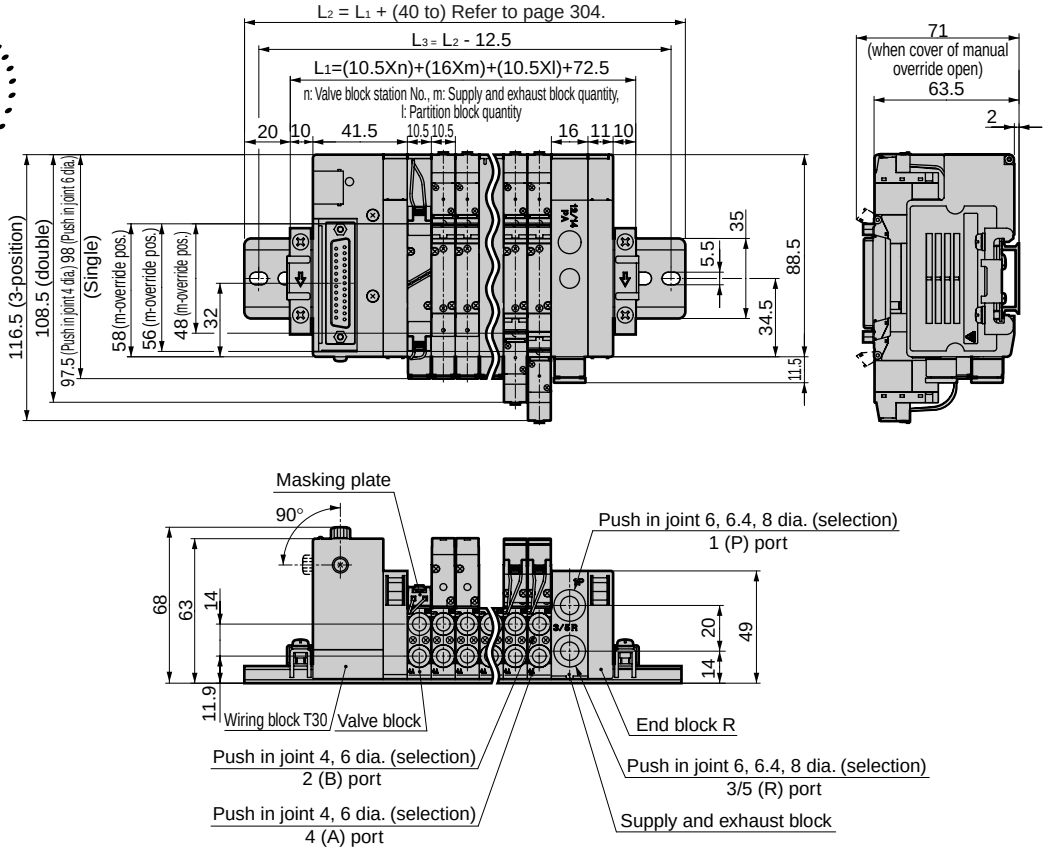
Dimensions

Unit mm

MN4GB1 CAD (File name: Page 314 or Ending 19)

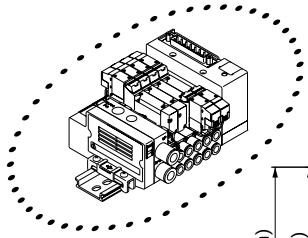
• D-sub connector left (T30)

