

Single unit
Base side piping/base bottom piping

W4GB4/W4GZ4 Series

● Cylinder bore size: ø63 to ø125

CE (applies to DC voltage) Refer to the Ending for details. RoHS

Common specifications

Item	W4GB4/W4GZ4
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0 (≈150 psi, 10 bar)
Min. working pressure MPa	0.2 (≈29 psi, 2 bar) (*3)
Proof pressure MPa	1.50 (≈220 psi, 15 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 (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 1186 for details.
*3 : The working pressure range is 0 to 1.0 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 1.0 MPa.

Electrical specifications

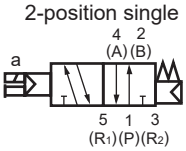
Item			W4GB4/W4GZ4
Rated voltage V	AC		100(50/60 Hz) 110(50/60 Hz)
	DC		12,24
Voltage fluctuation range			±10%
Starting current A	AC	100 V	0.056/0.044
		110 V	0.051/0.040
	DC	12 V	-
		24 V	-
Holding current A	AC	100 V	0.028/0.022
		110 V	0.025/0.020
	DC	12 V	0.100
		24 V	0.050
Power consumption W (*4)	AC	100 V	1.8/1.5
		110 V	
	DC	12 V	1.2
		24 V	
Thermal class			B (molded coil)

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

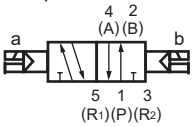
JIS symbol

● 5-port valve

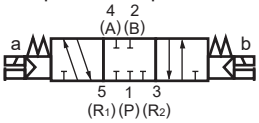
2-position single



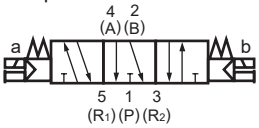
2-position double



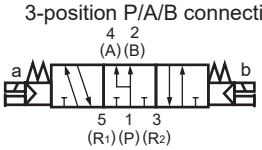
3-position all ports closed



3-position A/B/R connection



3-position P/A/B connection



Individual specifications

Item		W4GB4	W4GZ4
Port size	P/A/B port	Rc1/4, Rc3/8, G 1/4, G 3/8, NPT1/4, NPT3/8	
	R-port	Rc1/4, Rc3/8, G1/4, G 3/8, NPT 1/4, NPT3/8	Rc1/4, G1/4, NPT1/4
	PA/PR-port	Rc1/8, G1/8, NPT1/8	Rc1/8, G1/8, NPT1/8

Performance/characteristics by model

Item			W4GB4/W4GZ4	
			ON	OFF
Response time ms	2-position	Single	30	38
		Double	30	-
	3-position	ABR connection	50	58

The response time is the value with a supply pressure of 0.5 MPa at 20°C and with no lubrication. It depends on the pressure and the lubricant quality.

Weight

Item			Terminal block	I/O connector
Weight g	2-position	Single	701(257)	755(257)
		Double	745(301)	799(301)
	3-position		777(332)	831(332)

Values in ( ) do not include the discrete sub-plate.

Flow characteristics

Model No.	Solenoid position		P→A/B		A/B→R	
			C[dm^3/(s·bar)]	b	C[dm^3/(s·bar)]	b
W4GB4	2-position		7.7	0.31	7.3	0.16
	3-position	All ports closed	6.6	0.19	6.4	0.21
		ABR connection	6.5	0.15	7.3	0.04
		PAB connection	7.4	0.21	7.1	0.16

*1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.
*2: Values of flow characteristics are for Rc3/8 port size.

