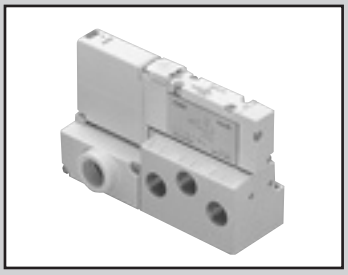


Single unit
Base piping

W3GB2/W4GB2 Series

● Cylinder bore size: ø 20 to ø80

Refer to the Ending for details.

Common specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)
Min. working pressure MPa	0.2 (≈29 psi, 2 bar)
Proof pressure MPa	1.05 (≈150 psi, 10.5 bar)
Ambient temperature °C	-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C	5 (41°F) to 55 (131°F)
Manual override	Non-locking/locking common (standard)
Lubrication (*1)	Not required
Degree of protection (*2)	Dust proof/jet proof (IP65)
Vibration resistance m/s^2	49 or less
Shock resistance m/s^2	294 or less
Atmosphere	Cannot be used in corrosive gas environments

*1 : Use turbine oil Class 1 ISO VG32 for lubrication.
Note that excessive lubricant may cause unstable operation.
*2 : Tested according to the test method for IP65 (IEC60529 (IEC529: 1989-11)) standards.
Refer to page 1103 for details.

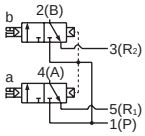
Electrical specifications

Item		Description
Rated voltage V	DC	12, 24
	AC	100
Voltage fluctuation range		±10%
Holding current A	24 VDC	0.025
	12 VDC	0.050
	100 VAC	0.012
Power consumption W	24 VDC	0.6
(*3)	12 VDC	0.6
Apparent power VA	100 VAC	1.2
Thermal class		B

*3: Surge suppressor and indicator are supplied as standard.

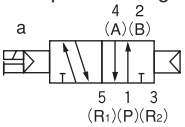
JIS symbol

● Two 3-port valves integrated
(A side valve: NC, B side valve: NC)

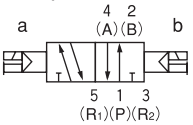


● 5-port valve

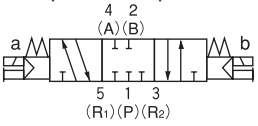
2-position single



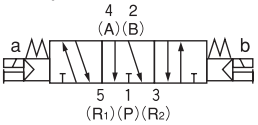
2-position double



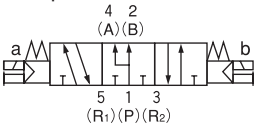
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		W3GB2/W4GB2
Port size	A/B Port	Rc1/4
	P/R port	Rc1/4

Performance/characteristics by model

Item			ON	OFF
Response time ms	Two 3-port valves integrated		12	29
	2-position	Single	22	24
		Double	26	—
	3-position		25	35

The response time is the value with supply pressure of 0.5 MPa at 20°C and without lubrication. It depends on the pressure and the lubricant quality.

Weight

Item			Terminal block	I/O connector
Weight g	Two 3-port valves integrated		367	424
	2-position	Single	351 (94)	409 (94)
		Double	367 (110)	424 (110)
	3-position		374 (117)	431 (117)

Values in ( ) are for single unit solenoid valves.

Flow characteristics

Model No.	Solenoid position		P→A/B		A/B→R	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
W3GB2	Two 3-port valves integrated		1.7	0.42	2.1	0.26
W4GB2	2-position		2.5	0.27	2.5	0.20
	3-position	All ports closed	2.3	0.32	2.1	0.21
		ABR connection	2.3	0.30	2.2	0.22
		PAB connection	2.4	0.02	2.3	0.19

Note: Formula to calculate sonic conductance C from effective cross-sectional area S is S ≈ 5.0 x C.

How to order

● Single unit

W4GB2 1 0 - 08 - R1 H - 3

W3GB2 66 0 - 08 - R1 H - 3

● Single sub-plate only

W4GB2 - SP - 08 - R1 F

● Single valve for mounting base

W4GB2 1 9 - 00 — H - 3

● 3-port discrete valve for mounting base

W3GB2 66 9 - 00 — H - 3

Ⓐ Solenoid position

Ⓑ Port size

Ⓒ Electrical connections
For circuit diagrams (solenoid valve interior), refer to page 970 for details.

Ⓓ Option

Ⓔ Voltage

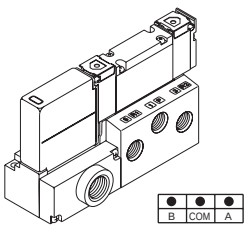
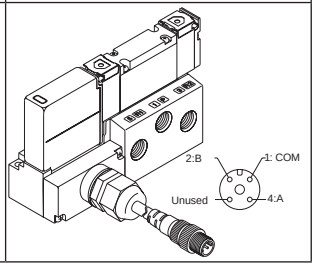
Code	Description		Single unit W3GB2	Single unit W4GB2	Single sub-plate only	SingleBody valve W3GB2	SingleBody valve W4GB2
			3-port valve	5-port valve		3-port valve	5-port valve
Ⓐ Solenoid position							
1	2 position single			●			●
2	2-position double			●			●
3	3-position all ports closed			●			●
4	3-position ABR connection			●			●
5	3-position PAB connection			●			●
66	Two 3-port valves integrated (*1)	ASide valve: Normally closed	●			●	
		B side valve: Normally closed					
Ⓑ Port size							
08	Rc1/4		●	●	●		
Ⓒ Electrical connections (lamp and surge suppressor)Standard equipment)							
Blank	Terminal block (with cable clamp)		●	●	●	●	●
R 1	I/O connector (500 mm) (made to order)		●	●	●		
Ⓓ Option							
Blank	No option		●	●	●	●	●
M	Manual override of non-locking	(*1)	●	●		●	●
M7	Manual device with OFF function	(*1)	●	●		●	●
H	With check valve	(*2)	●	●		●	●
A	Ozone/coolant proof product		●	●		●	●
F	Port P/A/B filter integrated		●	●	●		
Ⓔ Voltage							
1	100 VAC (rectifier integrated) * Electrical connections: Only when Blank is selected		●	●		●	●
3	24 VDC		●	●		●	●
4	12 VDC		●	●		●	●

⚠ Precautions for model selection

*1: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.

***2:** 3-position all ports closed and PAB connection are not provided with the check valve specifications (H).
Refer to page 1105 for details on the exhaust check valve.

Electrical connections

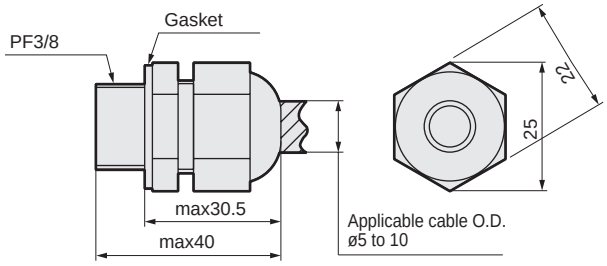
Name	Terminal block	I/O connector
Code	Blank	R1
Shape / Terminal Layout		

Parts kit No. for terminal block

● Cable clamp (with gasket)

Model No.	Description
W4G-BMS-038GP	Used to protect cables from dust and jetting water.

(reference value)
Body tightening torque 2.0 to 2.5 N·m
Cable clamp tightening torque 1.5 to 2.0 N·m



Ozone-proof specifications • Coolant proof specifications

Select option "A" of Item Ⓓ in How to order.

Specifications for rechargeable battery (Catalog No. CC-1226A)

For use in the rechargeable battery manufacturing process, materials used for all parts are limited

** - Voltage - **P40**

CE marking specifications

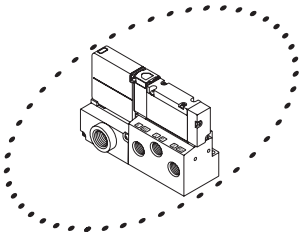
** - Voltage - **ST**

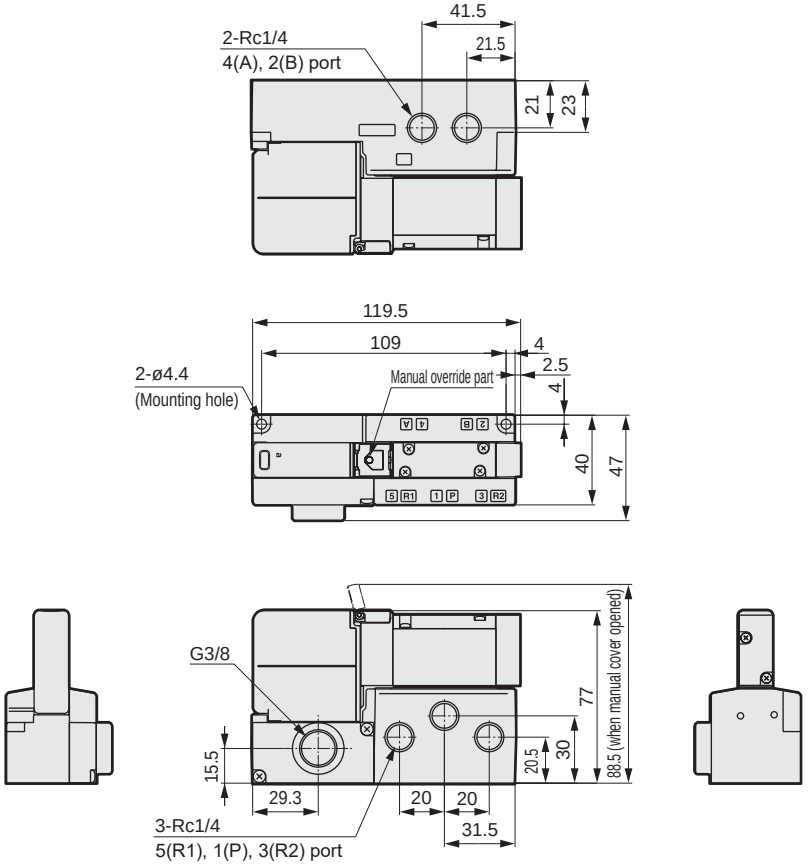
- Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

Dimensions CAD

W4GB210

● Terminal block (blank)

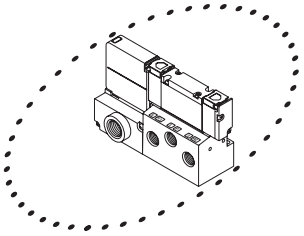


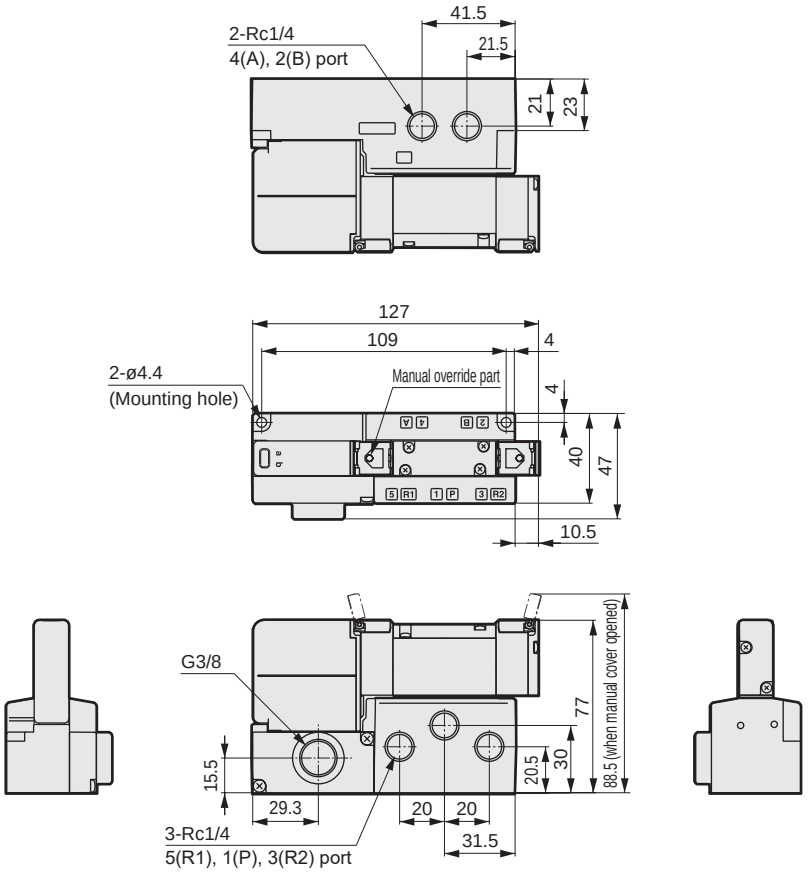


Note: For I/O connector (R1), refer to page 975.

W4GB220/W3GB2660

● Terminal block (blank)

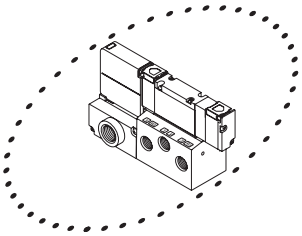


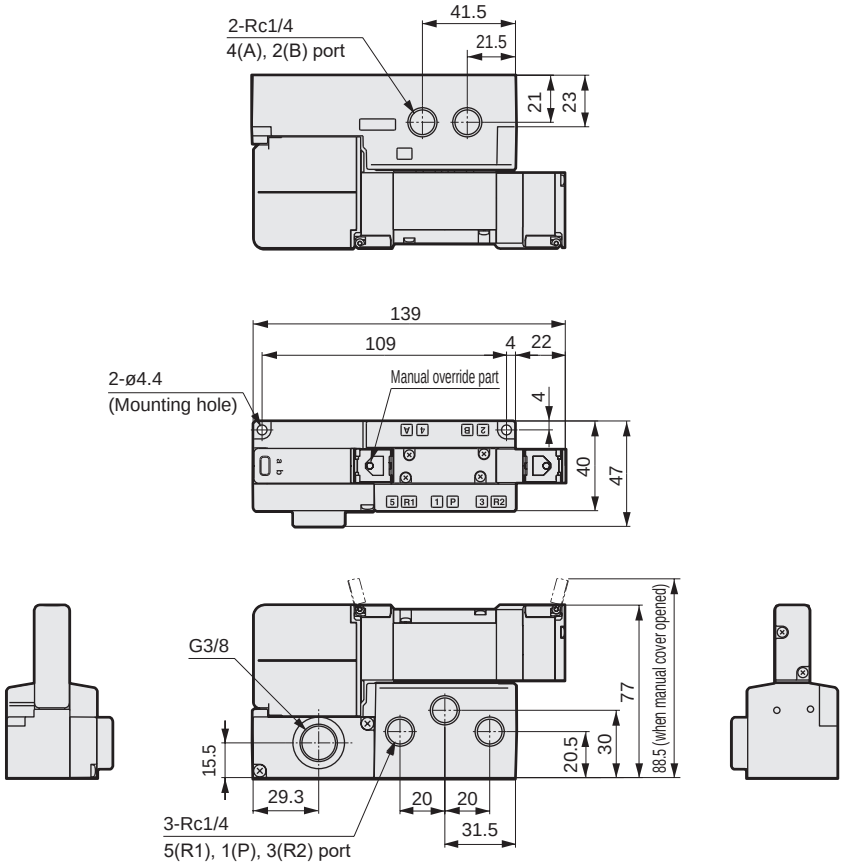


Dimensions CAD

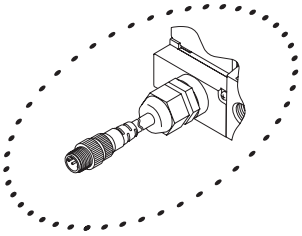
W4GB2$^{3}_{4}_{5}$0

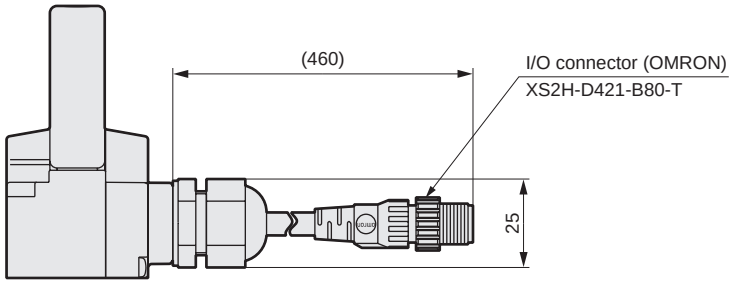
● Terminal block (blank)

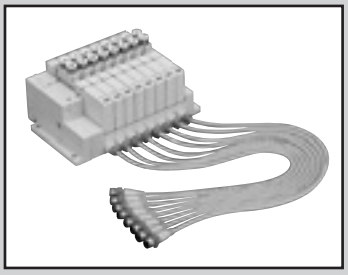




● I/O connector (R1)







Individual wiring manifold
Body piping

MW$^{3}_{4}$GA2-R1 Series

● Cylinder bore size: ø20 to ø80

RoHS

Manifold common specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item		MW3GA2/MW4GA2
Manifold		Block manifold
Air supply and exhaust method		Common supply/common exhaust (with check valve built-in)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (pilot exhaust check valve built-in)
	External pilot	Main valve/pilot valve individual exhaust
Valve and operation		Pilot operated soft spool valve
Working fluid		Compressed air
Max. working pressure MPa		0.7 (≈101 psi, 7 bar)
Min. working pressure MPa		0.2 (≈29 psi, 2 bar) (*3)
Proof pressure MPa		1.05 (≈152 psi, 10 bar)
Ambient temperature °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common (standard)
Lubrication (*1)		Not required
Degree of protection (*2)		Dust proof/jet proof (IP65 or equivalent)
Vibration resistance m/s^2		49 or less
Shock resistance m/s^2		294 or less
Atmosphere		Cannot be used in corrosive gas environments

*1 : Use turbine oil Class 1 ISO VG32 for lubrication.
Note that excessive lubricant may cause unstable operation.
*2 : Tested according to the test method for IP65 (IEC60529 [IEC529: 1989-11]) standards.
For details, refer to page 1103.
*3 : The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected.
Set the external pilot pressure between 0.2 and 0.7 MPa.

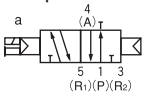
Electrical specifications

Item		MW3GA2/MW4GA2
Rated voltage V	DC	12, 24
Voltage fluctuation range		±10%
Holding current A	24 VDC	0.025
	12 VDC	0.050
Power consumption W (*4)	24 VDC	0.6
	12 VDC	0.6
Thermal class		B

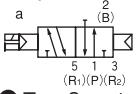
*4: Surge suppressor and indicator are equipped as standard.

JIS symbol

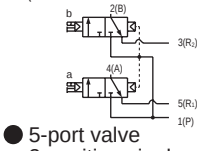
● 3-port valve
2-position single NC



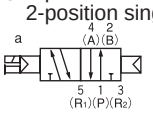
2-position single NO



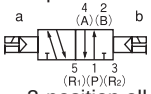
● Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



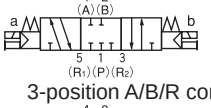
● 5-port valve
2-position single



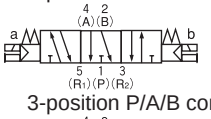
2-position double



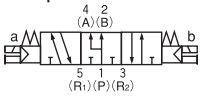
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		MW3GA2/MW4GA2
Max. station No.		16
Port size	Port A/B	Push-in fitting ø4, ø6, ø8, Rc1/8
	Port P/R	Push-in fitting ø8, ø10

Refer to page 978 for weight.

Performance/characteristics by model

Item			MW3GA2/MW4GA2	
			ON	OFF
Response time ms	Two 3-port valves integrated		12	29
	2-position	Single	22	24
		Double	26	-
	3-position		25	35

The response times are values with supply pressure of 0.5 MPa at 20°C and without lubrication. They depend on the pressure and the lubricant quality.

Flow characteristics

Model No.	Solenoid position		P→A/B		A/B→R	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
MW3GA2	Two 3-port valves integrated		1.7	0.37	2.2	0.13
MW3GA2 MW4GA2	2-position		2.2	0.35	1.7	0.25
	3-position	All ports closed	2.0	0.36	2.2	0.21
		ABR connection	2.1	0.34	1.7	0.26
		PAB connection	2.3	0.35	2.3	0.27

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.
*2: Values of the 2-position type and ABR connection type are those with integrated check valve.

How to order

Individual wiring I/O connector

● Manifold model No.

MW4GA2 1 0 - C8 — R1 H D - 5 - 3

● 3-port manifold model No.

NW3GA2 66 0 - C8 — R1 H D - 5 - 3

● Discrete valve block with solenoid valve

NW4GA2 1 0 - C8 — R1 H —— 3

● Discrete valve block with 3-port solenoid valve

NW3GA2 66 0 - C8 — R1 H —— 3

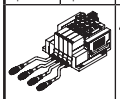
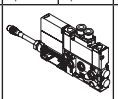
● Single valve for mounting base

W4GA2 1 9 - C8 —— H —— 3

● 3-port discrete valve for mounting base

W3GA2 66 9 - C8 —— H —— 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*1)
Ⓓ Wiring method
For circuit diagrams (inside the solenoid valve), refer to page 970
Ⓔ Option
Ⓕ Mount type
Ⓖ Station No.
Ⓗ Voltage

Code	Description	Ⓐ Model No.					
		Manifold		Discrete valve block with solenoid valve		Discrete valve	
		3-port valve	5-port valve	3-port valve	5-port valve	3-port valve	5-port valve
							
		MW3GA2	MW4GA2	NW3GA2	NW4GA2	W3GA2	W4GA2
Ⓑ OffReplacement 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 normally closed	●		●		●	
11	2-position single normally open	●		●		●	
66	Two 3-port valves integrated (*7) — A side valve: Normally closed / B side valve: Normally closed	●		●		●	
8	Mix manifold (when there are multiple solenoid positions)	●	●				
Ⓒ Port size (port A/B)							
C4	ø4 push-in fitting	●	●	●	●	●	●
C6	ø6 push-in fitting	●	●	●	●	●	●
C8	ø8 push-in fitting	●	●	●	●	●	●
CX	Push-in fitting mix	●	●				
06	Rc1/8	●	●	●	●	●	●
Ⓓ Wiring method (including standard lamp and surge suppressor)							
R 1	I/O connector (M12) (500 mm)	●	●	●	●		
Ⓔ Option							
Blank	No option	●	●	●	●	●	●
M	Manual override of non-locking (*2)	●	●	●	●	●	●
M7	Manual device with OFF function(*2)	●	●	●	●	●	●
H	With check valve (*3)	●	●	●	●	●	●
K	External pilot	●	●				
A	Ozone/coolant proof product	●	●	●	●	●	●
F	Port A/B filter built in (*4)	●	●	●	●	●	●
Z1	Air supply spacer (*5)	●	●				
Z3	Exhaust spacer (*5)	●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer (*6)(*7)	●	●				
Ⓕ Mount type							
Blank	Direct mount	●	●				
D	DIN rail mount	●	●				
Ⓖ Station No.							
2 to 16	2 stations to 16 stations	●	●				
Ⓗ Voltage							
3	24 VDC	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●

indicates not available.

⚠ Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1: Specify the size of port P/R in the supply and exhaust block section.
*2: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.
***3: Check valve (H) is not available for 3-position all ports closed and PAB connection. Refer to page 1105 for details on the check valve.**
*4: A filter is built into port P.
***5: Specify the spacer mounting position and quantity in manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. For details, refer to page 1057.**
*6: Not available when the fitting for port A/B is elbow.
*7: Not compatible with combination with external pilot (K).

Ozone-proof specifications • Coolant proof specifications

Select option "A" of Item Ⓔ in How to order.

Specifications for rechargeable battery (Catalog No. CC-1226A)

● For use in the rechargeable battery manufacturing process, materials used for all parts are limited

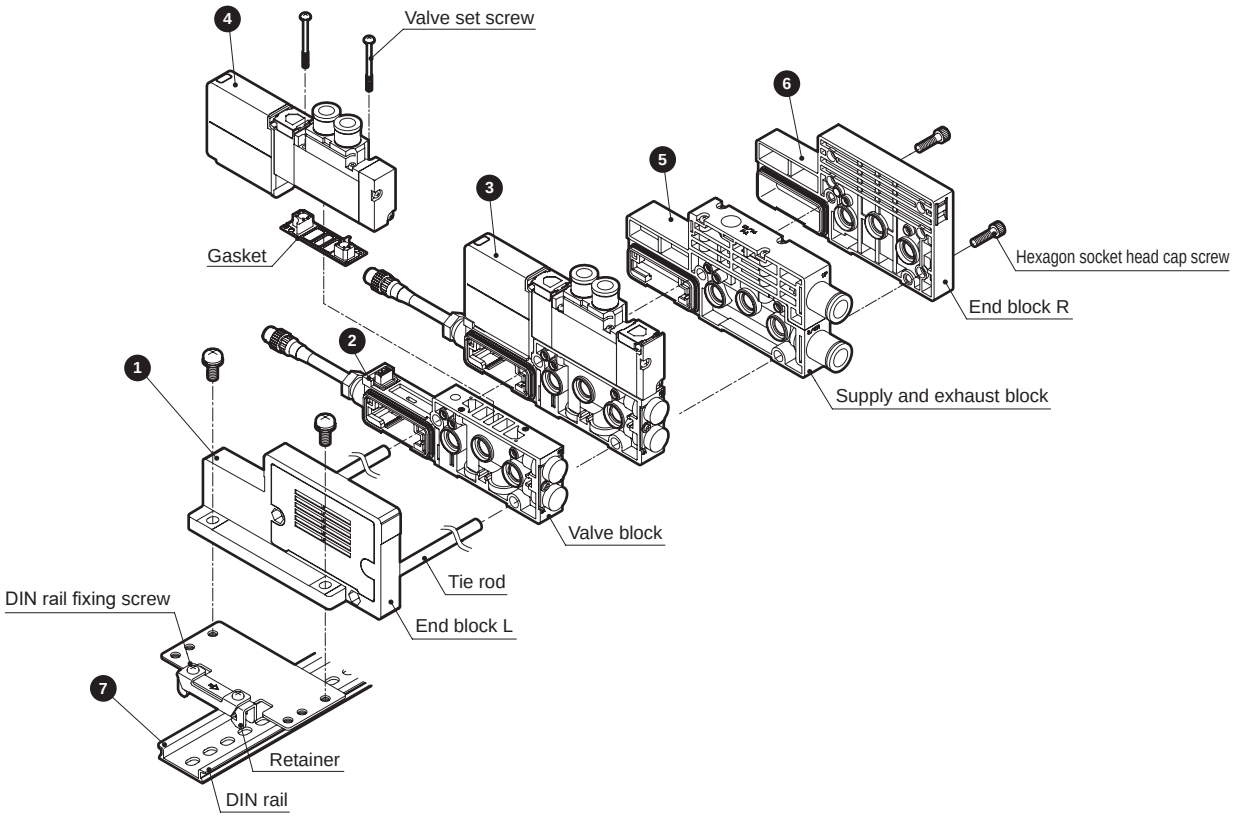
** - Voltage - **P40**

CE marking specifications

** - Voltage - **ST**

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

Manifold components explanation and parts list



List of main components (refer to pages 1048 to 1063 for details)

No.	Component name	Model No. (example)	No.	Component name	Model No. (example)
1	End block	NW4G2-EL	4	Discrete solenoid valve for manifold	W4GA219-C8-H-3
2	Discrete valve block	NW4GA2-V-R1	5	Supply and exhaust block	NW4G2-Q-10
3	Discrete valve block with solenoid valve	NW4GA220-C8-R1H-3	6	End block R	NW4G2-ER
			7	DIN rail	N4G-BAA (Length)

Weight (for DC)

NW4GA2

(g)

Part name	Model No.	Weight	Part name	Model No.	Weight
Valve block with solenoid valve	NW3GA210-*-R1*-*	220	Valve block with masking plate	NW4GA2-MP-R1	141
	NW3GA2110-*-R1*-*	220	Valve block	NW4GA2-V*-R1	111
	NW4GA210-*-R1*-*	225			
	NW4GA220-*-R1*-*	241			
	NW4GA2$^{3}_{4}$0-*-R1*-*	248			

Common

(g)

Part name	Model No.	Weight	Part name	Model No.	Weight
Supply and exhaust block	NW4G2-Q-*	137	End block	NW4G2-EL	91
	NW4G2-QK-*	140		NW4G2-EXL	96
	NW4G2-QZ-*	137	Air supply spacer	W4G2-P(K)-*	60
	NW4G2-QKZ-*	143	Exhaust spacer	W4G2-R-*-*	60
End block	NW4G2-ER	91	Spacer pilot check valve	W4G2-PC-M	183
	NW4G2-EXR	96	Individual air supply compatible spacer with in-stop valve spacer	W4G2-PIS-*	115
			DIN rail	N4G-BAA*	0.19/mm

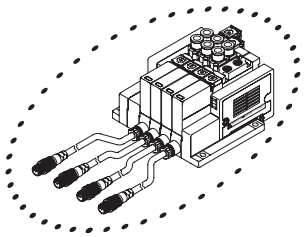
Repair parts and related parts list

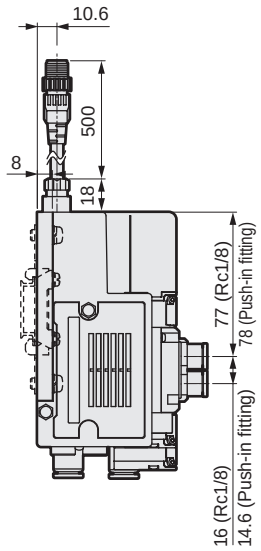
Applicable	Part name	Model No.	Applicable	Part name	Model No.
Valve	Cartridge fitting ø4 straight	4G2-JOINT-C4	Supply and exhaust block port P/R	Cartridge fitting ø8 straight	N4G2-Q-JOINT-8
	Cartridge fitting ø6 straight	4G2-JOINT-C6		Cartridge fitting ø10 straight	N4G2-Q-JOINT-10
	Cartridge fitting ø8 straight	4G2-JOINT-C8		Cartridge fitting ø8 (short) elbow	N4G2-Q-JOINT-8L
	Plug cartridge	4G2-JOINT-CPG		Cartridge fitting ø8 long elbow	N4G2-Q-JOINT-8LL
Supply and exhaust block port PA	Cartridge fitting ø6 straight	N4G2-QK-JOINT-6		Cartridge fitting ø10 (short) elbow	N4G2-Q-JOINT-10L
	Cartridge fitting ø6 elbow	N4G2-QK-JOINT-6L		Cartridge fitting ø10 long elbow	N4G2-Q-JOINT-10LL
				Plug cartridge	N4G2-Q-JOINT-PG

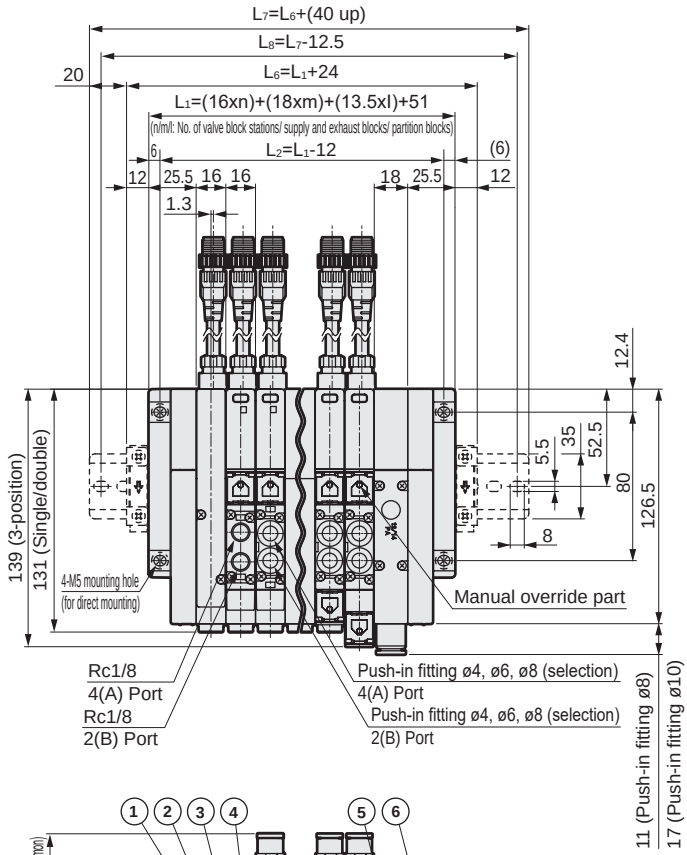
Dimensions

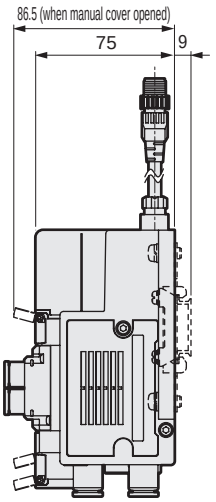
MW4GA2

● I/O connector (R1)

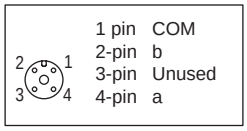


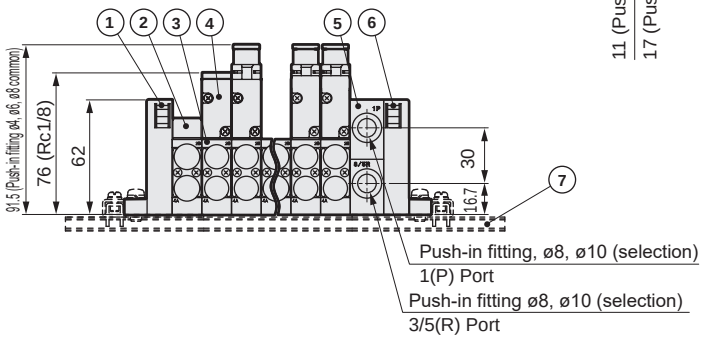






* I/O connector pin layout

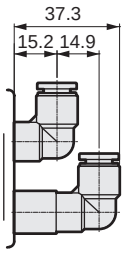




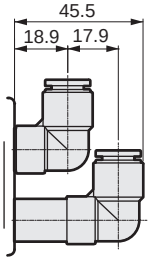
No.	Part name
1	End block L
2	Masking plate
3	Valve block (with I/O connector cable)
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

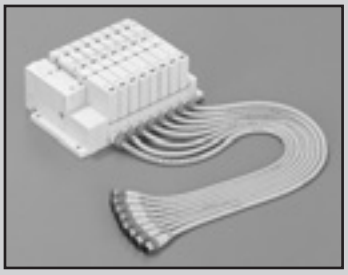
● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)





Individual wiring manifold
Base side piping/base bottom piping

$MW^{3}_{4}G^{B}_{Z}2$-R1 Series

● Cylinder bore size: ø20 to ø80

RoHS

Manifold common specifications

Item	$MW^{3}_{4}GB2$	$MW^{3}_{4}GZ2$
Manifold	Block manifold	
Supply and exhaust method	Common supply/common exhaust (with check valve built-in)	
Pilot exhaust method	Internal pilot: Main valve/pilot valve common exhaust (pilot exhaust check valve built-in)	
	External pilot: Main valve/pilot valve individual exhaust	
Piping direction	Lateral direction from base	Downward from base
Valve and operation	Pilot operated soft spool valve	
Working fluid	Compressed air	
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)	
Min. working pressure MPa	0.2 (≈29 psi, 2 bar) (*3)	
Proof pressure MPa	1.05 (≈150 psi, 10.5 bar)	
Ambient temperature °C	-5 (23°F) to 55 (131°F) (no freezing)	
Fluid temperature °C	5 (41°F) to 55 (131°F)	
Manual override	Non-locking/locking common (standard)	
Lubrication (*1)	Not required	
Degree of protection (*2)	Dust proof/jet proof (IP65 or equivalent)	
Vibration resistance m/s^2	49 or less	
Shock resistance m/s^2	294 or less	
Atmosphere	Cannot be used in corrosive gas environments	

*1 : Use turbine oil Class 1 ISO VG32 for lubrication.
Note that excessive lubricant may cause unstable operation.
*2 : Tested according to the test method for IP65 (IEC60529 (IEC529: 1989-11)) standards.
Refer to page 1103 for details.
*3 : The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected.
Set the external pilot pressure between 0.2 and 0.7 MPa.

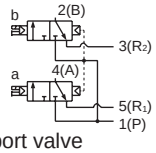
Electrical specifications

Item		$M^{3}_{4}GB2$
Rated voltage V	DC	12, 24
Voltage fluctuation range		±10%
Holding current A	24 VDC	0.025
	12 VDC	0.050
Power consumption W (*4)	24 VDC	0.6
	12 VDC	0.6
Thermal class		B

*4: Surge suppressor and indicator are supplied as standard.

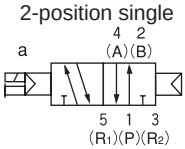
JIS symbol

● Two 3-port valves integrated
(A side valve: NC, B side valve: NC)

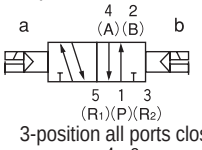


● 5-port valve

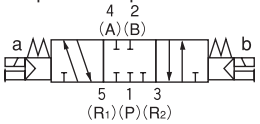
2-position single



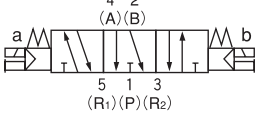
2-position double



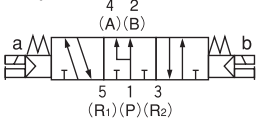
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		$MW^{3}_{4}GB2/MW^{3}_{4}GZ2$
Max. station No.		16
Port size	A/B Port	Push-in fitting ø4, ø6, ø8, Rc1/8
	P/R port	Push-in fitting ø8, ø10

For weight, refer to page 984.

Performance/characteristics by model

Item			$MW^{3}_{4}GB2/MW^{3}_{4}GZ2$ ON	$MW^{3}_{4}GB2/MW^{3}_{4}GZ2$ OFF
Response time ms	Two 3-port valves integrated		12	29
	2-position	Single	22	24
		Double	26	-
	3-position		25	35

The response time is the value with supply pressure of 0.5 MPa at 20°C and without lubrication. It depends on the pressure and the lubricant quality.

Flow characteristics

Model No.	Solenoid position		P→A/B		A/B→R	
			C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b
MW3GB2	Two 3-port valves integrated		1.7	0.42	2.2	0.15
MW4GB2 **MW4GZ2**	2-position		2.4	0.36	1.7	0.25
	3-position	All ports closed	2.1	0.37	2.2	0.22
		ABR connection	2.2	0.35	1.7	0.25
		PAB connection	2.3	0.32	2.3	0.24

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.
*2: Values of the 2-position type and ABR connection type are those with integrated check valve.

Ozone-proof specifications • Coolant proof specifications

Select option “A” of Item Ⓔ in How to order on pages 982 and 983.

Specifications for rechargeable battery (Catalog No. CC-1226A)

For use in the rechargeable battery manufacturing process, materials used for all parts are limited

** -Voltage - **P40**

CE marking specifications

** - Voltage - **ST**

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

MW4GB2-R1 Series

Individual wiring manifold; base side piping/base bottom piping

How to order

Individual wiring I/O connector

● Manifold model No.

MW4GB2 1 0 - C8 – R1 H D - 5 - 3

● 3-port manifold model No.

MW3GB2 66 0 - C8 – R1 H D - 5 - 3

● Discrete valve block with solenoid valve

NW4GB2 1 0 - C8 – R1 H ——— 3

● Discrete valve block with 3-port solenoid valve

NW3GB2 66 0 - C8 – R1 H ——— 3

● Single valve for mounting base

W4GB2 1 9 - 00 ——— H ——— 3

● 3-port discrete valve for mounting base

W3GB2 66 9 - 00 ——— H ——— 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*1) (*2)
Ⓓ Wiring method
Ⓔ Option (*3)
Ⓕ Mount Type
Ⓖ Station No.
Ⓗ Voltage

For circuit diagrams (solenoid valve interior), refer to page 970.

Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1: Ports A and B plug specifications (*NC/*NO) are available for 2-position single only. Specify the port P/R bore size in the supply and exhaust block section.

2: CL push-in L fitting (upward) is available for the single and double types only. Long elbow is for port A and short elbow for port B.
Ports A and B are the same size in the push-in L fitting (upward) mix (CX). If CL* NC/NO is selected, the fitting is a short elbow.

***3 : Specify the spacer mounting position and quantity on the manifold specifications sheet. Stacking of spacers is not possible.**
Combination with the masking plate is not supported.
For details, refer to page 1057.

*4: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.

***5: Check valve (H) is not available for 3-position all ports closed and PAB connection.**
Refer to page 1105 for details on the check valve.

*6: A filter is built into port P.

*7: Not available when the fitting for port A/B is elbow.

*8: Not compatible with combination with external pilot (K).

Code	Description		Ⓐ Model No. Manifold MW3GB2	MW4GB2	Discrete valve block with solenoid valve NW3GB2	NW4GB2	Discrete valve W3GB2	W4GB2
Ⓑ 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			●		●		●
66	Two 3-port valves Integrated(*8)	A side valve: Normally closed	●		●		●	
		B side valve: Normally closed						
8	Mix manifold (when there are multiple solenoid positions)		●	●				
Ⓒ Port size (port A/B)								
C4	ø4 push-in fitting		●	●	●	●		
C6	ø6 push-in fitting		●	●	●	●		
C8	ø8 push-in fitting		●	●	●	●		
CL6	ø6 push-in L-fitting (upward)		●	●	●	●		
CL8	ø8 push-in L-fitting (upward)		●	●	●	●		
CX	Push-in fitting mix		●	●				
1 side plug	Port A	Port B						
C4NC	ø4 push-in fitting	Plug	●	●	●	●		
C6NC	ø6 push-in fitting	Plug	●	●	●	●		
C8NC	ø8 push-in fitting	Plug	●	●	●	●		
C4NO	Plug	ø4 push-in fitting	●	●	●	●		
C6NO	Plug	ø6 push-in fitting	●	●	●	●		
C8NO	Plug	ø8 push-in fitting	●	●	●	●		
CL6NC	ø6 push-in L-fitting (upward)	Plug	●	●	●	●		
CL8NC	ø8 push-in L-fitting (upward)	Plug	●	●	●	●		
CL6NO	Plug	ø6 push-in L-fitting (upward)	●	●	●	●		
CL8NO	Plug	ø8 push-in L-fitting (upward)	●	●	●	●		
Ⓓ Wiring method (including standard lamp and surge suppressor)								
R1	I/O connector (M12) (500 mm)		●	●	●	●		
Ⓔ Option								
Blank	No option		●	●	●	●	●	●
M	Manual override of non-locking (*4)		●	●	●	●	●	●
M7	Manual device with OFF function (*4)		●	●	●	●	●	●
H	With check valve (*5)		●	●	●	●	●	●
K	External pilot		●	●				
A	Ozone/coolant proof product		●	●	●	●	●	●
F	Port A/B filter built in (*6)		●	●	●	●		
Z1	Air supply spacer (*3)(*7)		●	●				
Z3	Exhaust spacer (*3)(*7)		●	●				
Z6	Spacer pilot check valve (*3)(*7)		●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer (*3)(*7)(*8)		●	●				
Ⓕ Mounting								
Blank	Direct mount		●	●				
D	DIN rail mount		●	●				
Ⓖ Station No.								
2 to 16	2 stations to 16 stations		●	●				
Ⓗ Voltage								
3	24 VDC		●	●	●	●	●	●
4	12 VDC		●	●	●	●	●	●

indicates not available.

How to order

Individual wiring I/O connector

● Manifold model No.

MW4GZ2 1 0 - C8 – R1 H — 5 - 3

● 3-port manifold model No.

MW3GZ2 66 0 - C8 – R1 H — 5 - 3

● Discrete valve block with solenoid valve

NW4GZ2 1 0 - C8 – R1 H — 3

● Discrete valve block with 3-port solenoid valve

NW3GZ2 66 0 - C8 – R1 H — 3

● Discrete valve for integrated base (*1)

W4GB2 1 9 - 00 — H — 3

● 3-port discrete valve for integrated base

W3GB2 66 9 - 00 — H — 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*2) (*3)
Ⓓ Wiring method
For circuit diagrams (solenoid valve interior), refer to page 970.
Ⓔ Option (*4)
Ⓕ Mounting
Ⓖ Station No.
Ⓗ Voltage

Code	Description	Ⓐ Model No.					
		Manifold		Discrete valve block with solenoid valve		Discrete valve	
		MW3GZ2	MW4GZ2	NW3GZ2	NW4GZ2	W3GB2	W4GB2
Ⓑ 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		●		●		●
66	Two 3-port valves integrated (*9) A side valve: Normally closed	●		●		●	
	Two 3-port valves integrated (*9) B side valve: Normally closed	●		●		●	
8	Mix manifold (for multiple solenoid positions)	●	●				
Ⓒ Port size (port A/B)							
C4	ø4 push-in fitting	●	●	●	●		
C6	ø6 push-in fitting	●	●	●	●		
C8	ø8 push-in fitting	●	●	●	●		
CX	Push-in fitting mix	●	●				
1 side plug	Port A: ø4 push-in fitting / Port B: Plug	●	●	●	●		
C4NC							
1 side plug	Port A: ø6 push-in fitting / Port B: Plug	●	●	●	●		
C6NC							
1 side plug	Port A: ø8 push-in fitting / Port B: Plug	●	●	●	●		
C8NC							
1 side plug	Port A: Plug / Port B: ø4 push-in fitting	●	●	●	●		
C4NO							
1 side plug	Port A: Plug / Port B: ø6 push-in fitting	●	●	●	●		
C6NO							
1 side plug	Port A: Plug / Port B: ø8 push-in fitting	●	●	●	●		
C8NO							
Ⓓ Wiring method (including standard lamp and surge suppressor)							
R1	I/O connector (M12) (500 mm)	●	●	●	●		
Ⓔ Option							
Blank	No option	●	●	●	●	●	●
M	Non-locking manual override (*5)	●	●	●	●	●	●
M7	Manual override with OFF function (*5)	●	●	●	●	●	●
H	Check valve (*6)	●	●	●	●	●	●
K	External pilot	●	●				
A	Ozone/coolant proof product	●	●	●	●	●	●
F	A/B port filter integrated (*7)	●	●	●	●		
Z1	Air supply spacer (*4)	●	●				
Z3	Exhaust spacer (*4)	●	●				
Z6	Spacer pilot check valve (*4) (*8)	●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer (*4) (*8) (*9)	●	●				
Ⓕ Mounting							
Blank	Direct mount	●	●				
Ⓖ Station No.							
2 to 16	2 stations to 16 stations	●	●				
Ⓗ Voltage							
3	24 VDC	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●

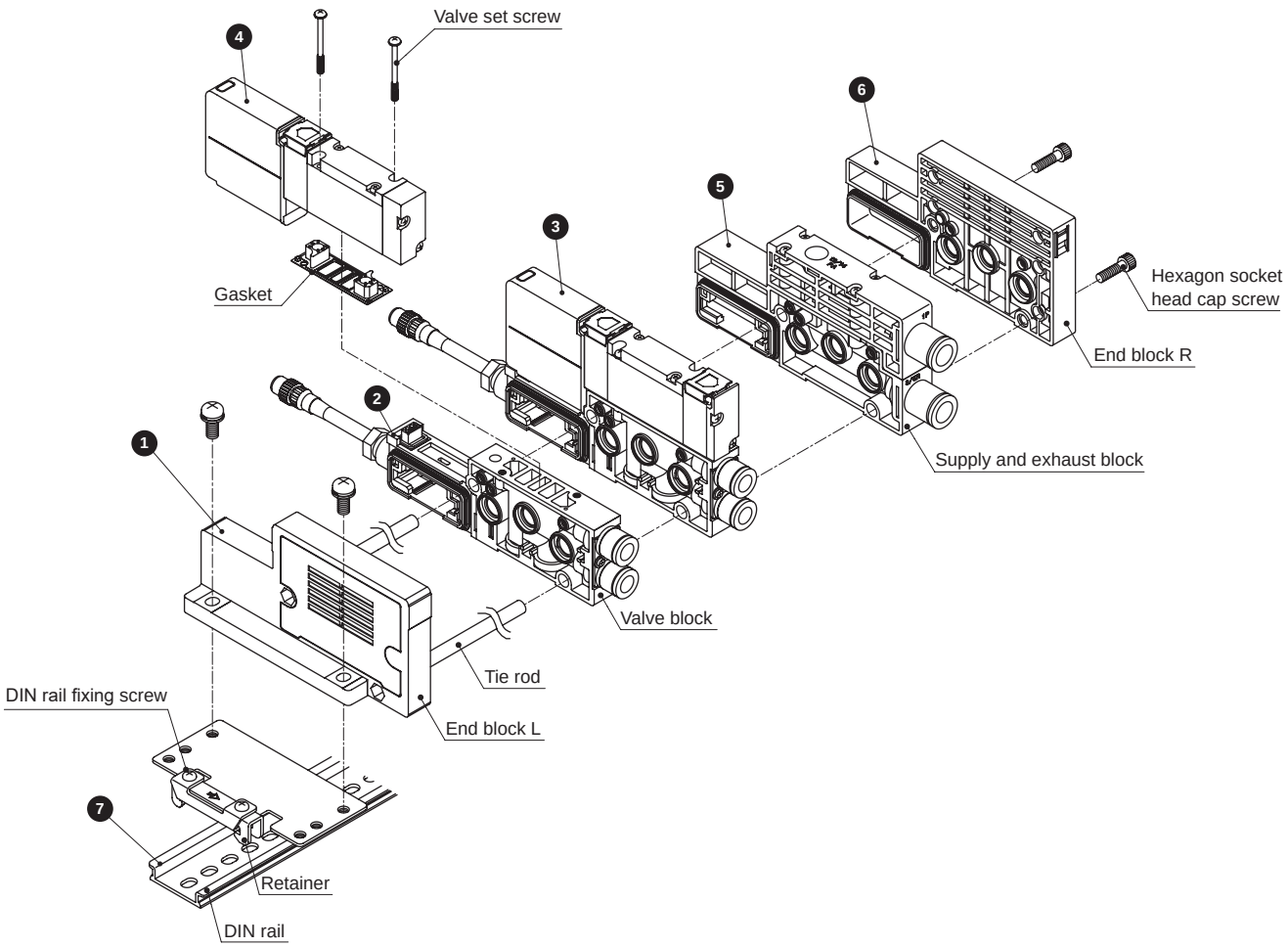
indicates not available.

⚠ Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1 : The W4GB2*9 discrete solenoid valve is used for the NW4GZ2 discrete valve block with solenoid valve.
*2 : Plugs of ports A and B (*NC/*NO) are available for 2-position single only.
Specify the port P/R bore size in the supply and exhaust block section.
3 : CL push-in L fitting (upward) is available for the single and double types only. Long elbow is for port A and short elbow for port B.
Ports A and B are the same size in the push-in L fitting (upward) mix (CX). If CL* NC/NO is selected, the fitting is a short elbow.
*4 : Specify the spacer mounting position and quantity on the manifold specifications sheet. Stacking of spacers is not possible.
Combination with the masking plate is not supported.
For details, refer to page 1057.
*5 : Non-locking manual override (M) and manual override with OFF function (M7) cannot be selected together.
*6 : Check valve (H) is not available for 3-position all ports closed and PAB connection.
Refer to page 1105 for details on the check valve.
*7 : A filter is built into port P.
*8 : Not available when the fitting for port A/B is an elbow.
*9 : Not compatible in combination with external pilot (K).

Manifold components explanation and parts list



List of main components (refer to pages 1048 to 1063 for details)

No.	Component name	Model No. (example)	No.	Component name	Model No. (example)
1	End block	NW4G2-EL	4	Discrete solenoid valve for manifold	W4GB219-00-H-3
2	Discrete valve block	NW4GB2-V-C8-R1	5	Supply and exhaust block	NW4G2-Q-10
3	Discrete valve block with solenoid valve	NW4GB220-C8-R1H-3	6	End block R	NW4G2-ER
			7	DIN rail	N4G-BAA (Length)

Weight (for DC)

NW4GB2

Part name	Model No.	Weight
Valve block with solenoid valve	NW4GB210-*-R1*-*	216
	NW4GB220-*-R1*-*	232
	NW4GB2$^{3}_{5}$0-*-R1*-*	239
Valve block with masking plate	NW4GB2-MP-C8-R1	152
Valve block	N4GB2-V*-*-R1	122

NW4GZ2 (g)

Part name	Model No.	Weight
Valve block with solenoid valve	NW4GZ210-*-R1*-*	216
	NW4GZ220-*-R1*-*	231
	NW4GZ2$^{3}_{5}$0-*-R1*-*	238
Valve block with masking plate	NW4GZ2-MP-C8-R1	151
Valve block	NW4GZ2-V*-*-R1	121

COMMON (g)

Part name	Model No.	Weight
Supply and exhaust block	NW4G2-Q-*	137
	NW4G2-QK-*	140
	NW4G2-QZ-*	137
	NW4G2-QKZ-*	143
End block	NW4G2-ER	91
	NW4G2-EXR	96

Part name	Model No.	Weight
End block	NW4G2-EL	91
	NW4G2-EXL	96
Air supply spacer	W4G2-P(K)-*	60
Exhaust spacer	W4G2-R-*-*	60
Spacer pilot check valve	W4G2-PC-M	183
Individual air supply compatible spacer with in-stop valve spacer	W4G2-PIS-*	115
DIN rail	N4G-BAA*	0.19/mm

Parts list

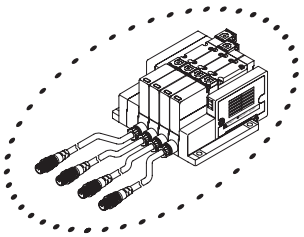
● Push-in cartridge fitting

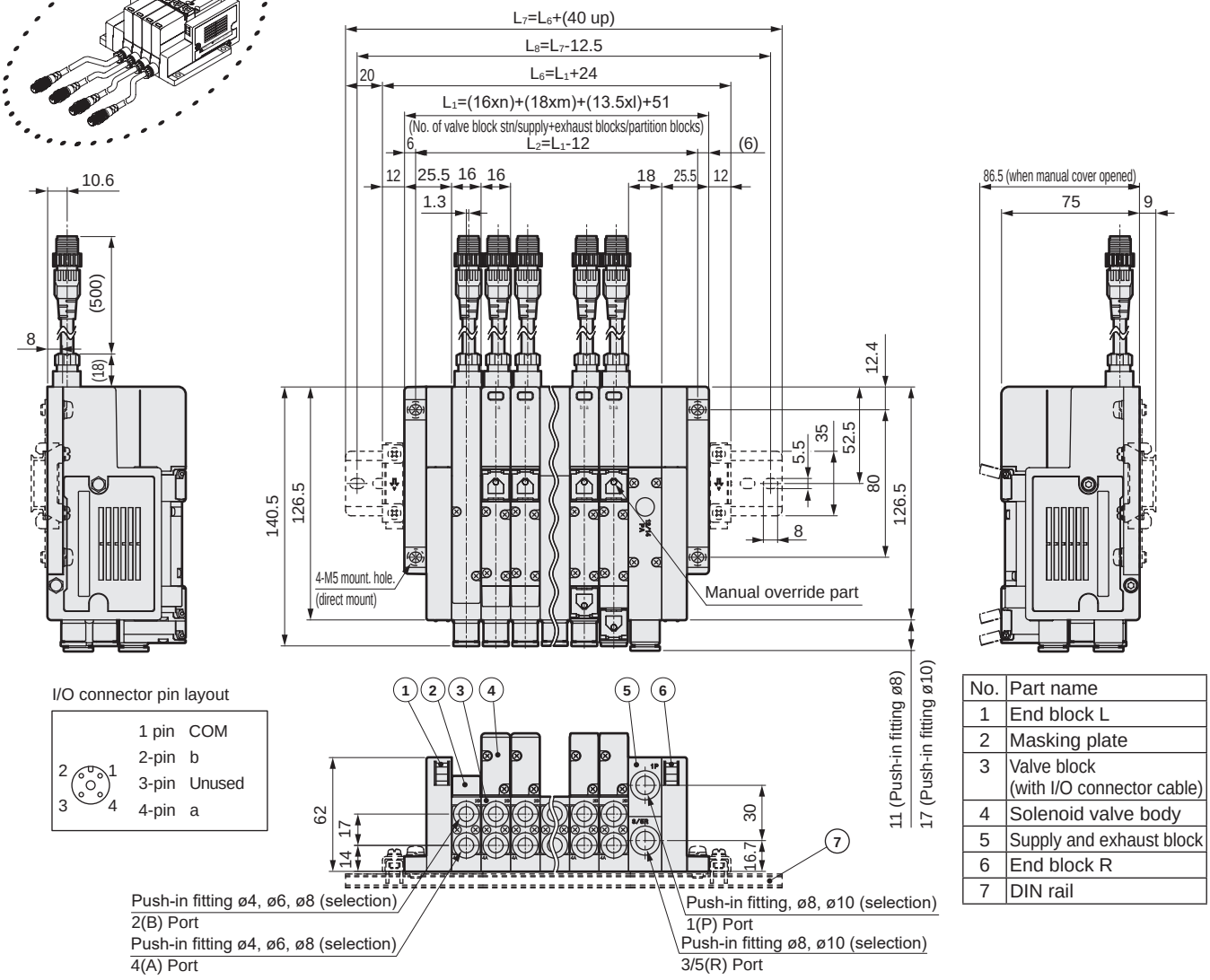
No.	Part name	Model No.
Valve block	Cartridge fitting ø4 straight	4G2-JOINT-C4
	Cartridge fitting ø6 straight	4G2-JOINT-C6
	Cartridge fitting ø8 straight	4G2-JOINT-C8
	Cartridge fitting ø6 (short) elbow	4G2-JOINT-CL6
	Cartridge fitting ø6 long elbow	4G2-JOINT-CLL6
	Cartridge fitting ø8 (short) elbow	4G2-JOINT-CL8
	Cartridge fitting ø8 long elbow	4G2-JOINT-CLL8
	Plug cartridge	4G2-JOINT-CPG
Supply and exhaust block port P/R	Cartridge fitting ø8 straight	N4G2-Q-JOINT-8
	Cartridge fitting ø10 straight	N4G2-Q-JOINT-10
	Cartridge fitting ø8 (short) elbow	N4G2-Q-JOINT-8L
	Cartridge fitting ø8 long elbow	N4G2-Q-JOINT-8LL
	Cartridge fitting ø10 (short) elbow	N4G2-Q-JOINT-10L
	Cartridge fitting ø10 long elbow	N4G2-Q-JOINT-10LL
	Plug cartridge	N4G2-Q-JOINT-PG
Supply and exhaust block port PA	Cartridge fitting ø6 straight	N4G2-QK-JOINT-6
	Cartridge fitting ø6 elbow	N4G2-QK-JOINT-6L

Dimensions

MW4GB2

● I/O connector (R1)



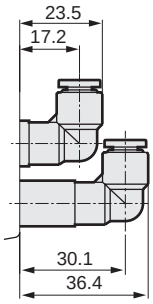


I/O connector pin layout

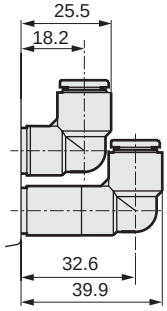
No.	Part name
1	End block L
2	Masking plate
3	Valve block (with I/O connector cable)
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

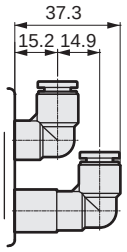


● ø8(CL8)

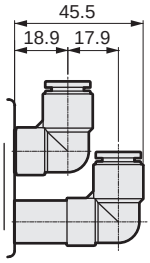


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



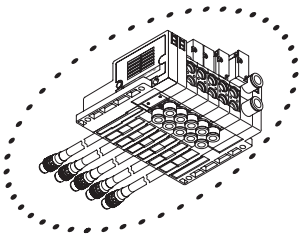
●ø10(CL10)

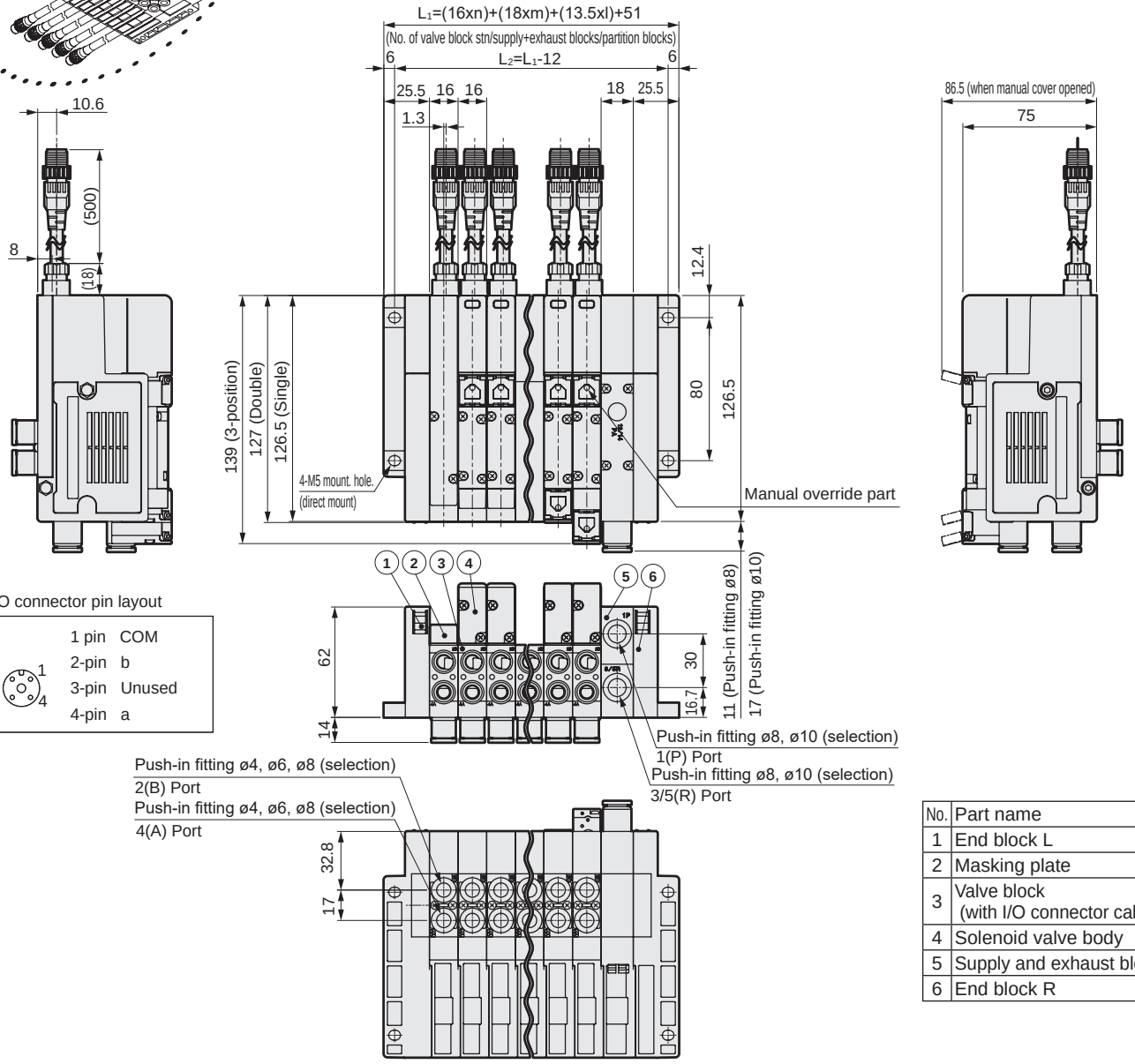


Dimensions

MW4GZ2

● I/O connector (R1)





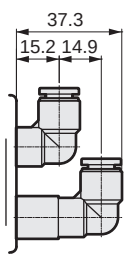
*I/O connector pin layout

1 pin	COM
2-pin	b
3-pin	Unused
4-pin	a

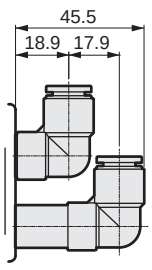
No.	Part name
1	End block L
2	Masking plate
3	Valve block (with I/O connector cable)
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

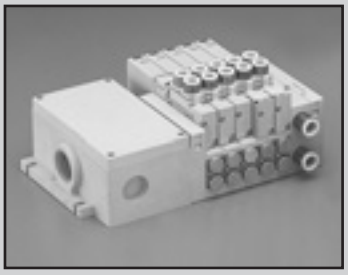
● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)





Reduced wiring manifold
Body piping

MW$^{3}_{4}$GA2-T1/2/3/5/7/8 Series

● Cylinder bore size: ø20 to ø80

CE Refer to the Ending for details. RoHS CAD

Manifold common specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item		MW3GA2/MW4GA2
Manifold		Block manifold
Air supply and exhaust method		Common supply/common exhaust (with check valve built-in)
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (pilot exhaust check valve built-in)
	External pilot	Main valve/pilot valve individual exhaust
Piping direction		Valve top direction
Valve and operation		Pilot operated soft spool valve
Working fluid		Compressed air
Max. working pressure MPa		0.7 (≈101 psi, 7 bar)
Min. working pressure MPa		0.2 (≈29 psi, 2 bar) (*4)
Proof pressure MPa		1.05 (≈152 psi, 10 bar)
Ambient temperature °C		-5 (23°F) to 55 (131°F) (no freezing)
Fluid temperature °C		5 (41°F) to 55 (131°F)
Manual override		Non-locking/locking common (standard)
Lubrication (*1)		Not required
Degree of protection (*2)		Dust-proof/jet-proof (IP65) (*3)
Vibration resistance m/s^2		49 or less
Impact resistance m/s^2		294 or less
Atmosphere		Cannot be used in corrosive gas environments

*1: Use turbine oil Class 1 ISO VG32 for lubrication.
Note that excessive lubricant may cause unstable operation.
*2: Tested according to the test method for IP65 (IEC60529 [IEC529: 1989-11]) standards.
For details, refer to page 1103.
3: The degree of protection of D-sub-connector (T30) and flat cable connector (T5) is dust-proof IP40 or equivalent. Avoid water drops or oil, etc., during use.
*4: The working pressure range is 0 to 0.7 MPa when external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

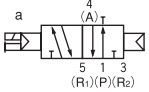
Electrical specifications

Item		MW3GA2/MW4GA2
Rated voltage V	DC	12, 24
	AC	100
Voltage fluctuation range		±10%
Holding current A	24 VDC	0.025
	12 VDC	0.050
	100 VAC	0.012
Power consumption W(*5)	24 VDC	0.6
	12 VDC	0.6
Apparent power VA (*6)	100 VAC	1.2
Thermal class		B

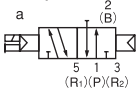
*5: Surge suppressor and indicator are equipped as standard.
*6: Multi-connector, D-sub-connector and flat cable connector are not available with 100 VAC.
Serial transmission specifications have no 100 VAC or 12 VDC settings.

JIS symbol

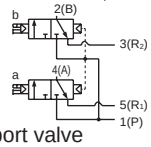
● 3-port valve
2-position single NC



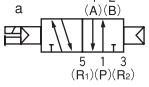
2-position single NO



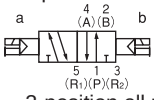
● Two 3-port valves integrated
(A side valve: NC, B side valve: NC)



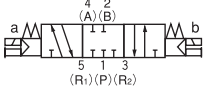
● 5-port valve
2-position single



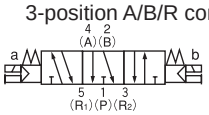
2-position double



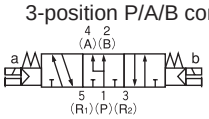
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		MW3GA2/MW4GA2													
		T10	T20	T30	T51	T53	T7EC□1	T7EC□2	T7EC□7	T7EN□1	T7EN□2	T7EN□7	T7EB□1	T7EB□2	T7EB□7
Max. station No.	Standard wiring	18	-	18	18	18	16	18	16	16	18	16	16	18	16
	Double wiring	9	8	12	9	12	8	16	8	8	16	8	8	16	8
Max. number of solenoids		18	16	24	18	24	16	32	16	16	32	16	16	32	16
Port size	Port A/B	Push-in fitting ø4, ø6, ø8, Rc1/8													
	Port P/R	Push-in fitting ø8, ø10													

Item		MW3GA2/MW4GA2					
		T7EP□1	T7EP□2	T7EP□7	T8G1 T8D1	T8G2 T8D2	T8G7 T8D7
Max. station No.	Standard wiring	16	18	16	16	18	16
	Double wiring	8	16	8	8	16	8
Max. number of solenoids		16	32	16	16	32	16
Port size	Port A/B	Push-in fitting ø4, ø6, ø8, Rc1/8					
	Port P/R	Push-in fitting ø8, ø10					

Refer to page 996 for weight.

Performance/characteristics by model

Item			MW3GA2/MW4GA2	
			ON	OFF
Response time ms	Two 3-port valves integrated		12	29
	2-position	Single	22	24
		Double	26	-
	3-position		25	35

The response times are values with supply pressure of 0.5 MPa at 20°C and without lubrication. They depend on the pressure and the lubricant quality.

Flow characteristics

Model No.	Solenoid position		P→A/B		A/B→R	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
MW3GA2	Two 3-port valves integrated		1.7	0.37	2.2	0.13
MW3GA2	2-position		2.2	0.35	1.7	0.25
MW3GA2 MW4GA2	3-position	All ports closed	2.0	0.36	2.2	0.21
		ABR connection	2.1	0.34	1.7	0.26
		PAB connection	2.3	0.35	2.3	0.27

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.
*2: Values of the 2-position type and ABR connection type are those with integrated check valve.

Reduced wiring specifications

Item	T10	T20	T30	T51	T53
Type	Common terminal block M3 thread	Multi-connector	D-sub-connector	20P Flat cable connector Without power supply terminal	26P Flat cable connector Without power supply terminal
Connector	-	HIROSE ELECTRIC CO. LTD. RM21WTP-20S 20-pin	D-sub-connector (female) 25-pin	MIL-C-83503 standard compliant pressure welding socket 20-pin	MIL-C-83503 standard compliant pressure welding socket 26-pin

Specifications of serial transmission device (adapter) stations (refer to page 1086 for PLC compatibility table)

The communication setting file can be downloaded from the CKD website (https://www.ckd.co.jp/en/).

Item		Device unit dedicated for valves (without I/O block)				Device unit with I/O block	
		T7EC1	T7EC2	T7ECP1	T7ECP2	T7ECB7	T7ECPB7
Network name		EtherCAT				EtherCAT	
Power supply voltage	Unit side	24 VDC ±10%				24 VDC ±10%	
	Valve side	24 VDC +10%, -5%				24 VDC +10%, -5%	
Current consumption	Unit side	110 mA or less				110 mA or less (excluding input block current)	
	Valve side	15 mA or less (excluding load current)				15 mA or less (excluding load current)	
Valve output		NPN		PNP		NPN	PNP
Input/output point count		0/16	0/32	0/16	0/32	16/16	
Operation display		Power supply/communication status/valve power supply					
Degree of protection		IP65					

Item		Device unit dedicated for valves (without I/O block)				Device unit with I/O block	
		T7EN1	T7EN2 *1	T7ENP1	T7ENP2 *1	T7ENB7	T7ENPB7
Network name		EtherNet/IP					
Power supply voltage	Unit side	24 VDC ±10%					
	Valve side	24 VDC +10%, -5%					
Current consumption	Unit side	130 mA or less				130 mA or less (*2: excluding input block current)	
	Valve side	15 mA or less (excluding load current)					
Valve output		NPN output		PNP output		NPN output	PNP output
I/O points		16-point output	32-point output	16-point output	32-point output	16-point input/16-point output	16-point input/16-point output
LED display	Power supply	2 points: Unit power supply/valve power supply					
	Communication	4 points: MS, NS, L/A IN, L/A OUT					
Degree of protection		IP65					

*1: No 32-point output when connecting with W4G4 valve. *2: If the power supply of the I/O block also serves as the unit power supply, refer to page 991.

Item		Device unit dedicated for valves (without I/O block)				Device unit with I/O block	
		T7EB1	T7EB2 *1	T7EBP1	T7EBP2 *1	T7EBB7	T7EBPB7
Network name		CC-Link IEF Basic					
Power supply voltage	Unit side	24 VDC ±10%					
	Valve side	24 VDC +10%, -5%					
Current consumption	Unit side	130 mA or less				130 mA or less (*2: excluding input block current)	
	Valve side	15 mA or less (excluding load current)					
Valve output		NPN output		PNP output		NPN output	PNP output
I/O points		16-point output	32-point output	16-point output	32-point output	16-point input/16-point output	16-point input/16-point output
LED display	Power supply	2 positions: PW, PW (V)					
	Communication	4 positions: RUN, ERR, L/A IN, L/A OUT, INFO					
Degree of protection		IP65					

*1: No 32-point output when connecting with W4G4 valve. *2: If the power supply of the I/O block also serves as the unit power supply, refer to page 991.

Item		Device unit dedicated for valves (without I/O block)				Device unit with I/O block	
		T7EP1	T7EP2 *1	T7EPP1	T7EPP2 *1	T7EPB7	T7EPPB7
Network name		PROFINET					
Power supply voltage	Unit side	24 VDC ±10%					
	Valve side	24 VDC +10%, -5%					
Current consumption	Unit side	130 mA or less				130 mA or less (*2: excluding input block current)	
	Valve side	15 mA or less (excluding load current)					
Valve output		NPN output		PNP output		NPN output	PNP output
I/O points		16-point output	32-point output	16-point output	32-point output	16-point input/16-point output	16-point input/16-point output
LED display	Power supply	2 positions: PW, PW (V)					
	Communication	4 positions: RUN, ERR, L/A IN, L/A OUT, INFO					
Degree of protection		IP65					

*1: No 32-point output when connecting with W4G4 valve. *2: If the power supply of the I/O block also serves as the unit power supply, refer to page 991.

Specifications of serial transmission device units (Refer to page 1086 for the PLC compatibility table)

Download the communication setting file from the CKD website (https://www.ckd.co.jp/en/).

Item \ Network name / Device unit model No.		CC-Link (Ver. 1.10)			DeviceNet *1		
		T8G1	T8G2	T8G7	T8D1	T8D2	T8D7
Communication speed		156K/625K/2.5M/5M/10Mbps			125K/250K/500Kbps		
Power supply voltage	Unit side	24 VDC ±10%			24 VDC ±10%		
	Valve side	24 VDC+10% , -5%			24 VDC+10%, -5%		
	Communication side	—			11 to 25 VDC		
Current consumption	Unit side	60 mA or less	100 mA or less	75 mA or less (*2)	70 mA or less	90 mA or less	80 mA or less (*2)
	Valve side	15 mA or less (when all points are OFF)			15 mA or less (when all points are OFF)		
	Communication side	—			50 mA or less		
Valve output		NPN			NPN		
Input/output point count		0/16	0/32	16/16	0/16	0/32	16/16
Occupied number		1 station			2 bytes	4 bytes	4 bytes
Operation display		Power supply/communication status/valve power supply			Communication status/valve power supply		
Other		—			—		

*1: Compatible with DeviceNet compliant networks (DLNK, etc.) as well.

*2: If the feed power supply of the input blocks also serves as the unit power supply, use the formula below for calculation.

(unit current consumption) = * + (35 mA x number of input blocks) + (total internal current consumption of connected sensors)

* ...T8G7:60mA, T8D7:80mA

Note that for T8G7 and T8D7 unit side current consumption, select the sensor so that the current consumption is 600mA or less.

I/O block specifications

● Input block

Model No. / Item	NW4GA2-IN-N-K	NW4GA2-IN-N-B	NW4GA2-IN-P-K	NW4GA2-IN-P-B
Number of inputs	4 points			
Rated input voltage	24 VDC			
Rated input current	7 mA			
ON voltage	15 VDC or more (between input terminals and V)		15 VDC or more (between input terminals and G)	
OFF voltage/OFF current	5 VDC or less (between input terminal and V)/1.5 mA or less		5 VDC or less (between input terminal and G)/1.5 mA or less	
Input	Sink		Source	
Supply power	Common with unit power supply	Externally supplied power	Common with unit power supply	Externally supplied power
Operation display	Power supply/input status			

*1: Refer to page 1056 for model No.

● Output block

Model No. / Item	NW4GA2-ONT-N-B	NW4GA2-OUT-P-B
Output points	4 points	
Rated voltage	24 VDC	
Max. load current	1 A/1 point (3 A/common)	
Residual voltage	1.5 V or less	
Output	Sink	Source
Protection circuit	Overcurrent protection/reverse connection protection	
Fuse	Power supply for external load: 24 VDC and 5 A (can be replaced)	
Operation display	Power supply/output status	

*1: Refer to page 1056 for model No.

How to order

Common terminal block/multi-connector/D-sub-connector/flat cable connector

● Manifold model No.

MW4GA2 **1** **0** - **C8** — **T10** **W** **H** **D** - **5** - **3**

● 3-port manifold model No.

MW3GA2 **66** **0** - **C8** — **T10** **W** **H** **D** - **5** - **3**

● Discrete valve block with solenoid valve

NW4GA2 **1** **0** - **C8** - ○ **W** **H** — **3**

● Discrete valve block with 3-port solenoid valve

NW3GA2 **66** **0** - **C8** - ○ **W** **H** — **3**

● Discrete valve for integrated base

W4GA2 **1** **9** - **C8** — **H** — **3**

● 3-port discrete valve for integrated base

W3GA2 **66** **9** - **C8** — **H** — **3**

Ⓐ Model No.

Ⓑ Solenoid position

Ⓒ Port size (*1)

· For the cable with D-sub-connector model No., refer to page 1064.
· For the cable for flat cable connector model No., refer to page 1079.

Ⓓ Electrical connections (*2)

Ⓔ Reduced wiring connection
For circuit diagrams (inside the solenoid valve), refer to page 970.

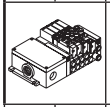
Ⓕ Terminal/connector pin Array method

Ⓖ Option (*3)

Ⓗ Mount type

Ⓘ Station No.

Ⓙ Voltage

Code	Description	Ⓐ Model No.					
		Manifold		Discrete valve block with solenoid valve		Discrete valve	
		3-port valve	5-port valve	3-port valve	5-port valve	3-port valve	5-port valve
							
		MW3GA2	MW4GA2	NW3GA2	NW4GA2	W3GA2	W4GA2
Ⓑ 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 normally closed	●		●		●	
11	2-position single normally open	●		●		●	
66	Two 3-port valves integrated (*8) — A side valve: Normally closed / B side valve: Normally closed	●		●		●	
8	Mix manifold (when there are multiple solenoid positions)	●	●				
Ⓒ Port size (port A/B)							
C4	ø4 push-in fitting	●	●	●	●	●	●
C6	ø6 push-in fitting	●	●	●	●	●	●
C8	ø8 push-in fitting	●	●	●	●	●	●
CX	Push-in fitting mix	●	●				
06	Rc1/8	●	●	●	●	●	●
Ⓓ Electrical connections							
Blank	DC connector relay board specifications			●	●		
2 to 8	*Select the AC cable length on page 1051.			●	●		
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)							
Refer to the next page for reduced wiring.							
Ⓕ Terminal/connector pin array							
Blank	Standard wiring (*4)	●	●	●	●		
W	Double wiring (*4)	●	●	●	●		
Ⓖ Option							
Blank	No option	●	●	●	●	●	●
M	Manual override of non-locking (*5)	●	●	●	●	●	●
M7	Manual device with OFF function(*5)	●	●	●	●	●	●
H	With check valve (*6)	●	●	●	●	●	●
K	External pilot	●	●				
A	Ozone/coolant proof product	●	●	●	●	●	●
F	Port A/B filter built in (*7)	●	●	●	●	●	●
Z1	Air supply spacer (*3)	●	●				
Z3	Exhaust spacer (*3)	●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer (*3)(*8)	●	●				
Ⓗ Mount type							
Blank	Direct mount	●	●				
D	DIN rail mount	●	●				
Ⓘ Station No.							
2 to 18	2 stations to 18 stations (Differs depending on the reduced wiring specifications. Refer to the individual specifications (on page 988).)	●	●				
Ⓙ Voltage							
1	100 VAC (rectifier integrated)	●	●	●	●	●	●
3	24 VDC	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●

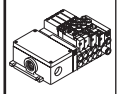
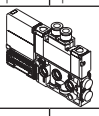
indicates not available.

