

# MW4G2-FP1 Series

## How to fill out manifold specifications sheet

### ● Manifold model No. (example)

MW **4** GA2 **8** 0- **CX** - **T8G7** **W** **HY11** **D** - **6** - **3** - FP1

4 Model No.  
 8 Solenoid position  
 CX Port size  
 T8G7 Reduced wiring connection  
 W Terminal/connector pin array  
 HY11 Option  
 D Mount type  
 6 Station No.  
 3 Voltage

Part name	Model No.	Layout position																														Quantity		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
I/O block (P.217)	NW4GA2-IN-[N]-[K]-FP1																																	1
	NW4GA2-OUT-[N]-B-FP1																																	1
Wiring block(P216)	NW4GA2-T[8G7]-FP1																																1	
	NW4GA2[2]0-[C6]-FP1																																1	
With solenoid valve Valve block (P.202 to 204)	NW4GA2[3]0-[C4]-FP1																															1		
	NW4GA2[ ]0-[ ]-FP1																																1	
	NW4GA2[ ]0-[ ]-FP1																																	1
	NW4GA2[ ]0-[ ]-FP1																																	1
With masking plate Valve block(P.211)	NW4G2-MPS-FP1																																1	
	NW4G2-MPD-FP1																																1	
Supply and exhaust block (P.213)	NW4G2-Q[ ]H[ ]-FP1																																2	
	NW4G2-Q[ ]H[ ]-FP1																																	2
	NW4G2-Q[ ]H[ ]-FP1																																	2
	NW4G2-Q[ ]H[ ]-FP1																																	2
Partition block (P.213)	NW4G2-[SA]-FP1																																	1
	NW4G2-[ ]-FP1																																	1
	NW4G2-[ ]-FP1																																	1
End block R(P.213)	NW4G2-[ ]E[R]-FP1																																1	
DIN rail	L <sub>7</sub> = [ ] (How to calculate length as listed below)	Blanking plug		Silencer		Tag plate		Cable clamp		Waterproof plug		Included Part																						
		GWP 4-B	GWP 6-B	SLW-H8	A	W4G-SCL-18A	W4G-SCL-18B	W4G-XSZ-12																										
		GWP 8-B	GWP 10-B	SLW-H10		Applicable cable O.D. ø14.5 to 16.5	Applicable cable O.D. ø16.5 to 18.5																											
		Cable with D-sub-connector		Cable with multi-connector		Multi-connector only																												
N4T-CABLE-DO - [ ] [ ]		W4G-RMC- [ ]		W4G2-RM21WTP- [ ]																														
When a blanking plug or silencer is necessary List the quantity in the field for the required size.							For I/O block When necessary, list quantity.																											

### Preparing manifold specifications sheet

- Complete from the left end, with the piping port facing forward, regardless of the wiring block method. (Block components(Pages 211 to 219) and layout instructions.)
- Write the total number of blocks specified in the required quantity field in the table far right.
- Mark a circle for attachments that are required.
- Indicate the mounting rail length. (Fill in only when a length other than the standard length is required.)
- As there are manifold specifications sheets for each of the various series, fill in the form for the corresponding specifications.
  - MW4GA/B/Z2 (individual wiring body piping, base side piping, base bottom piping).....Page 223
  - MW4GA2 (reduced wiring body piping).....Page 224
  - MW4GB2 (reduced wiring base side piping).....Page 225
  - MW4GZ2 (reduced wiring base bottom piping).....Page 226

### \* DIN rail length (L<sub>7</sub>)

- (1) Determine the rail length using the calculation method shown below. The obtained length is standard.
- (2) For standard length, specify the length on the specifications sheet (L<sub>7</sub>) is not required. Indicate the length when using a non-standard length.

### ● How to calculate length of DIN rail

$$\text{Manifold length (L}_s\text{)} = (16 \times \text{Valve Block Quantity}) + (18 \times \text{Supply and exhaust Block Quantity}) + (13.5 \times \text{Partition Block Quantity (including end block)}) + (45 \times \text{I/O Block Quantity})$$

$$\text{DIN rail length (L}_7\text{)} = L_s \times 12.5$$

$$L'_7 = \frac{L_s + 40}{12.5} \rightarrow \text{round up to integer}$$

$$\text{Rail mounting pitch (L}_s\text{)} = L'_7 \times 12.5$$

..... Select from the table at right.

