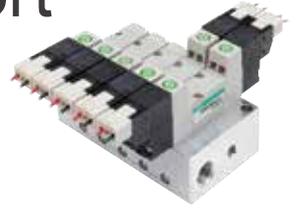


## Pilot-Operated 5-Port Solenoid Valve (M)4S<sup>A</sup><sub>B</sub>0R Series



### Features

Compact manifold with extensive track record in semiconductor manufacturing equipment. The coil from the MN4E series solenoid valve has been incorporated into the 4S, renewed as the 4SR series. An ultra-compact solenoid valve that contributes to smaller and more energy-efficient equipment.

### Equipped with low-power coils

Previous model  
**4S**

Renewed model  
**4SR**



24 VDC

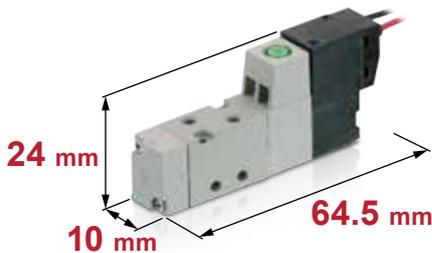
0.7 w

0.3 w

57% reduction

### Achieves ultra-compact solenoid valves

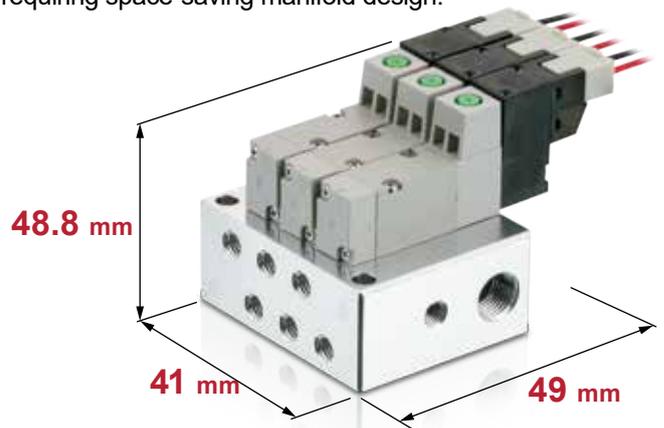
This size can drive cylinders up to ø25.



Direct piping single 5-port valve

### Manifold installation possible even in extremely limited spaces

No wiring block required due to individual wiring, enabling space-saving manifold installation. Ideal for compact robot end-effector control and other solenoid valve applications requiring space-saving manifold design.



Base piping 3-station manifold

Model No. Notation

● Single solenoid valve for manifold (body piping) **4SA0 1 0R - M3 - M1 C2 E - 3**  
 ● Single solenoid valve for manifold (sub-plate piping) **4SA0 1 9R - M3 - M1 C2 E - 3**  
 ● Individual wiring manifold **M 4SB0 8 0R - M5 - M1 C2 E - 5 - 3 - 2 2 0 0 0 1**  
 ● Reduced wiring manifolds **M 4SB0 8 0R - M5 - M1 C4T31 A - 5 - 3 - 2 2 0 0 0 1**

① Model number    ② Switching position classification    ③ Connection port size    ④ Manual device    ⑤ Wire connection    ⑥ Others Options    ⑦ Number of stations    ⑧ Voltage

Please clearly specify the quantity display position for each valve function in the case of mixed manifolds.

\*Regarding compatible model numbers\*

This catalog only contains items that have been added (options) or changed (electrical connection type). For details (specifications/model numbers) of the 4SA0/4SB0/M4SA0/M4SB0 series, please refer to the CKD equipment product website (<https://www.ckd.co.jp/en/>).