⚠ Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1: Specify the size of port P/R in the supply and exhaust block section.
*2: AC: If a change of specifications is expected, select a valve block with masking plate as a spare block.
***3: Specify the spacer mounting position and quantity on the manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. Refer to page 1057 for details.**
*4: Blank.....The wiring will be based on the type of valve mounted.
W.....All wired as double solenoid regardless of the type of valve used. It is not necessary to select W if no single solenoid is used.
Double wiring will automatically be applied to multi-connector T20 and AC voltage type even if W is not specified, since they are only for double wiring.
*5: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.
***6: Check valve (H) is not available for 3-position all ports closed and 3-position PAB connection. For the check valve, refer to page 1105 .**
*7: A filter is built into port P.
*8: Not compatible with combination with external pilot (K).

[Reduced wiring list]

Ⓐ Model No.							
Manifold		Discrete valve block with solenoid valve		Discrete solenoid valve			
3-port valve	5-port valve	3-port valve	5-port valve	3-port valve	5-port valve		
							
MW3GA2	MW4GA2	NW3GA2	NW4GA2	W3GA2	W4GA2		
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)							
T10	Common terminal block (M3 screw) Left-sided spec.	●	●				
T20	Multi-connector Left-sided spec. (*9)	●	●				
T30	D-sub-connector Left-sided spec. (*9)	●	●				
T51	20-pin flat cable connector (without power supply terminal) Left-sided spec. (*9)	●	●				
T53	26-pin flat cable connector (without power supply terminal) Left-sided spec. (*9)	●	●				

(*9):Multi-connector (T20), D-sub-connector (T30) and flat cable connector (T5*) connection specifications do not have 100 VAC settings.

Ozone-proof specifications • Coolant proof specifications

Select “A” of Item Ⓖ Option in How to order on pages 992 and 994.

Specifications for rechargeable battery (Catalog No. CC-1226A)

For use in the rechargeable battery manufacturing process, materials used for all parts are limited

** - Voltage - **P40**

CE marking specifications

** - Voltage - **ST**

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

MW$^{3}_{4}$GA2-T7/T8 Series

Reduced wiring manifold; body piping

How to order

Serial transmission

● Manifold model No.

MW4GA2 1 0 - C8 — T8G1 W H D - 5 - 3

● 3-port manifold model No.

MW3GA2 66 0 - C8 — T8G1 W H D - 5 - 3

● Discrete valve block with solenoid valve

NW4GA2 1 0 - C8 - ○ W H — 3

● Discrete valve block with 3-port solenoid valve

NW3GA2 66 0 - C8 - ○ W H — 3

● Single valve for mounting base

W4GA2 1 9 - C8 — H — 3

● 3-port discrete valve for mounting base

W3GA2 66 9 - C8 — H — 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*1)
Ⓓ Electrical connections
Ⓔ Reduced wiring connection
For circuit diagrams (inside the solenoid valve), refer to page 970.
Ⓕ Terminal/connector pin array
Ⓖ Option (*2)
Ⓗ Mount type
Ⓘ Station No.
Ⓙ Voltage

Code	Description	MW3GA2	MW4GA2	NW3GA2	NW4GA2	W3GA2	W4GA2
	Ⓐ Model No. Manifold: 3-port valve / 5-port valve; Discrete valve block with solenoid valve: 3-port valve / 5-port valve; Discrete valve: 3-port valve / 5-port valve						
	Ⓑ 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 normally closed	●		●		●	
11	2-position single normally open	●		●		●	
66	Two 3-port valves integrated (*8) — A side valve: Normally closed; B side valve: Normally closed	●		●		●	
8	Mix manifold (when there are multiple solenoid positions)	●	●				
	Ⓒ Port size (port A/B)						
C4	ø4 push-in fitting	●	●	●	●	●	●
C6	ø6 push-in fitting	●	●	●	●	●	●
C8	ø8 push-in fitting	●	●	●	●	●	●
CX	Push-in fitting mix	●	●				
06	Rc1/8	●	●	●	●	●	●
	Ⓓ Electrical connections						
Blank	DC connector relay board specifications			●	●		
	Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)						
	Refer to the next page for reduced wiring.						
	Ⓕ Terminal/connector pin array						
Blank	Standard wiring (*3)	●	●	●	●		
W	Double wiring (*3)	●	●	●	●		
	Ⓖ Option						
Blank	No option	●	●	●	●	●	●
M	Manual override of non-locking (*4)	●	●	●	●	●	●
M7	Manual device with OFF function (*4)	●	●	●	●	●	●
H	With check valve (*5)	●	●	●	●	●	●
K	External pilot	●	●				
A	Ozone/coolant proof product	●	●	●	●	●	●
F	Port A/B filter built in (*6)	●	●	●	●	●	●
Y**	I/O block (*7) (In **, enter the number of the desired I/O block combination from Table 1 [I/O block combination table].)	●	●				
Z1	Air supply spacer (*2)	●	●				
Z3	Exhaust spacer (*2)	●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer (*2)(*8)	●	●				
	Ⓗ Mount type						
Blank	Direct mount	●	●				
D	DIN rail mount	●	●				
	Ⓘ Station No.						
2 to 16	2 stations to 16 stations (Differs depending on the reduced wiring specifications. Individual specifications (Page 988).)	●	●				
	Ⓙ Voltage						
3	24 VDC (*9)	●	●	●	●	●	●

indicates not available.

⚠ Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1: Specify the port P/R bore size in the supply and exhaust block section.

***2: Specify the spacer mounting position and quantity in manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. For details, refer to page 1057.**

*3: Blank……The wiring will be based on the type of valve mounted.
W……All wired as double solenoid regardless of the type of valve mounted
The wiring will be for solenoid.
If a single solenoid is not installed,
W is not required.

*4: Non-locking manual override (M) and manual override with OFF function (M7) simultaneous selection is not supported.

***5: Check valve (H) is not available for 3-position all ports closed and PAB connection. Refer to page 1105 for details on the exhaust check valve.**

*6: A filter is built into port P.

***7: Specify the I/O type (sink/source) of I/O block and the power supply (shared with device unit/external) in the manifold specifications sheet (Page 1099).**

*8: Not compatible with combination with external pilot (K).

*9: Serial transmission is not available with 100 VAC and 12 VDC.

[Reduced wiring list]

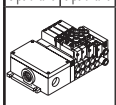
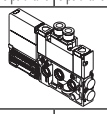
Ⓐ Model No.									
Manifold			Discrete valve block with solenoid valve			Discrete solenoid valve			
3-port valve	5-port valve		3-port valve	5-port valve		3-port valve	5-port valve		
									
MW3GA2	MW4GA2		NW3GA2	NW4GA2		W3GA2	W4GA2		
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)									
T7EC1	Thin EtherCAT	16 point output(NPN valve output)	●	●					
T7ECP1		16 point output(PNP valve output)	●	●					
T7EC2		32 point output(NPN valve output)	●	●					
T7ECP2		32 point output(PNP valve output)	●	●					
T7ECB7		16/16-point I/O (NPN valve output)	●	●					
T7ECPB7		16/16-point I/O (PNP valve output)	●	●					
T7EN1	Thin EtherNet/IP	16-point output (NPN valve output)	●	●					
T7ENP1		16-point output (PNP valve output)	●	●					
T7EN2		32-point output (NPN valve output)	●	●					
T7ENP2		32-point output (PNP valve output)	●	●					
T7ENB7		16/16-point I/O (NPN valve output)	●	●					
T7ENPB7		16/16-point I/O (PNP valve output)	●	●					
T7EB1	Thin CC-Link IEF Basic	16-point output (NPN valve output)	●	●					
T7EBP1		16-point output (PNP valve output)	●	●					
T7EB2		32-point output (NPN valve output)	●	●					
T7EBP2		32-point output (PNP valve output)	●	●					
T7EBB7		16/16-point I/O (NPN valve output)	●	●					
T7EBPB7		16/16-point I/O (PNP valve output)	●	●					
T7EP1	Thin PROFINET	16-point output (NPN valve output)	●	●					
T7EPP1		16-point output (PNP valve output)	●	●					
T7EP2		32-point output (NPN valve output)	●	●					
T7EPP2		32-point output (PNP valve output)	●	●					
T7EPB7		16/16-point I/O (NPN valve output)	●	●					
T7EPPB7		16/16-point I/O (PNP valve output)	●	●					
T8G1	CC-Link	16 point output	●	●					
T8G2		32 point output	●	●					
T8G7		16 point input/16 point output	●	●					
T8D1	DeviceNet	16 point output	●	●					
T8D2		32 point output	●	●					
T8D7		16 point input/16 point output	●	●					

Table 1 [I/O block combination table]

T7

Code	Layout of I/O blocks and station No.						Wiring block side
Y10						IN	
Y20					IN	IN	
Y30				IN	IN	IN	
Y40			IN	IN	IN	IN	
Y11					OUT	IN	
Y21				OUT	IN	IN	
Y31			OUT	IN	IN	IN	
Y41		OUT	IN	IN	IN	IN	
Y12				OUT	OUT	IN	
Y22			OUT	OUT	IN	IN	
Y32		OUT	OUT	IN	IN	IN	
Y42	OUT	OUT	IN	IN	IN	IN	

*1: How to read the table
Example) Y11 is a combination of one input block (4 points) and one output block (4 points).
2: Refer to "I/O point numbers corresponding to wiring method T8 I/O No." on page 1080 for details.

T8

Code	Layout of I/O blocks and station No.						Wiring block side
Y10						IN	
Y20					IN	IN	
Y30				IN	IN	IN	
Y40			IN	IN	IN	IN	
Y01						OUT	
Y02					OUT	OUT	
Y03				OUT	OUT	OUT	
Y04			OUT	OUT	OUT	OUT	
Y11					OUT	IN	
Y21				OUT	IN	IN	
Y31			OUT	IN	IN	IN	
Y41		OUT	IN	IN	IN	IN	
Y12				OUT	OUT	IN	
Y22			OUT	OUT	IN	IN	
Y32		OUT	OUT	IN	IN	IN	
Y42	OUT	OUT	IN	IN	IN	IN	

Ozone-proof specifications • Coolant proof specifications

Select option "A" of Item Ⓖ in How to order on pages 992 and 994.

Specifications for rechargeable battery (Catalog No. CC-1226A)

● For use in the rechargeable battery manufacturing process, materials used for all parts are limited

** - Voltage - **P40**

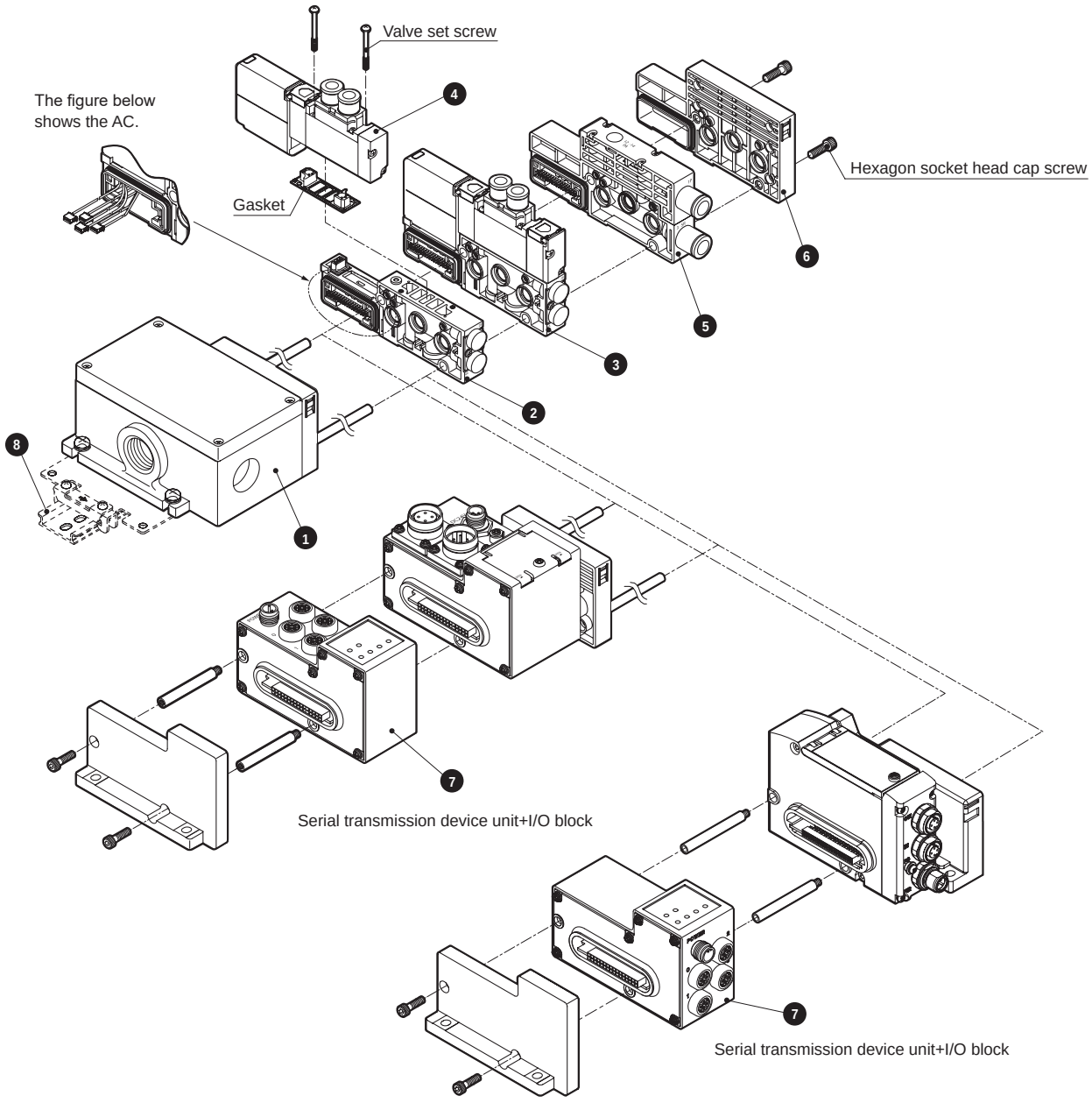
(compatible only with T8*)

CE marking specifications

** - Voltage - **ST**

- Standard voltage of DC24V or less is CE marking-compatible even if the model No. is not indicated with "ST".
- CE Marking is not available for T8G1, T8G2, and T8G7.

Manifold components explanation and parts list



List of main components (refer to pages 1048 to 1063 for details)

No.	Component name	Model No. (example)	No.	Component name	Model No. (example)
1	Wiring block	NW4G2-T10	5	Supply and exhaust block	NW4G2-Q-10
2	Discrete valve block	NW4GA2-V1	6	End block R	NW4G2-ER
3	Discrete valve block with solenoid valve	NW4GA220-C8-H-3	7	I/O block	NW4GA2-IN-N-B
4	Discrete solenoid valve for manifold	W4GA219-C8-H-3	8	DIN rail	N4G-BAA (Length)

Weight (for DC)

NW4GA2

(g)

Block		Weight	Block		Weight
Valve block with solenoid valve	NW3GA210-*-*-*	181	Valve block with masking plate	NW4GA2-MP$^{S}_{D}$	102
	NW3GA2110-*-*-*	181	Wiring block (serial transmission device unit)	NW4GA2-T8*	430
	NW4GA210-*-*-*	186	I/O block (serial transmission device unit)	NW4GA2-IN/OUT-N/P-K/B	220
	NW4GA220-*-*-*	202	Wiring block (serial transmission device unit)	NW4G2-T7*	410
	NW4GA2$^{3}_{5}$0-*-*-*	209	I/O block (serial transmission device unit)	NW4GB2-IN/OUT-N/P-K/B*	220
Valve block	NW4GA2-V*	72			

* When NW4GA2-T8* is selected for wiring block, I/O block is upward connection (NW4GA2-).
When NW4G2-T7* is selected for wiring block, I/O block is lateral connection (NW4GB2-).

COMMON

(g)

Block		Weight
Supply and exhaust block	NW4G2-Q-*	137
	NW4G2-QK-*	140
	NW4G2-QZ-*	137
	NW4G2-QKZ-*	143
End block	NW4G2-ER	91
	NW4G2-EXR	96

Block		Weight
Wiring block	NW4G2-T10	423
	NW4G2-T20	490
	NW4G2-T30	370
	NW4G2-T5*	367
Air supply spacer	W4G2-P(K)-*	60
Exhaust spacer	W4G2-R-*-*	60
Spacer pilot check valve	W4G2-PC-M	183
Individual air supply compatible spacer with in-stop valve spacer	W4G2-PIS-*	115
DIN rail	N4G-BAA*	0.19/mm

Parts list

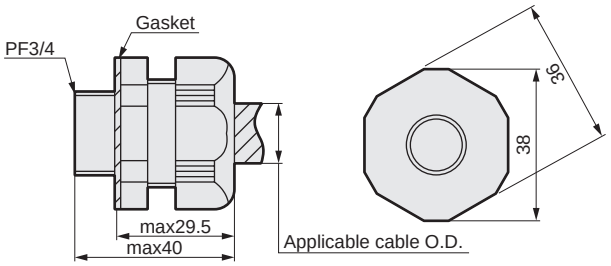
● Cartridge push-in fitting

Applicable	Part name	Model No.
Valve	Cartridge fitting ø4 straight	4G2-JOINT-C4
	Cartridge fitting ø6 straight	4G2-JOINT-C6
	Cartridge fitting ø8 straight	4G2-JOINT-C8
	Plug cartridge	4G2-JOINT-CPG
Supply and exhaust block P, R port	Cartridge fitting ø8 straight	N4G2-Q-JOINT-8
	Cartridge fitting ø10 straight	N4G2-Q-JOINT-10
	Cartridge fitting ø8 (short) elbow	N4G2-Q-JOINT-8L
	Cartridge fitting ø8 long elbow	N4G2-Q-JOINT-8LL
	Cartridge fitting ø10 (short) elbow	N4G2-Q-JOINT-10L
	Cartridge fitting ø10 long elbow	N4G2-Q-JOINT-10LL
	Plug cartridge	N4G2-Q-JOINT-PG
Supply and exhaust block port P/A	Cartridge fitting ø6 straight	N4G-QK-JOINT-6
	Cartridge fitting ø6 elbow	N4G-QK-JOINT-6L

Parts kit for T10 wiring block

● Cable clamp

Model No.	Applicable cable O.D.	Description
W4G-SCL-18A	ø14.5 to 16.5	Used to protect cables from dust and jetting water.
W4G-SCL-18B	ø16.5 to 18.5	



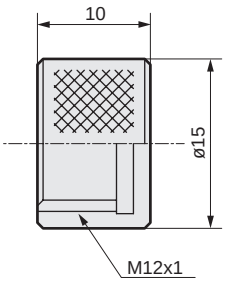
(Reference value)
Body tightening torque 4.0 to 4.5 N·m
Cable clamp tightening torque 3.0 to 3.5 N·m

Parts for I/O block

● Waterproof cap

Model No.	Description
W4G-XSZ-11	Provides jet-proof protection of the power supply connector when the power supply is shared with the serial transmission device unit.

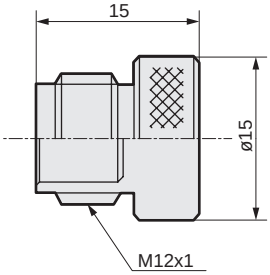
(reference value)
Tightening torque 0.4 to 0.5 N·m



● Waterproof plug

Model No.	Description
W4G-XSZ-12	Provides jet-proof protection of unused signal connectors.

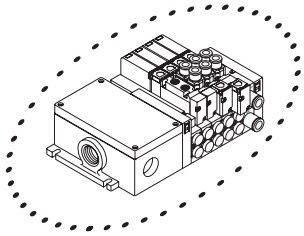
(reference value)
Tightening torque 0.4 to 0.5 N·m

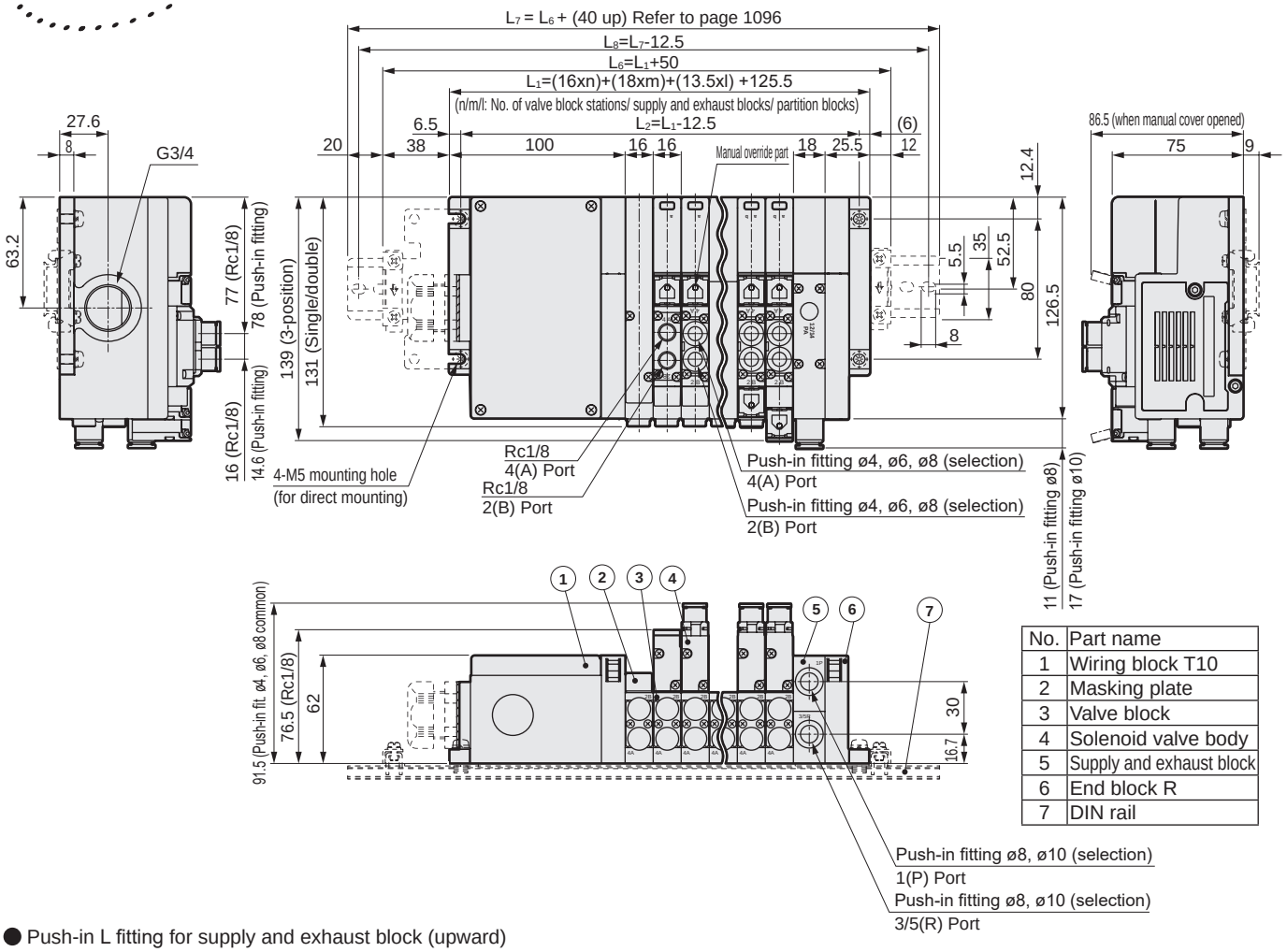


Dimensions CAD

MW4GA2

● Common terminal block (T10)

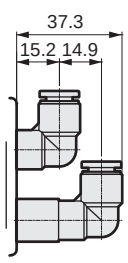




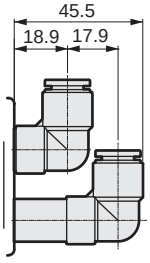
No.	Part name
1	Wiring block T10
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



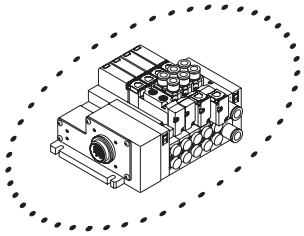
● ø10(CL10)

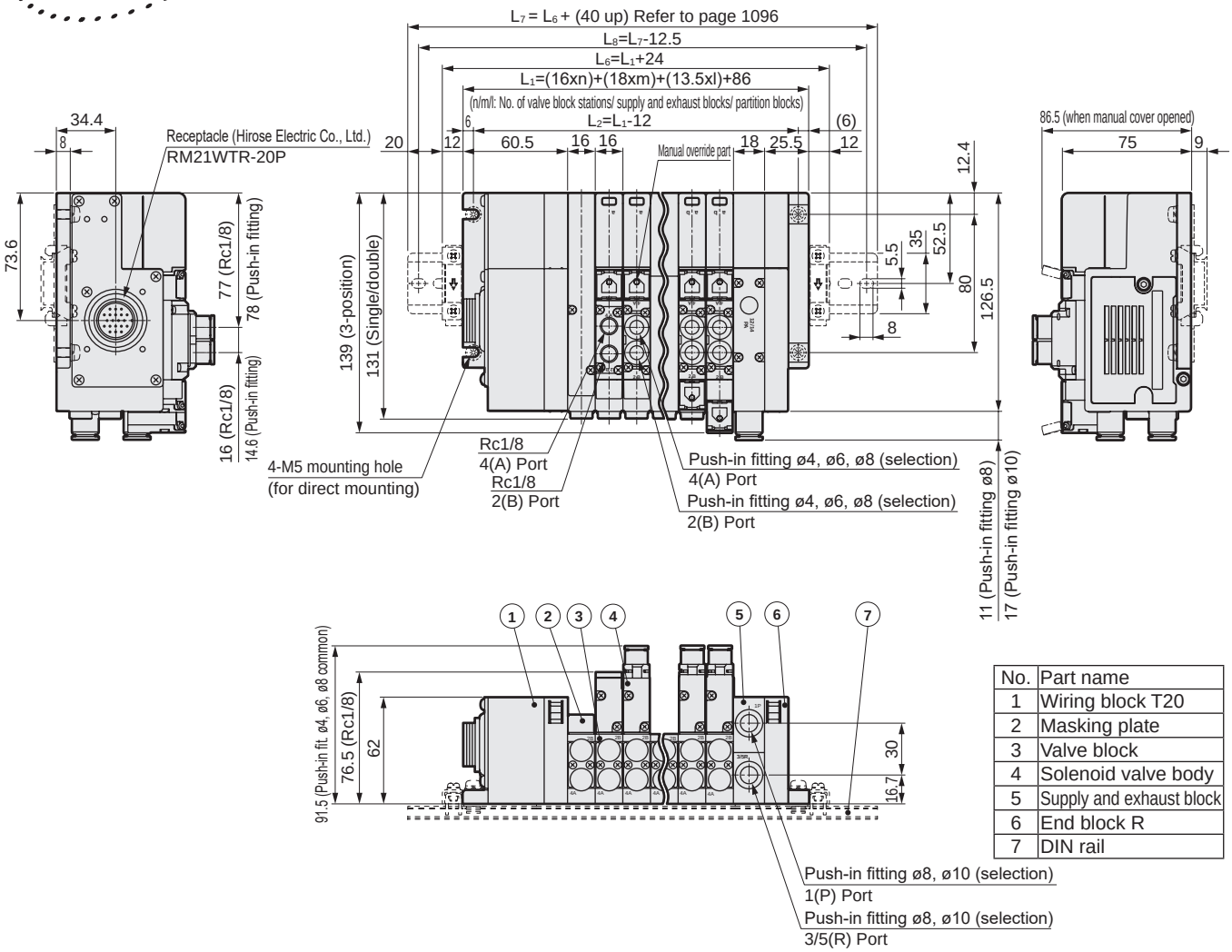


Dimensions CAD

MW4GA2

● Multi-connector (T20)

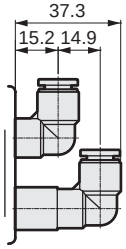




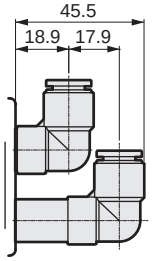
No.	Part name
1	Wiring block T20
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



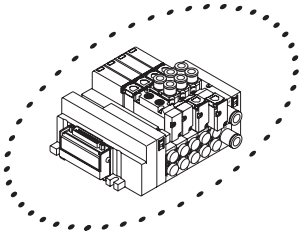
● ø10(CL10)

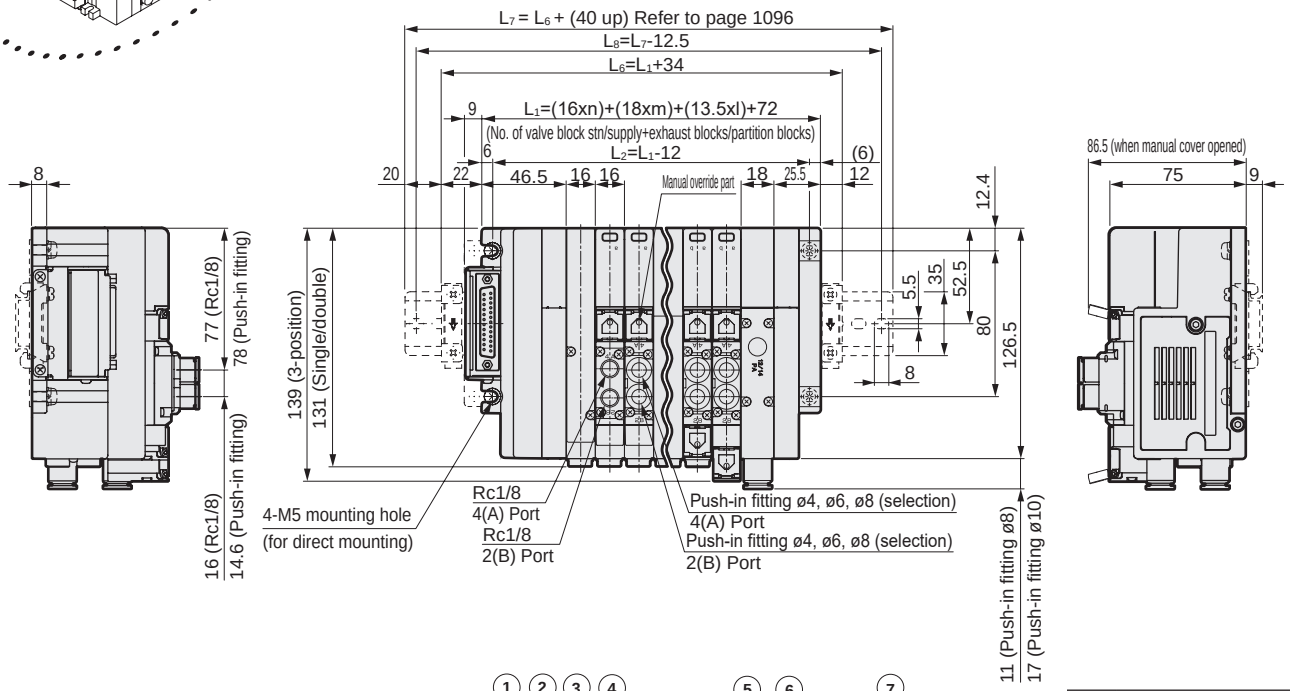


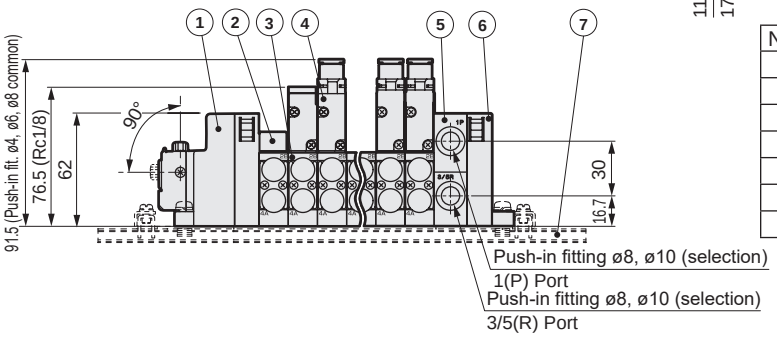
Dimensions CAD

MW4GA2

● D sub-connector (T30)



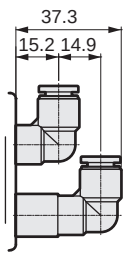




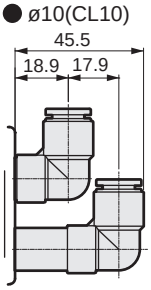
No.	Part name
1	Wiring block T30
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)

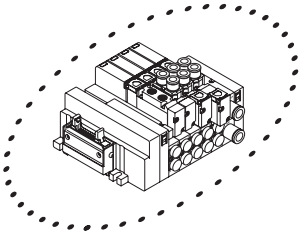


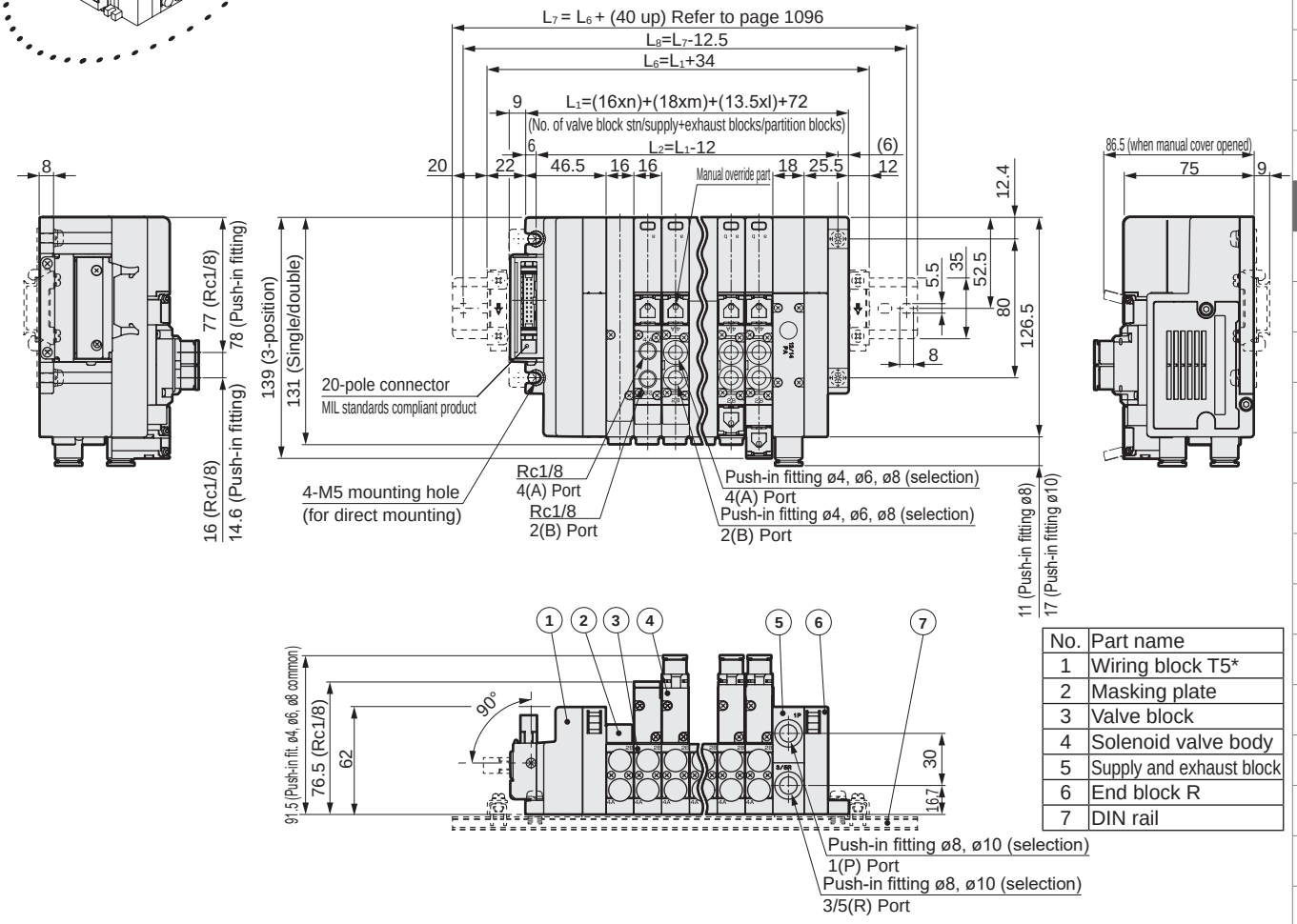
Dimensions CAD

MW4GA2

● Flat cable connector (T5*)

* The figure shows T51 (20-pin).
Flat cable connectors also have T53 (26-pin).
Dimensions are the same as T51.