### Wiring block dimensions table

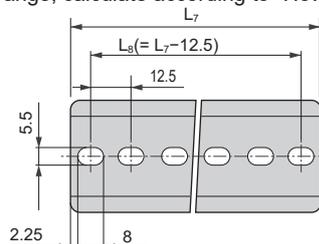
Model No.	Dimensions(mm)
T10	175.5
T20	110
T30/5*	106
T8*	148.5

\* The end block is included in the wiring block.

### ● DIN rail length quick reference table

L <sub>s</sub>	135 or less	147.5 to 147.5 or less	147.5 to 160	160 to 172.5	172.5 to 185	185 to 197.5	197.5 to 210	210 to 222.5	222.5 to 235	235 to 247.5	247.5 to 260	260 to 272.5	272.5 to 285	285 to 297.5	297.5 to 310	310 to 322.5	322.5 to 335	335 to 347.5	347.5 to 360	360 to 372.5	372.5 to 385	385 to 397.5	397.5 to 410	410 to 422.5	422.5 to 435	435 to 447.5	447.5 to 460	460 to 472.5	472.5 to 485
L <sub>7</sub> · Rail length	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5	400	412.5	425	437.5	450	462.5	475	487.5	500	512.5	525
Pitch L <sub>s</sub>	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5	400	412.5	425	437.5	450	462.5	475	487.5	500	512.5

\*1: L<sub>s</sub> When exceeds this table range, calculate according to "How to calculate DIN rail length".



## How to fill out the wiring specifications sheet (AC specifications only)

\* This is not required with standard wiring/double wiring.

(With DC specifications, only standard wiring and double wiring will be supported)

● Wiring specifications sheet (example)

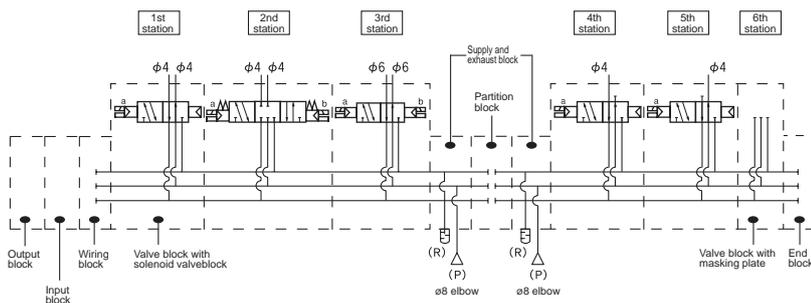
\*The following example has been filled out in accordance with the manifold specifications sheet on page 221.

Connector pin No.	Valve No.																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
<b>T10</b>																									
1	a																								
2																									
3			a																						
4			b																						
5		a																							
6		b																							
7				a																					
8																									
9					a																				
10																									
11						a																			
12						b																			
13																									
14																									
15																									
16																									
17																									
18																									
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COM																									

● Notes on wiring specifications

- (1) Fill in and attach to the manifold specifications sheet for anything other than the standard wiring or double wiring. Consult with CKD, as products will be made to order in this case.
- (2) The valve No. is determined by only counting the valve blocks in order from the left with the ports facing forward. Note that this differs from the installation position numbers.
- (3) The valve block with masking plate is wired in advance. "-MPS" will be wired on only the a side while "-MPD" will be wired on the a and b sides.
- (4) Double solenoids or 3-position solenoid valves cannot be assembled to "-MPS". Order valve block with solenoid valve and carry out expansion. For the procedure for station expansion, refer to "Pneumatic Valves (CB-023SA)".
- (5) It is not possible to install spare wires for station expansion only in advance. Install a valve block with a masking plate.

Reference circuit diagram The circuit diagram of the manifold model No. (example) on the previous page is as shown below.



- [ ] indicates each block configuration.
- The manifold station numbers are set in order from the left with the piping port facing forward. (\* I/O block, Wiring blocks, supply and exhaust blocks, partition block, and end block are not included in the manifold station No.)
- Select a model No. from the block configurations (pages 211 to 219) and individual wiring manifolds (pages 196 and 198), and reduced wiring manifolds (pages 202, 203, 208 and 209).
- With piping port facing front, arrangement positions are set in order from the left.
- When the input block and output block are both being installed, the output block will be on the left side with the piping port facing forward.