⑤ Wire connection

Type	Lead wire (mm)	Surge Suppressor	Lamp	Code
Grommet lead wire	300			Blank
C-type connector (Lead wire horizontal direction)	300			C
	500			C00
	1000			C01
	2000			C02
	* With socket			C1
	300	●	●	C2
	500	●	●	C20
	1000	●	●	C21
	2000	●	●	C22
	* Without socket			C2N
* With socket			C3	
For T31 For T50			C4	
D-type connector (Lead wire upward direction)	300			D
	500			D00
	1000			D01
	2000			D02
	* With socket			D1
	300	●	●	D2
	500	●	●	D20
	1000	●	●	D21
	2000	●	●	D22
	* Without socket			D2N
* With socket			D3	
For T30			D4	

● Reduced wiring manifolds

Type	Surge Suppressor	Lamp	Code
D-sub connector Horizontal type	●	●	C4T31
D-sub connector Upward type	●	●	D4T30
Flat cable Connector type	●	●	C4T50

⑥ Other options

Code	Content
Blank	No options
P	With mounting plate (Compatible with 4SA010R only)
A	Ozone and cutting oil compatible model
E	Built-in type with low heat generation and power saving circuit

\*1 : Selectable when electrical connection is C2, C2N, C3, D2, D2N, D3 and voltage is 3 (24 VDC).

Common specifications

Item	Content
Valve type and operating method	Pilot-operated soft spool valve
Fluid used	Compressed air
Max. Operating Pressure MPa	0.7
Min. Operating Pressure MPa	0.2
Proof Pressure MPa	1.05
Ambient temperature °C	5 to 55
Fluid temperature °C	5 to 55
Lubrication	Not required
Protection structure	Dustproof
Vibration resistance m/s <sup>2</sup>	50 or less
Shock resistance m/s <sup>2</sup>	300 or less
Atmosphere	Do not use in corrosive gas atmospheres

\*1 : 4SA0 is a pilot atmosphere release type.  
The pilot exhaust for 4SB0 is centralized with port R.

Electrical specifications

Item	Content		
	Standard	DC 12	Low heat generation/power saving DC 24
Rated Voltage V	DC 24	DC 12	DC 24
Voltage fluctuation range	±10%		
Holding current A(*2)	0.025 (0.029)	0.050 (0.058)	(0.013)
Power Consumption W	0.6(0.7)	0.6(0.7)	(0.3)
Insulation class	B		
Temperature rise °C	50		40

\*2 : ( ) The values in parentheses are for units with surge suppressors and indicator lamps. Additionally, units with low-heat and power-saving circuits are available with indicator lamps only.

Performance and Characteristics by Model

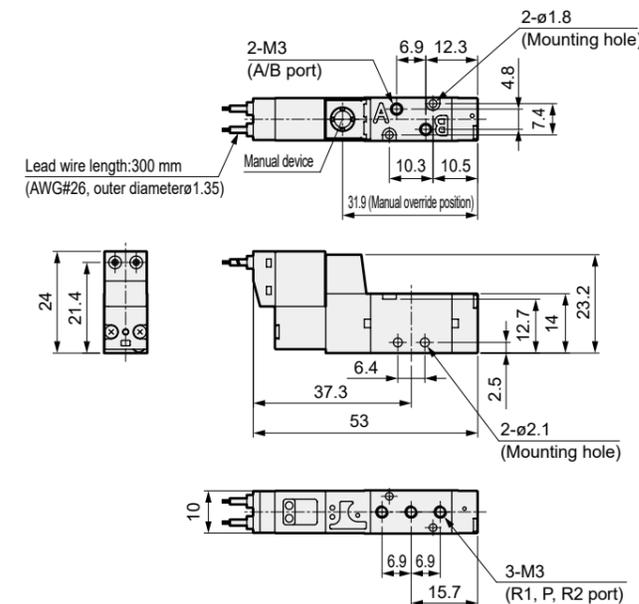
Item	Switching position classification	4SA0	4SB0
Response Time (*3) [ms]	2-position	15 or less	
	3-position		30 or less

\*3 : The response times are values with supply pressure of 0.5MPa, without lubrication, and with the power ON. They depend on the pressure and the lubricant quality.