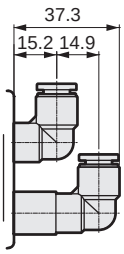




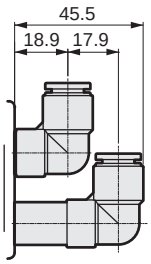
No.	Part name
1	Wiring block T5*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



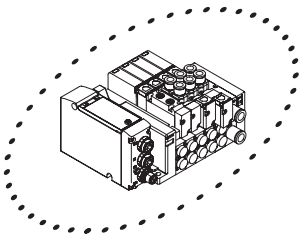
● ø10(CL10)

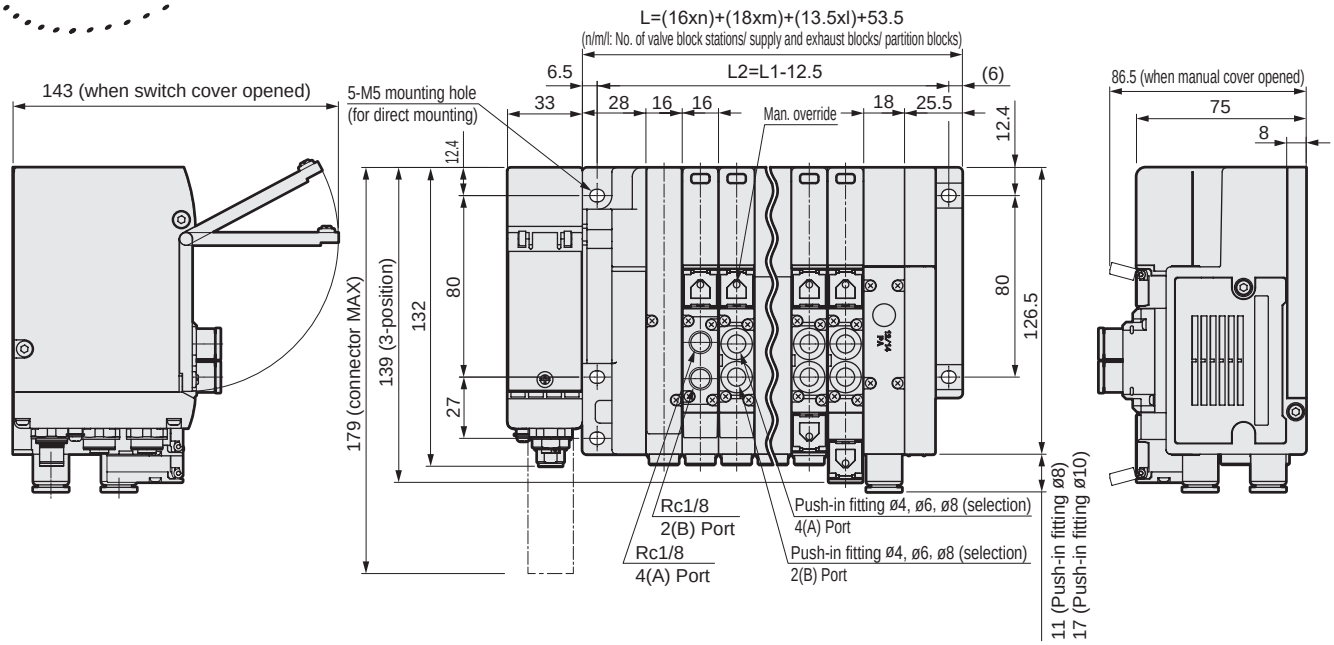


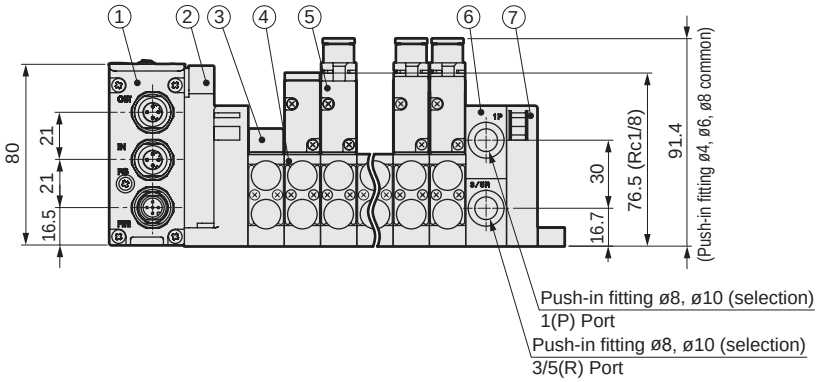
Dimensions CAD

MW4GA2

● Serial transmission (T7□)



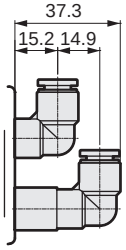




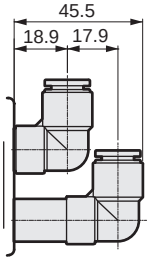
No.	Part name
1	Serial transmission block
2	Wiring block
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



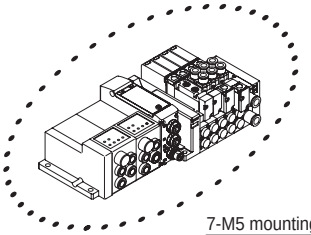
● ø10(CL10)

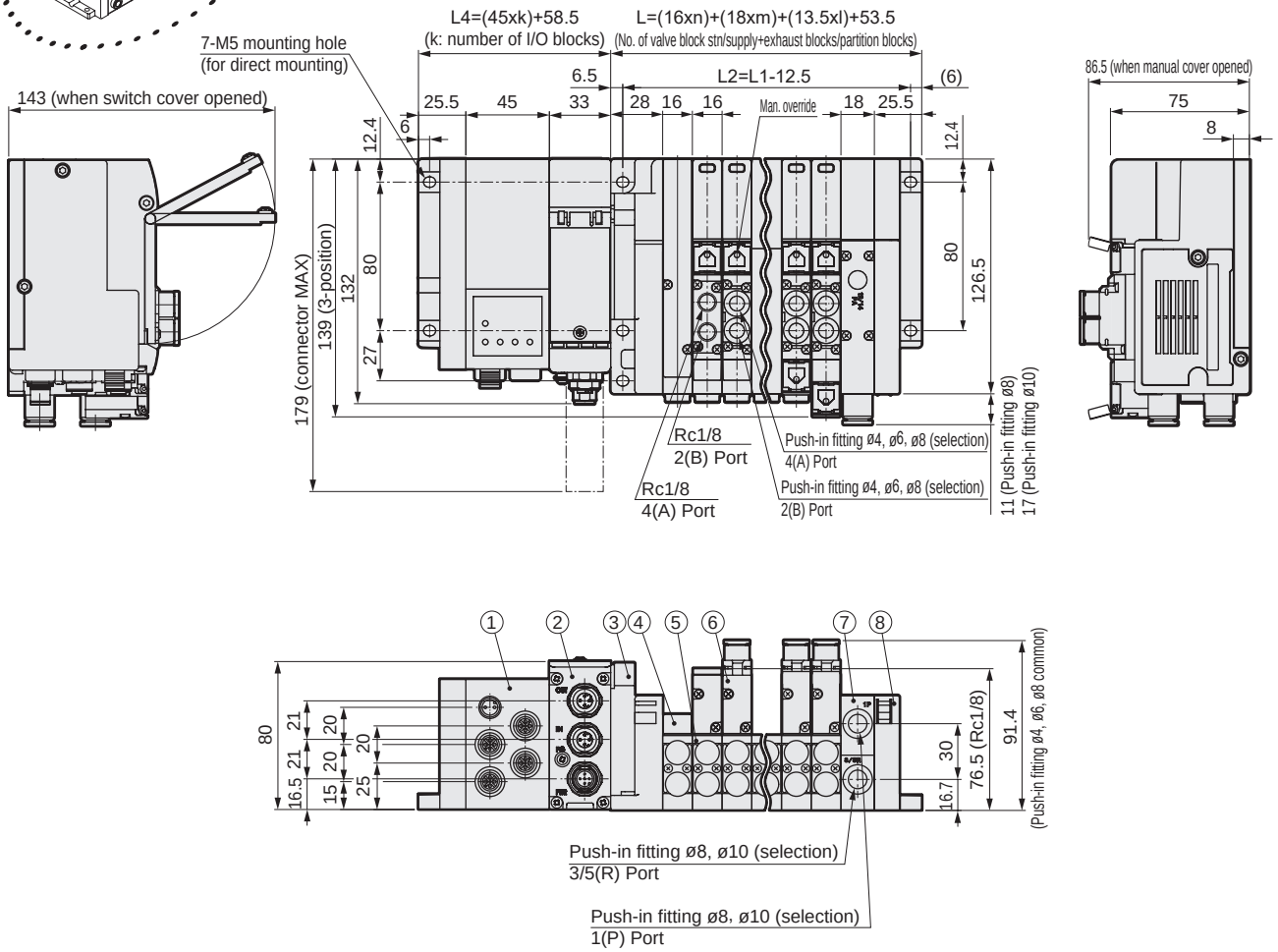


Dimensions CAD

MW4GA2

● Serial transmission (T7□B) with I/O type

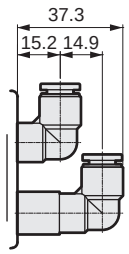




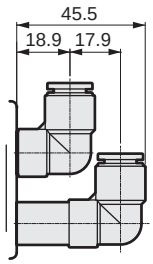
No.	Part name
1	I/O block
2	Serial transmission block
3	Wiring block
4	Masking plate
5	Valve block
6	Solenoid valve body
7	Supply and exhaust block
8	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



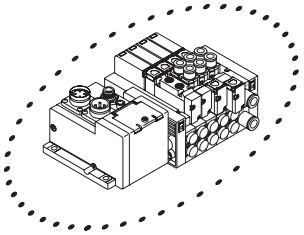
● ø10(CL10)

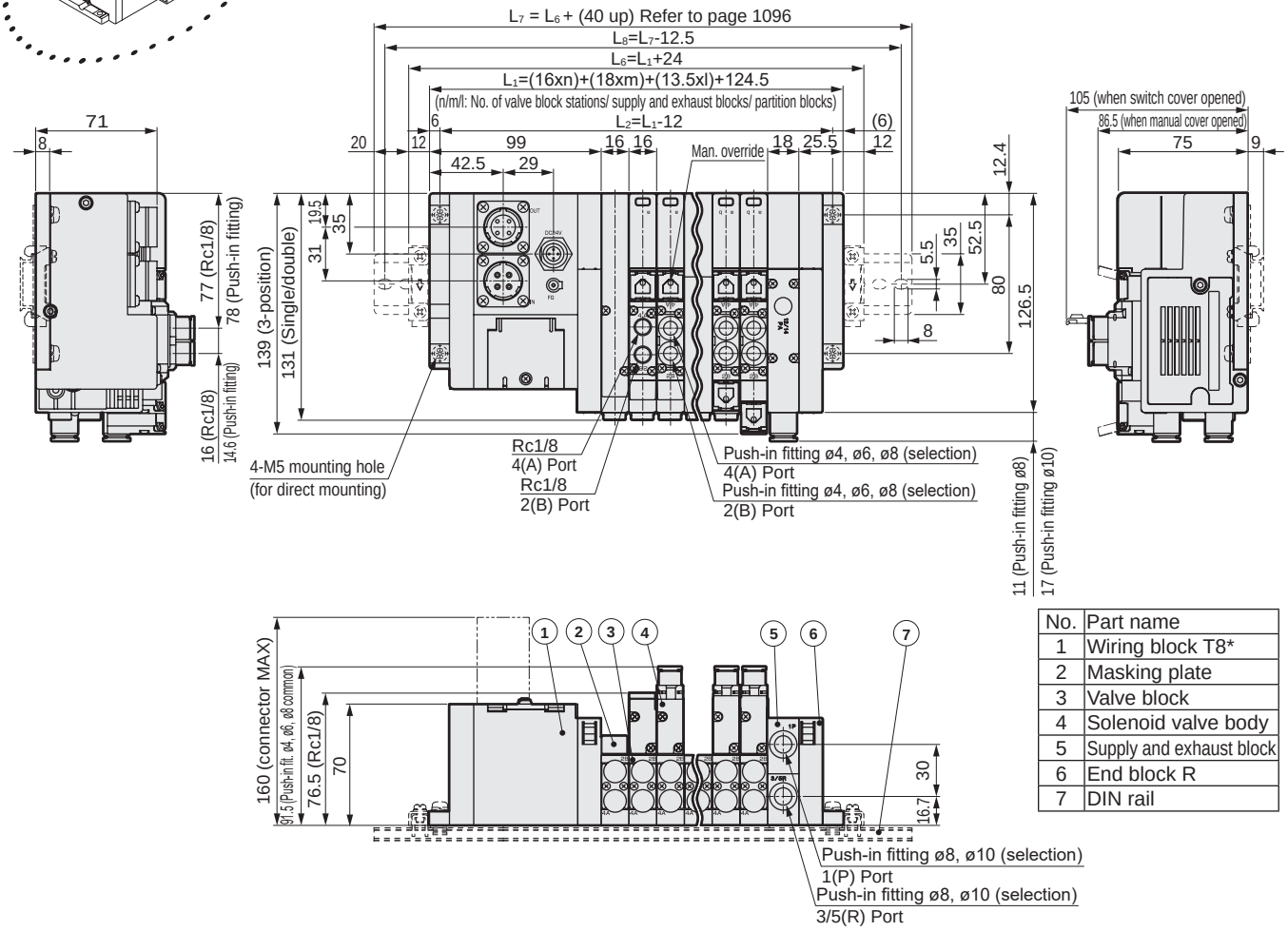


Dimensions CAD

MW4GA2

● Serial transmission CC-Link (T8G*)

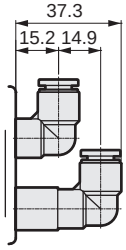




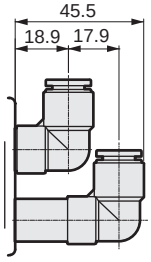
No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



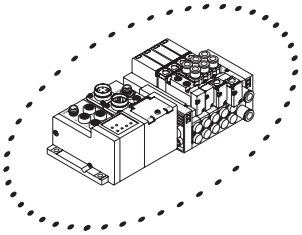
● ø10(CL10)

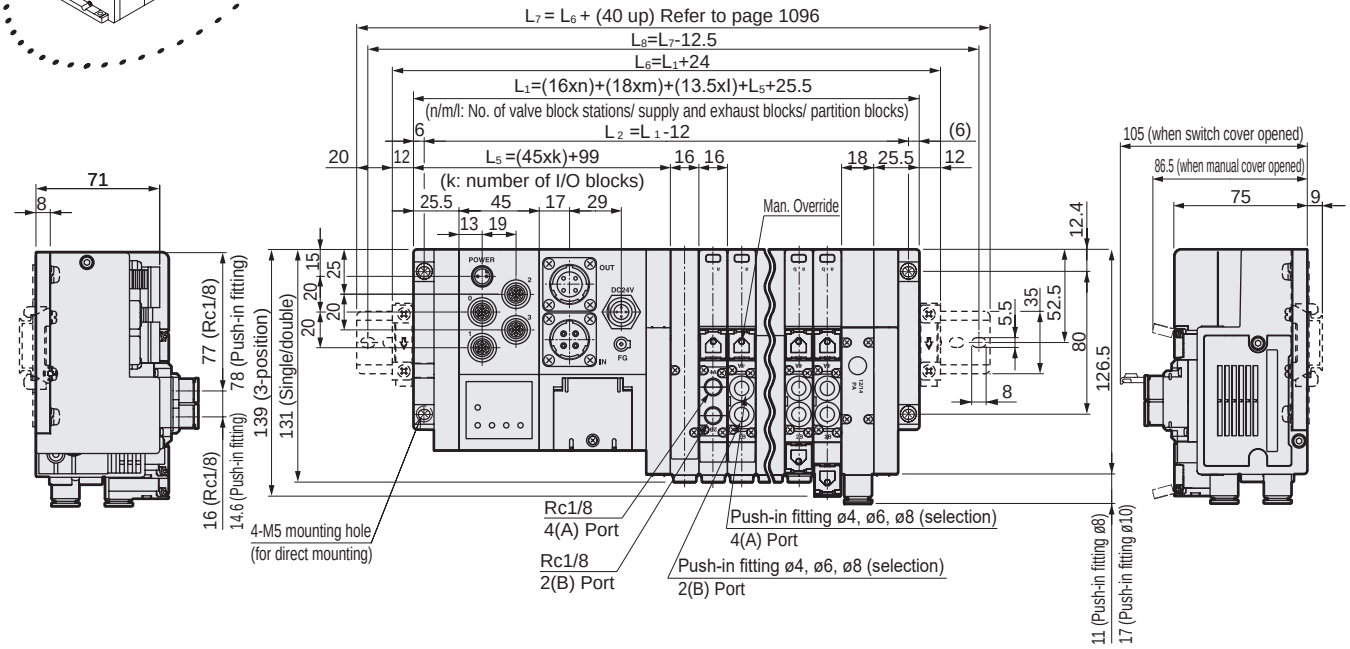


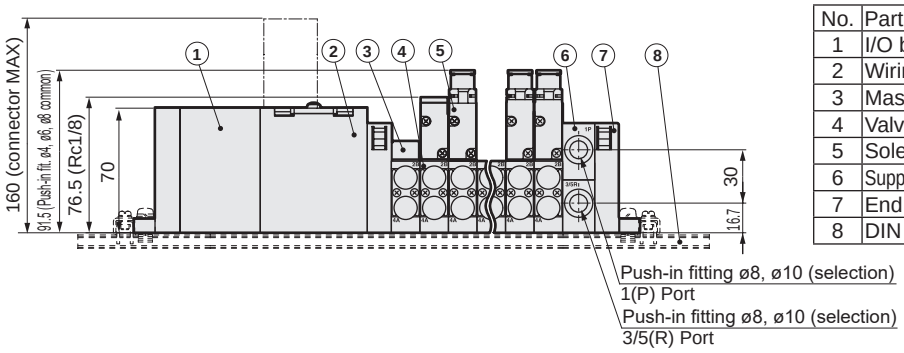
Dimensions CAD

MW4GA2

● Serial transmission CC-Link (T8G*)+I/O block



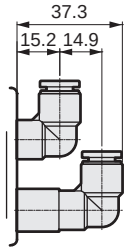




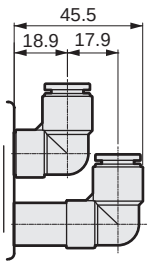
No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R
8	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



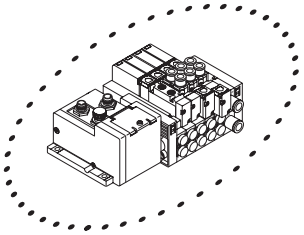
● ø10(CL10)

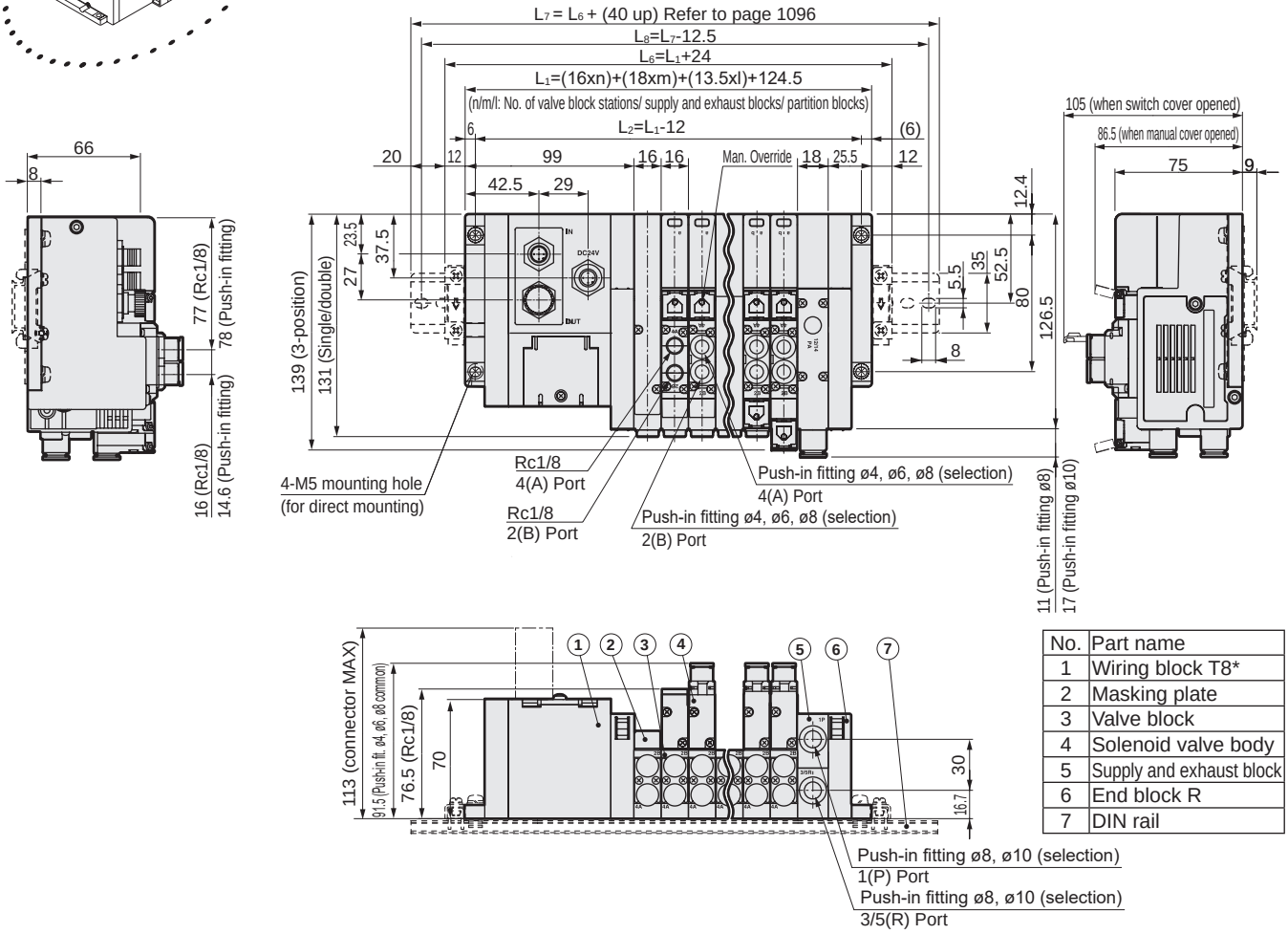


Dimensions CAD

MW4GA2

● Serial transmission DeviceNet (T8D*)

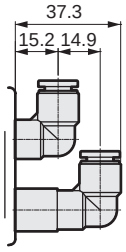




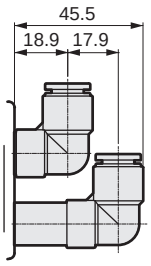
No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



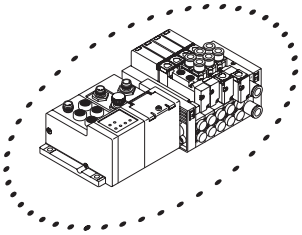
● ø10(CL10)

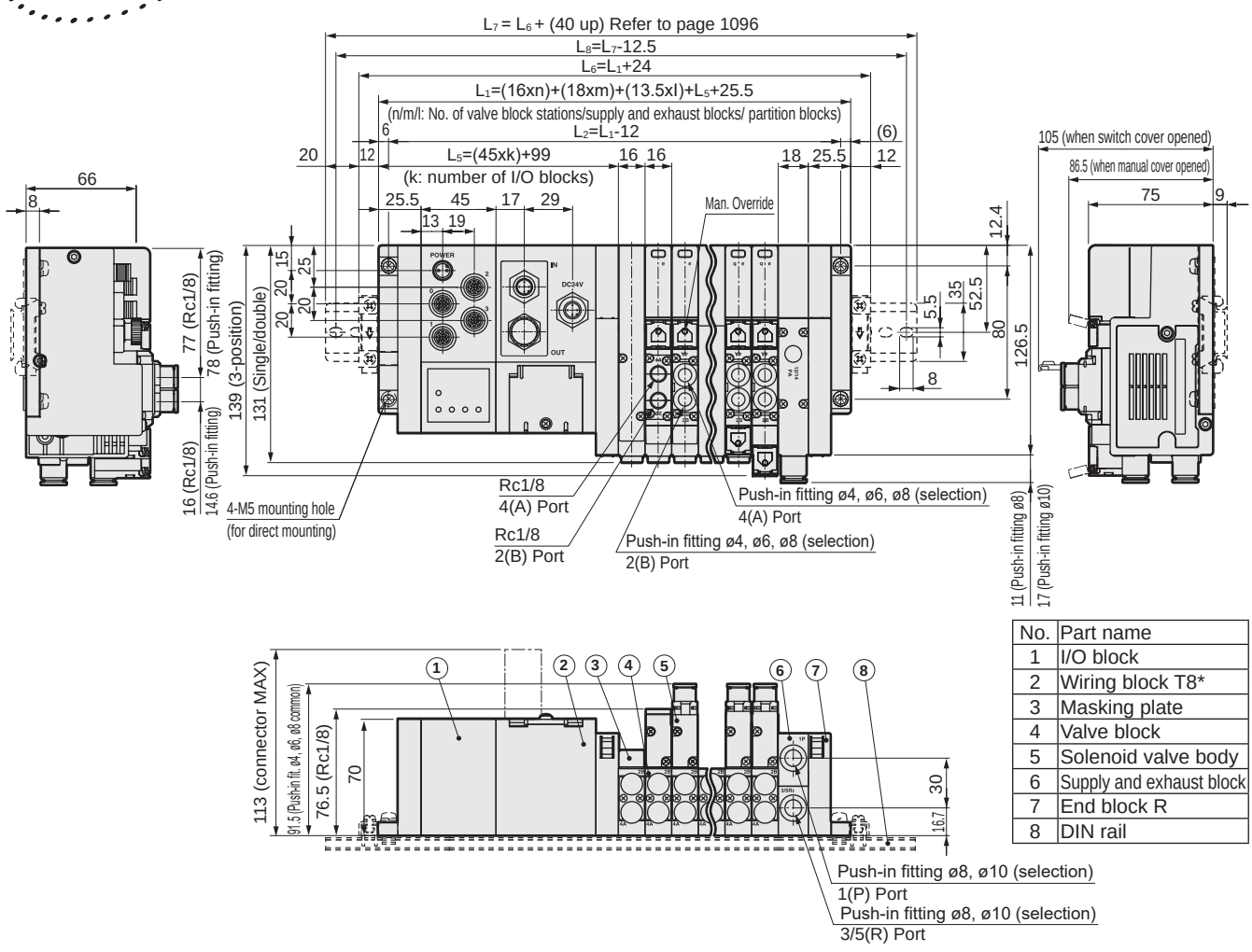


Dimensions CAD

MW4GA2

● Serial transmission device unit DeviceNet (T8D*)+I/O block

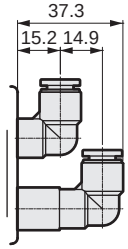




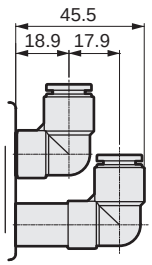
No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R
8	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)

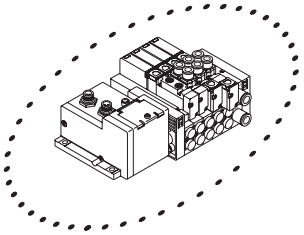


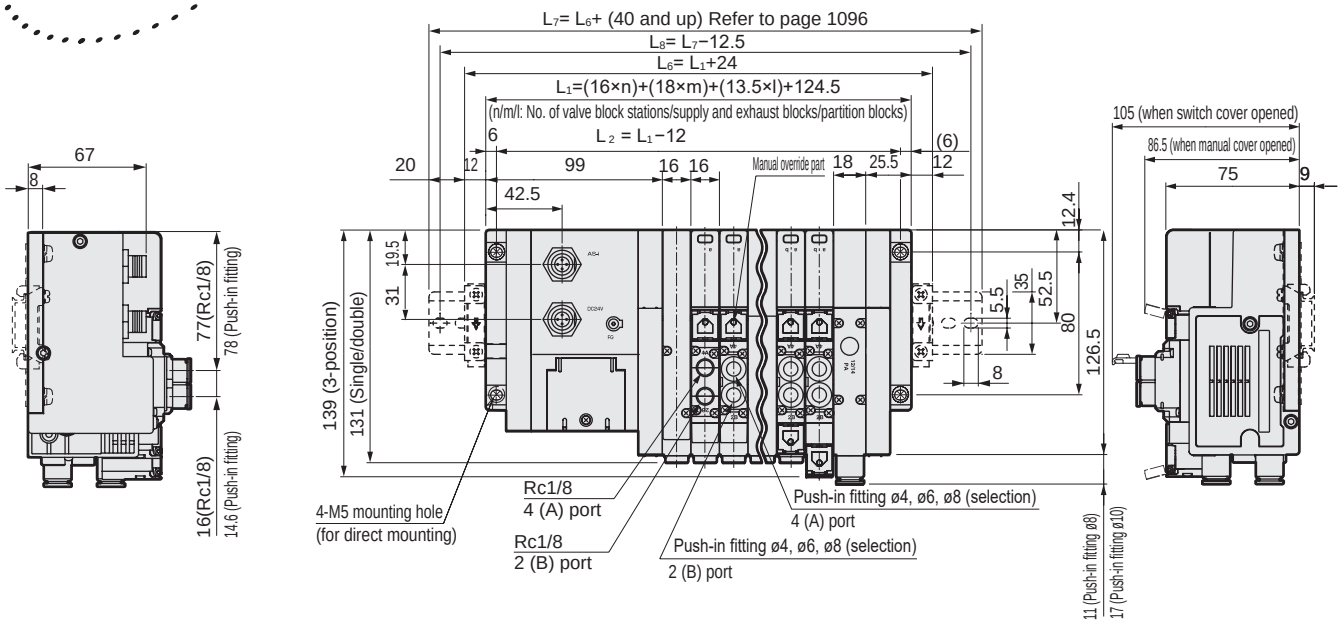
Dimensions CAD

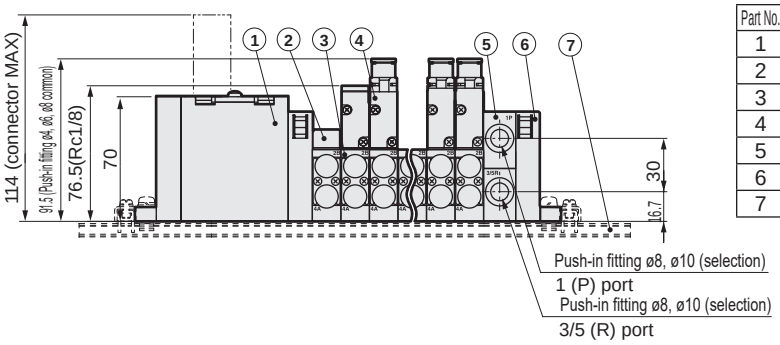
MW4GA2

● Serial transmission CompoBus/S (T8C*)

Planned for end of production February 2022



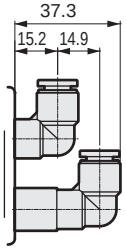




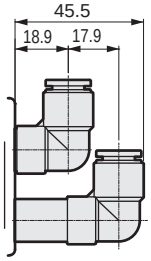
Part No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for supply and exhaust block (upward)

● ø8 (CL8)



● ø10 (CL10)

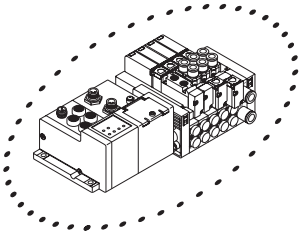


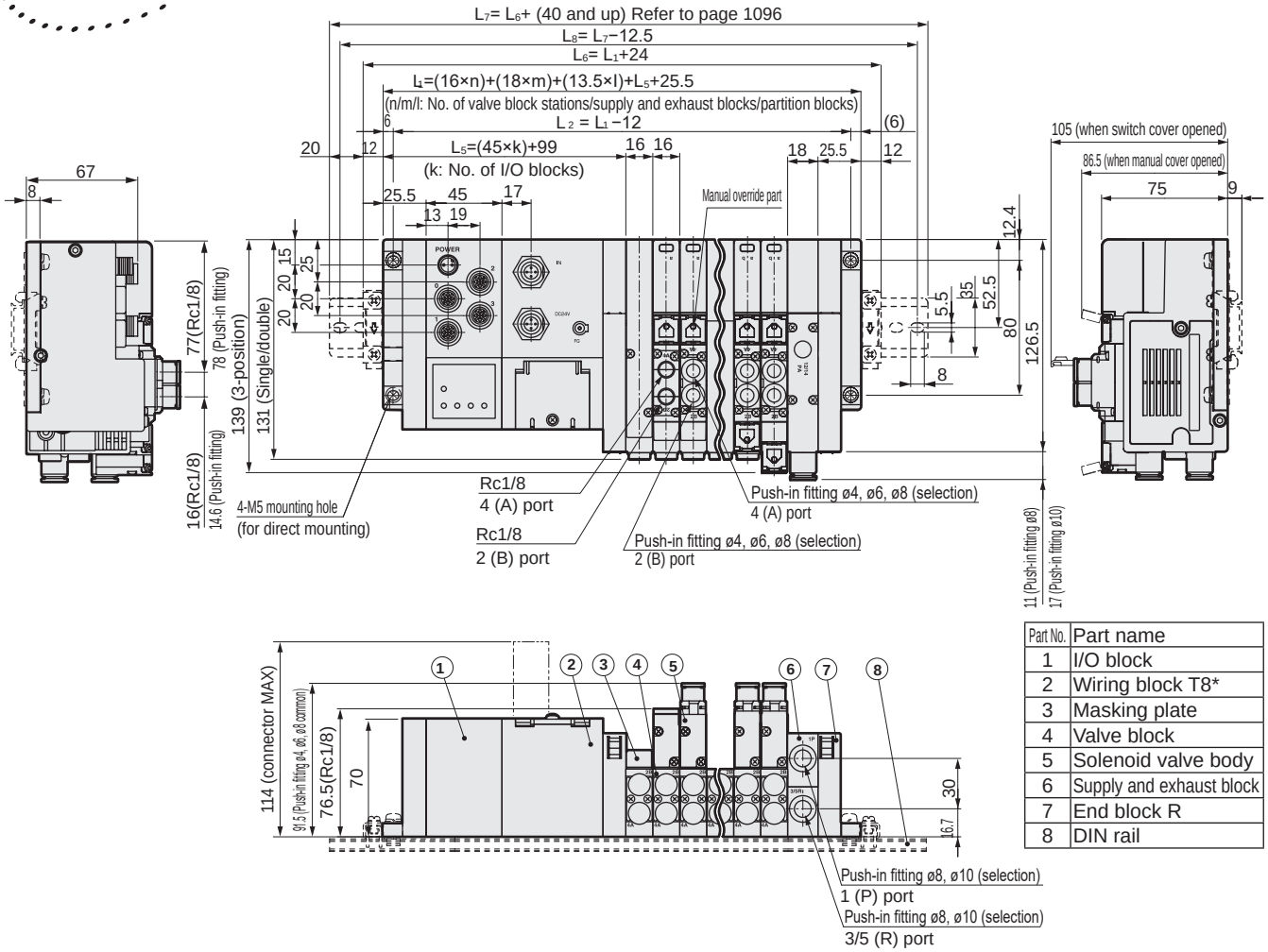
Dimensions CAD

MW4GA2

● Serial transmission CompoBus/S (T8C*) + I/O block

Planned for end of production February 2022

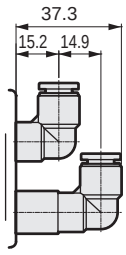




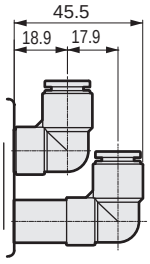
Part No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R
8	DIN rail

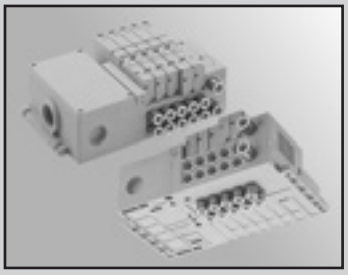
● Push-in L fitting for supply and exhaust block (upward)

● ø8 (CL8)



● ø10 (CL10)





Reduced wiring manifold
Base side piping/base bottom piping

MW$^{3}_{4}$G$^{B}_{Z}$2-T1/2/3/5/7/8 Series

● Cylinder bore size: ø20 to ø80

CE Refer to the Ending for details. RoHS CAD

Manifold common specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item	MW4GB2		MW4GZ2
Manifold	Block manifold		
Supply and exhaust method	Common supply/common exhaust (with check valve built-in)		
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (pilot exhaust check valve built-in)	
	External pilot	Main valve/pilot valve individual exhaust	
Piping direction	Lateral direction from base		Downward from base
Valve and operation	Pilot operated soft spool valve		
Working fluid	Compressed air		
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)		
Min. working pressure MPa	0.2 (≈29 psi, 2 bar) (*4)		
Proof pressure MPa	1.05 (≈150 psi, 10.5 bar)		
Ambient temperature °C	-5 (23°F) to 55 (131°F) (no freezing)		
Fluid temperature °C	5 (41°F) to 55 (131°F)		
Manual override	Non-locking/locking common (standard)		
Lubrication (*1)	Not required		
Degree of protection (*2)	Dust-proof/jet-proof (IP65) (*3)		
Vibration resistance m/s^2	49 or less		
Shock resistance m/s^2	294 or less		
Atmosphere	Cannot be used in corrosive gas environments		

*1: Use turbine oil Class 1 ISO VG32 for lubrication. Note that excessive lubricant may cause unstable operation.
*2: Tested according to the test method for IP65 (IEC60529 (IEC529: 1989-11)) standards. Refer to page 1103 for details.
3: The degree of protection of D sub-connector (T30) and flat cable connector (T5) is dust proof. Avoid water drops or oil, etc., during use.
*4: The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

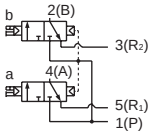
Electrical specifications

Item		W4GB2
Rated voltage V	DC	12, 24
	AC	100
Voltage fluctuation range		±10%
Holding current A	24 VDC	0.025
	12 VDC	0.050
	100 VAC	0.012
Power consumption W (*5)	24 VDC	0.6
	12 VDC	0.6
Apparent power VA (*6)	100 VAC	1.2
Thermal class		B

*5: Surge suppressor and indicator are supplied as standard.
*6: Multi-connector, D sub-connector and flat cable connector are not available with 100 VAC.
Serial transmission is not available with 100 VAC and 12 VDC.

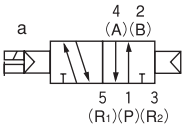
JIS symbol

● Two 3-port valves integrated
(A side valve: NC, B side valve: NC)

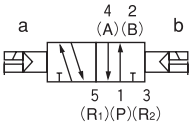


● 5-port valve

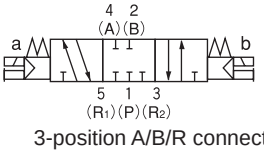
2-position single



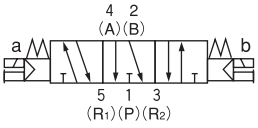
2-position double



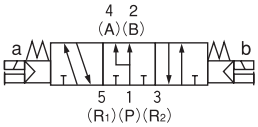
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		MW4GB2/MW4GZ2													
		T10	T20	T30	T51	T53	T7EC □1	T7EC □2	T7EC □7	T7EN □1	T7EN □2	T7EN □7	T7EB □1	T7EB □2	T7EB □7
Max. station No.	Standard wiring	18	—	18	18	18	16	18	16	16	18	16	16	18	16
	Double wiring	9	8	12	9	12	8	16	8	8	16	8	8	16	8
Max. number of solenoids		18	16	24	18	24	16	32	16	16	32	16	16	32	16
Port size	A/B Port	Push-in fitting ø4, ø6, ø8, Rc1/8													
	P/R port	Push-in fitting ø8, ø10													

Item		MW4GB2/MW4GZ2					
		T7EP □1	T7EP □2	T7EP □7	T8G1 T8D1	T8G2 T8D2	T8G7 T8D7
Max. station No.	Standard wiring	16	18	16	16	18	16
	Double wiring	8	16	8	8	16	8
Max. number of solenoids		16	32	16	16	32	16
Port size	A/B Port	Push-in fitting ø4, ø6, ø8, Rc1/8					
	P/R Port	Push-in fitting ø8, ø10					

For weight, refer to page 1022.

Performance/characteristics by model

Item			MW4GB2/MW4GZ2	
			ON	OFF
Response time ms	Two 3-port valves integrated		12	29
	2-position	Single	22	24
		Double	26	—
	3-position		25	35

The response time is the value with supply pressure of 0.5 MPa at 20°C and without lubrication. It depends on the pressure and the lubricant quality.

Flow characteristics

Model No.	Solenoid position		P→A/B		A/B→R	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
MW3GA2	Two 3-port valves integrated		1.7	0.42	2.2	0.15
MW4GB2 MW4GZ2	2-position		2.4	0.36	1.7	0.25
	3-position	All ports closed	2.1	0.37	2.2	0.22
		ABR connection	2.2	0.35	1.7	0.25
		PAB connection	2.3	0.32	2.3	0.24

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.
*2: Values of the 2-position and ABR connection are those with integrated check valve.

Reduced wiring specifications

Item	T10	T20	T30	T51	T53
Type	Common terminal block M3 thread	Multi-connector	D-sub-connector	20P Flat cable connector without power supply terminal	26P Flat cable connector Without power supply terminal
Connector	–	HIROSE ELECTRIC CO. LTD. RM21WTP-20S 20-pin	D-sub-connector (female) 25-pin	MIL-C-83503 standard compliant pressure welding socket 20-pin	MIL-C-83503 standard compliant pressure welding socket 26-pin

Specifications of serial transmission device (adapter) stations (refer to page 1086 for PLC compatibility table)

The communication setting file can be downloaded from the CKD website (https://www.ckd.co.jp/en/).