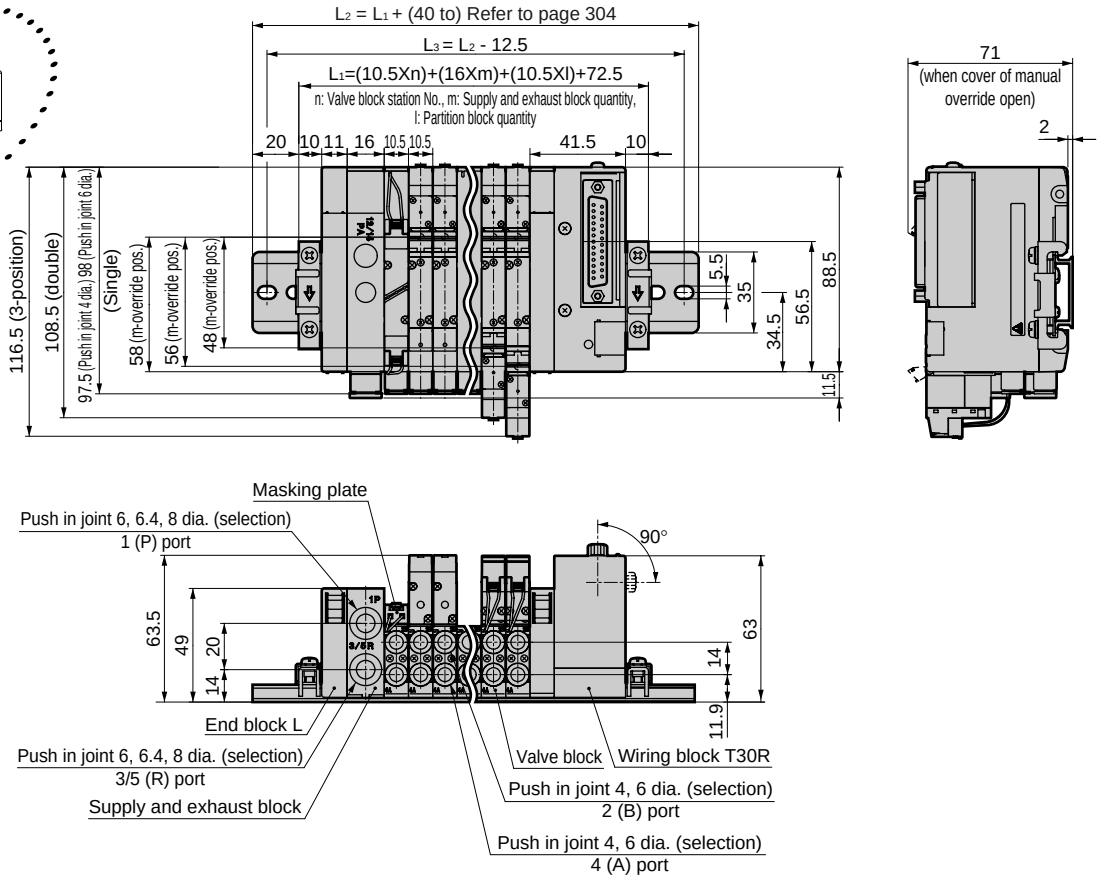




• D-sub connector right (T30R)

Note: Please refer to Page 287 about CL* push in joint radial type (upward).



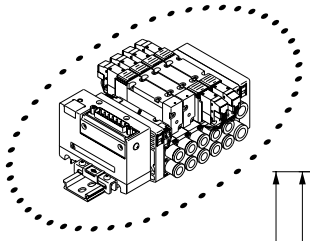


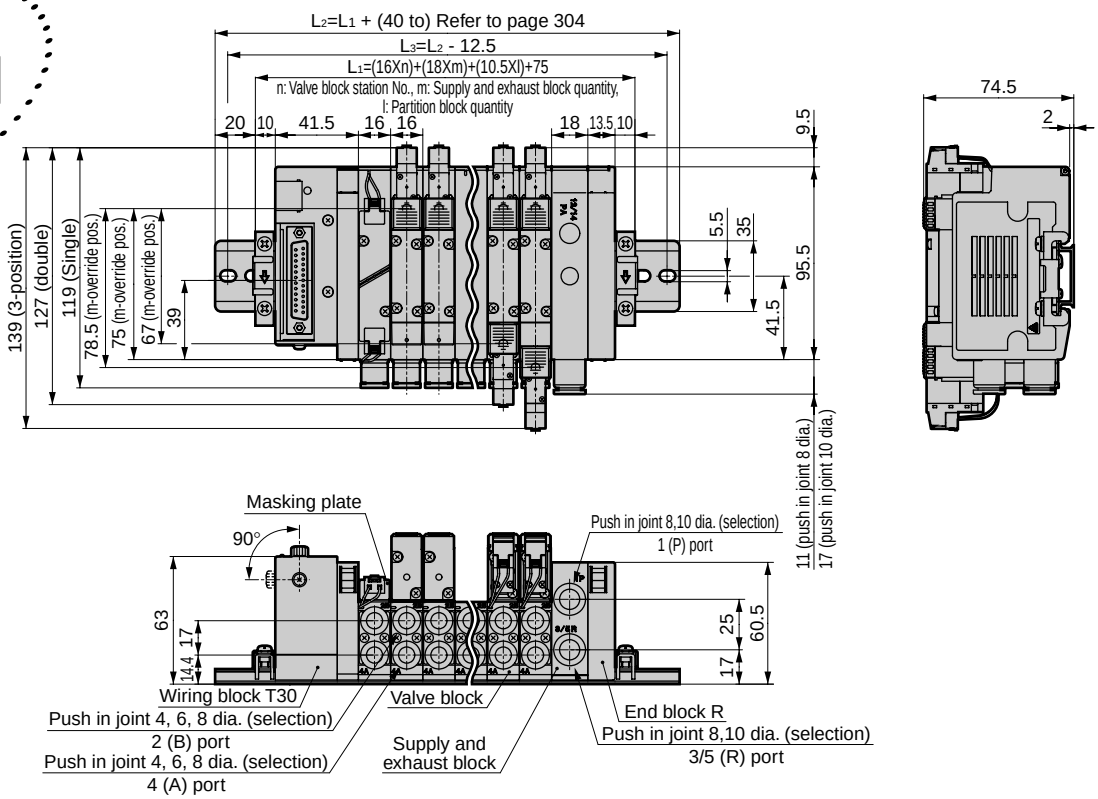
Dimensions

Unit mm

MN4GB2 (File name: Page 314 or Ending 19)

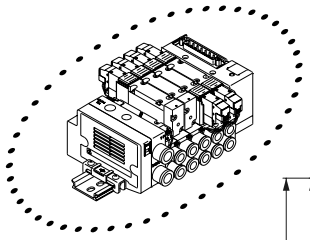
• D-sub connector left (T30)