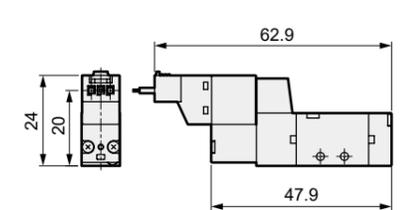
Overall dimension drawing

4SA010R-M3

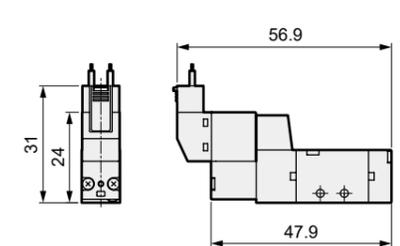
● 2-position single : Grommet lead wire



● C-type connector : (C, C0□, C1, C2, C2□, C3)

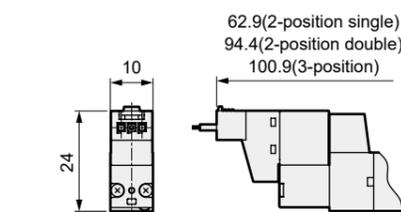


● D-type connector : (D, D0□, D1, D2, D2□, D3)

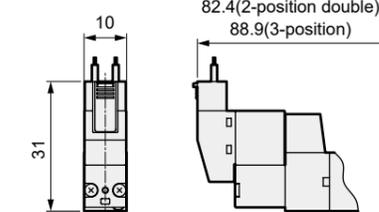


● Low exoergic/energy circuit type : (E)

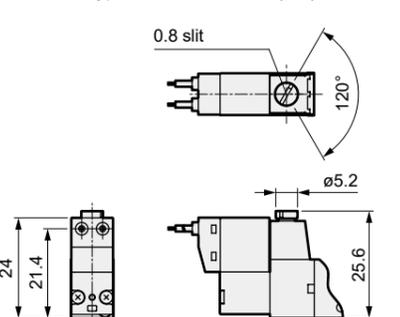
• C-type Connector



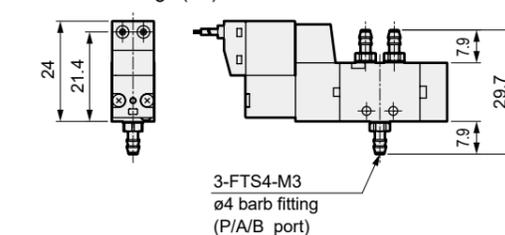
• D-type connector



● Lock-type manual device : (M1)



● ø4 barb fitting : (T4)