Item		unit dedicated for valves (without I/O block)				unit with I/O block	
		T7EC1	T7EC2	T7ECP1	T7ECP2	T7ECB7	T7ECPB7
Network name		EtherCAT				EtherCAT	
Power supply voltage	Unit side	24 VDC ±10%				24 VDC ±10%	
	Valve side	24 VDC + 10%, -5%				24 VDC + 10%, -5%	
Current consumption	Unit side	110 mA or less				110 mA or less (excluding input block current)	
	Valve side	15 mA or less (excluding load current)				15 mA or less (excluding load current)	
Valve output		NPN		PNP		NPN	PNP
Input/output point count		0/16	0/32	0/16	0/32	16/16	
Operation display		Power supply/communication status/valve power supply					
Degree of protection		IP65					

Item		unit dedicated for valves (without I/O block)				unit with I/O block	
		T7EN1	T7EN2 *1	T7ENP1	T7ENP2 *1	T7ENB7	T7ENPB7
Network name		EtherNet/IP					
Power supply voltage	Unit side	24 VDC ±10%					
	Valve side	24 VDC + 10%, -5%					
Current consumption	Unit side	130 mA or less				130 mA or less ((*2): excluding input block current)	
	Valve side	15 mA or less (excluding load current)					
Valve output		NPN output		PNP output		NPN output	PNP output
I/O points		16-point output	32-point output	16-point output	32-point output	16-point input/16-point output	16-point input/16-point output
LED display	Power supply	2 points: Unit power supply/valve power supply					
	Communication	4 points: MS, NS, L/A IN, L/A OUT					
Degree of protection		IP65					

*1: No 32-point output when connecting with W4G4 valve. *2: If the power supply of the I/O block also serves as the unit power supply, refer to page 991.

Item		unit dedicated for valves (without I/O block)				unit with I/O block	
		T7EB1	T7EB2 *1	T7EBP1	T7EBP2 *1	T7EBB7	T7EBPB7
Network name		CC-Link IEF Basic					
Power supply voltage	Unit side	24 VDC ±10%					
	Valve side	24 VDC + 10%, -5%					
Current consumption	Unit side	130 mA or less				130 mA or less ((*2): excluding input block current)	
	Valve side	15 mA or less (excluding load current)					
Valve output		NPN output		PNP output		NPN output	PNP output
I/O points		16-point output	32-point output	16-point output	32-point output	16-point input/16-point output	16-point input/16-point output
LED display	Power supply	2 positions: PW, PW (V)					
	Communication	4 positions: RUN, ERR, L/A IN, L/A OUT, INFO					
Degree of protection		IP65					

*1: No 32-point output when connecting with W4G4 valve. *2: If the power supply of the I/O block also serves as the unit power supply, refer to page 991.

Item		unit dedicated for valves (without I/O block)				unit with I/O block	
		T7EP1	T7EP2 *1	T7EPP1	T7EPP2 *1	T7EPB7	T7EPPB7
Network name		PROFINET					
Power supply voltage	Unit side	24 VDC ±10%					
	Valve side	24 VDC + 10%, -5%					
Current consumption	Unit side	130 mA or less				130 mA or less ((*2): excluding input block current)	
	Valve side	15 mA or less (excluding load current)					
Valve output		NPN output		PNP output		NPN output	PNP output
I/O points		16-point output	32-point output	16-point output	32-point output	16-point input/16-point output	16-point input/16-point output
LED display	Power supply	2 positions: PW, PW (V)					
	Communication	4 positions: RUN, ERR, L/A IN, L/A OUT, INFO					
Degree of protection		IP65					

*1: No 32-point output when connecting with W4G4 valve. *2: If the power supply of the I/O block also serves as the unit power supply, refer to page 991.

Specifications of serial transmission device (adapter) stations (refer to page 1086 for PLC compatibility table)

Download the communication setting file from the CKD website (https://www.ckd.co.jp/en/).

Item \ Network name / unit model No.		CC-Link(Ver1.10)			DeviceNet *1		
		T8G1	T8G2	T8G7	T8D1	T8D2	T8D7
Communication speed		156K/625K/2.5M/5M/10Mbps			125K/250K/500Kbps		
Power supply voltage	Unit side	24 VDC ±10%			24 VDC ±10%		
	Valve side	24 VDC+10%, -5%			24 VDC+10%, -5%		
	Communication side	—			11 to 25 VDC		
Current consumption	Unit side	60 mA or less	100 mA or less	75 mA or less (*2)	70 mA or less	90 mA or less	80 mA or less (*2)
	Valve side	15 mA or less (when all points are OFF)			15 mA or less (when all points are OFF)		
	Communication side	—			50 mA or less		
Valve output		NPN			NPN		
Input/output point count		0/16	0/32	16/16	0/16	0/32	16/16
Occupied number		1 station			2 bytes	4 bytes	4 bytes
Operation display		Power supply/communication status/valve power supply			Communication status/valve power supply		

*1: Compatible with DeviceNet compliant networks (DLNK, etc.) as well.

*2: If the feed power supply of the input blocks also serves as the unit power supply, use the formula below for calculation.

(unit current consumption) = [*] + (35 mA x number of input blocks) + (total internal current consumption of connected sensors)

[*] ...T8G7:60mA, T8D7:80mA

Note that for T8G7 and T8D7 unit side current consumption, select the sensor so that the current consumption is 600mA or less.

I/O block specifications

● Input block

Model No. / Item	NW4GB2-IN-N-K	NW4GB2-IN-N-B	NW4GB2-IN-P-K	NW4GB2-IN-P-B
Number of inputs	4 points			
Rated input voltage	24 VDC			
Rated input current	7 mA			
ON voltage	15 VDC or more (between input terminals and V)		15 VDC or more (between input terminals and G)	
OFF voltage/OFF current	5 VDC or less (between input terminal and V)/1.5 mA or less		5 VDC or less (between input terminal and G)/1.5 mA or less	
Input	Sink		Source	
Supply power	Common with unit power supply	Externally supplied power	Common with unit power supply	Externally supplied power
Operation display	Power supply/input status			

*1: Refer to page 1056 for model No.

● Output block

Model No. / Item	NW4GB2-OUT-N-B	NW4GB2-OUT-P-B
Output points	4 points	
Rated voltage	24 VDC	
Max. load current	1 A/1 point (3 A/common)	
Residual voltage	1.5 V or less	
Output	Sink	Source
Protection circuit	Overcurrent protection/reverse connection protection	
Fuse	Power supply for external load: 24 VDC and 5 A (can be replaced)	
Operation display	Power supply/output status	

*1: Refer to page 1056 for model No.

MW$^{3}_{4}$GB2-T1/2/3/5 Series

Reduced wiring manifold; base side piping/base bottom piping

How to order

Common terminal block/multi-connector/D-sub-connector/flat cable connector

● Manifold model No.

MW4GB2 1 0 - C8 – T10 W H D - 5 - 3

● 3-port manifold model No.

MW3GB2 66 0 - C8 – T10 W H D - 5 - 3

● Discrete valve block with solenoid valve

NW4GB2 1 0 - C8 - ○ W H — 3

● Discrete valve block with 3-port solenoid valve

NW3GB2 66 0 - C8 - ○ W H — 3

● Single valve for mounting base

W4GB2 1 9 - 00 — H — 3

● 3-port discrete valve for mounting base

W3GB2 66 9 - 00 — H — 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*1) (*2)
Ⓓ Electrical connections (*)
Ⓔ Reduced wiring connection
Ⓕ Terminal/connector pin Array method
Ⓖ Option (*4)
Ⓗ Mount Type
Ⓘ Station No.
Ⓙ Voltage

· For the cable with D-sub-connector model No., refer to page 1064.
· For the cable for flat cable connector model No., refer to page 1079.

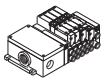
Code	Description	MW3GB2	MW4GB2	NW3GB2	NW4GB2	W3GB2	W4GB2
	Ⓐ Model No. Manifold / Discrete valve block with solenoid valve / Discrete valve						
	Ⓑ Solenoid position						
1	2 position single		●		●		●
2	2-position double		●		●		●
3	3-position all ports closed		●		●		●
4	3-position ABR connection		●		●		●
5	3-position PAB connection		●		●		●
66	Two 3-port valves integrated (*10) — A side valve: Normally closed / B side valve: Normally closed	●		●		●	
8	Mix manifold (when there are multiple solenoid positions)	●	●				
	Ⓒ Port size (port A/B)						
C4	ø4 push-in fitting	●	●	●	●		
C6	ø6 push-in fitting	●	●	●	●		
C8	ø8 push-in fitting	●	●	●	●		
CL6	ø6 push-in L-fitting (upward)	●	●	●	●		
CL8	ø8 push-in L-fitting (upward)	●	●	●	●		
CX	Push-in fitting mix	●	●				
Single side plug	Port A	Port B					
C4NC	ø4 push-in fitting	Plug	●	●	●	●		
C6NC	ø6 push-in fitting	Plug	●	●	●	●		
C8NC	ø8 push-in fitting	Plug	●	●	●	●		
C4NO	Plug	ø4 push-in fitting	●	●	●	●		
C6NO	Plug	ø6 push-in fitting	●	●	●	●		
C8NO	Plug	ø8 push-in fitting	●	●	●	●		
CL6NC	ø6 push-in L-fitting (upward)	Plug	●	●	●	●		
CL8NC	ø8 push-in L-fitting (upward)	Plug	●	●	●	●		
CL6NO	Plug	ø6 push-in L-fitting (upward)	●	●	●	●		
CL8NO	Plug	ø8 push-in L-fitting (upward)	●	●	●	●		
	Ⓓ Electrical connections						
Blank	DC connector relay board specifications				●	●		
2 to 8	Select the AC cable length from page 1051.				●	●		
	Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)						
	Refer to the next page for reduced wiring.						
	Ⓕ Terminal/connector pin array						
Blank	Standard wiring (*5)	●	●	●	●		
W	Double wiring (*5)	●	●	●	●		
	Ⓖ Option						
Blank	No option	●	●	●	●	●	●
M	Manual override of non-locking (*6)	●	●	●	●	●	●
M7	Manual device with OFF function (*6)	●	●	●	●	●	●
H	With check valve (*7)	●	●	●	●	●	●
K	External pilot	●	●				
A	Ozone/coolant proof product	●	●	●	●	●	●
F	Port A/B filter built in (*8)	●	●	●	●		
Z1	Air supply spacer (*4)(*9)	●	●				
Z3	Exhaust spacer (*4)(*9)	●	●				
Z6	Spacer pilot check valve (*4)(*9)	●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer (*4)(*9)(*10)	●	●				
	Ⓗ Mount type						
Blank	Direct mount	●	●				
D	DIN rail mount	●	●				
	Ⓘ Station No.						
2 to 18	2 stations to 18 stations (Differs depending on the reduced wiring specifications. Refer to the individual specifications (page 1010).)	●	●				
	Ⓙ Voltage						
1	100 VAC (rectifier integrated)	●	●	●	●	●	●
3	24 VDC	●	●	●	●	●	●
4	12 VDC	●	●	●	●	●	●

⚠ Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1: Ports A and B plug specifications (*NC/*NO) are available for 2-position single only. Specify the port P/R bore size in the supply and exhaust block section.
2: CL push-in L fitting (upward) is available for the single and double types only. Long elbow is for port A and short elbow for port B. Ports A and B are the same size in the push-in L fitting (upward) mix (CX). If CL* NC/NO is selected, the fitting is a short elbow.
*3: With AC, when a change of specifications is expected, select a valve block with masking plate as a spare block.
*4: Specify the spacer mounting position and quantity on the manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. For details, refer to page 1057.
*5: Blank...The wiring will be based on the type of valve mounted.
W.....All wired as double solenoid regardless of the type of valve used. It is not necessary to select W if no single solenoid is used.
Double wiring will automatically be applied to multi-connector T20 and AC voltage type even if W is not specified, since they are only for double wiring.
*6: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.
*7: Check valve (H) is not available for 3-position all ports closed and PAB connection. Refer to page 1105 for details on the check valve.
*8: A filter is built into port P.
*9: Not available when the fitting for port A/B is elbow.
*10: Not compatible with combination with external pilot (K).

[Reduced wiring list]

Ⓐ Model No.						
		Manifold		Discrete valve block with solenoid valve		Discrete solenoid valve
						
		MW3GB2	MW4GB2	NW3GB2	NW4GB2	W3GB2	W4GB2
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)							
T10	Common terminal block (M3 screw) Left-sided spec.	●	●				
T20	Multi-connector Left-sided spec. (*11)	●	●				
T30	D-sub-connector Left-sided spec. (*11)	●	●				
T51	20-pin flat cable connector (without power supply terminal) Left-sided spec. (*11)	●	●				
T53	26-pin flat cable connector (without power supply terminal) Left-sided spec. (*11)	●	●				

(*11): Multi-connector (T20), D-sub-connector (T30), 100 VAC is not available in flat cable connector (T5*) connection specifications.

Ozone-proof specifications • Coolant proof specifications

Select option A of Item Ⓖ in How to order on pages 1014, 1016, 1018 and 1020.

Specifications for rechargeable battery (Catalog No. CC-1226A)

For use in the rechargeable battery manufacturing process, materials used for all parts are limited

** – Voltage – **P40**

CE marking specifications

** – Voltage – **ST**

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

MW$^{3}_{4}$GZ2-T1/2/3/5 Series

Reduced wiring manifold; base side piping/base bottom piping

How to order

Common terminal block/multi-connector/D-sub-connector/flat cable connector

● Manifold model No.

MW4GZ2 1 0 - C8 – T10 W H — 5 - 3

● 3-port manifold model No.

MW3GZ2 66 0 - C8 – T10 W H D - 5 - 3

● Discrete valve block with solenoid valve

NW4GZ2 1 0 - C8 - ○ W H — 3

● Discrete valve block with 3-port solenoid valve

NW3GZ2 66 0 - C8 - ○ W H — 3

● Single valve for mounting base(*1)

W4GB2 1 9 - 00 — H — 3

● 3-port discrete valve for integrated base(*1)

W3GB2 66 9 - 00 — H — 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*2) (*3)
Ⓓ Electrical connections (*4)
Ⓔ Reduced wiring connection
Ⓕ Terminal/connector pin Array method
Ⓖ Option (*5)
Ⓗ Mount Type
Ⓘ Station No.
Ⓙ Voltage

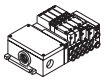
· For the cable with D-sub-connector model No., refer to page 1058.
· For the cable for flat cable connector model No., refer to page 1079.

For circuit diagrams (solenoid valve interior), refer to page 970.

⚠ Precautions for model selection

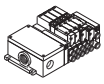
Be sure to fill in the "Manifold specifications sheet".

*1: The W4GB2*9 discrete solenoid valve is used for the NW4GZ2 discrete valve block with solenoid valve.
*2: Ports A and B plug specifications (*NC/*NO) are available for 2-position single only. Specify the port P/R bore size in the supply and exhaust block section.
3: CL push-in L fitting (upward) is available for the single and double types only. Long elbow is for port A and short elbow for port B. Ports A and B are the same size in the push-in L fitting (upward) mix (CX). If CL* NC/NO is selected, the fitting is a short elbow.
*4: AC: If a change of specifications is expected, select a valve block with masking plate as a spare block.
*5: Specify the spacer mounting position and quantity on the manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. For details, refer to page 1057.
*6: Blank.....The wiring will be based on the type of valve mounted.
W.....All wired as double solenoid regardless of the type of valve used. It is not necessary to select W if no single solenoid is used.
Double wiring will automatically be applied to multi-connector T20 and AC voltage type even if W is not specified, since they are only for double wiring.
*7: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.
*8: Check valve (H) is not available for 3-position all ports closed and PAB connection. Refer to page 1105 for details on the check valve.
*9: A filter is built into port P.
*10: Not available when the fitting for port A/B is elbow.
*11: Not compatible with combination with external pilot (K).

Ⓐ Model No.	Manifold		Discrete valve block with solenoid valve		Discrete valve	
						
Code / Description	MW3GZ2	MW4GZ2	NW3GZ2	NW4GZ2	W3GB2	W4GB2
Ⓑ 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		●		●		●
66 — Two 3-port valves Integrated (*11) (A side valve: Normally closed / B side valve: Normally closed)	●		●		●	●
8 — Mix manifold (when there are multiple solenoid positions)	●	●				
Ⓒ Port size (port A/B)						
C4 — ø4 push-in fitting	●	●	●	●		
C6 — ø6 push-in fitting	●	●	●	●		
C8 — ø8 push-in fitting	●	●	●	●		
CX — Push-in fitting mix	●	●				
Single side plug — Port A / Port B						
C4NC — ø4 push-in fitting / Plug	●	●	●	●		
C6NC — ø6 push-in fitting / Plug	●	●	●	●		
C8NC — ø8 push-in fitting / Plug	●	●	●	●		
C4NO — Plug / ø4 push-in fitting	●	●	●	●		
C6NO — Plug / ø6 push-in fitting	●	●	●	●		
C8NO — Plug / ø8 push-in fitting	●	●	●	●		
Ⓓ Electrical connections						
Blank — DC connector relay board specifications			●	●		
2 to 8 — Select the AC cable length from page 1051.			●	●		
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)						
Refer to the next page for reduced wiring.						
Ⓕ Terminal/connector pin array						
Blank — Standard wiring (*6)	●	●	●	●		
W — Double wiring (*6)	●	●	●	●		
Ⓖ Option						
Blank — No option	●	●	●	●	●	●
M — Manual override of non-locking (*7)	●	●	●	●	●	●
M7 — Manual device with OFF function (*7)	●	●	●	●	●	●
H — With check valve (*8)	●	●	●	●	●	●
K — External pilot	●	●				
A — Ozone/coolant proof product	●	●	●	●	●	●
F — Port A/B filter built in (*9)	●	●	●	●		
Z1 — Air supply spacer (*5)	●	●				
Z3 — Exhaust spacer (*5)	●	●				
Z6 — Spacer pilot check valve (*5)(*10)	●	●				
Z8 — Individual air supply compatible spacer with in-stop valve spacer (*5)(*10)(*11)	●	●				
Ⓗ Mount type						
Blank — Direct mount	●	●				
D — DIN rail mount	●					
Ⓘ Station No.						
2 to 18 — 2 stations to 18 stations (Differs depending on the reduced wiring specifications. Refer to the individual specifications (page 1010).)	●	●				
Ⓙ Voltage						
1 — 100 VAC (rectifier integrated)	●	●	●	●	●	●
3 — 24 VDC	●	●	●	●	●	●
4 — 12 VDC	●	●	●	●	●	●

indicates not available.

[Reduced wiring list]

Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)		Ⓐ Model No.					
		Manifold		Discrete valve block with solenoid valve		Discrete valve	
							
		MW3GZ2	MW4GZ2	NW3GZ2	NW4GZ2	W3GB2	W4GB2
T10	Common terminal block (M3 screw) Left-sided spec.	●	●				
T20	Multi-connector Left-sided spec. (*12)	●	●				
T30	D-sub-connector Left-sided spec. (*12)	●	●				
T51	20-pin flat cable connector (without power supply terminal) Left-sided spec. (*12)	●	●				
T53	26-pin flat cable connector (without power supply terminal) Left-sided spec. (*12)	●	●				

(*12): Multi-connector (T20), D-sub-connector (T30), 100 VAC is not available in flat cable connector (T5*) connection specifications.

Ozone-proof specifications • Coolant proof specifications

Select option A of Item Ⓖ in How to order on pages 1014, 1016 and 1018.

Specifications for rechargeable battery (Catalog No. CC-1226A)

For use in the rechargeable battery manufacturing process, materials used for all parts are limited

** – Voltage – **P40**

CE marking specifications

** – Voltage – **ST**

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

MW$^{3}_{4}$GB2-T7/T8 Series

Reduced wiring manifold; base side piping/base bottom piping

How to order

Serial transmission

● Manifold model No.

MW4GB2 1 0- C8 – T8G1 W H D - 5 - 3

● 3-port manifold model No.

MW3GB2 66 0- C8 – T8G1 W H D - 5 - 3

● Discrete valve block with solenoid valve

NW4GB2 1 0- C8 - ○ W H — 3

● Discrete valve block with 3-port solenoid valve

NW3GB2 66 0- C8 - ○ W H — 3

● Single valve for mounting base

W4GB2 1 9- 00 — H — 3

● 3-port discrete valve for mounting base

W3GB2 66 9- 00 — H — 3

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*1) (*2)
Ⓓ Electrical connections
Ⓔ Reduced wiring connection
For circuit diagrams (solenoid valve interior), refer to page 970.
Ⓕ Terminal/connector pin Array method
Ⓖ Option
Ⓗ Mount Type
Ⓘ Station No.
Ⓙ Voltage

Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1: Ports A and B plug specifications (*NC/*NO) are available for 2-position single only. Specify the port P/R bore size in the supply and exhaust block section.
2: CL push-in L fitting (upward) is available for the single and double types only. Long elbow is for port A and short elbow for port B. Ports A and B are the same size in the push-in L fitting (upward) mix (CX). If CL* NC/NO is selected, the fitting is a short elbow.
*3: Blank.....The wiring will be based on the type of valve mounted.
W.....All wired as double solenoid regardless of the type of valve used. It is not necessary to select W if no single solenoid is used.
*4: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.
*5: Check valve (H) is not available for 3-position all ports closed and PAB connection. Refer to page 1105 for details on the check valve.
*6: A filter is built into port P.
*7: Specify the I/O type (sink/source) of I/O block and the power supply (device unit common/external) on the manifold specifications sheet on pages 1100 and 1101.
*8: Specify the spacer mounting position and quantity in manifold specifications sheet.
Stacking of spacers is not possible.
Combination with the masking plate is not supported.
For details, refer to page 1057.
*9: Not available when the fitting for port A/B is elbow.
*10: Not compatible with combination with external pilot (K).
*11: Serial transmission is not available with 100 VAC and 12 VDC.

Code	Description		Ⓐ Model No. Manifold MW3GB2	Manifold MW4GB2	Discrete valve block with solenoid valve NW3GB2	Discrete valve block with solenoid valve NW4GB2	Discrete valve W3GB2	Discrete valve W4GB2
Ⓑ 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			●		●		●
66	Two 3-port valves integrated (*10)	A side valve: Normally closed B side valve: Normally closed	●		●		●	
8	Mix manifold (when there are multiple solenoid positions)		●	●				
Ⓒ Port size (port A/B)								
C4	ø4 push-in fitting		●	●	●	●		
C6	ø6 push-in fitting		●	●	●	●		
C8	ø8 push-in fitting		●	●	●	●		
CL6	ø6 push-in L-fitting (upward)		●	●	●	●		
CL8	ø8 push-in L-fitting (upward)		●	●	●	●		
CX	Push-in fitting mix		●	●				
Single side plug	Port A	Port B						
C4NC	ø4 push-in fitting	Plug	●	●	●	●		
C6NC	ø6 push-in fitting	Plug	●	●	●	●		
C8NC	ø8 push-in fitting	Plug	●	●	●	●		
C4NO	Plug	ø4 push-in fitting	●	●	●	●		
C6NO	Plug	ø6 push-in fitting	●	●	●	●		
C8NO	Plug	ø8 push-in fitting	●	●	●	●		
CL6NC	ø6 push-in L-fitting (upward)	Plug	●	●	●	●		
CL8NC	ø8 push-in L-fitting (upward)	Plug	●	●	●	●		
CL6NO	Plug	ø6 push-in L-fitting (upward)	●	●	●	●		
CL8NO	Plug	ø8 push-in L-fitting (upward)	●	●	●	●		
Ⓓ Electrical connections								
Blank	DC connector relay board specifications				●	●		
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)								
Refer to the next page for reduced wiring.								
Ⓕ Terminal/connector pin array								
Blank	Standard wiring	(*3)	●	●	●	●		
W	Double wiring	(*3)	●	●	●	●		
Ⓖ Option								
Blank	No option		●	●	●	●	●	●
M	Manual override of non-locking	(*4)	●	●	●	●	●	●
M7	Manual device with OFF function	(*4)	●	●	●	●	●	●
H	With check valve	(*5)	●	●	●	●	●	●
K	External pilot		●	●				
A	Ozone/coolant proof product		●	●	●	●	●	●
F	Port A/B filter built in	(*6)	●	●	●	●		
Y**	I/O block (In **, enter the number of the desired I/O block combination from Table 1 [I/O block combination table].)	(*7)	●	●				
Z1	Air supply spacer	(*8)	●	●				
Z3	Exhaust spacer	(*8)	●	●				
Z6	Spacer pilot check valve	(*8)(*9)	●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer	(*8)(*9)(*10)	●	●				
Ⓗ Mount type								
Blank	Direct mount		●	●				
D	DIN rail mount		●	●				
Ⓘ Station No.								
2 to 16	2 stations to 16 stations	(Differs depending on the reduced wiring specifications. Refer to the individual specifications (page 1010).)	●	●				
Ⓙ Voltage								
3	24 VDC	(*11)	●	●	●	●	●	●

indicates not available.

[Reduced wiring list]

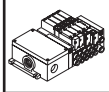
Ⓐ Model No.			Manifold		Discrete valve block with solenoid valve		Discrete valve	
								
			MW3GB2	MW4GB2	NW3GB2	NW4GB2	W3GB2	W4GB2
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)								
T7EC1	Thin EtherCAT	16 point output(NPN valve output)	●	●				
T7ECP1		16 point output(PNP valve output)	●	●				
T7EC2		32 point output(NPN valve output)	●	●				
T7ECP2		32 point output(PNP valve output)	●	●				
T7ECB7		16/16-point I/O (NPN valve output)	●	●				
T7ECPB7		16/16-point I/O (PNP valve output)	●	●				
T7EN1	Thin EtherNet/IP	16-point output (NPN valve output)	●	●				
T7ENP1		16-point output (PNP valve output)	●	●				
T7EN2		32-point output (NPN valve output)	●	●				
T7ENP2		32-point output (PNP valve output)	●	●				
T7ENB7		16/16-point I/O (NPN valve output)	●	●				
T7ENPB7		16/16-point I/O (PNP valve output)	●	●				
T7EB1	Thin CC-Link IEF Basic	16-point output (NPN valve output)	●	●				
T7EBP1		16-point output (PNP valve output)	●	●				
T7EB2		32-point output (NPN valve output)	●	●				
T7EBP2		32-point output (PNP valve output)	●	●				
T7EBB7		16/16-point I/O (NPN valve output)	●	●				
T7EBPB7		16/16-point I/O (PNP valve output)	●	●				
T7EP1	Thin PROFINET	16-point output (NPN valve output)	●	●				
T7EPP1		16-point output (PNP valve output)	●	●				
T7EP2		32-point output (NPN valve output)	●	●				
T7EPP2		32-point output (PNP valve output)	●	●				
T7EPB7		16/16-point I/O (NPN valve output)	●	●				
T7EPPB7		16/16-point I/O (PNP valve output)	●	●				
T8G1	CC-Link	16 point output	●	●				
T8G2		32 point output	●	●				
T8G7		16 point input/16 point output	●	●				
T8D1	DeviceNet	16 point output	●	●				
T8D2		32 point output	●	●				
T8D7		16 point input/16 point output	●	●				

Table 1 [I/O block combination table]

T7

Code	Layout of I/O blocks and station No.						Wiring block side
Y10						IN	
Y20					IN	IN	
Y30				IN	IN	IN	
Y40			IN	IN	IN	IN	
Y11					OUT	IN	
Y21				OUT	IN	IN	
Y31			OUT	IN	IN	IN	
Y41		OUT	IN	IN	IN	IN	
Y12				OUT	OUT	IN	
Y22			OUT	OUT	IN	IN	
Y32		OUT	OUT	IN	IN	IN	
Y42	OUT	OUT	IN	IN	IN	IN	

*1 : How to read the table
Example) Y11 is a combination of one input block (4 points) and one output block (4 points).
2: For details, refer to page 1081 “I/O point numbers corresponding to I/O No. of wiring method T8”.

T8

Code	Layout of I/O blocks and station No.						Wiring block side
Y10						IN	
Y20					IN	IN	
Y30				IN	IN	IN	
Y40			IN	IN	IN	IN	
Y01						OUT	
Y02					OUT	OUT	
Y03				OUT	OUT	OUT	
Y04			OUT	OUT	OUT	OUT	
Y11					OUT	IN	
Y21				OUT	IN	IN	
Y31			OUT	IN	IN	IN	
Y41		OUT	IN	IN	IN	IN	
Y12				OUT	OUT	IN	
Y22			OUT	OUT	IN	IN	
Y32		OUT	OUT	IN	IN	IN	
Y42	OUT	OUT	IN	IN	IN	IN	

Ozone-proof specifications • Coolant proof specifications

Select option “A” of Item Ⓖ in How to order on pages 1014, 1016, 1018 and 1020.

Specifications for rechargeable battery (Catalog No. CC-1226A)

● For use in the rechargeable battery manufacturing process, materials used for all parts are limited

** – Voltage – **P40**

CE marking specifications

** – Voltage – **ST**

- Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".
- T8G1, T8G2, and T8G7 are not CE marking.

How to order

Serial transmission

● Manifold model No.

MW4GZ2 **1** 0- **C8** – **T8G1** **W** **H** — **5** - **3**

● 3-port manifold model No.

MW3GZ2 **66** 0- **C8** – **T8G1** **W** **H** **D** - **5** - **3**

● Discrete valve block with solenoid valve

NW4GZ2 **1** 0- **C8** - ○ **W** **H** — **3**

● Discrete valve block with 3-port solenoid valve

NW3GZ2 **66** 0- **C8** - ○ **W** **H** — **3**

● Single valve for mounting base(*1)

W4GB2 **1** 9- **00** — **H** — **3**

● 3-port discrete valve for mounting base(*1)

W3GB2 **66** 9- **00** — **H** — **3**

Ⓐ Model No.
Ⓑ Solenoid position
Ⓒ Port size (*2) (*3)
Ⓓ Electrical connections
Ⓔ Reduced wiring connection
For circuit diagrams (solenoid valve interior), refer to page 970.
Ⓕ Terminal/connector pin Array method
Ⓖ Option
Ⓗ Mount Type
Ⓘ Station No.
Ⓙ Voltage

Code	Description		Ⓐ Model No. Manifold MW3GZ2	Manifold MW4GZ2	Discrete valve block with solenoid valve NW3GZ2	Discrete valve block with solenoid valve NW4GZ2	Discrete valve W3GB2	Discrete valve W4GB2
Ⓑ 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			●		●		●
66	Two 3-port valves Integrated (*11)	A side valve: Normally closed	●		●		●	●
		B side valve: Normally closed						
8	Mix manifold (when there are multiple solenoid positions)		●	●				
Ⓒ Port size (port A/B)								
C4	ø4 push-in fitting		●	●	●	●		
C6	ø6 push-in fitting		●	●	●	●		
C8	ø8 push-in fitting		●	●	●	●		
CX	Push-in fitting mix		●	●				
Single side plug	Port A	Port B						
C4NC	ø4 push-in fitting	Plug	●	●	●	●		
C6NC	ø6 push-in fitting		●	●	●	●		
C8NC	ø8 push-in fitting		●	●	●	●		
C4NO	Plug	ø4 push-in fitting	●	●	●	●		
C6NO		ø6 push-in fitting	●	●	●	●		
C8NO		ø8 push-in fitting	●	●	●	●		
Ⓓ Electrical connections								
Blank	DC connector relay board specifications				●	●		
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)								
Refer to the next page for reduced wiring.								
Ⓕ Terminal/connector pin array								
Blank	Standard wiring (*4)		●	●	●	●		
W	Double wiring (*4)		●	●	●	●		
Ⓖ Option								
Blank	No option		●	●	●	●	●	●
M	Manual override of non-locking (*5)		●	●	●	●	●	●
M7	Manual device with OFF function (*5)		●	●	●	●	●	●
H	With check valve (*6)		●	●	●	●	●	●
K	External pilot		●	●				
A	Ozone/coolant proof product		●	●	●	●	●	●
F	Port A/B filter built in (*7)		●	●	●	●		
Y**	I/O block (*8) (In **, enter the number of the desired I/O block combination from Table 1 [I/O block combination table].)		●	●				
Z1	Air supply spacer (*9)		●	●				
Z3	Exhaust spacer (*9)		●	●				
Z6	Spacer pilot check valve (*9)(*10)		●	●				
Z8	Individual air supply compatible spacer with in-stop valve spacer (*9)(*10)(*11)		●	●				
Ⓗ Mount type								
Blank	Direct mount		●	●				
D	DIN rail mount		●					
Ⓘ Station No.								
2 to 16	2 stations to 16 stations (Differs depending on the reduced wiring specifications. Refer to the individual specifications (page 1010).)		●	●				
Ⓙ Voltage								
3	24 VDC (*12)		●	●	●	●	●	●

indicates not available.

⚠ Precautions for model selection

Be sure to fill in the "Manifold specifications sheet".

*1: Discrete valve block with solenoid valve The W4GB2*9 discrete solenoid valve is used for the NW4GZ2.

*2: Ports A and B plug specifications (*NC/*NO) are available for 2-position single only. Specify the port P/R bore size in the supply and exhaust block section.

3: CL push-in L fitting (upward) is available for the single and double types only. Long elbow is for port A and short elbow for port B. Ports A and B are the same size in the push-in L fitting (upward) mix (CX).
If CL* NC/NO is selected, the fitting is a short elbow.

*4: Blank……The wiring will be based on the type of valve mounted.
W……All wired as double solenoid regardless of the type of valve used. It is not necessary to select W if no single solenoid is used.

*5: Manual override of non-locking (M) and manual override with OFF function (M7) cannot be selected together.

*6: Check valve (H) is not available for 3-position all ports closed and PAB connection. Refer to page 1105 for details on the check valve.

*7: A filter is built into port P.

*8: Specify the I/O type (sink/source) of I/O block and the power supply (device unit common/external) on the manifold specifications sheet on pages 1100 and 1101.

*9: Specify the spacer mounting position and quantity in manifold specifications sheet.
Stacking of spacers is not possible.
Combination with the masking plate is not supported.
For details, refer to page 1057.

*10: Not available when the fitting for port A/B is elbow.

*11: Not compatible with combination with external pilot (K).

*12: Serial transmission is not available with 100 VAC and 12 VDC.

[Reduced wiring list]

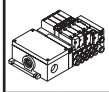
Ⓔ Reduced wiring (lamp and surge suppressor provided as standard)			Ⓐ Model No.					
			Manifold		Discrete valve block with solenoid valve		Discrete valve	
								
			MW3GZ2	MW4GZ2	NW3GZ2	NW4GZ2	W3GB2	W4GB2
T7EC1	Thin EtherCAT	16-point output (NPN valve output)	●	●				
T7ECP1		16-point output (PNP valve output)	●	●				
T7EC2		32-point output (NPN valve output)	●	●				
T7ECP2		32-point output (PNP valve output)	●	●				
T7ECB7		16/16-point I/O (NPN valve output)	●	●				
T7ECPB7		16/16-point I/O (PNP valve output)	●	●				
T7EN1	Thin EtherNet/IP	16-point output (NPN valve output)	●	●				
T7ENP1		16-point output (PNP valve output)	●	●				
T7EN2		32-point output (NPN valve output)	●	●				
T7ENP2		32-point output (PNP valve output)	●	●				
T7ENB7		16/16-point I/O (NPN valve output)	●	●				
T7ENPB7		16/16-point I/O (PNP valve output)	●	●				
T7EB1	Thin CC-Link IEF Basic	16-point output (NPN valve output)	●	●				
T7EBP1		16-point output (PNP valve output)	●	●				
T7EB2		32-point output (NPN valve output)	●	●				
T7EBP2		32-point output (PNP valve output)	●	●				
T7EBB7		16/16-point I/O (NPN valve output)	●	●				
T7EBPB7		16/16-point I/O (PNP valve output)	●	●				
T7EP1	Thin PROFINET	16-point output (NPN valve output)	●	●				
T7EPP1		16-point output (PNP valve output)	●	●				
T7EP2		32-point output (NPN valve output)	●	●				
T7EPP2		32-point output (PNP valve output)	●	●				
T7EPB7		16/16-point I/O (NPN valve output)	●	●				
T7EPPB7		16/16-point I/O (PNP valve output)	●	●				
T8G1	CC-Link	16 point output	●	●				
T8G2		32 point output	●	●				
T8G7		16 point input/16 point output	●	●				
T8D1	DeviceNet	16 point output	●	●				
T8D2		32 point output	●	●				
T8D7		16 point input/16 point output	●	●				

Table 1 [I/O block combination table]

T7

Code	Layout of I/O blocks and station No.						Wiring block side
Y10						IN	
Y20					IN	IN	
Y30				IN	IN	IN	
Y40			IN	IN	IN	IN	
Y11					OUT	IN	
Y21				OUT	IN	IN	
Y31			OUT	IN	IN	IN	
Y41		OUT	IN	IN	IN	IN	
Y12				OUT	OUT	IN	
Y22			OUT	OUT	IN	IN	
Y32		OUT	OUT	IN	IN	IN	
Y42	OUT	OUT	IN	IN	IN	IN	

*1 : How to read the table
Example) Y11 is a combination of one input block (4 points) and one output block (4 points).

2: For details, refer to page 1080 "I/O point numbers corresponding to I/O No. of wiring method T8".

T8

Code	Layout of I/O blocks and station No.						Wiring block side
Y10						IN	
Y20					IN	IN	
Y30				IN	IN	IN	
Y40			IN	IN	IN	IN	
Y01						OUT	
Y02					OUT	OUT	
Y03				OUT	OUT	OUT	
Y04			OUT	OUT	OUT	OUT	
Y11					OUT	IN	
Y21				OUT	IN	IN	
Y31			OUT	IN	IN	IN	
Y41		OUT	IN	IN	IN	IN	
Y12				OUT	OUT	IN	
Y22			OUT	OUT	IN	IN	
Y32		OUT	OUT	IN	IN	IN	
Y42	OUT	OUT	IN	IN	IN	IN	

Ozone-proof specifications • Coolant proof specifications

Select option "A" of Item Ⓖ in How to order on pages 1014, 1016 and 1018.