How to order

● Single unit

W4GB4 **3** **0** —— **10** - **R1** **MF** - **3**

W4GZ4 **3** **0** —— **10** - **R1** **M7** - **3**

● Single sub-plate only

W4GB4 —— **SP** - **10** - **R1** **K**

W4GZ4 —— **SP** - **10** - **R1** **K**

● Discrete valve for integrated base(*7) Sub-plate

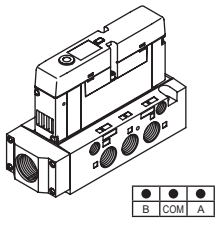
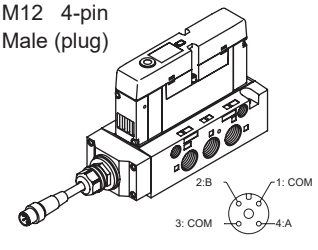
W4GB4 **1** **9-00** ———— **M** - **3**

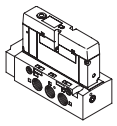
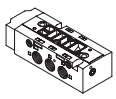
Ⓐ Model No. Ⓑ Solenoid position Ⓒ Port size Ⓓ Electrical connections Ⓔ Option Ⓕ Voltage

Precautions for model selection

*1:Ports 3 (R2) and 5 (R1) of base bottom piping are Rc1/4.
*2:Ports 3 (R2) and 5 (R1) of base bottom piping are G1/4.
*3:Ports 3 (R2) and 5 (R1) of base bottom piping are NPT1/4.
*4:I/O connector is DC voltage type only.
*5:Do not select M and M7 when selecting the manual override of non-locking/locking common.
*6:Includes both the manual override of non-locking and the lock with pilot air OFF function. The manual override of non-locking/locking common and the lock with pilot air OFF function cannot be selected together.
*7:As there is no body gasket attached, use the body gasket attached with the valve block.

Electrical connections

Name	Terminal block	I/O connector (for DC)
Code	Blank	R1
Shape / Terminal layout		M12 4-pin Male (plug) 

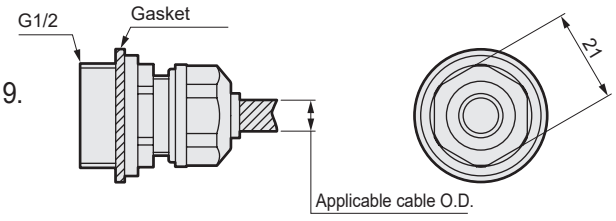
Code	Description	Ⓐ Model No.				
		Single unit		Discrete sub Plate only		Discrete valve
						
		W4GB4	W4GZ4	W4GB4	W4GZ4	W4GB4
Ⓑ Solenoid position						
1	2 position single	●	●			●
2	2-position double	●	●			●
3	3-position all ports closed	●	●			●
4	3-position ABR connection	●	●			●
5	3-position PAB connection	●	●			●
Ⓒ Port size [ports 1(P), 2(B), 4(A)]						
08	Rc1/4	●	●(*1)	●	●(*1)	
10	Rc3/8	●	●(*1)	●	●(*1)	
08G	G1/4	●	●(*2)	●	●(*2)	
10G	G3/8	●		●		
08 N	NPT1/4	●	●(*3)	●	●(*3)	
10 N	NPT3/8	●		●		
Ⓓ Electrical connections (lamp and surge suppressor provided as standard)						
Blank	Terminal block	●	●	●	●	●
R 1	I/O connector (for DC, 500 mm) (*4)	●	●	●	●	
Ⓔ Option						
Blank	No option (*5) (Non-locking/locking model common manual override when M and M7 are not selected.)	●	●			●
M	Manual override of non-locking (standard)	●	●			●
M7	Lock with pilot air OFF function (*6)	●	●			●
K	External pilot	●	●	●	●	
A	Coolant proof	●	●			●
F	Port A/B filter	●	●	●	●	
Ⓕ Voltage						
1	100 VAC	●	●			●
3	24 VDC	●	●			●
4	12 VDC	●	●			●
5	110 VAC	●	●			●

indicates not available.

Parts kit No. for terminal block

● Cable clamp (with gasket)

Model No.	Description
W4G-OA-W1608C1	Used to protect cables from dust and jetting water.