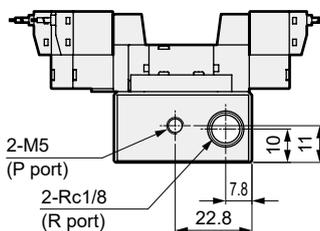
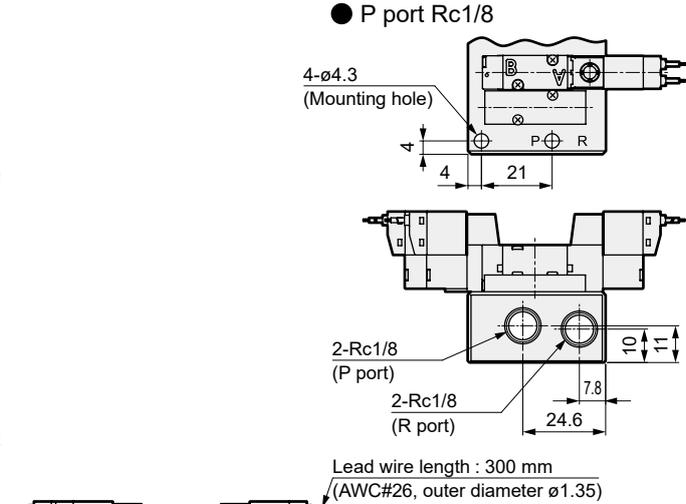
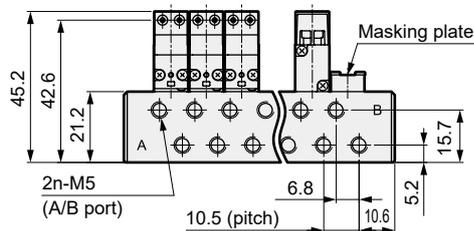
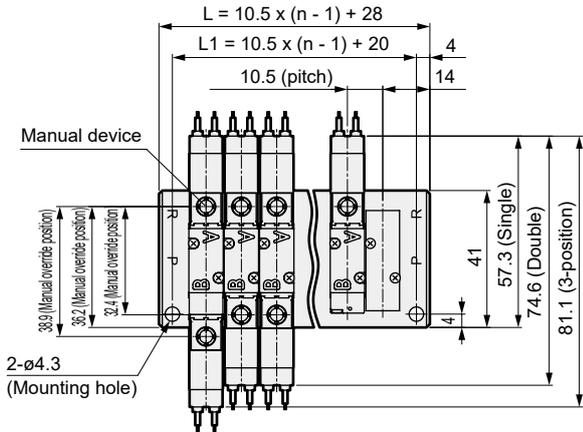


# (M) 4SA0R/4SB0R Series

## Overall dimension drawing

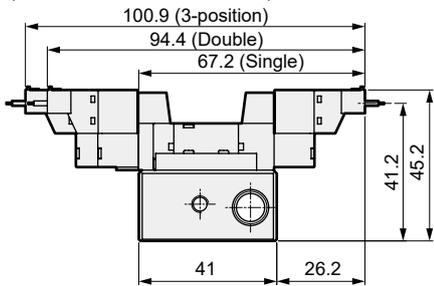
### M4SB0□0R-M5

● Sub-plate piping type B (P port M5) : grommet lead wire

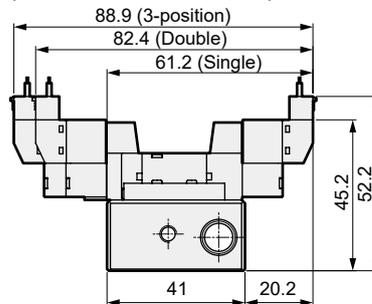


Number of stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5
L	38.5	49	59.5	70	80.5	91	101.5	112	122.5	133	143.5	154	164.5	175	185.5	196	206.5	217	227.5

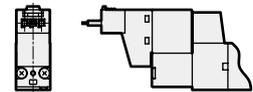
● C-type connector :  
(C, C0□, C1, C2, C2□, C3)



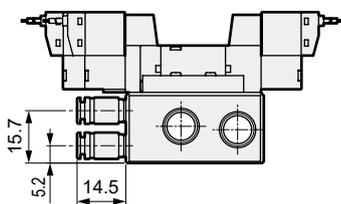
● D-type connector :  
(D, D0□, D1, D2, D2□, D3)



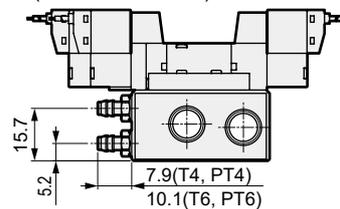
● Low exoergic/energy circuit type : (E)  
• C-type connector



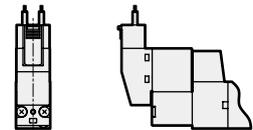
●  $\phi 4$  Push-in fitting : (GS4, PGS4)



●  $\phi 4, \phi 6$  barb fittings :  
(T4, T6, PT4, PT6)



• D-type connector



**!** Before use, please read the "Safety precautions" and "Instruction manual" on the CKD Components Product website (<https://www.ckd.co.jp/en/>).



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