Specifications for rechargeable battery (Catalog No. CC-1226A)

● For use in the rechargeable battery manufacturing process, materials used for all parts are limited

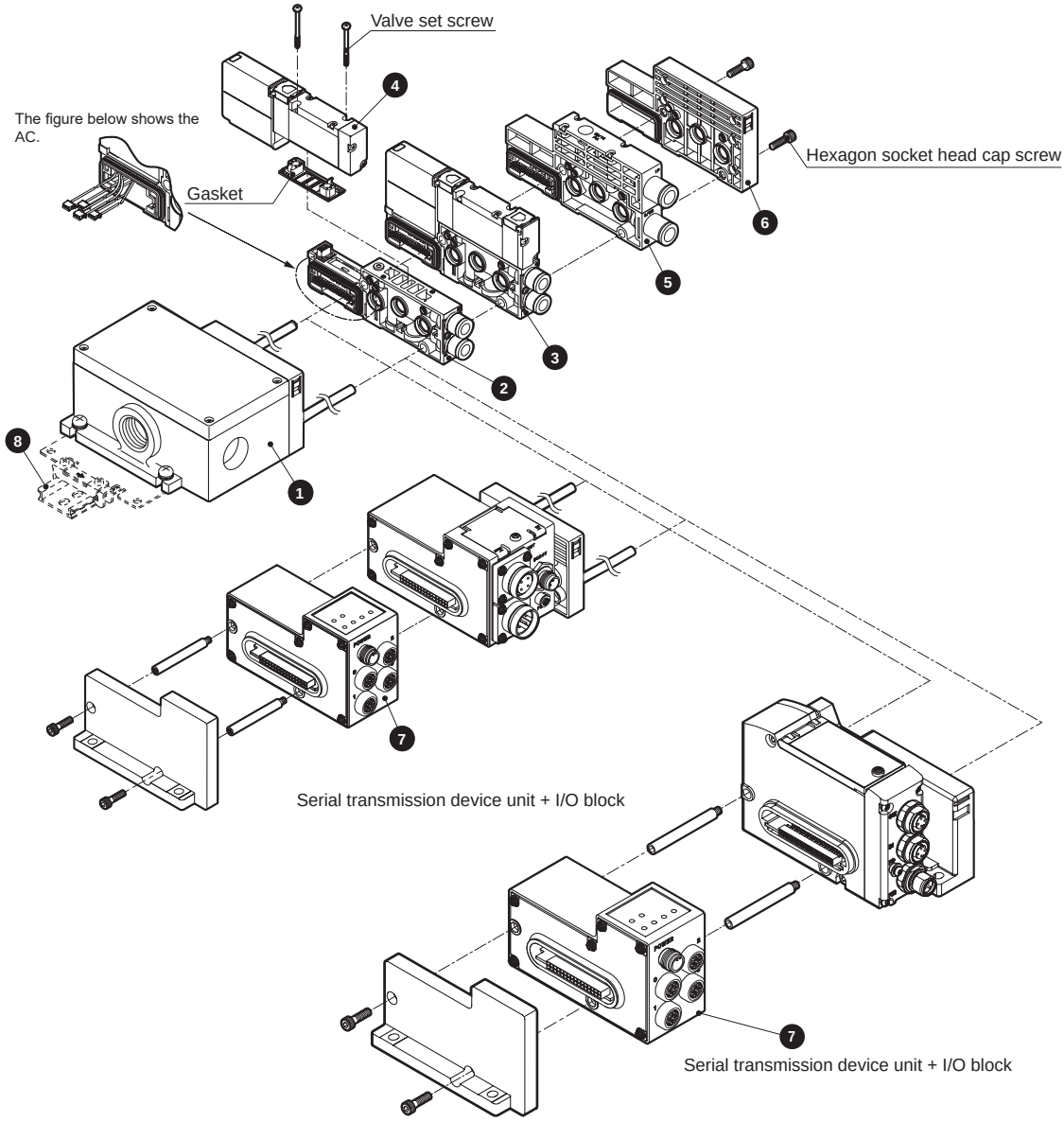
** - Voltage - **P40**

CE marking specifications

** - Voltage - **ST**

- Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".
- T8G1, T8G2, and T8G7 are not CE marking.

Manifold components explanation and parts list



List of main components (refer to pages 1048 to 1063 for details)

No.	Component name	Model No. (example)	No.	Component name	Model No. (example)
1	Wiring block	NW4G2-T10	5	Supply and exhaust block	NW4G2-Q-10
2	Discrete valve block	NW4GB2-V1-C8	6	End block R	NW4G2-ER
3	Discrete valve block with solenoid valve	NW4GB220-C8-H-3	7	I/O block	NW4GB2-IN-N-B
4	Discrete solenoid valve for manifold	W4GB219-00-H-3	8	DIN rail	N4G-BAA (Length)

Reduced wiring weight (for DC)

NW4GB2

Block	Model No.	Weight
Valve block with solenoid valve	NW4GB210-*-*-*	177
	NW4GB220-*-*-*	193
	NW4GB2$^{3}_{5}$0-*-*-*	200
Valve block with masking plate	NW4GB2-MP$^{S}_{D}$-*	113
Wiring block (serial transmission device unit)	NW4GB2-T8*	430
I/O block (serial transmission device unit)	NW4GB2-$^{IN}_{OUT}$-$^{N}_{P}$-$^{K}_{B}$	220
Valve block	NW4GB2-V*-*	83

NW4GZ2

(g)

Block	Model No.	Weight
Valve block with solenoid valve	NW4GZ210-*-*-*	177
	NW4GZ220-*-*-*	192
	NW4GZ2$^{3}_{5}$0-*-*-*	199
Valve block with masking plate	NW4GZ2-MP$^{S}_{D}$-*	112
Wiring block (serial transmission device unit)	NW4GB2-T8*	430
Wiring block (serial transmission device unit)	NW4G2-T7*	280
I/O block (serial transmission device unit)	NW4GB2-IN/OUT-N/P-K/B	220
Valve block	NW4GZ2-V*	82

Common

(g)

Block	Model No.	Weight	Block	Model No.	Weight
Supply and exhaust block	NW4G2-Q-*	137	Wiring block	NW4G2-T10	423
	NW4G2-QK-*	140		NW4G2-T20	490
	NW4G2-QZ-*	137		NW4G2-T30	370
	NW4G2-QKZ-*	143		NW4G2-T5*	367
End block	NW4G2-ER	91	Air supply spacer	W4G2-P(K)-*	60
	NW4G2-EXR	96	Exhaust spacer	W4G2-R-*-*	60
			Spacer pilot check valve	W4G2-PC-M	183
			Individual air supply compatible spacer with in-stop valve spacer	W4G2-PIS-*	115
			DIN rail	N4G-BAA*	0.19/mm

Parts list

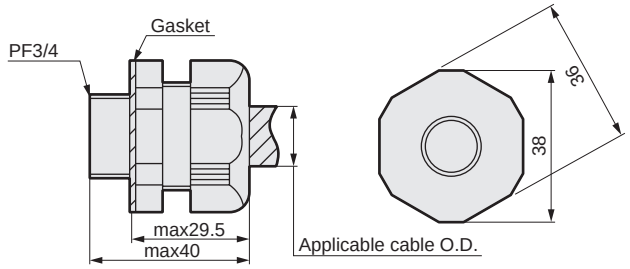
● Cartridge push-in fitting

Applicable	Part name	Model No.
Valve	Cartridge fitting ø4 straight	4G2-JOINT-C4
	Cartridge fitting ø6 straight	4G2-JOINT-C6
	Cartridge fitting ø8 straight	4G2-JOINT-C8
	Cartridge fitting ø6 (short) elbow	4G2-JOINT-CL6
	Cartridge fitting ø6 long elbow	4G2-JOINT-CLL6
	Cartridge fitting ø8 (short) elbow	4G2-JOINT-CL8
	Cartridge fitting ø8 long elbow	4G2-JOINT-CLL8
	Plug cartridge	4G2-JOINT-CPG
Supply and exhaust block port P/R	Cartridge fitting ø8 straight	N4G2-Q-JOINT-8
	Cartridge fitting ø10 straight	N4G2-Q-JOINT-10
	Cartridge fitting ø8 (short) elbow	N4G2-Q-JOINT-8L
	Cartridge fitting ø8 long elbow	N4G2-Q-JOINT-8LL
	Cartridge fitting ø10 (short) elbow	N4G2-Q-JOINT-10L
	Cartridge fitting ø10 long elbow	N4G2-Q-JOINT-10LL
	Plug cartridge	N4G2-Q-JOINT-PG
Supply and exhaust block port PA	Cartridge fitting ø6 straight	N4G-QK-JOINT-6
	Cartridge fitting ø6 elbow	N4G-QK-JOINT-6L

Parts kit for T10 wiring block

● Cable clamp

Model No.	Applicable cable O.D.	Description
W4G-SCL-18A	ø14.5 to 16.5	Used to protect cables from dust and jetting water.
W4G-SCL-18B	ø16.5 to 18.5	

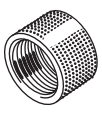


(Reference value)
Body tightening torque 4.0 to 4.5 N·m
Cable clamp tightening torque 3.0 to 3.5 N·m

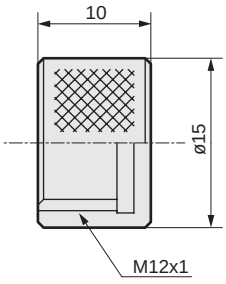
Parts for I/O block

● Waterproof cap

Model No.	Description
W4G-XSZ-11	Provides jet-proof protection of the power supply connector when the power supply is shared with the serial transmission device unit.



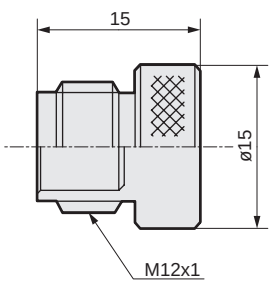
(Reference value)
Tightening torque 0.4 to 0.5 N·m



● Waterproof plug

Model No.	Description
W4G-XSZ-12	Provides jet-proof protection of unused signal connectors.

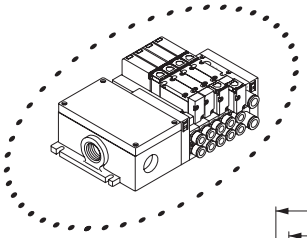
(Reference value)
Tightening torque 0.4 to 0.5 N·m

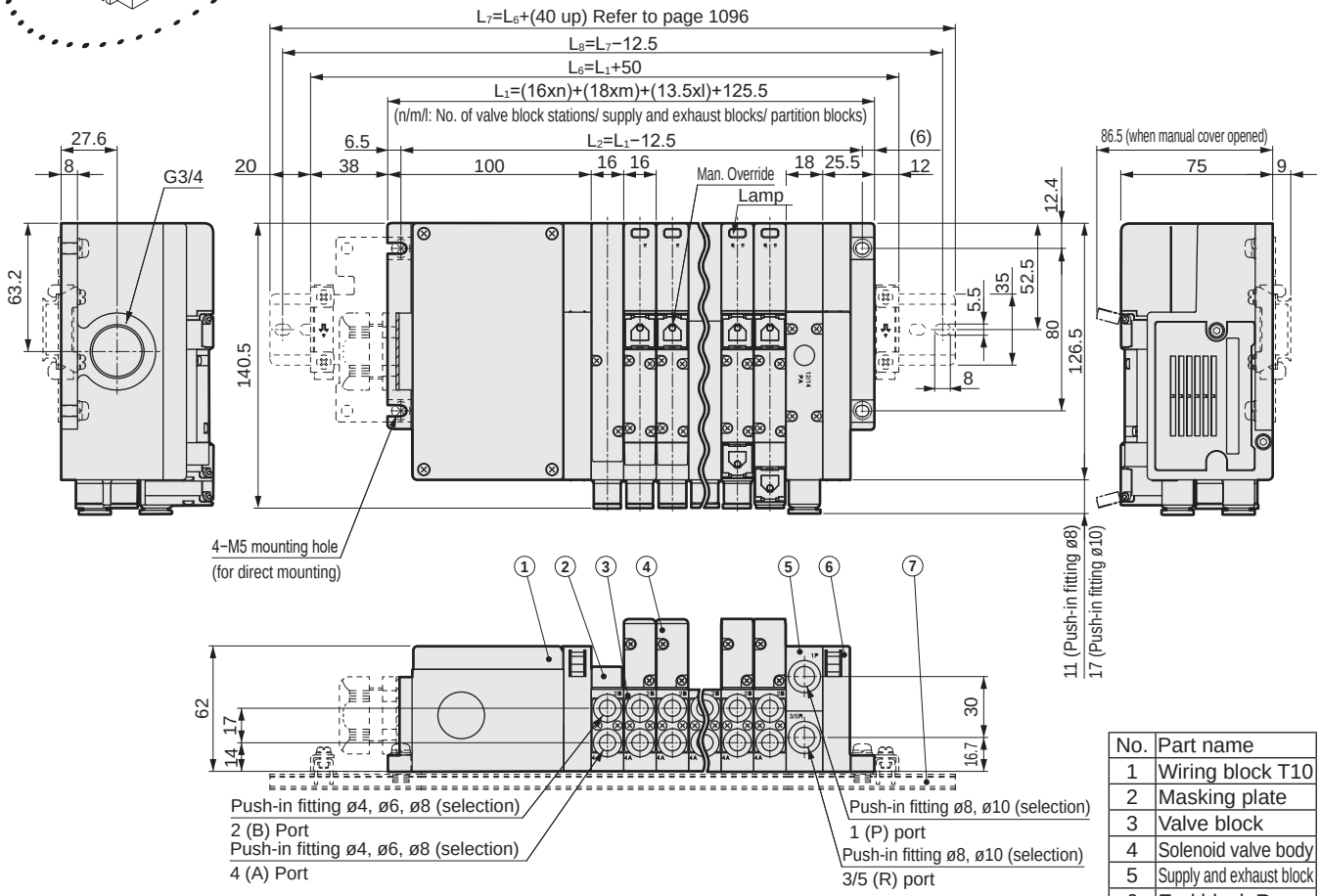


Dimensions CAD

MW4GB2

● Common terminal block (T10)

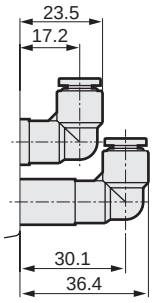




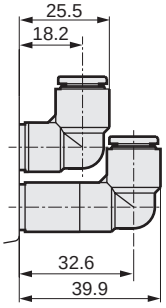
No.	Part name
1	Wiring block T10
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

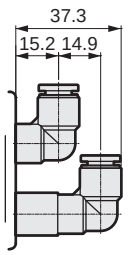


● ø8(CL8)

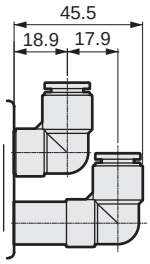


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



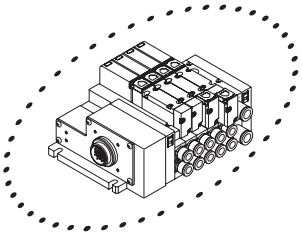
● ø10(CL10)

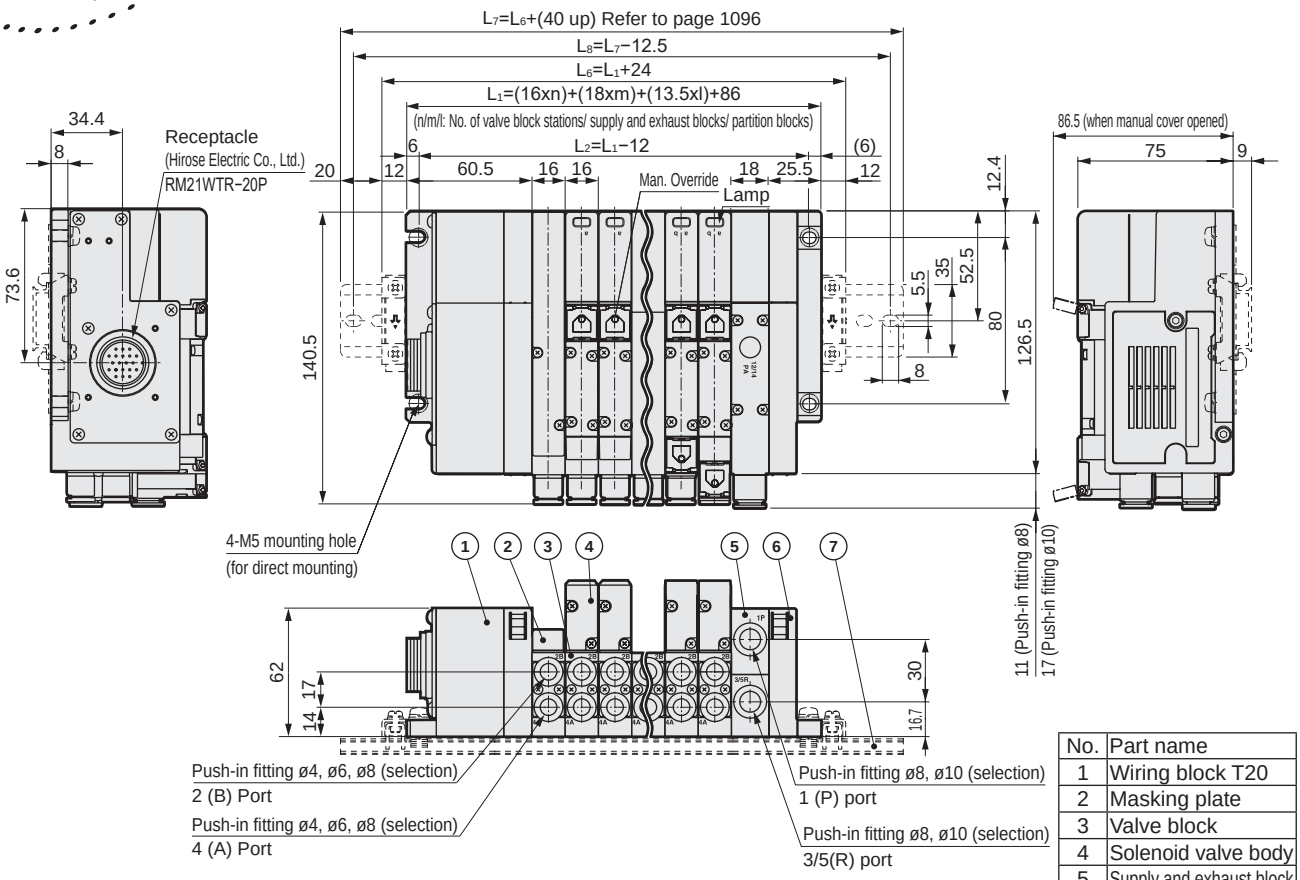


Dimensions CAD

MW4GB2

● Multi-connector (T20)

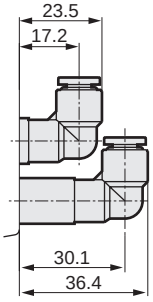




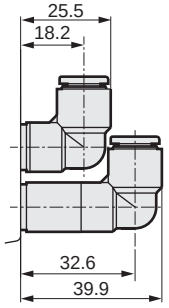
No.	Part name
1	Wiring block T20
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

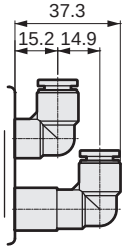


● ø8(CL8)

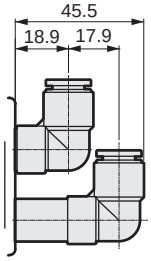


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



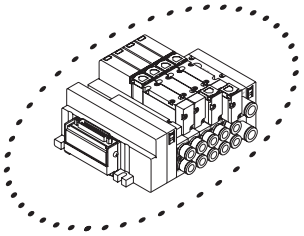
● ø10(CL10)

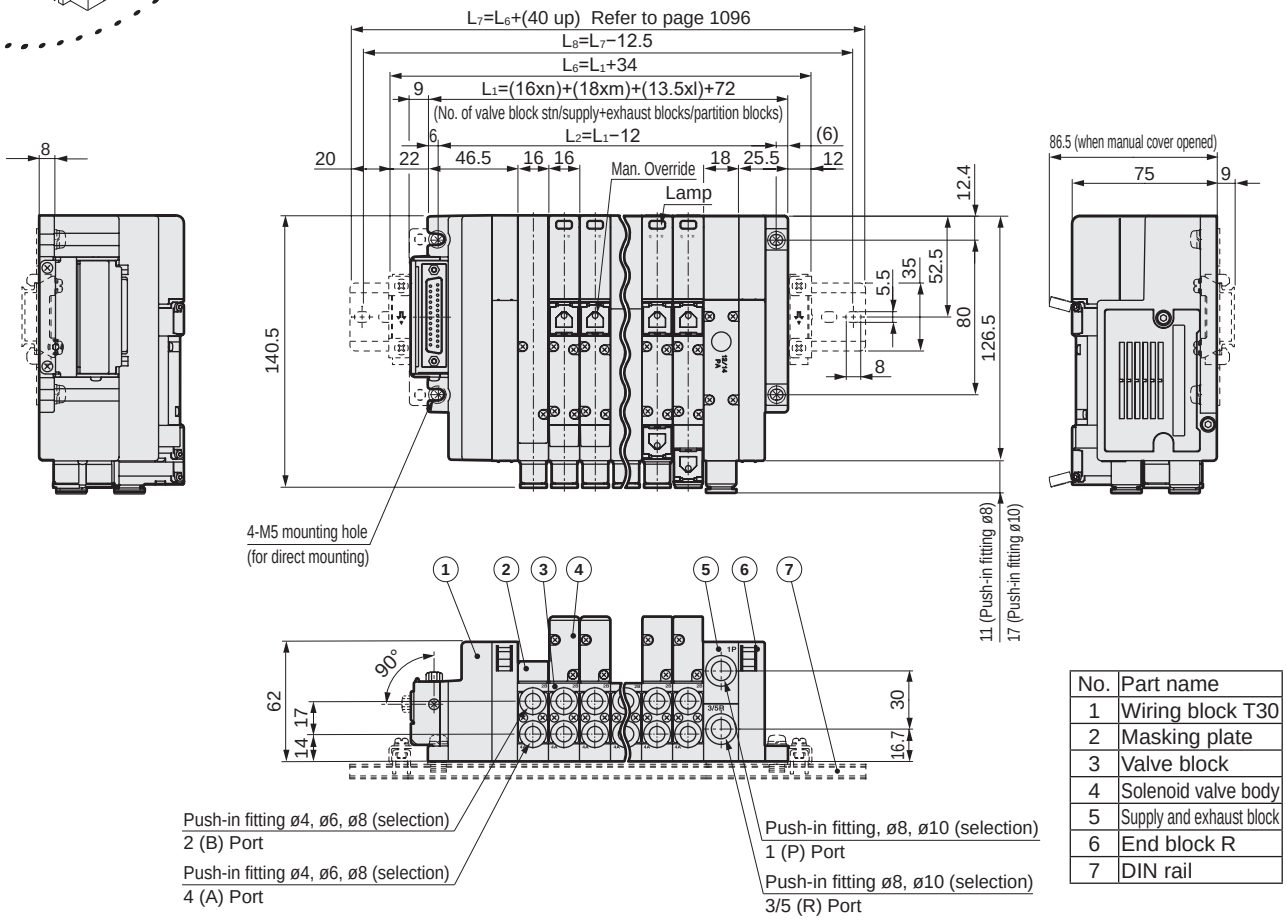


Dimensions CAD

MW4GB2

● D sub-connector (T30)

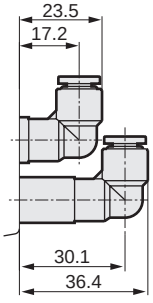




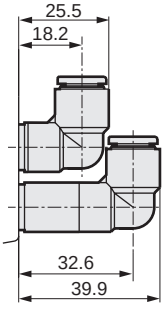
No.	Part name
1	Wiring block T30
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

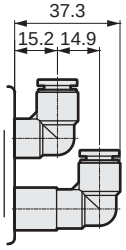


● ø8(CL8)

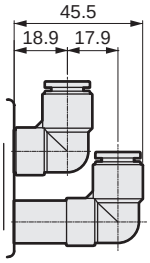


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)

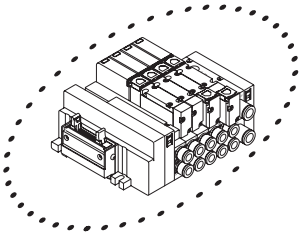


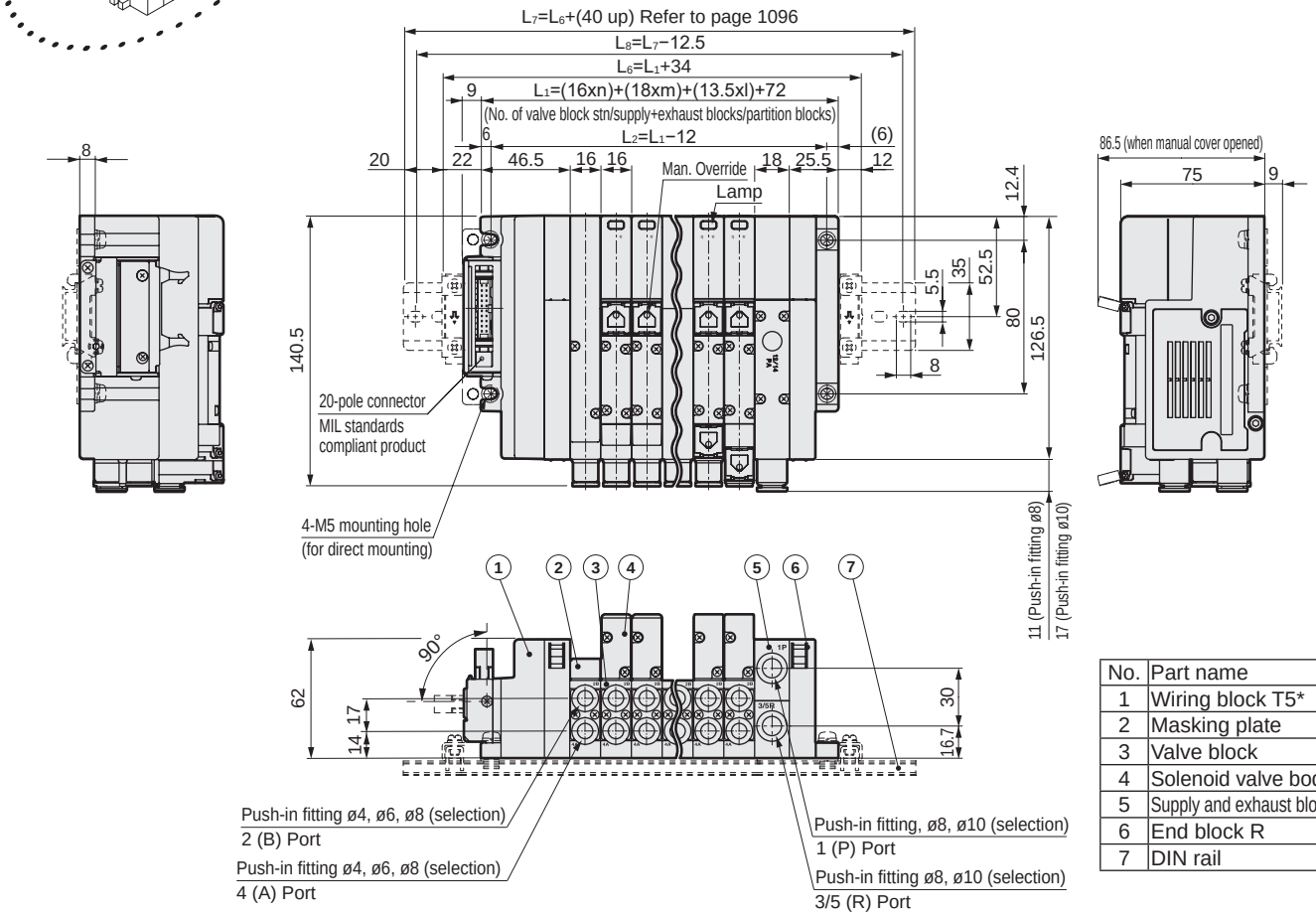
Dimensions CAD

MW4GB2

● Flat cable connector (T5*)

* Figure shows T51.
Flat cable connector has T53.
Dimensions are the same as T51.

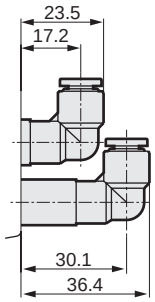




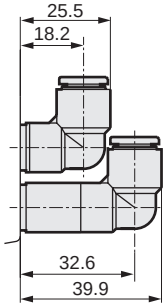
No.	Part name
1	Wiring block T5*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

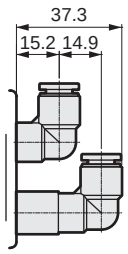


● ø8(CL8)

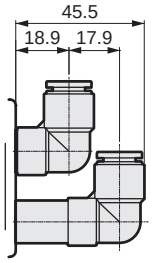


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



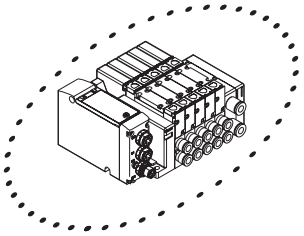
● ø10(CL10)

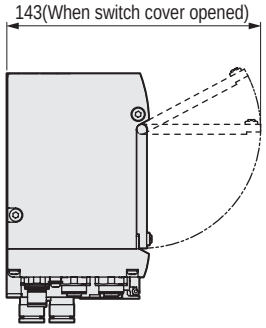


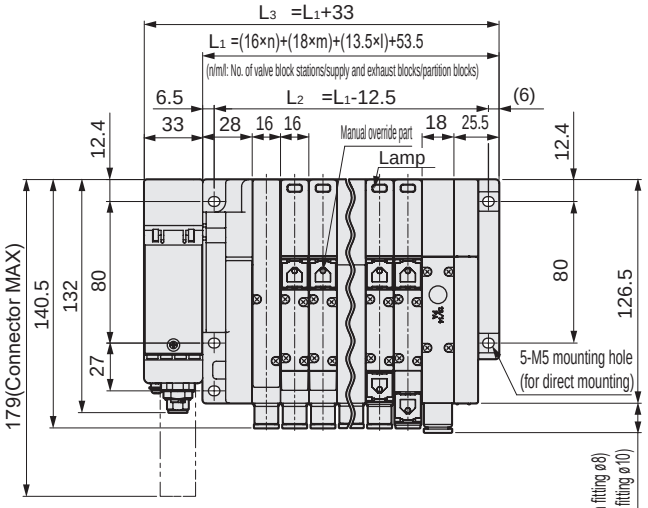
Dimensions CAD

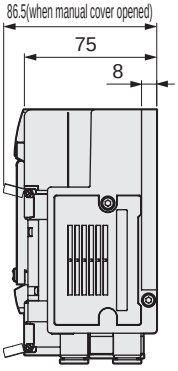
MW4GB2

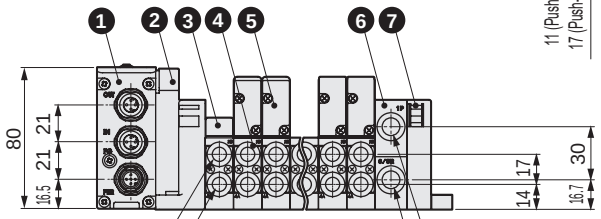
● Serial transmission (T7 □)











Push-in fitting ø4, ø6, ø8 (selection)
2 (B) port

Push-in fitting ø4, ø6, ø8 (selection)
4 (A) port

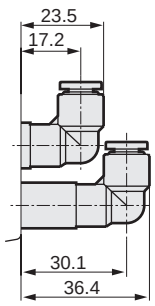
Push-in fitting ø8, ø10 (selection)
1 (P) port

Push-in fitting ø8, ø10 (selection)
3/5(R) port

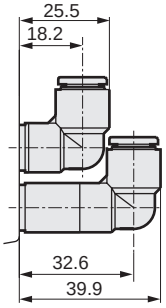
Part No.	Part name
1	Serial transmission device unit W4G-OPP8 Series
2	Wiring block
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6 (CL6)

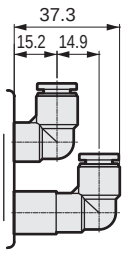


● ø8 (CL8)

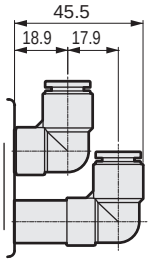


● Push-in L fitting for supply and exhaust block (upward)

● ø8 (CL8)



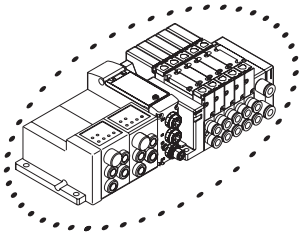
● ø10 (CL10)

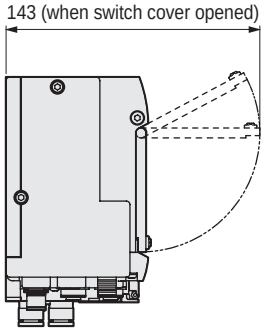


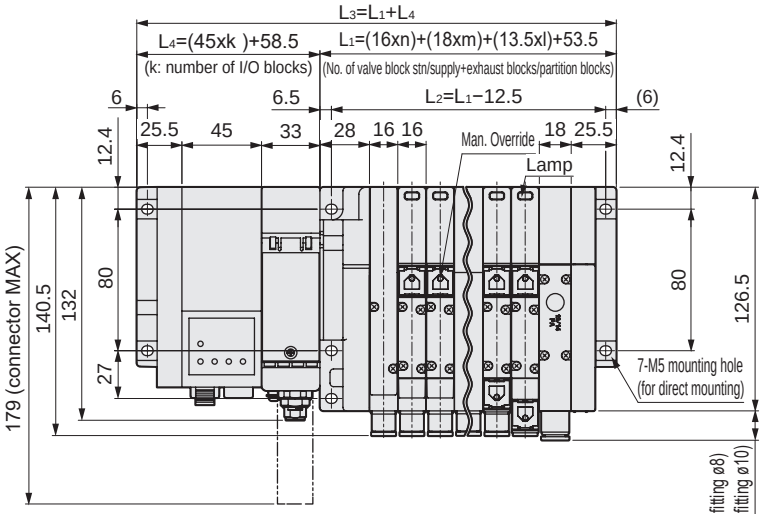
Dimensions CAD

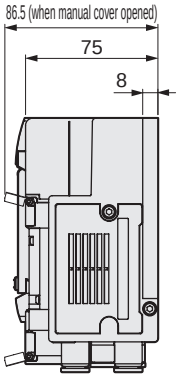
MW4GB2

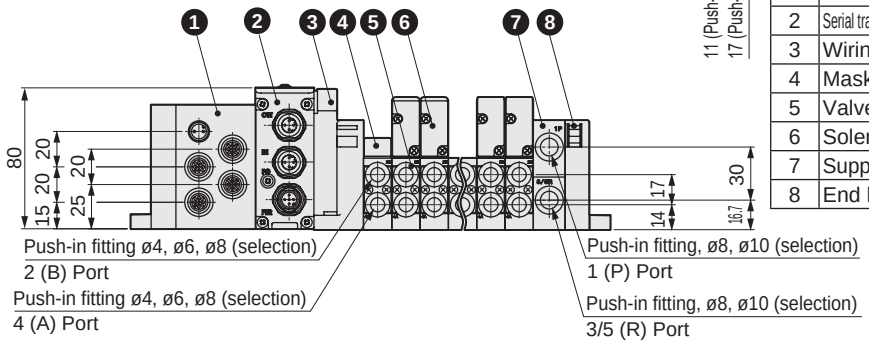
● Serial transmission (T7□B) with I/O







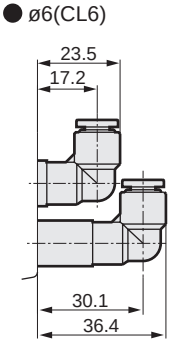




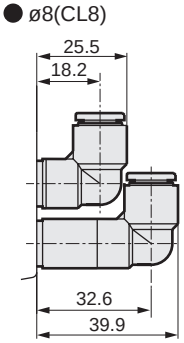
No.	Part name
1	I/O block
2	Serial trans. device unit W4G-OPP8 Series
3	Wiring block
4	Masking plate
5	Valve block
6	Solenoid valve body
7	Supply and exhaust block
8	End block R

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

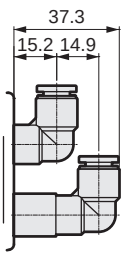


● ø8(CL8)

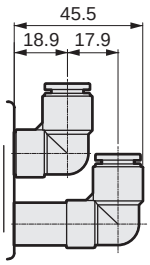


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



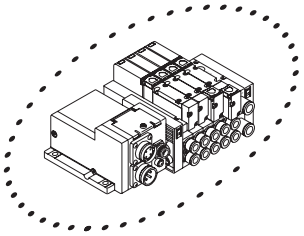
● ø10(CL10)

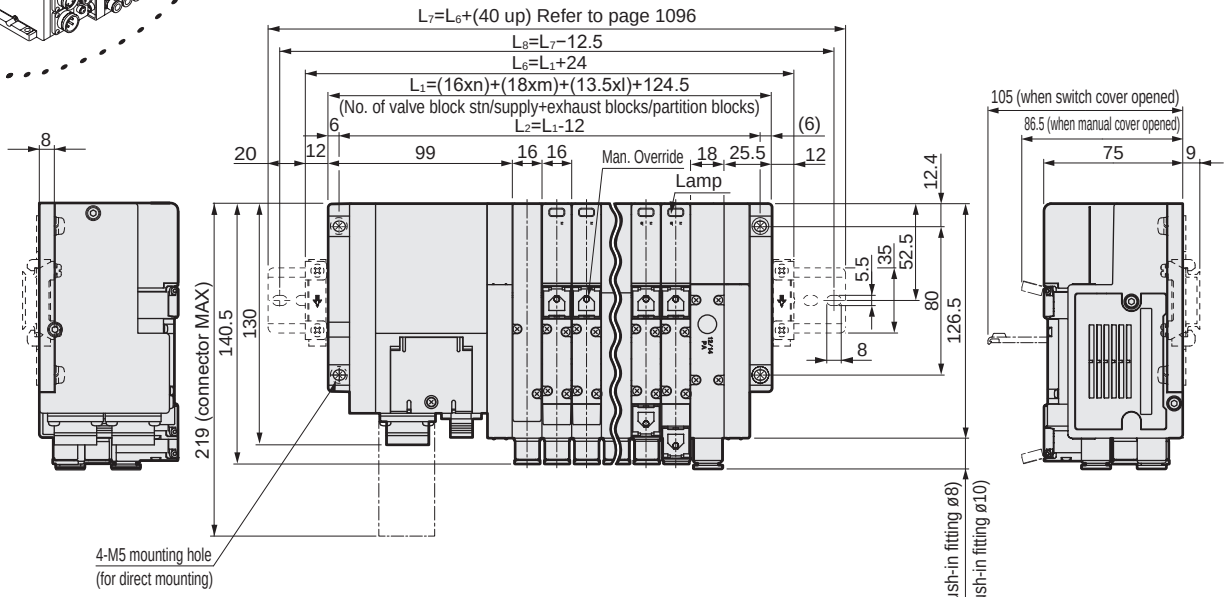


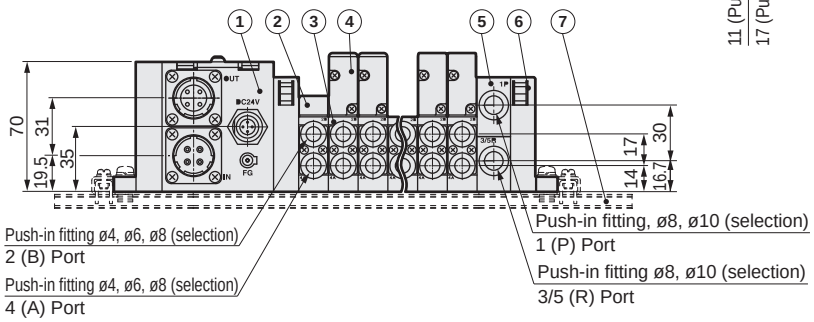
Dimensions CAD

MW4GB2

● Serial transmission CC-Link (T8G*)



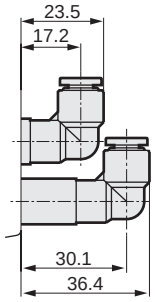




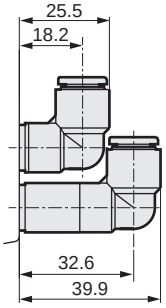
No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

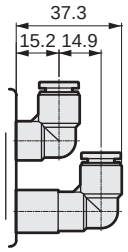


● ø8(CL8)

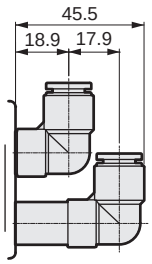


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



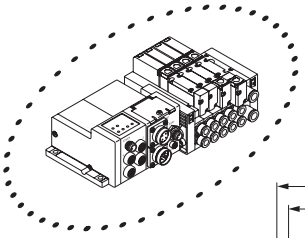
● ø10(CL10)