Applicable cable O.D.: ø6 to ø8
(reference value)
Cable clamp body tightening torque: 2.0 to 2.4 N·m
Tightening cap tightening torque: 0.5 to 0.7N·m

Coolant proof specifications

Can be selected with "How to order" Item Ⓔoption "A" on page 1119.

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

Target: DC voltage

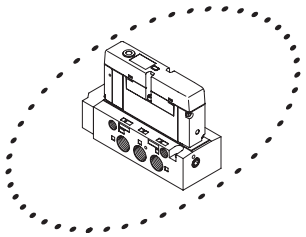
** - Voltage - **ST**

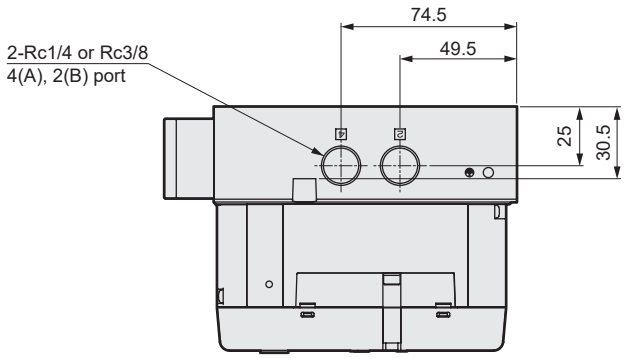
- Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

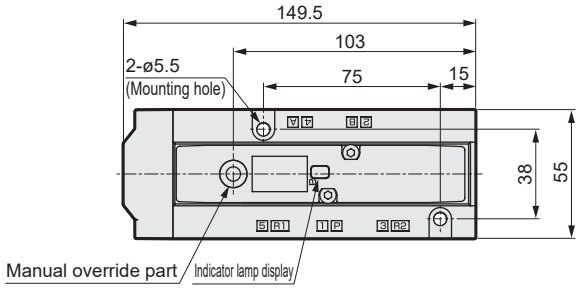
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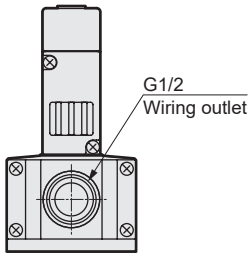
W4GB410 Side piping

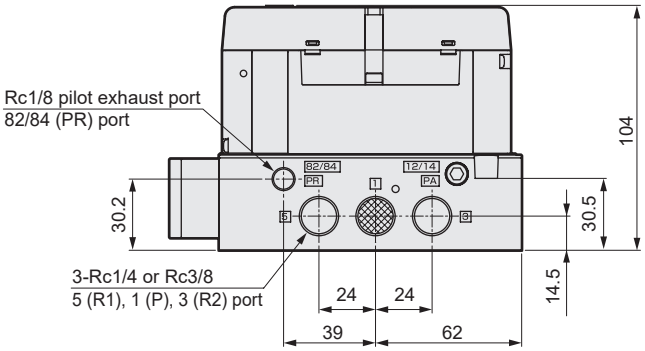
● Terminal block (blank)

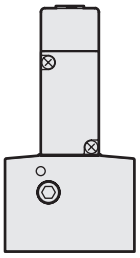






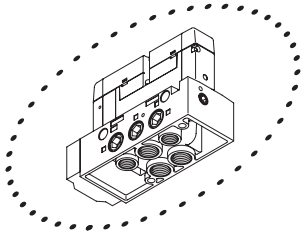


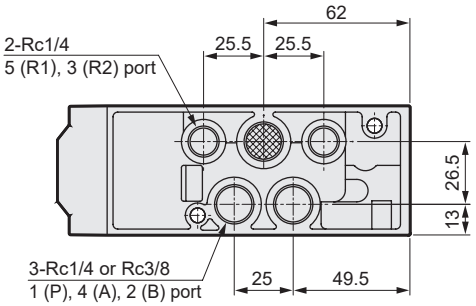




W4GZ410 Rear piping

● Terminal block (blank)