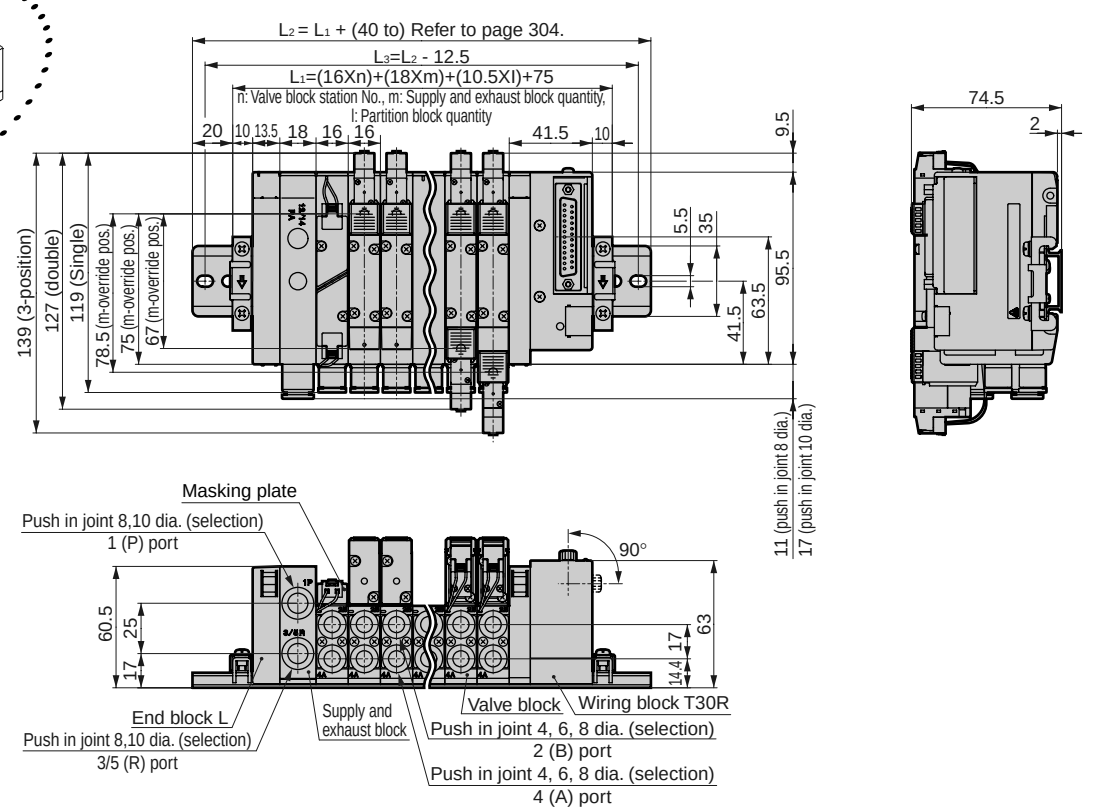




• D-sub connector right (T30R)

Note: Please refer to Page 287 about CL* push in joint radial type (upward).