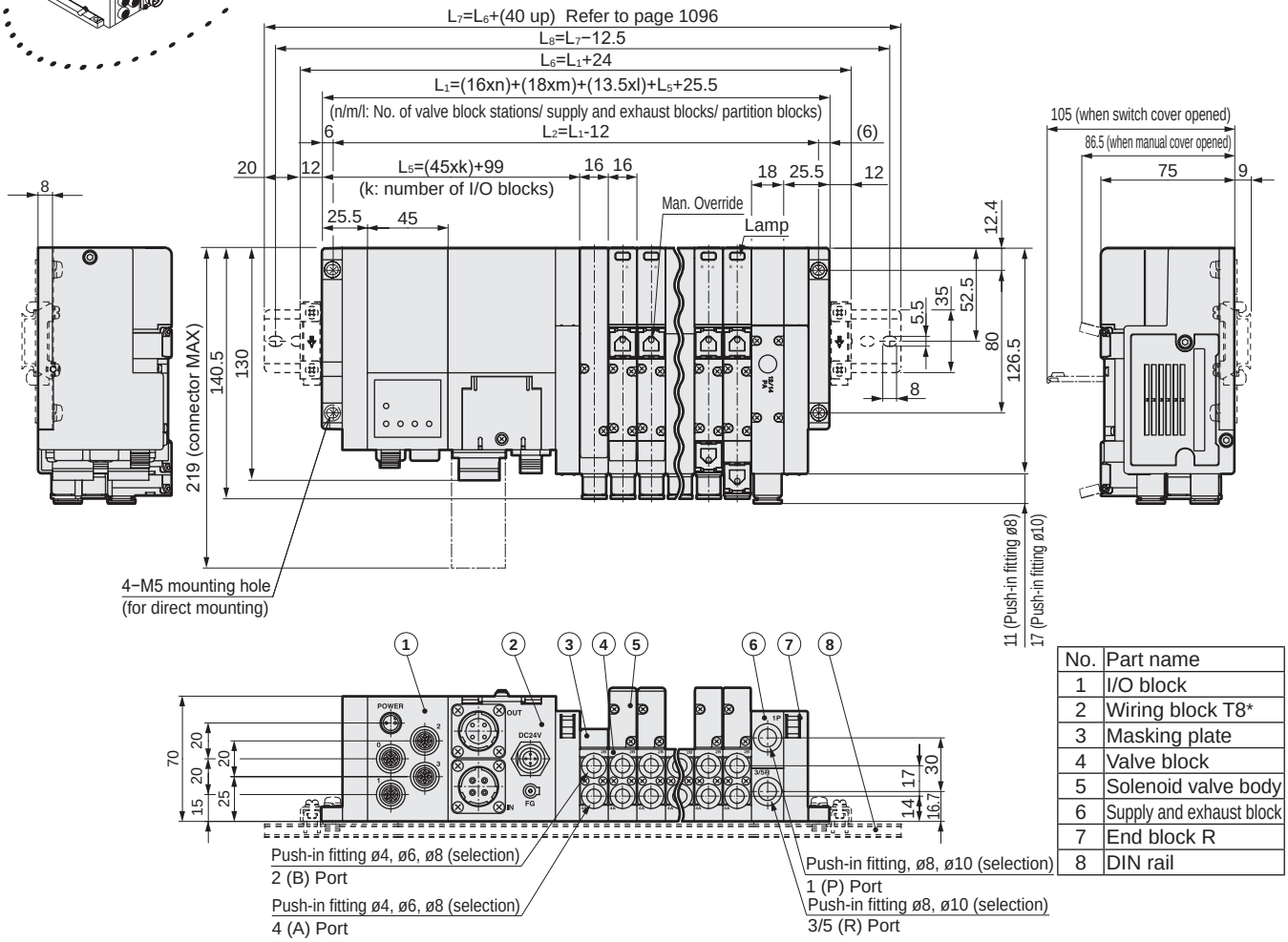


Dimensions CAD

MW4GB2

● Serial transmission CC-Link (T8G*) + I/O block

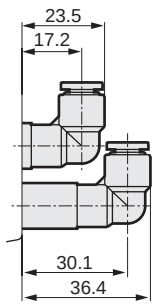




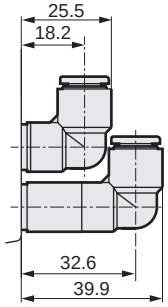
No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R
8	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

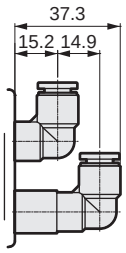


● ø8(CL8)

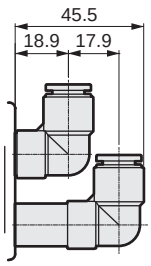


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



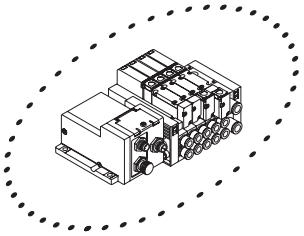
● ø10(CL10)

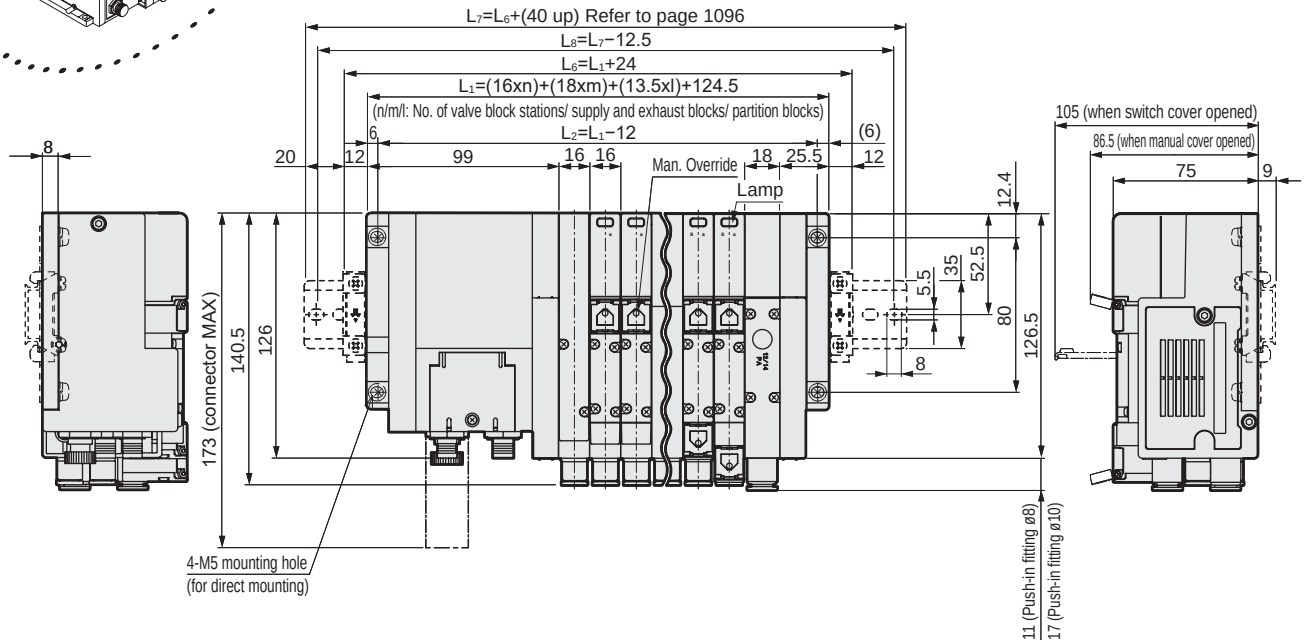


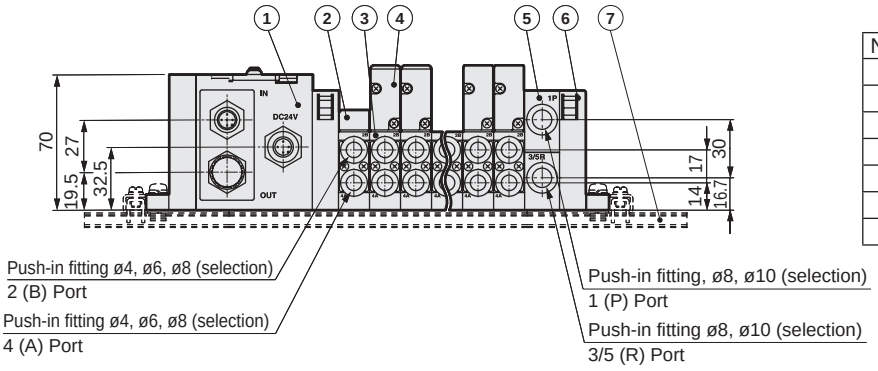
Dimensions CAD

MW4GB2

● Serial transmission DeviceNet (T8D*)



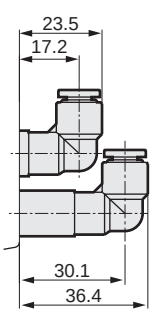




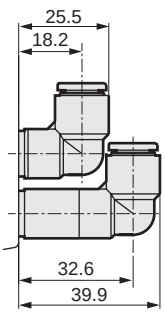
No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

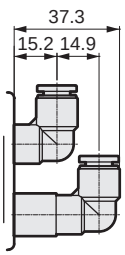


● ø8(CL8)

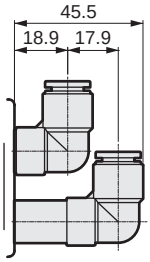


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



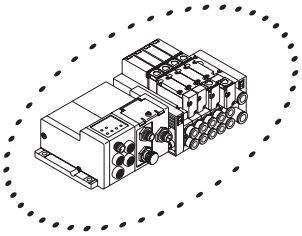
● ø10(CL10)

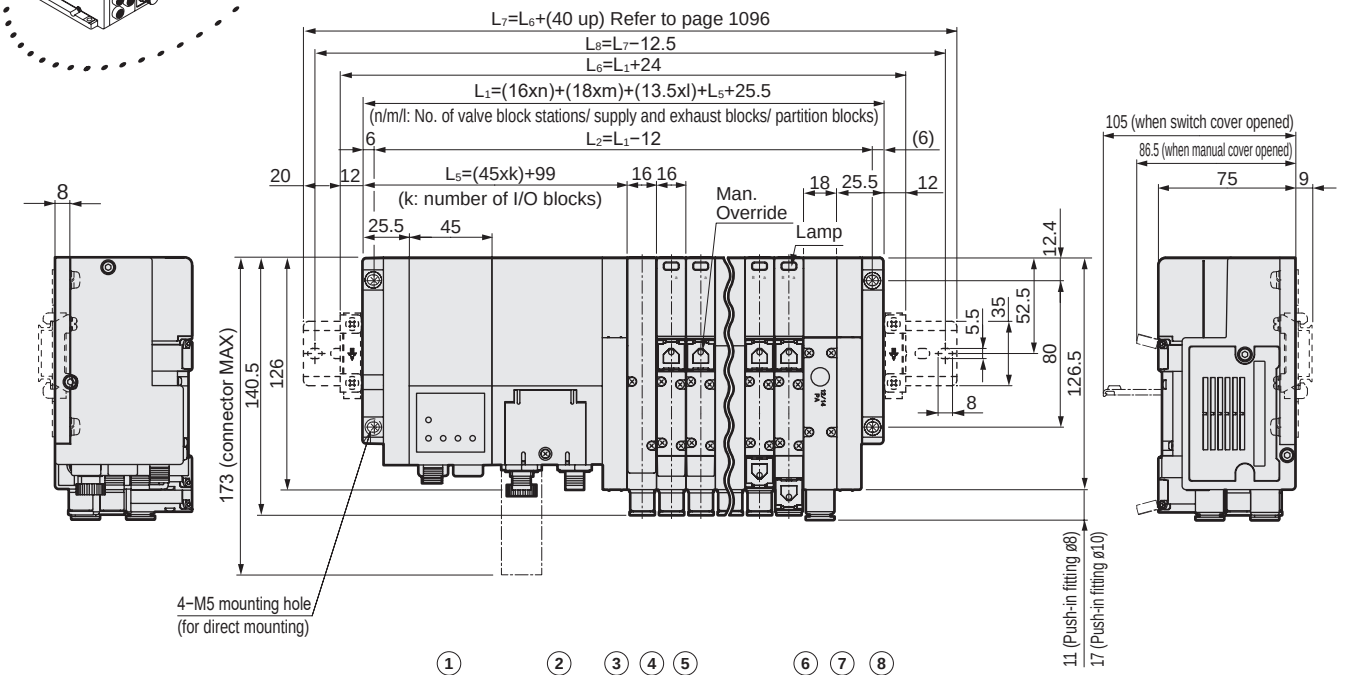


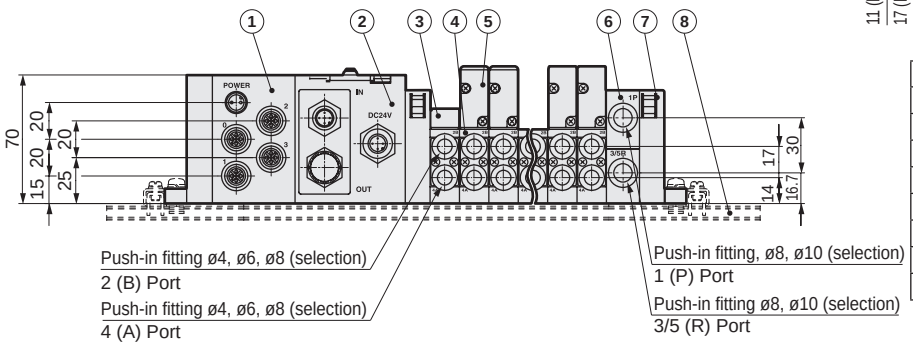
Dimensions CAD

MW4GB2

● Serial transmission DeviceNet (T8D*) + I/O block



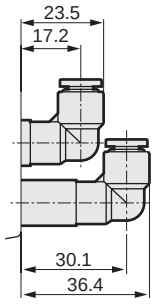




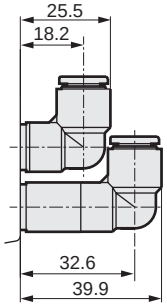
No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R
8	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6(CL6)

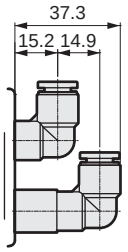


● ø8(CL8)

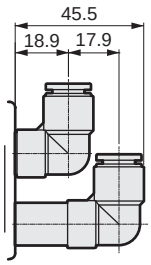


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)

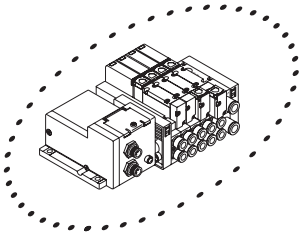


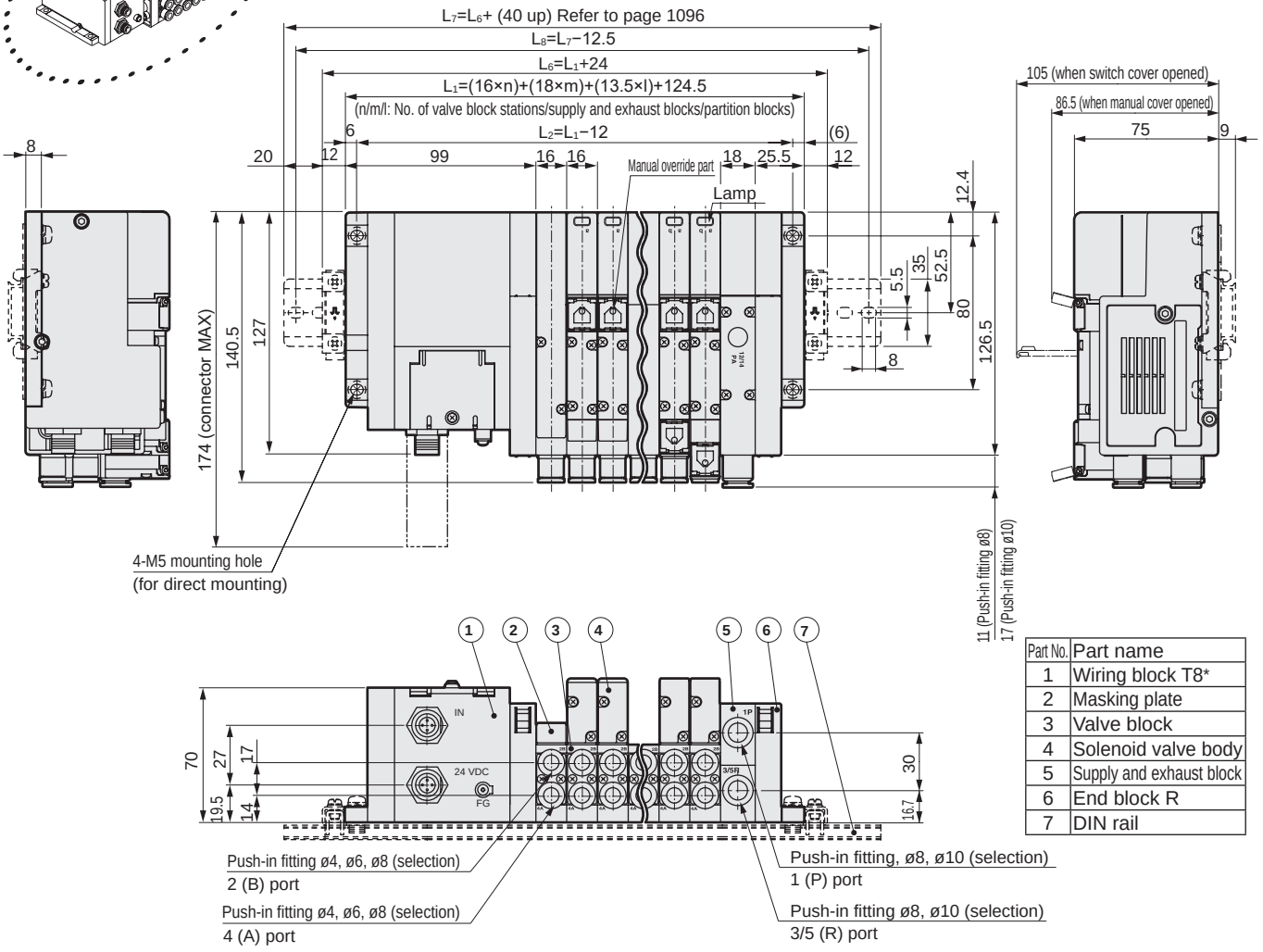
Dimensions CAD

MW4GB2

● Serial transmission CompoBus/S (T8C*)

End of production product





Part No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R
7	DIN rail

Push-in fitting ø4, ø6, ø8 (selection)
2 (B) port

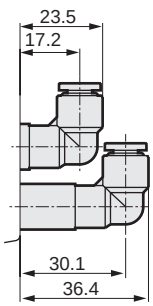
Push-in fitting ø4, ø6, ø8 (selection)
4 (A) port

Push-in fitting, ø8, ø10 (selection)
1 (P) port

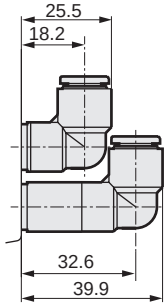
Push-in fitting ø8, ø10 (selection)
3/5 (R) port

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6 (CL6)

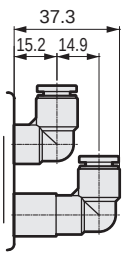


● ø8 (CL8)

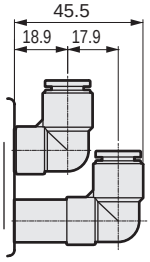


● Push-in L fitting for supply and exhaust block (upward)

● ø8 (CL8)



● ø10 (CL10)

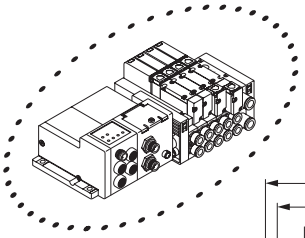


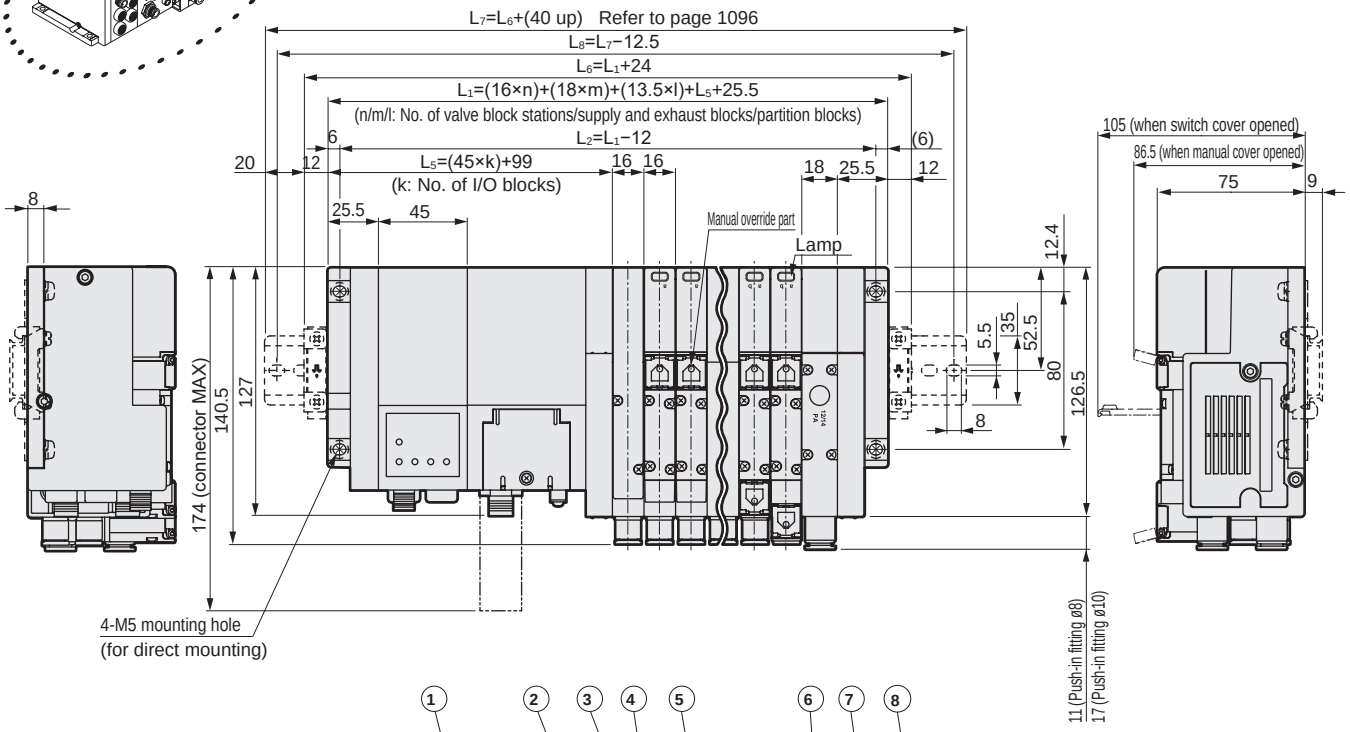
Dimensions CAD

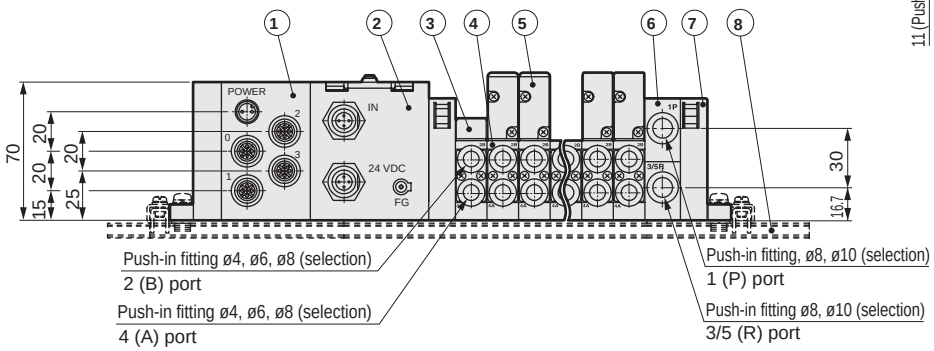
MW4GB2

● Serial transmission CompoBus/S (T8C*) + I/O block

End of production product



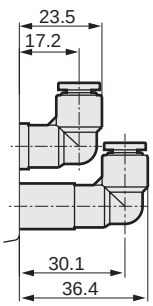




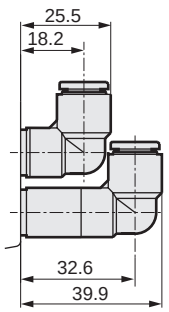
Part No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R
8	DIN rail

● Push-in L fitting for valve block (upward)
For single solenoid/double solenoid manifolds only.
Port A is a long elbow and port B a short elbow.

● ø6 (CL6)

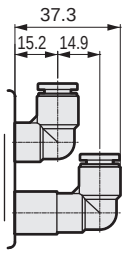


● ø8 (CL8)

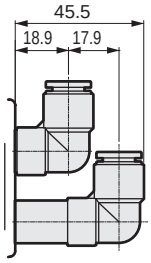


● Push-in L fitting for supply and exhaust block (upward)

● ø8 (CL8)



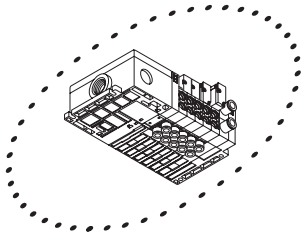
● ø10 (CL10)

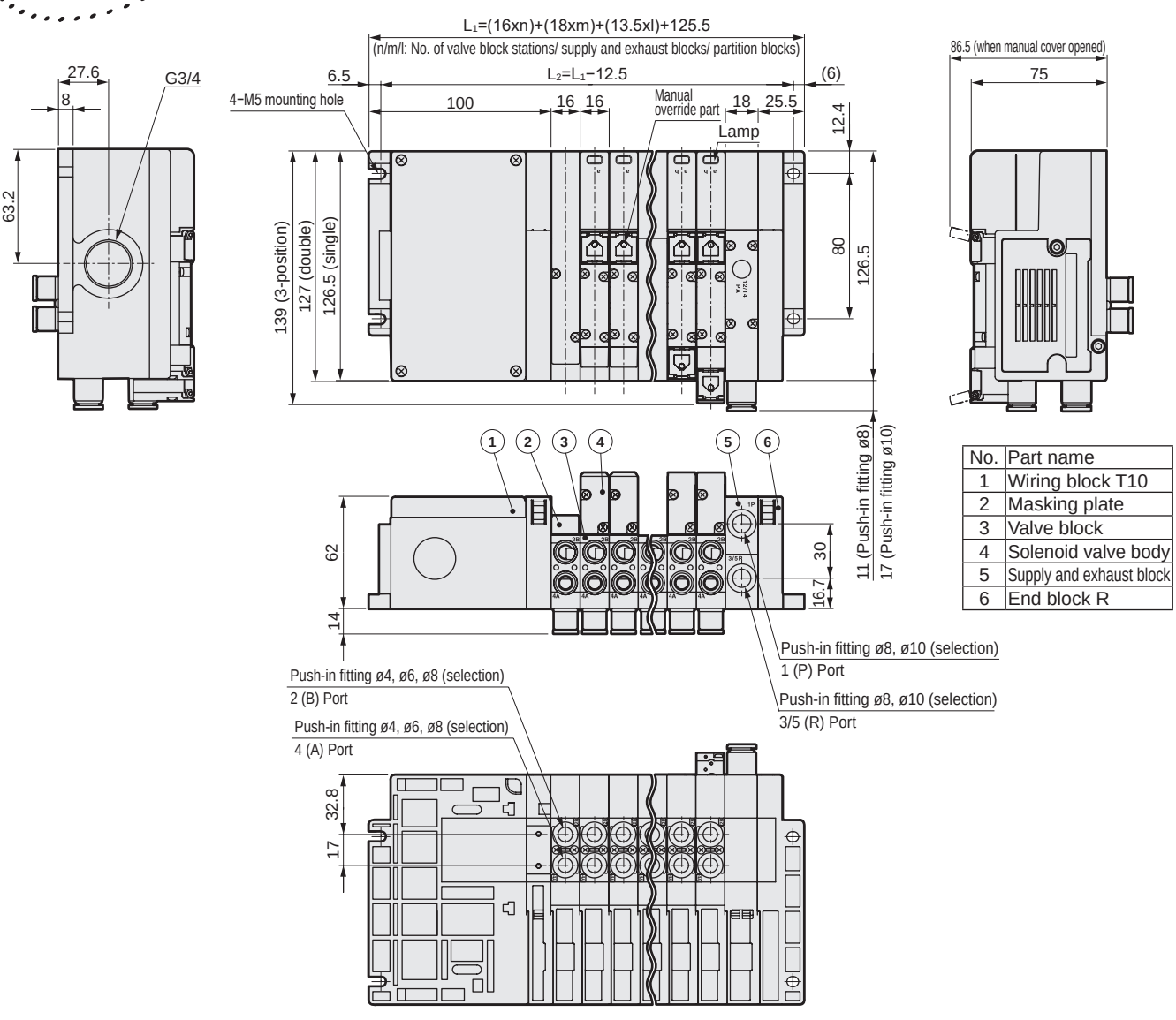


Dimensions CAD

MW4GZ2

● Common terminal block (T10)

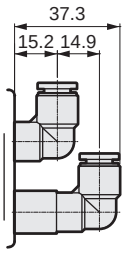




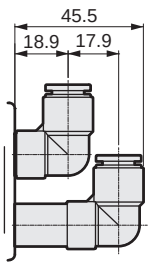
No.	Part name
1	Wiring block T10
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



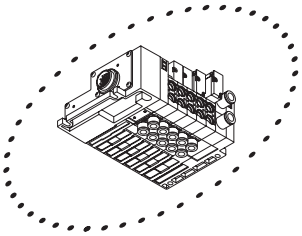
● ø10(CL10)

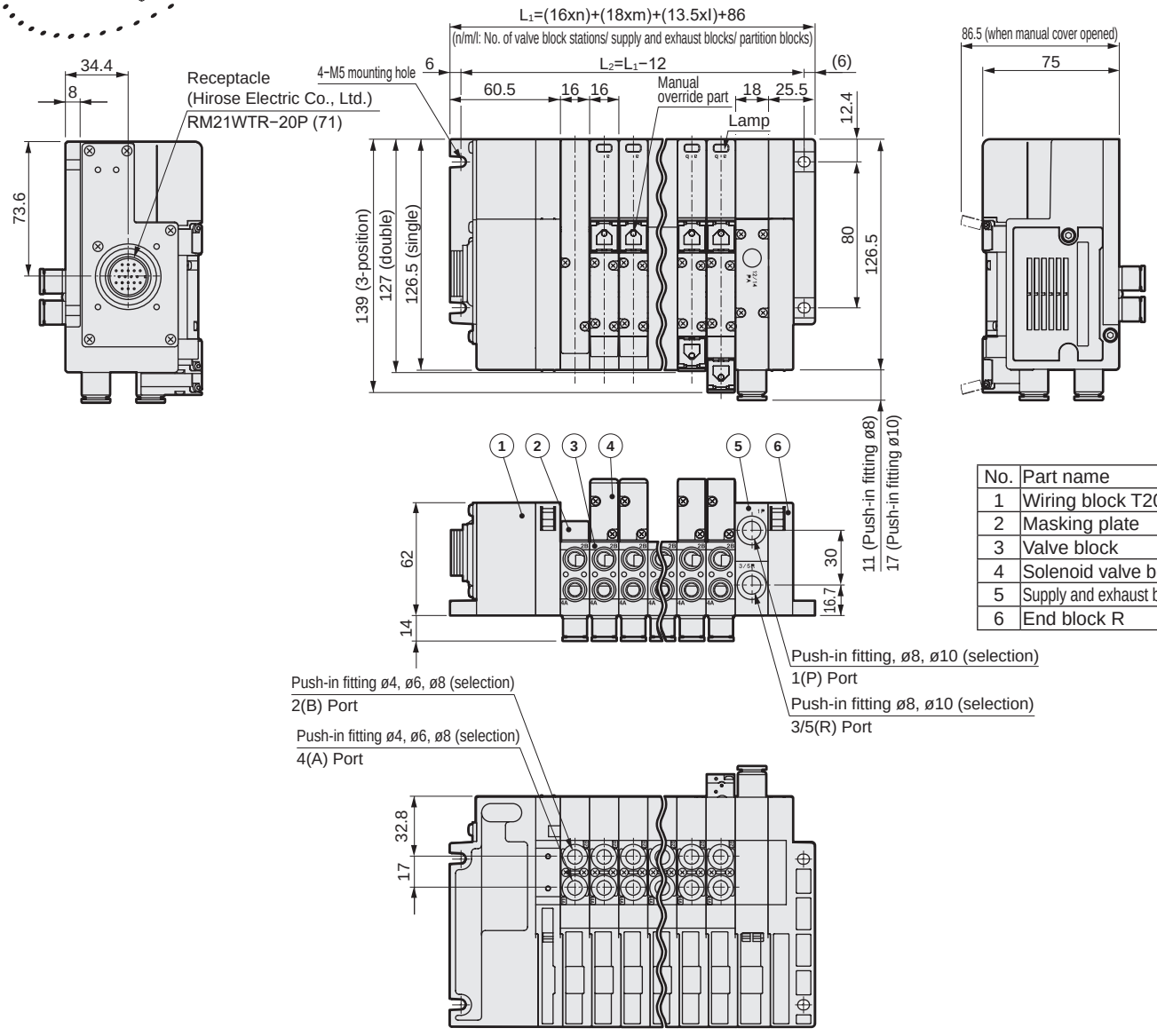


Dimensions CAD

MW4GZ2

● Multi-connector (T20)

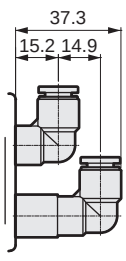




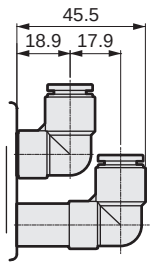
No.	Part name
1	Wiring block T20
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



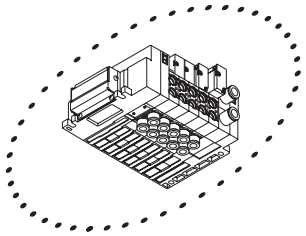
● ø10(CL10)

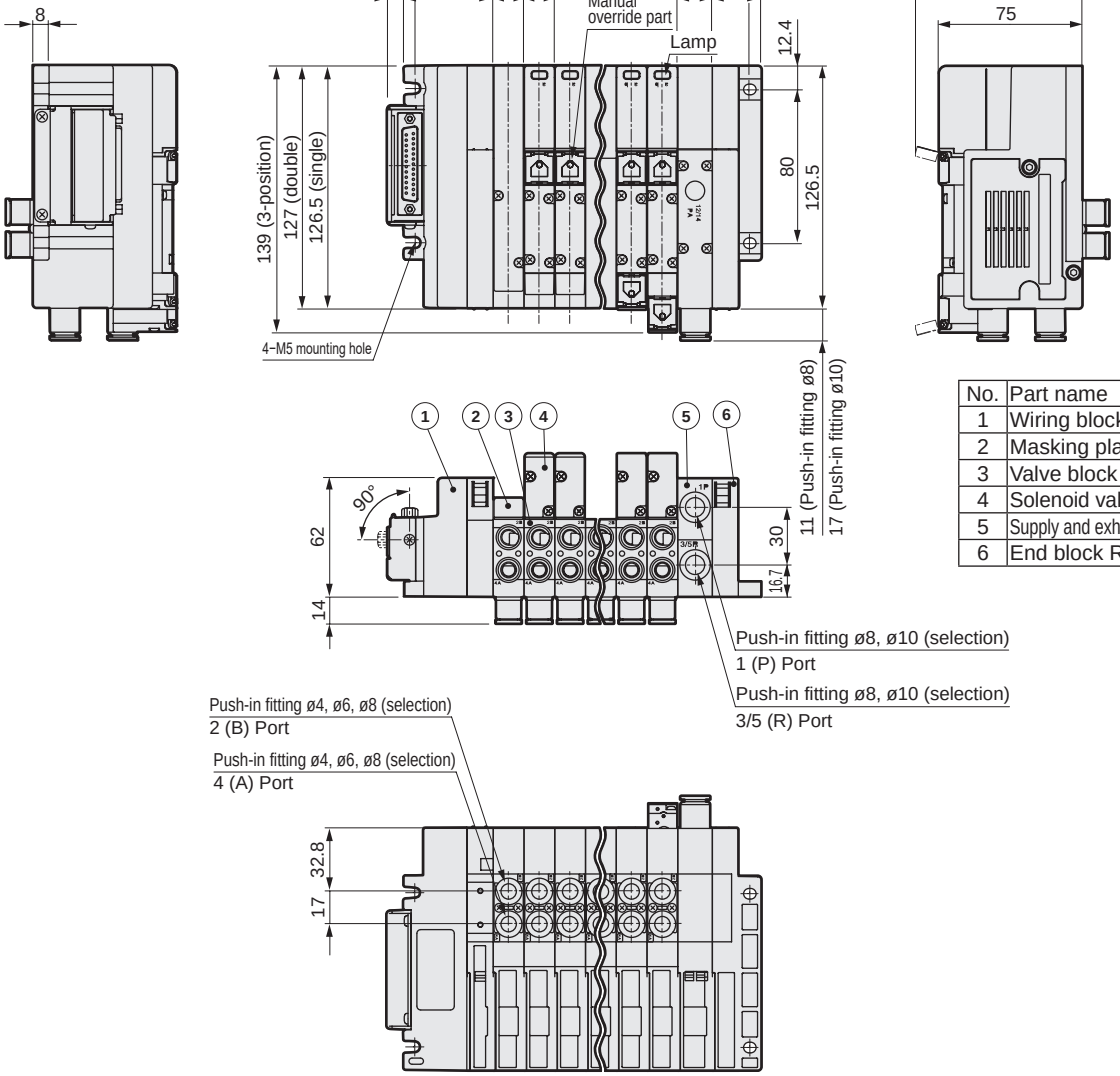


Dimensions CAD

MW4GZ2

● D sub-connector (T30)

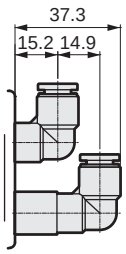




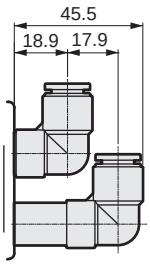
No.	Part name
1	Wiring block T30
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)

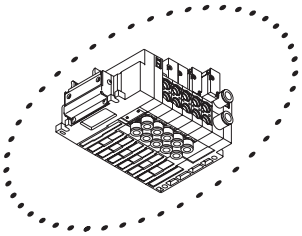


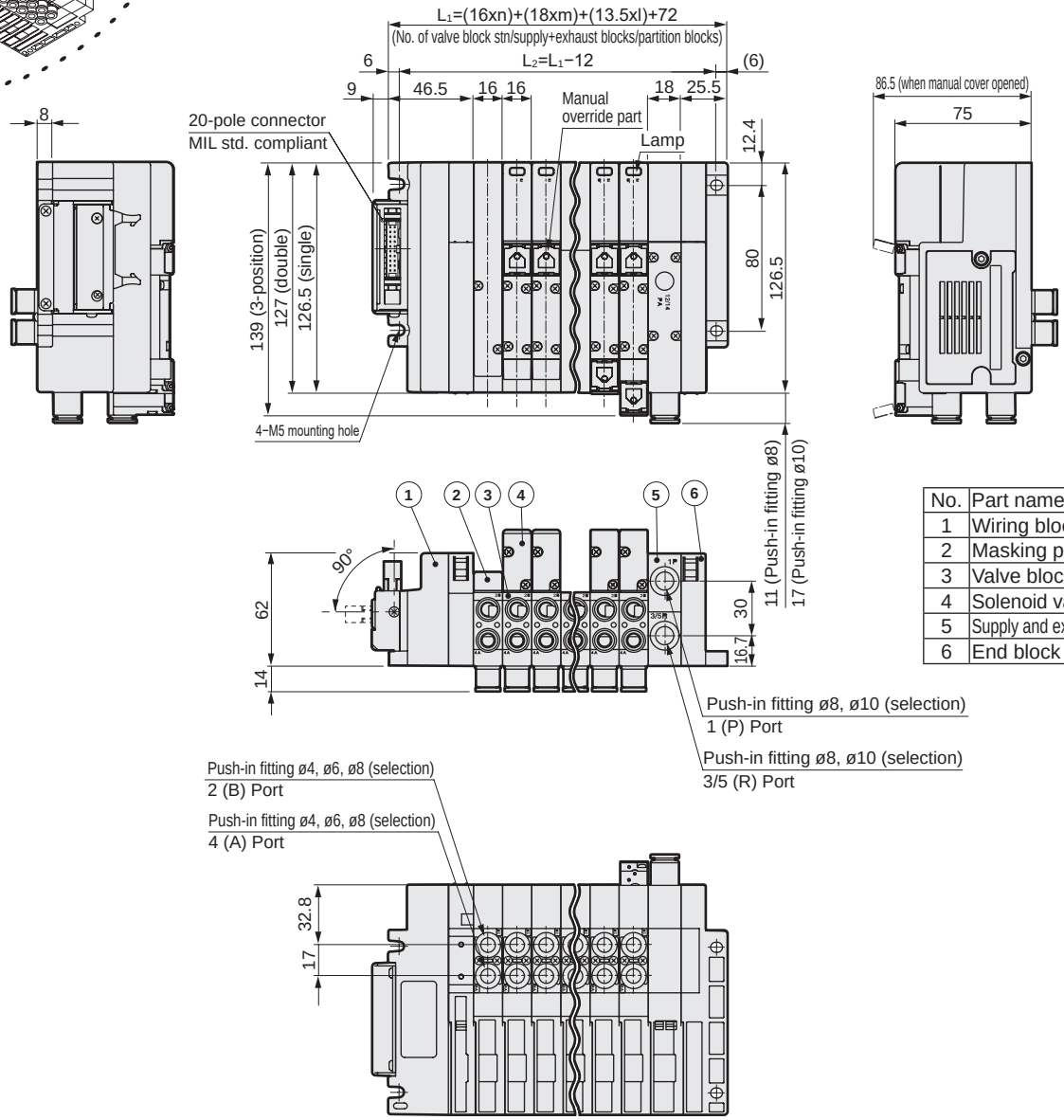
Dimensions CAD

MW4GZ2

● Flat cable connector (T5*)

* Figure shows T51.
Flat cable connector has T53.
Dimensions are the same as T51.