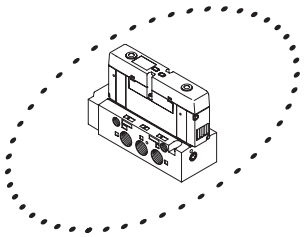


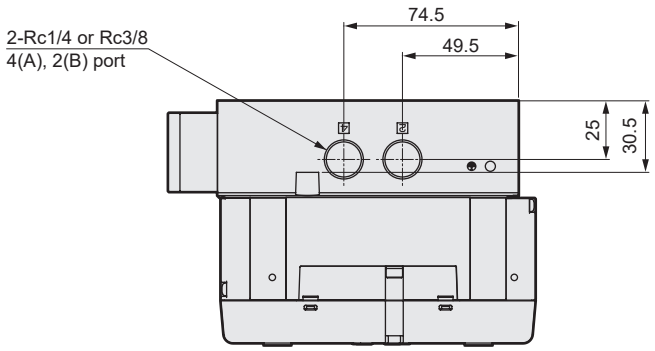


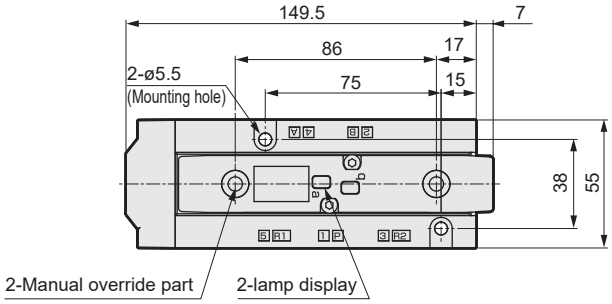
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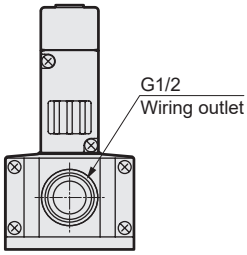
W4GB420 Side piping

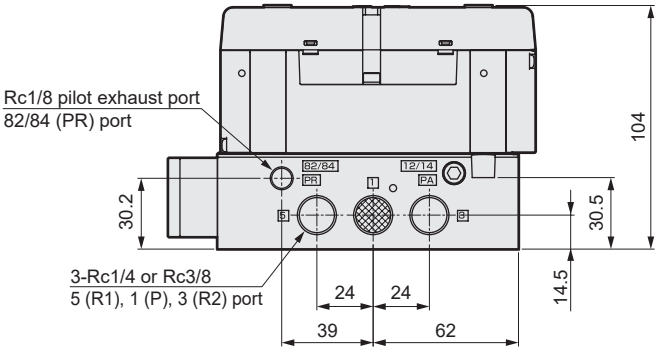
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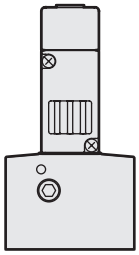






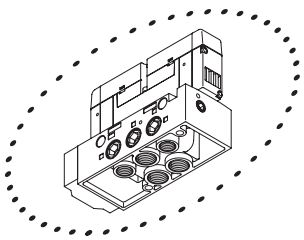


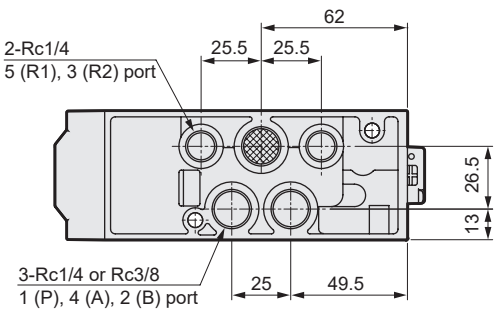




W4GZ420 Rear piping

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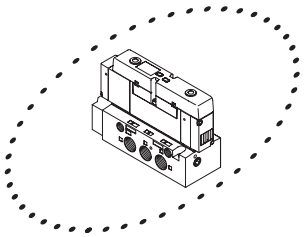