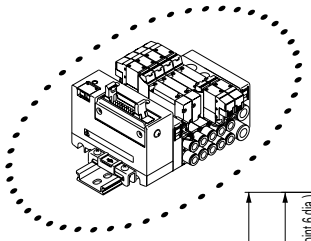
Dimensions

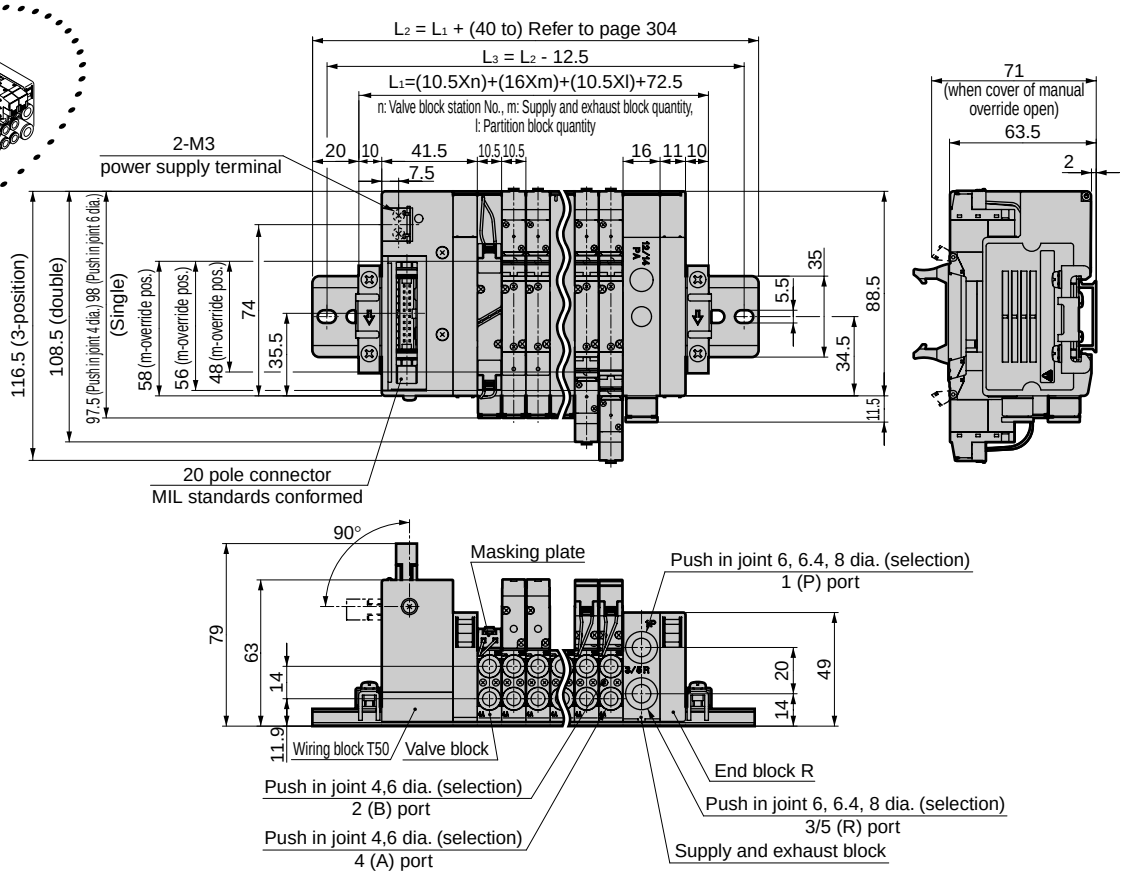
Unit mm

MN4GB1 (File name: Page 314 or Ending 19)

- Flat cable connector left (T50)
  Power supply terminal

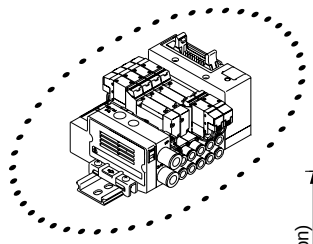
Note: For flat cable connector, T51, T52 and T53 are available.
Dimensions are as same as T50.

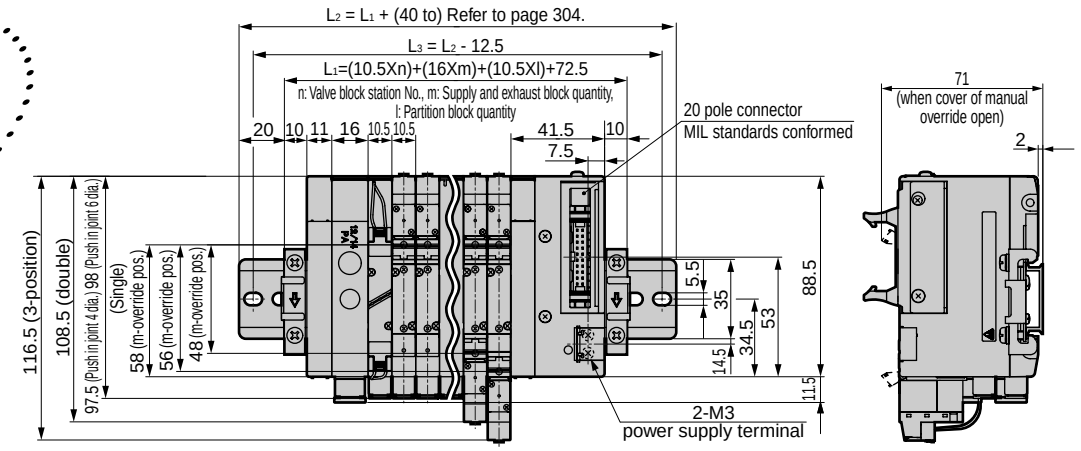


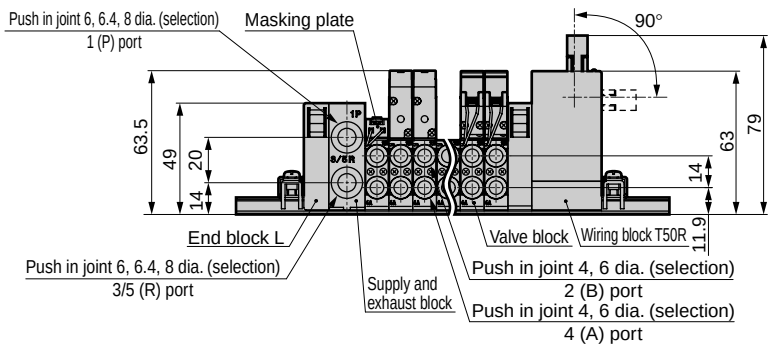


- Flat cable connector right (T50R)
  Power supply terminal

Note: Please refer to Page 287 about CL* push in joint radial type (upward).