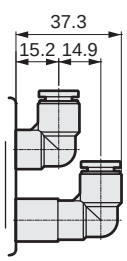




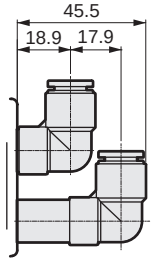
No.	Part name
1	Wiring block T5*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



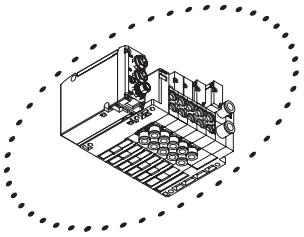
● ø10(CL10)

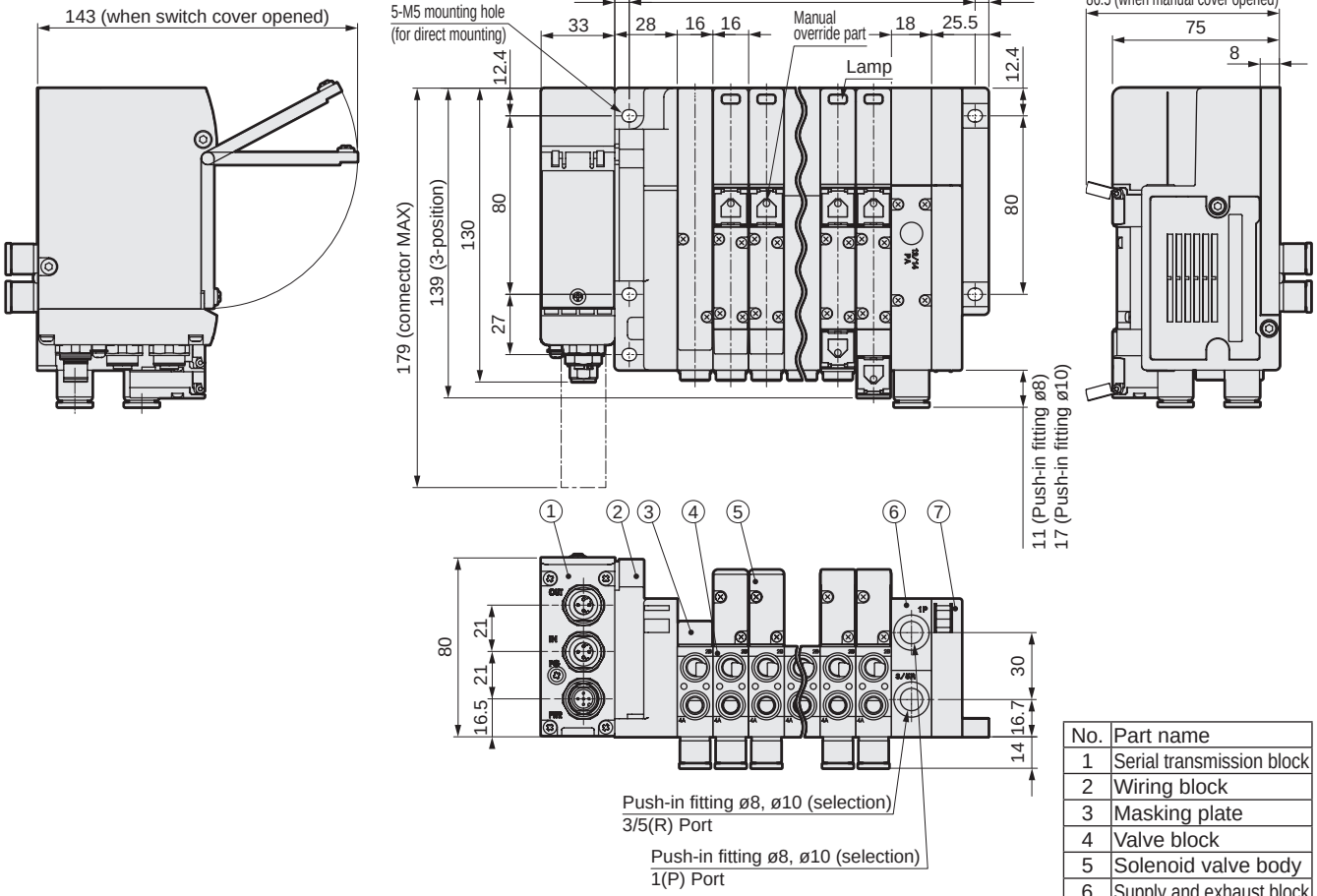


Dimensions CAD

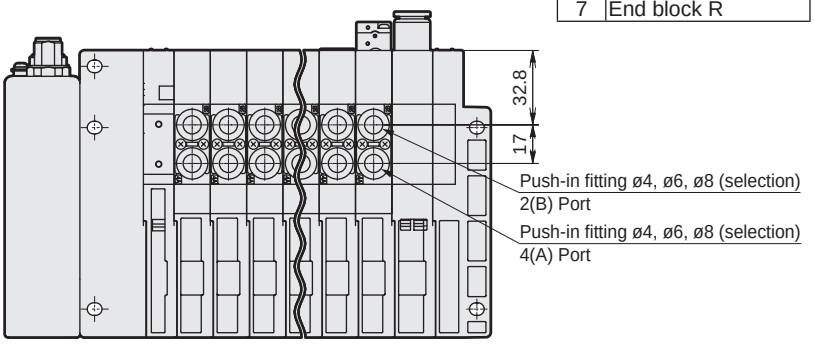
MW4GZ2

● Serial transmission EtherCAT (T7□)



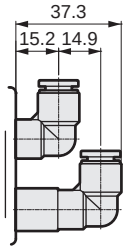


No.	Part name
1	Serial transmission block
2	Wiring block
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R

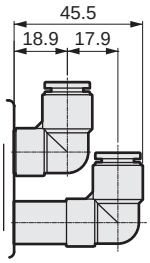


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



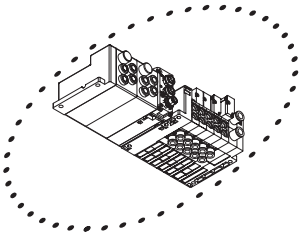
● ø10(CL10)

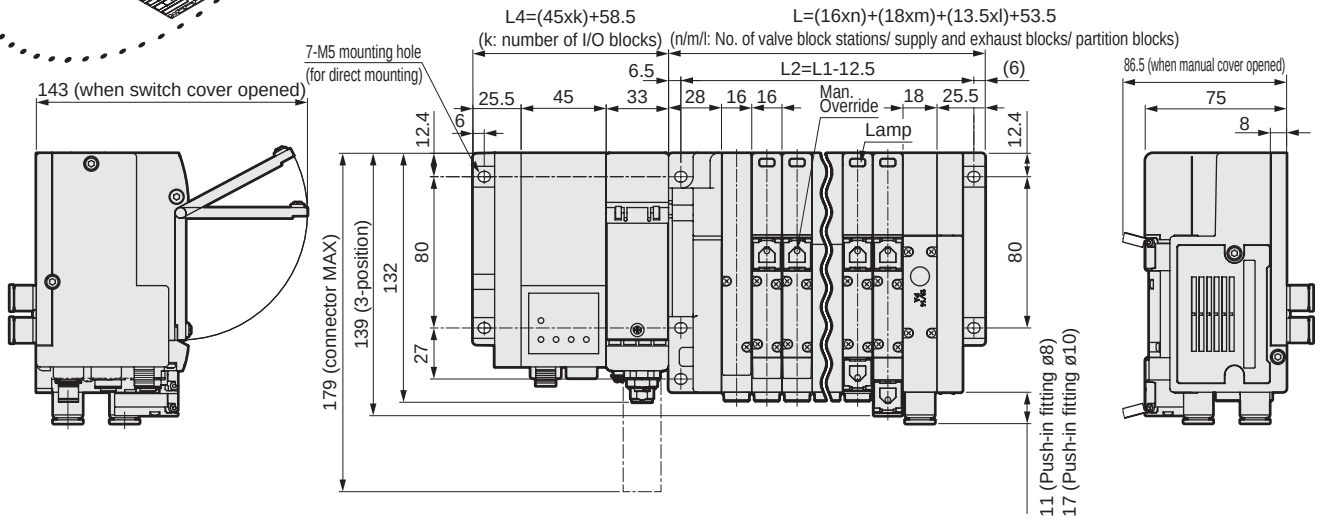


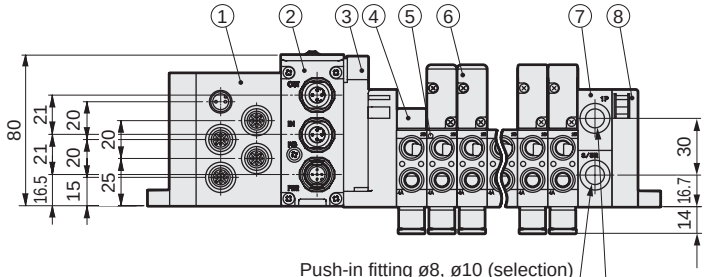
Dimensions CAD

MW4GZ2

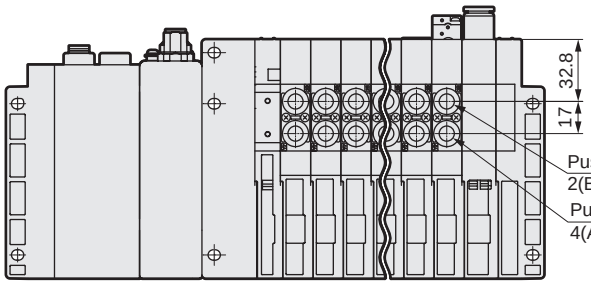
● Serial transmission EtherCAT (T7□B) with I/O type





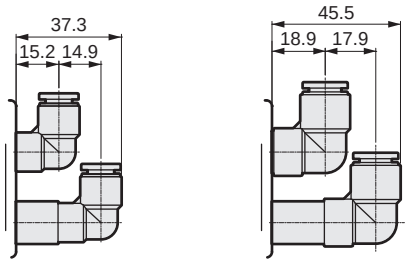


No.	Part name
1	I/O block
2	Serial transmission block
3	Wiring block
4	Masking plate
5	Valve block
6	Solenoid valve body
7	Supply and exhaust block
8	End block R



● Push-in L fitting for supply and exhaust block (upward)

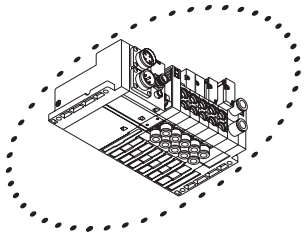
● ø8(CL8) ● ø10(CL10)

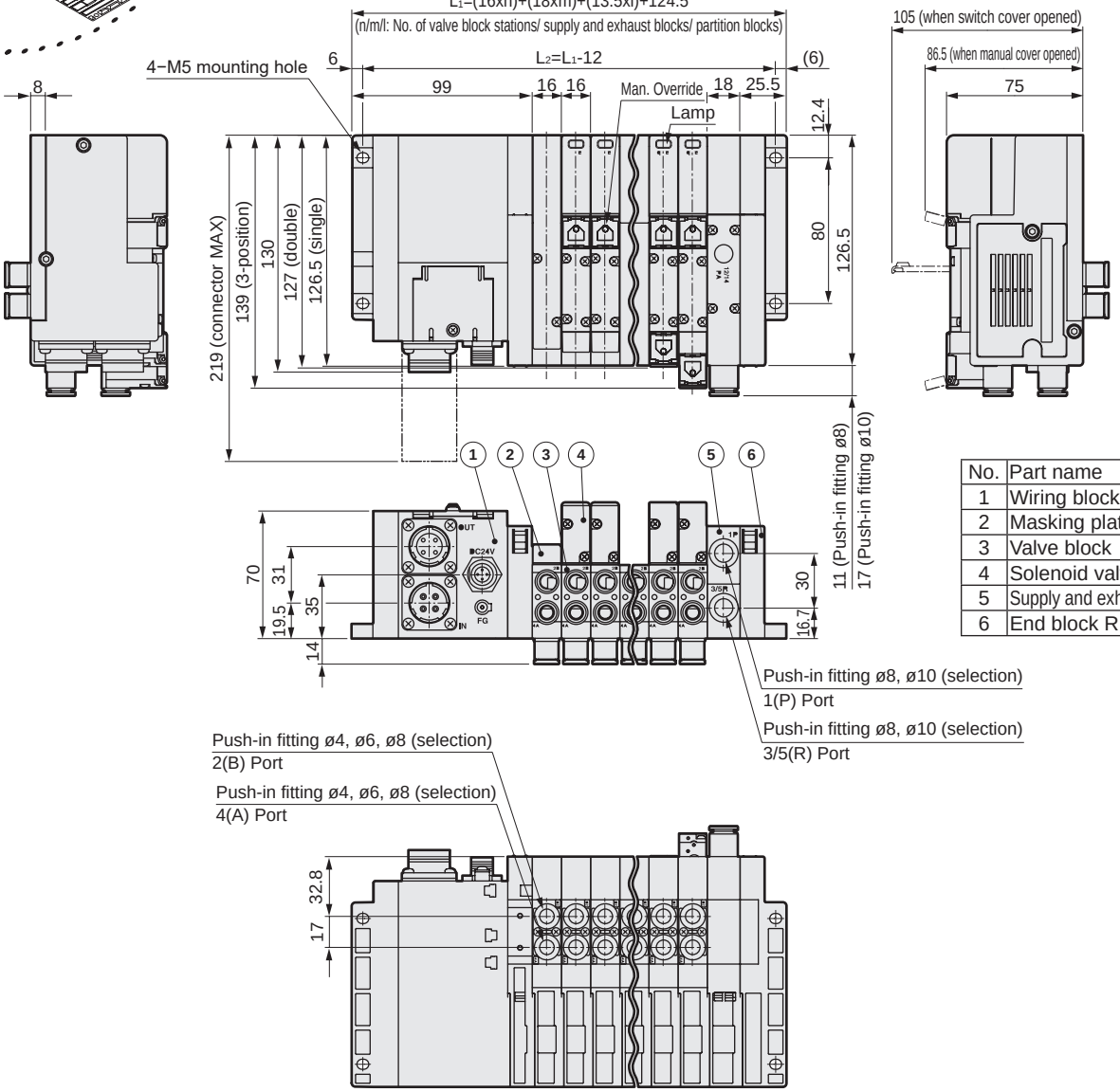


Dimensions CAD

MW4GZ2

● Serial transmission CC-Link (T8G*)

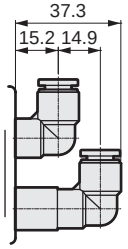




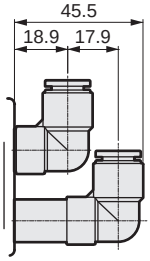
No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



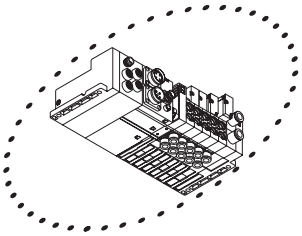
● ø10(CL10)

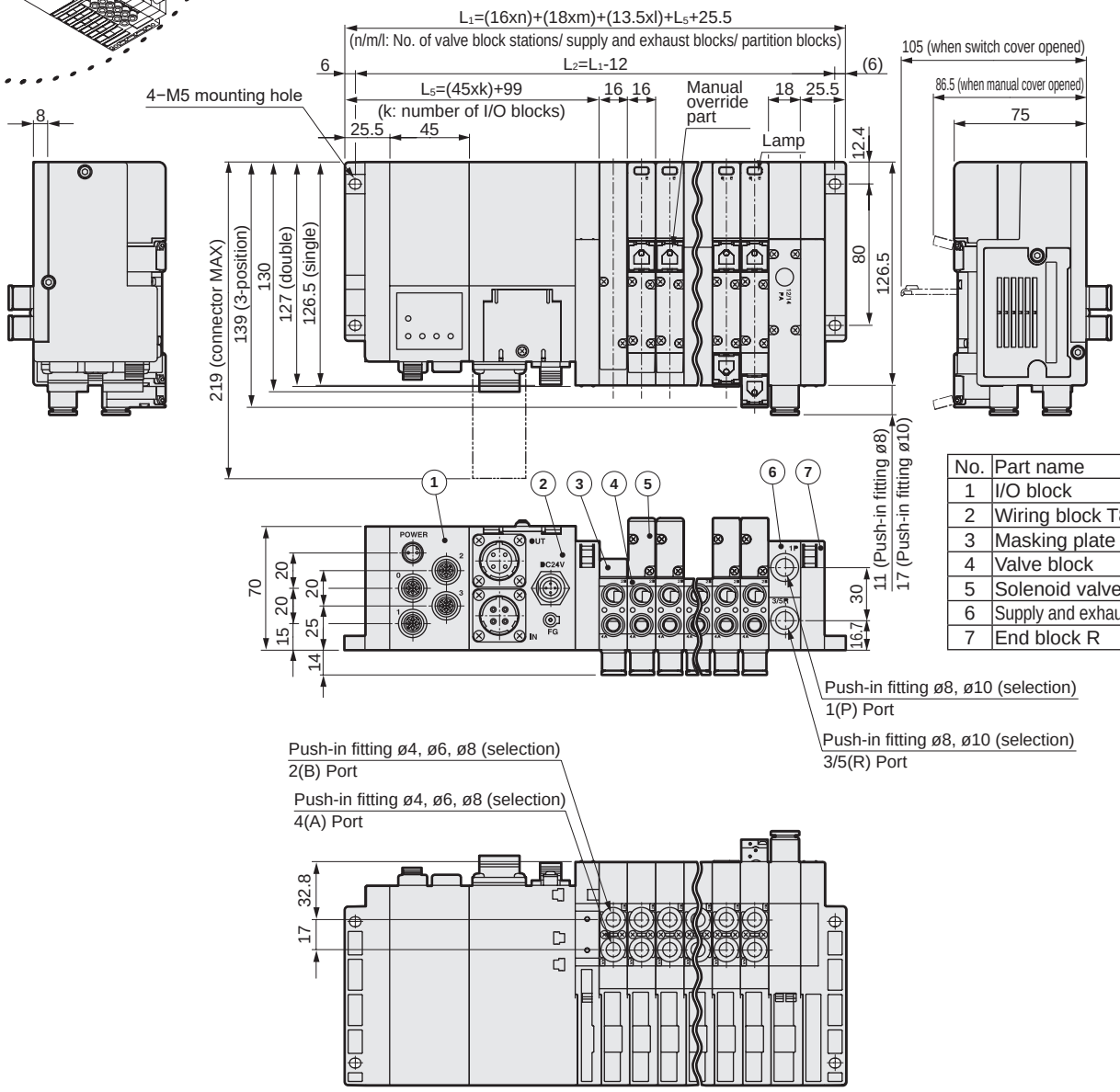


Dimensions CAD

MW4GZ2

● Serial transmission CC-Link (T8G*) + I/O block

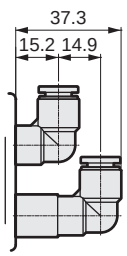




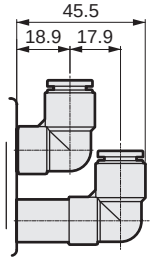
No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



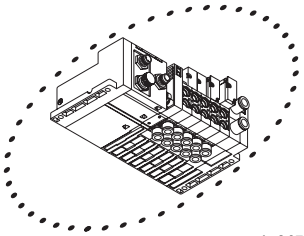
● ø10(CL10)

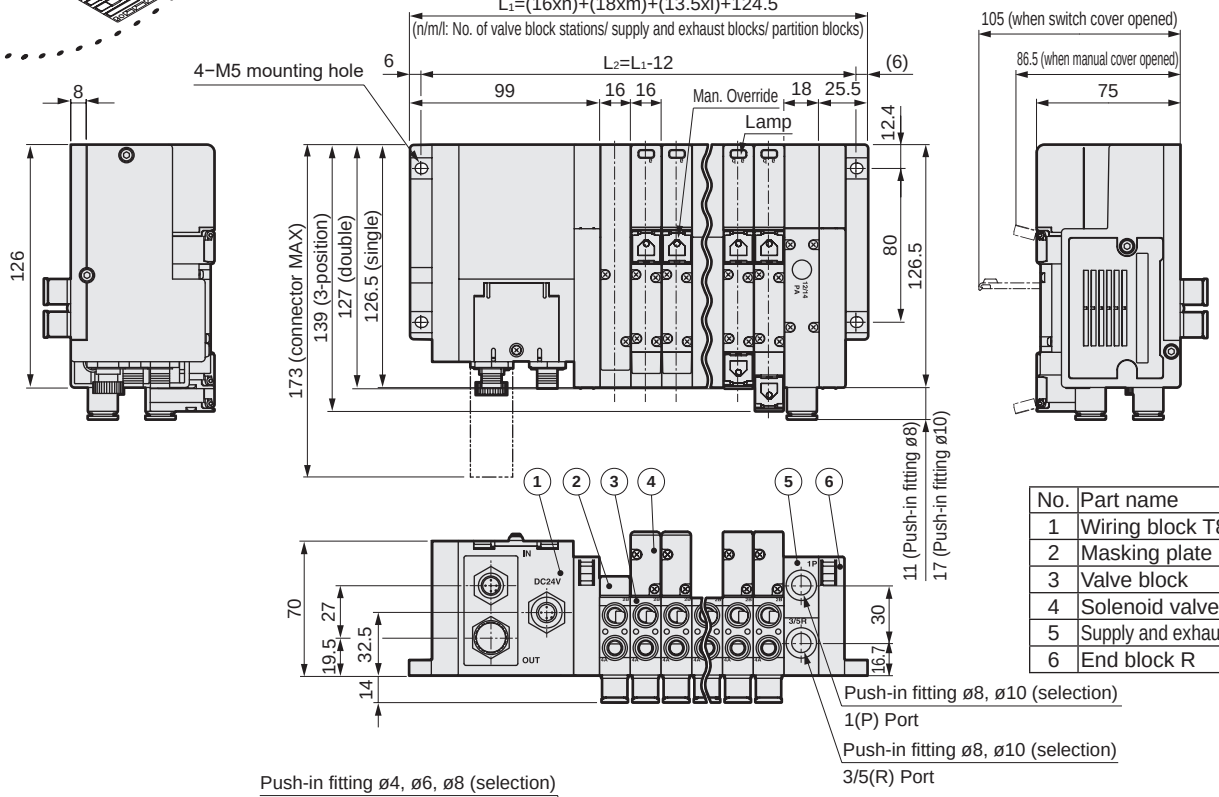


Dimensions CAD

MW4GZ2

● Serial transmission DeviceNet (T8D*)





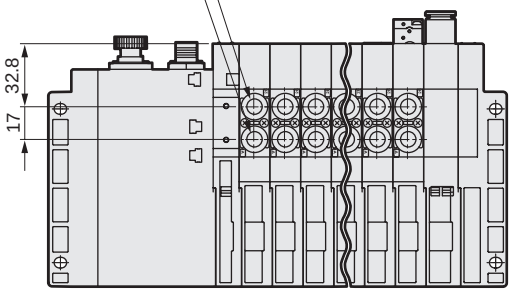
No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

Push-in fitting ø8, ø10 (selection)
1(P) Port

Push-in fitting ø8, ø10 (selection)
3/5(R) Port

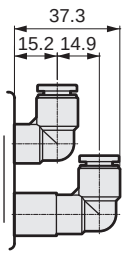
Push-in fitting ø4, ø6, ø8 (selection)
2(B) Port

Push-in fitting ø4, ø6, ø8 (selection)
4(A) Port

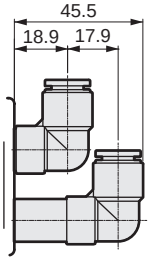


● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



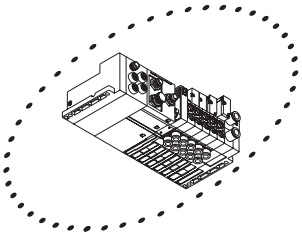
● ø10(CL10)

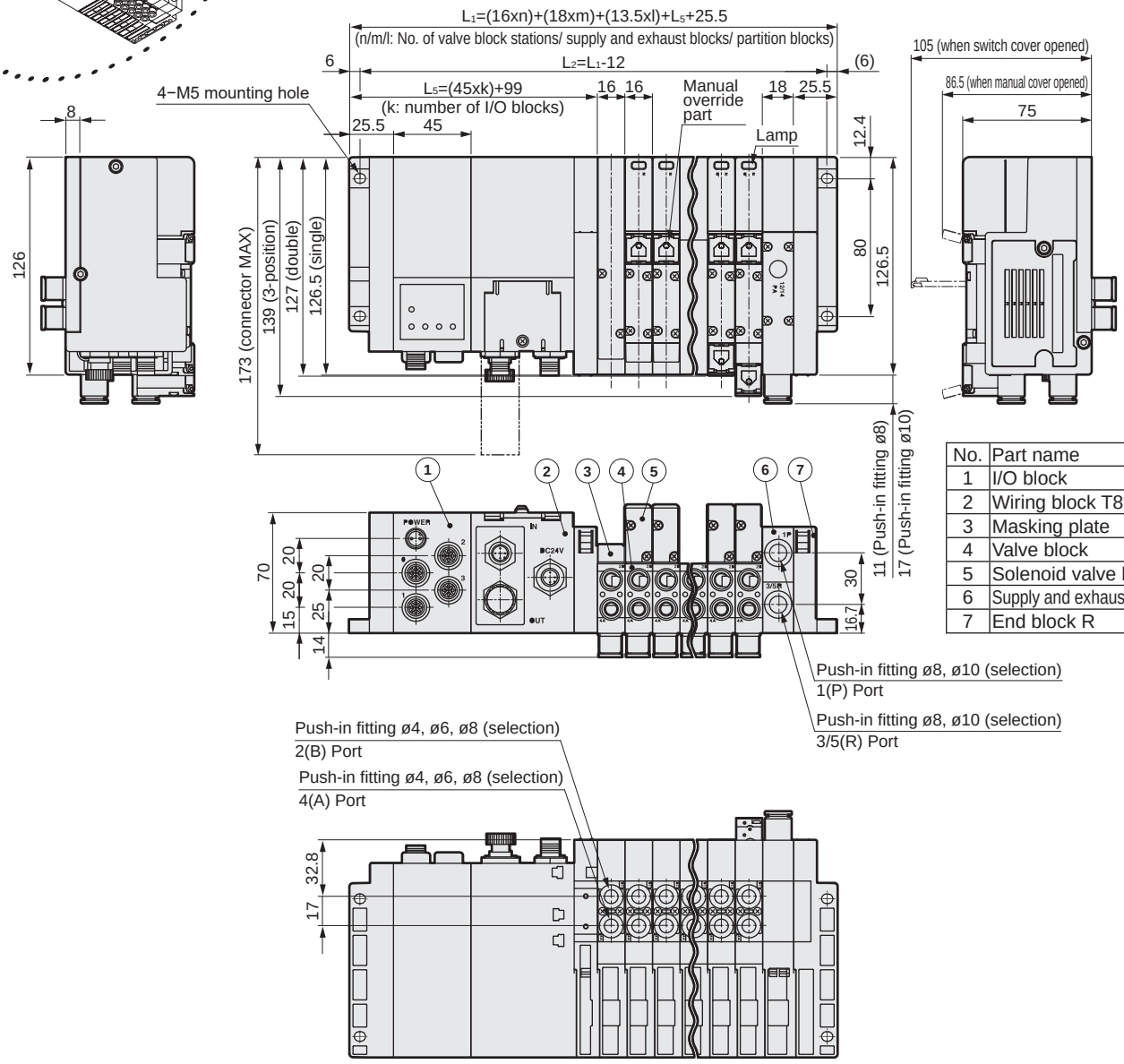


Dimensions CAD

MW4GZ2

● Serial transmission DeviceNet (T8D*) + I/O block

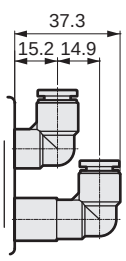




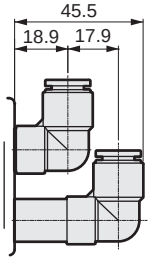
No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8(CL8)



● ø10(CL10)

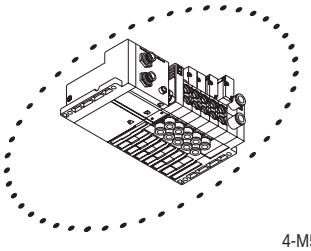


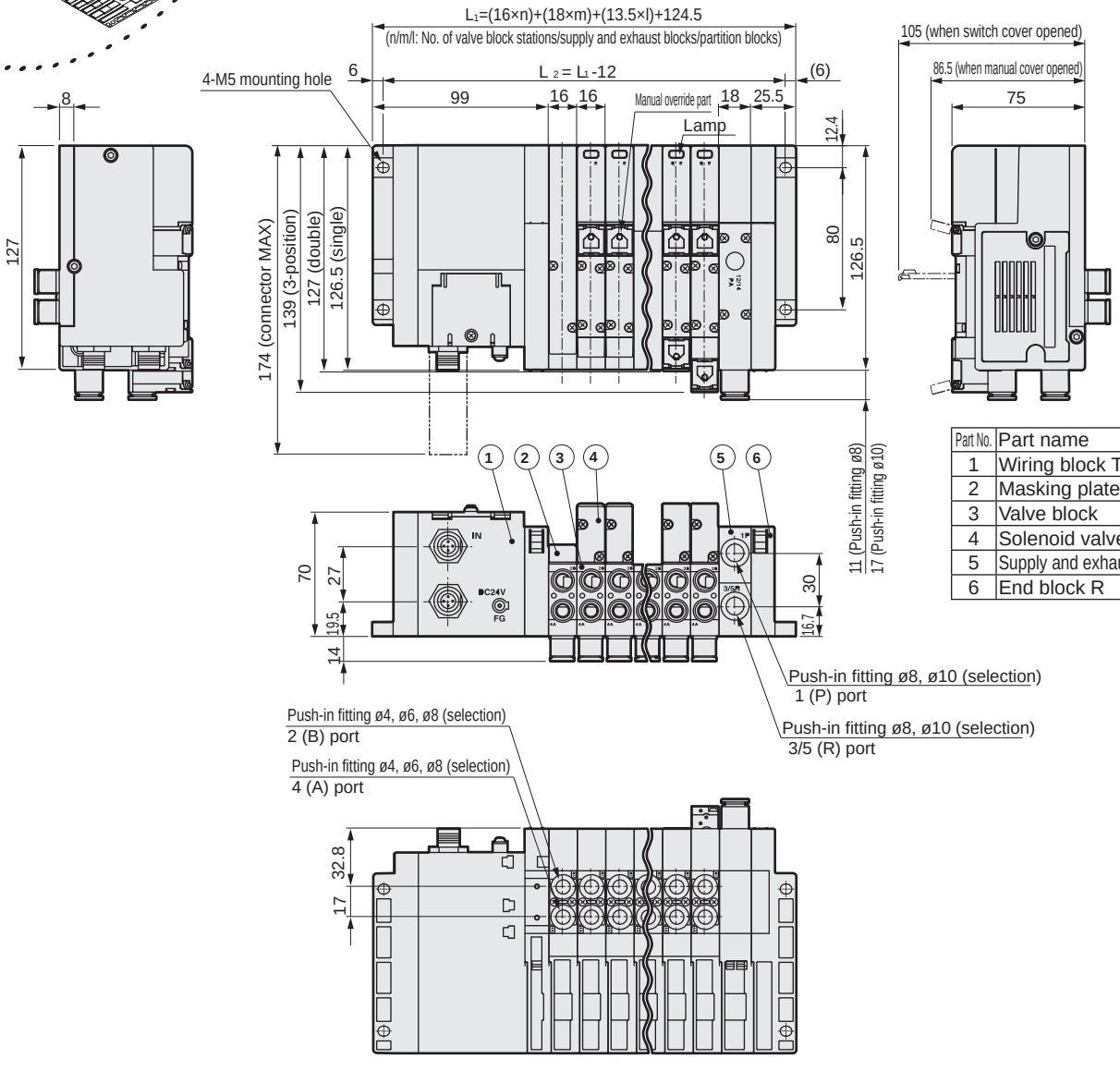
Dimensions CAD

MW4GZ2

● Serial transmission CompoBus/S (T8C*)

End of production product

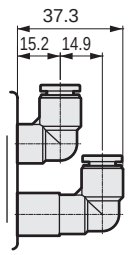




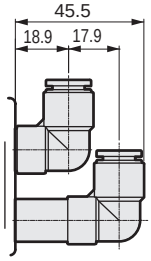
Part No.	Part name
1	Wiring block T8*
2	Masking plate
3	Valve block
4	Solenoid valve body
5	Supply and exhaust block
6	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8 (CL8)



● ø10 (CL10)

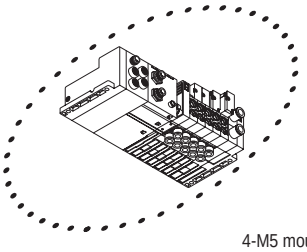


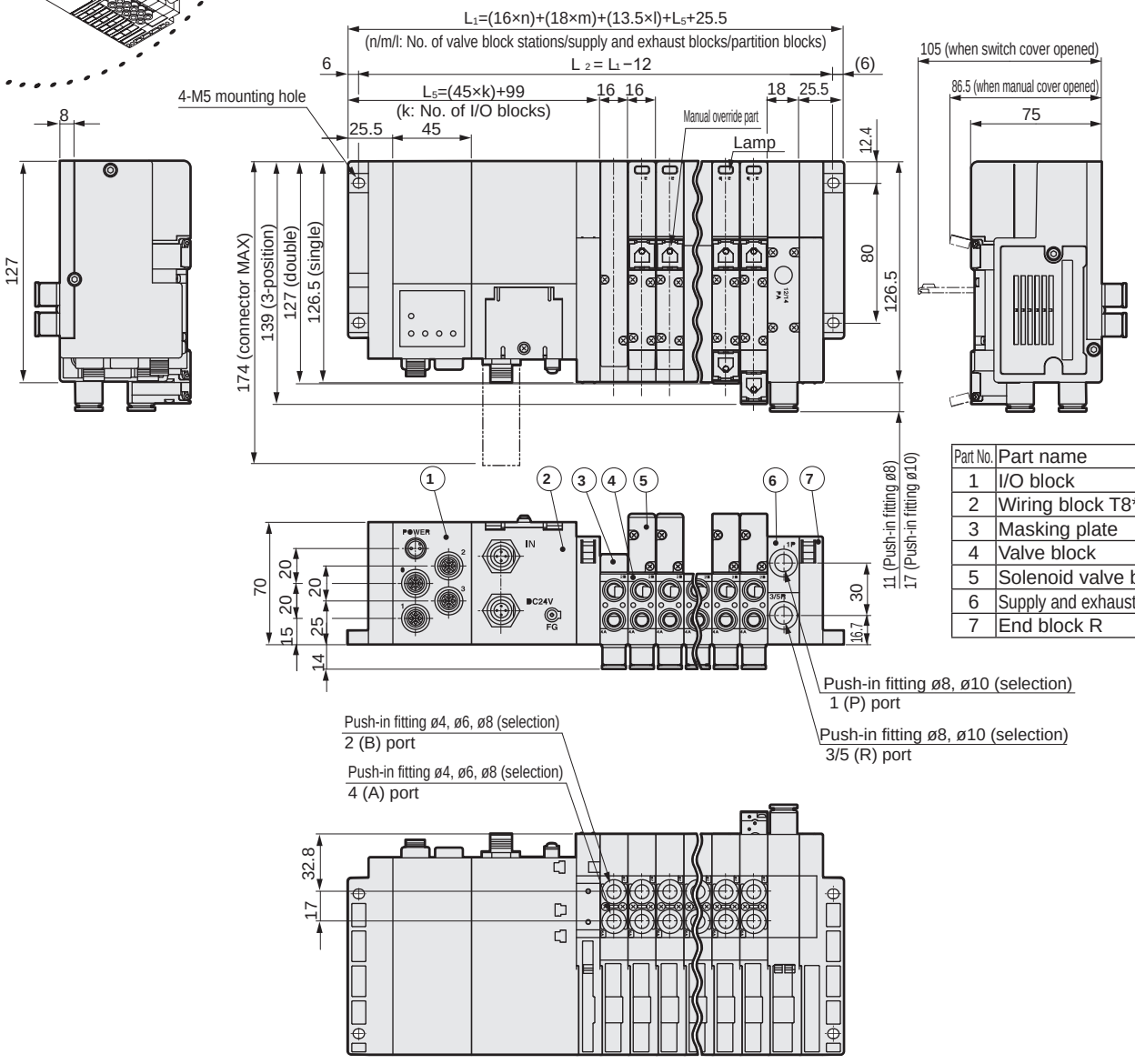
Dimensions CAD

MW4GZ2

● Serial transmission CompoBus/S (T8C*) + I/O block

End of production product

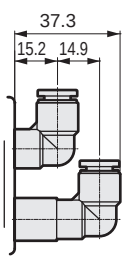




Part No.	Part name
1	I/O block
2	Wiring block T8*
3	Masking plate
4	Valve block
5	Solenoid valve body
6	Supply and exhaust block
7	End block R

● Push-in L fitting for supply and exhaust block (upward)

● ø8 (CL8)



● ø10 (CL10)