Electric actuator  
 Pneumatic cylinders  
 Assistive device  
 Pneumatic valves  
 F.R./Auxiliary Components Electronic Component  
 Vacuum components  
 Main line components  
 Fluid control valves  
 Main line components  
 Anti-bacterial/bacteria-removing filter  
 Vacuum components  
 Fluid control valves





# MW4GB2-FP1(Reduced wiring) block manifold specifications sheet

● Contact ● Quantity/set(s) ● Delivery date / / Date issued / /

Slip No.	Order No.
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Company \_\_\_\_\_  
Contact \_\_\_\_\_  
Order No. \_\_\_\_\_

● Manifold model No.  
**MW4GB2**  **0-**  -     -  -  -  **FP1**

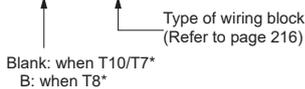
**A** Model No.   **B** Solenoid position   **C** Port size   **E** Reduced wiring connection   **F** Terminal/connector pin array   **G** Option   **H** Mount type   **I** Station No.   **J** Voltage

When filling in this field, select the model No. from Block configurations (pages 211 to 219), and pages 208 to 210.

Part name (Page)	Model No.	Layout position																														Quantity		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
I/O block (P.217)	NW4GB2-IN- <input type="text"/> - <input type="text"/> -FP1																																	
	NW4GB2-OUT- <input type="text"/> -B-FP1																																	
Wiring block (P.216)	NW4G <input type="text"/> 2-T <input type="text"/> -FP1 <sup>(*)</sup>																																	
With solenoid valve Valve block (P.208 to 210)	NW4GB2 <input type="text"/> 0- <input type="text"/> -FP1																																	
	NW4GB2 <input type="text"/> 0- <input type="text"/> -FP1																																	
	NW4GB2 <input type="text"/> 0- <input type="text"/> -FP1																																	
	NW4GB2 <input type="text"/> 0- <input type="text"/> -FP1																																	
	NW4GB2 <input type="text"/> 0- <input type="text"/> -FP1																																	
	NW4GB2 <input type="text"/> 0- <input type="text"/> -FP1																																	
	NW4GB2 <input type="text"/> 0- <input type="text"/> -FP1																																	
With masking plate Valve block (P.211)	NW4GB2-MPS- <input type="text"/> -FP1																																	
	NW4GB2-MPD- <input type="text"/> -FP1																																	
Supply and exhaust block (P.213)	NW4G2-Q <input type="text"/> - <input type="text"/> -FP1																																	
	NW4G2-Q <input type="text"/> - <input type="text"/> -FP1																																	
	NW4G2-Q <input type="text"/> - <input type="text"/> -FP1																																	
	NW4G2-Q <input type="text"/> - <input type="text"/> -FP1																																	
Various spacers (P.218, P.219)	Air supply spacer W4G2-P <input type="text"/> - <input type="text"/> -FP1																																	
	Exhaust spacer W4G2-R <input type="text"/> - <input type="text"/> -FP1																																	
	Individual air supply compatible spacer with in-stop valve spacer W4G2-PIS <input type="text"/> - <input type="text"/> -FP1																																	
Partition block (P.213)	NW4G2- <input type="text"/> -FP1																																	
	NW4G2- <input type="text"/> -FP1																																	
End block (P.213)	NW4G2- <input type="text"/> R-FP1																																	
DIN rail <small>(Note2)</small>	$L_7 =$ <input type="text"/> (How to calculate length P.221)	Blanking plug		Silencer	Tag plate	Cable clamp		Waterproof plug		Included parts																								
		GWP 6-B	GWP 8-B	SLW-H8	B	W4G-SCL-18A	W4G-SCL-18B	W4G-XSZ-12																										
		GWP 10-B		SLW-H10		Applicable cable O.D. ø14.5 to 16.5	Applicable cable O.D. ø16.5 to 18.5																											
		Cable with D-sub-connector			Cable with multi-connector		Multi-connector only																											
		N4T-CABLE-DO <input type="text"/> - <input type="text"/>	W4G-RMC- <input type="text"/>		W4G2-RM21WTP- <input type="text"/>																													

\*1: Specify the model No. for the wiring block in the following manner.      \*2:T7\* is not DIN rail mount.

**NW4G2-T-FP1**





## Common terminal block (T10)-FP1 wiring specifications sheet (AC specifications only)

\* Fill in and attach to the manifold specifications sheet for anything other than double wiring. (Available as made to order)  
 \* Not required with double wiring. (With DC specifications, only standard wiring and double wiring will be supported)

Connector pin No.	Valve No.																								
	T10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1																									
2																									
3																									
4																									
5																									
6																									
7																									
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COM																									
COM																									

FP1

FP2

Electric actuator  
 Pneumatic cylinders  
 Assistive device  
 Pneumatic valves  
 R.R.L./Auxiliary Components Electronic Component  
 Vacuum components  
 Main line components  
 Fluid control valves  
 Main line components  
 Anti-bacterial/bacteria-removing filter  
 Vacuum components  
 Fluid control valves