Dimensions

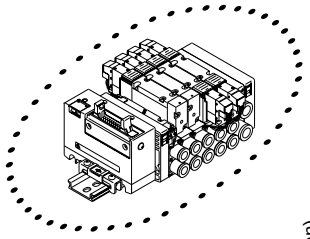
Unit mm

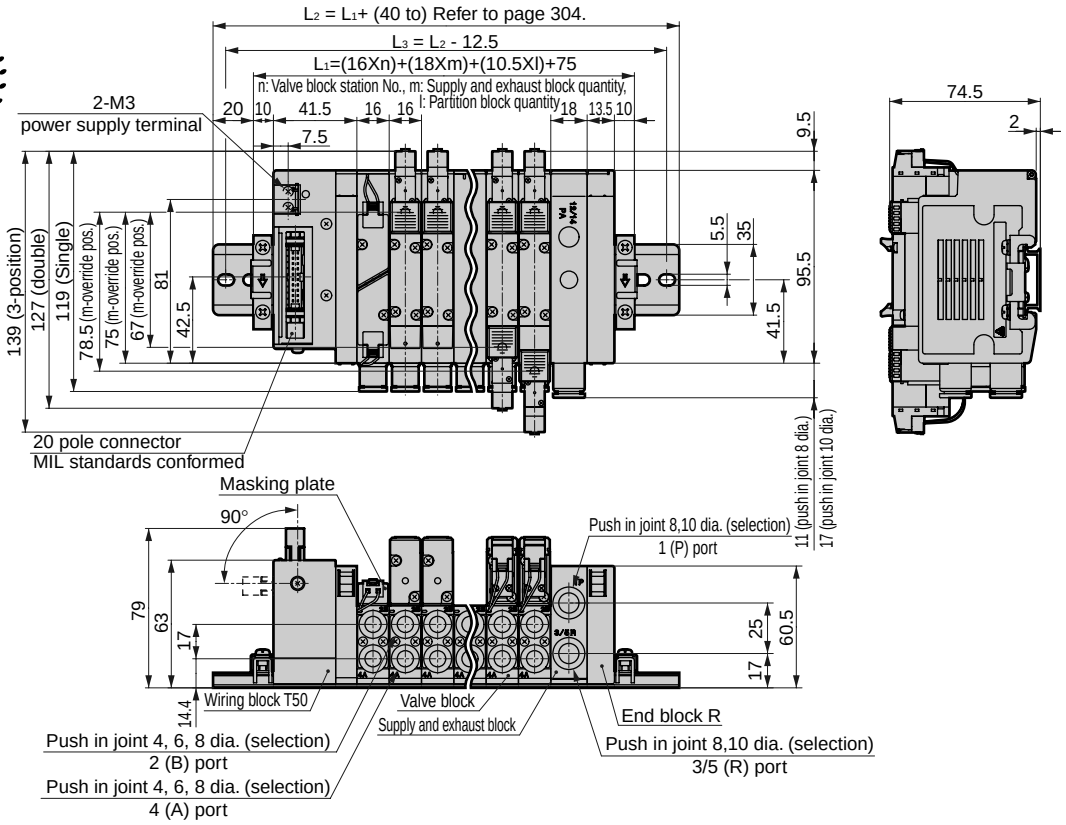
MN4GB2 (File name: Page 314 or Ending 19)

- Flat cable connector left

  Power supply terminal (T50)

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

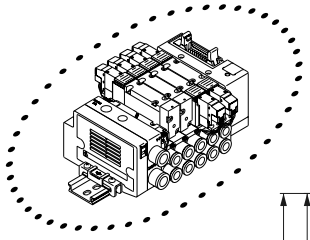


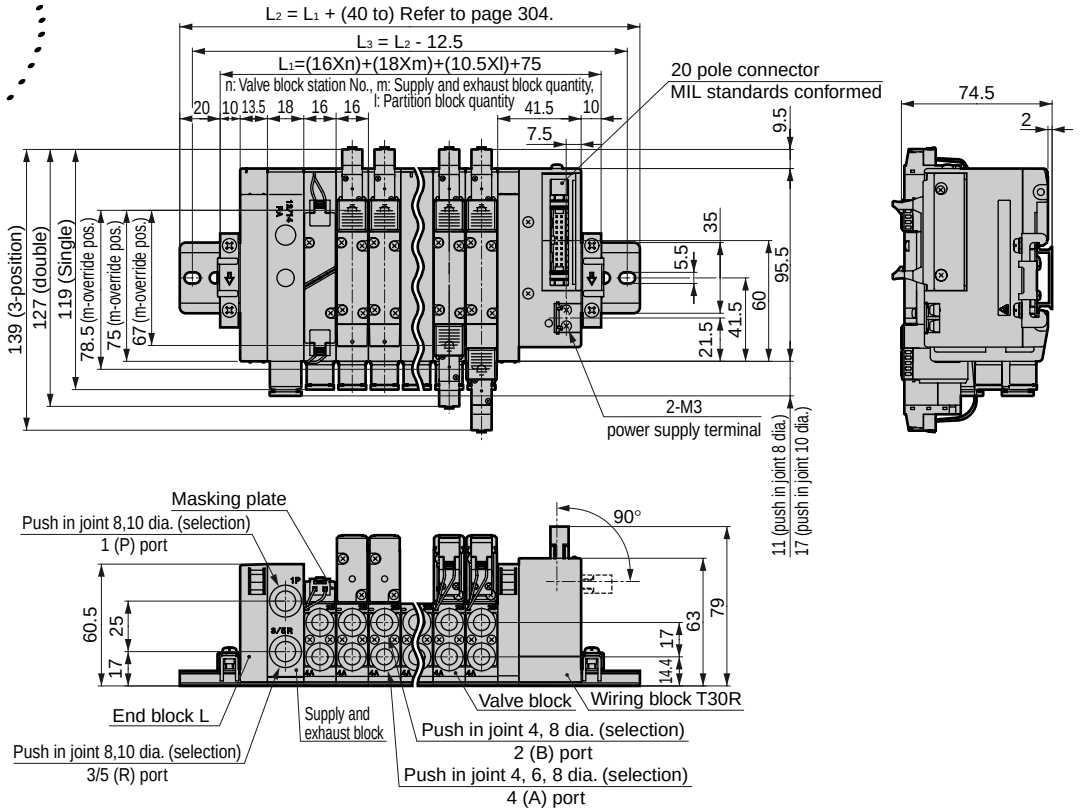


- Flat cable connector right

  Power supply terminal (T50R)

Note: Please refer to Page 287 about CL* push in joint radial type (upward).



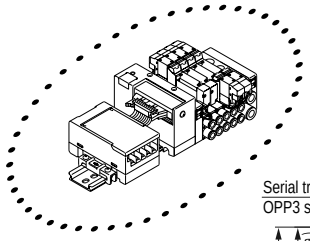


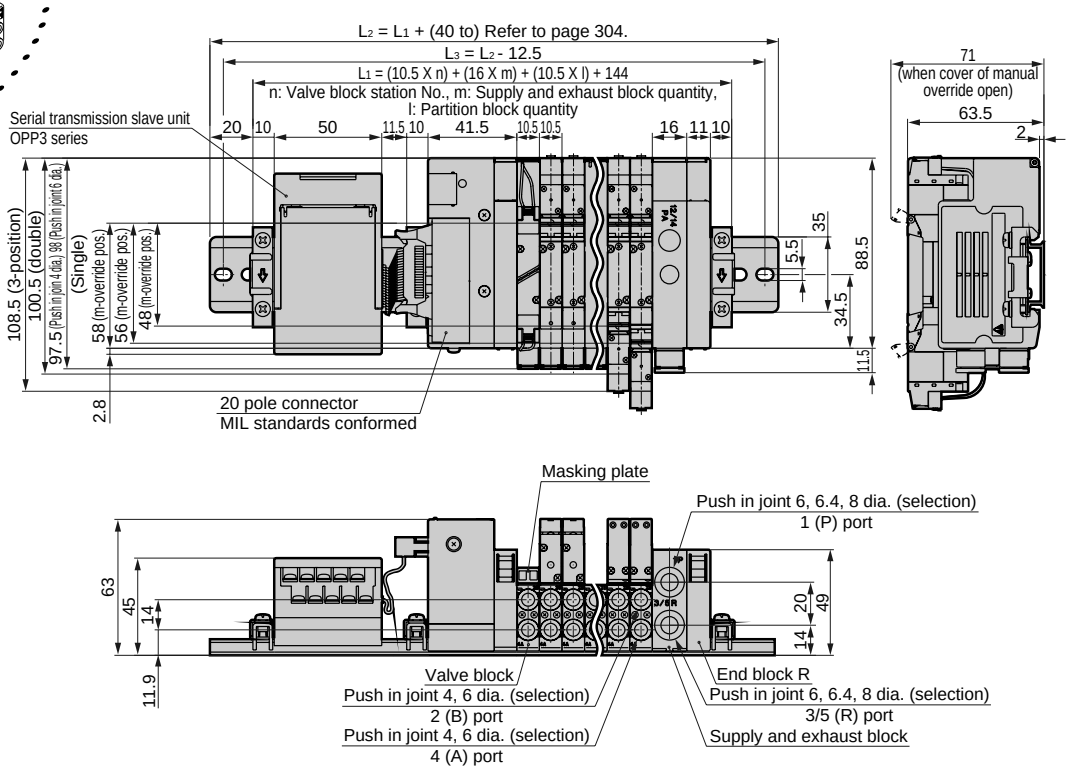
Dimensions

Unit mm

MN4GB1 CAD (File name: Page 314 or Ending 19)

• Serial transmission (T6 *)

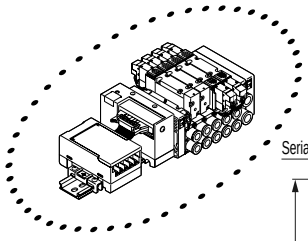


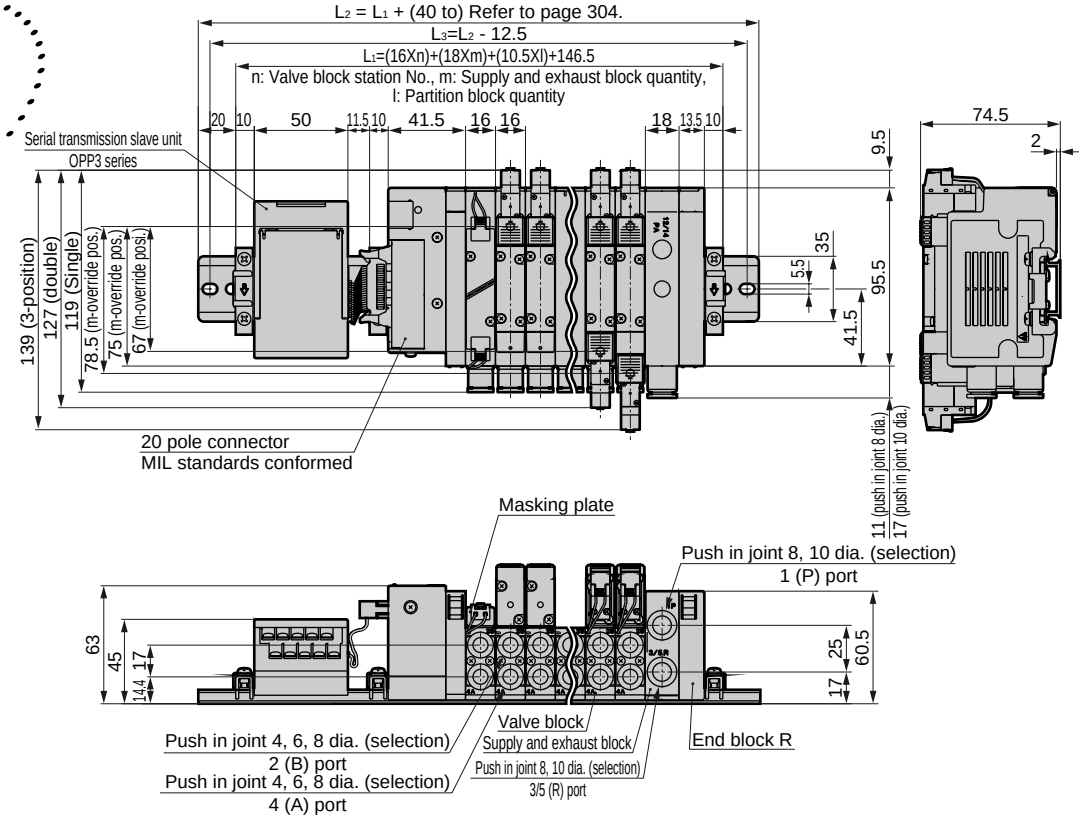


MN4GB2

• Serial transmission (T6 *)

Note: Please refer to Page 287 about CL* push in joint radial type (upward).



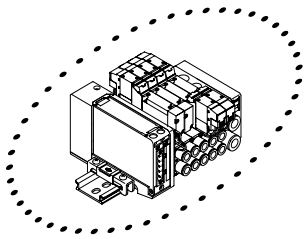


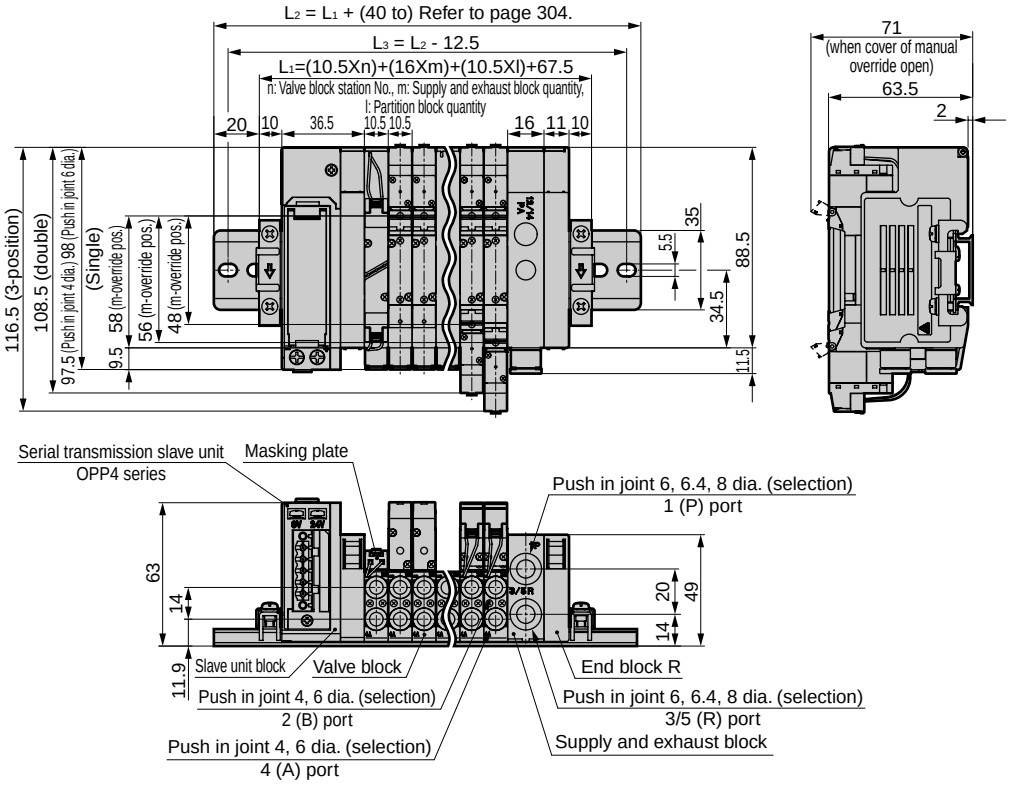
Dimensions

Unit mm

MN4GB1 (File name: Page 314 or Ending 19)

• Thin type serial transmission (T7 *)

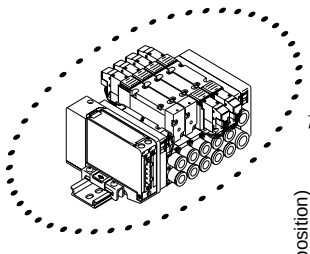


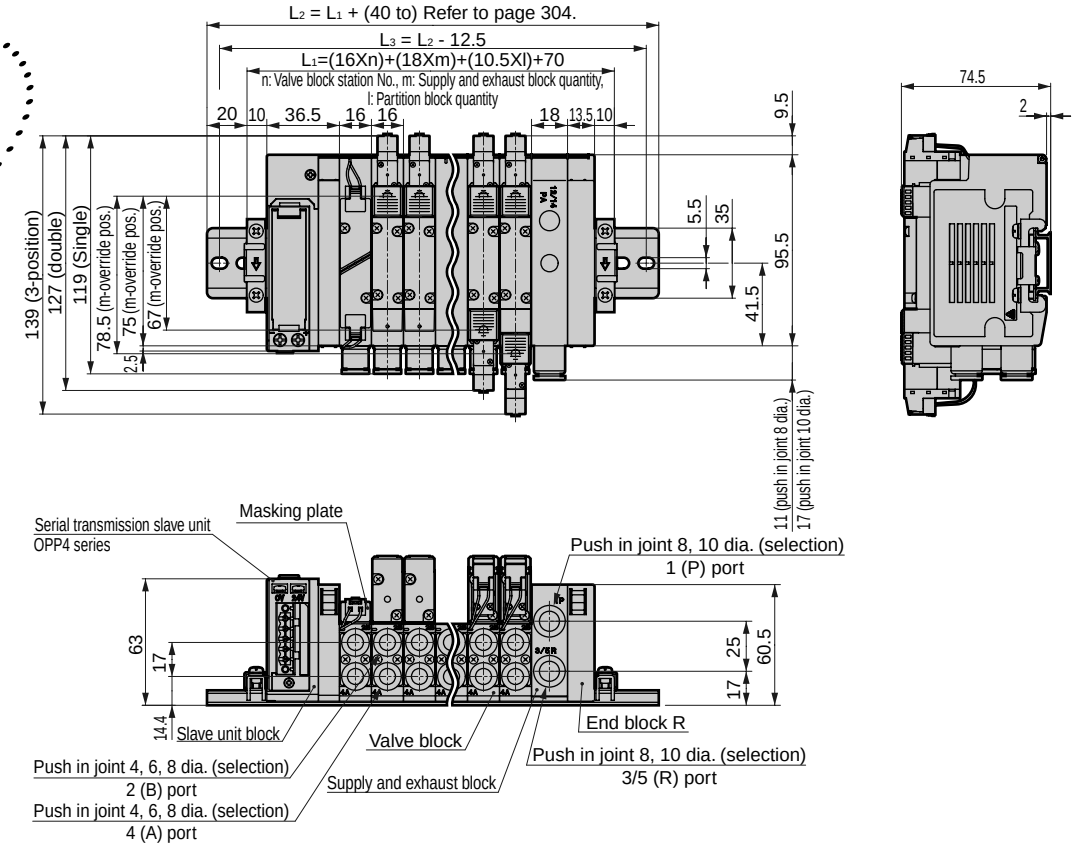


MN4GB2

Note: Please refer to Page 287 about CL* push in joint radial type (upward).

• Thin type serial transmission (T7 *)



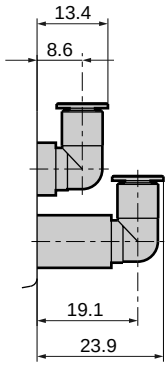


Push in joint radial type (upward): Dimensions

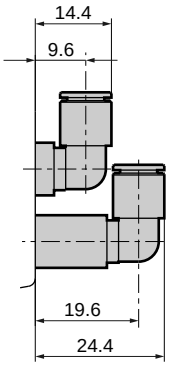
Unit mm

MN4GB1

• 4 dia. (CL4)

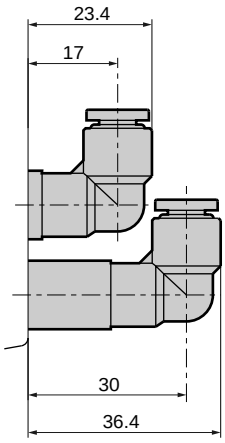


• 6 dia. (CL6)



MN4GB2

• 6 dia. (CL6)



• 8 dia. (CL8)