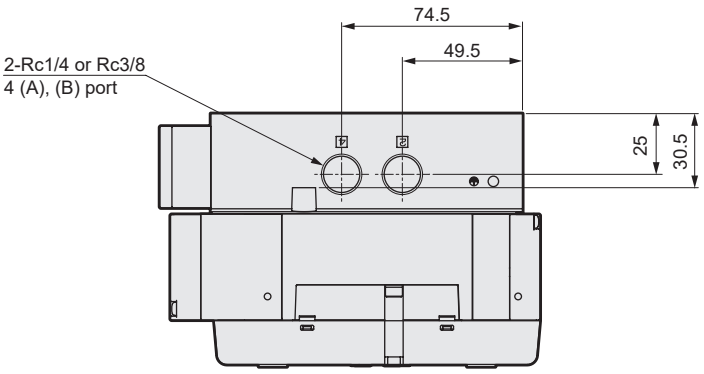


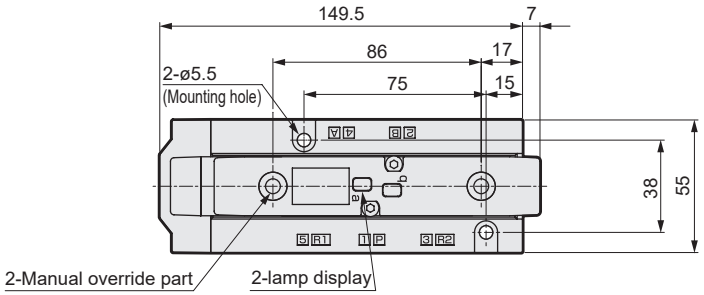
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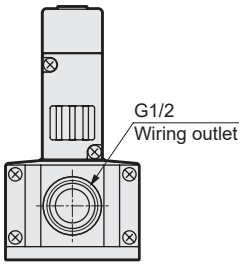
W4GB4$^{3}_{4}_{5}$0 Side piping

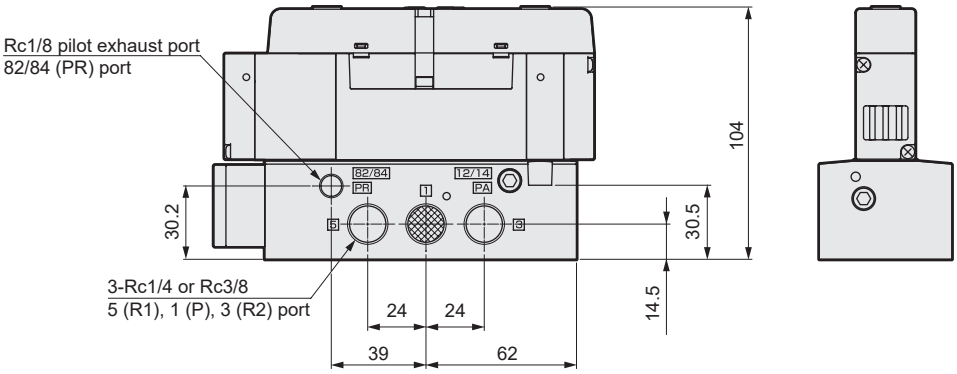
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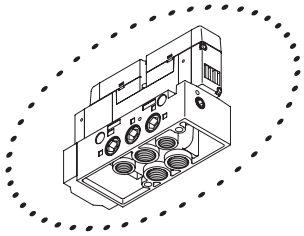


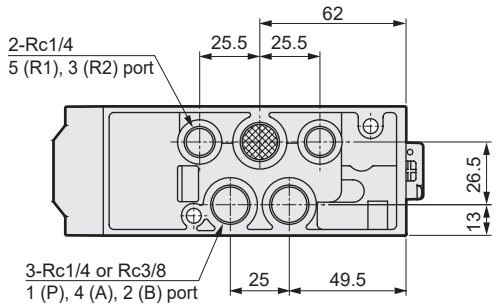




W4GZ4$^{3}_{4}_{5}$0 Rear piping

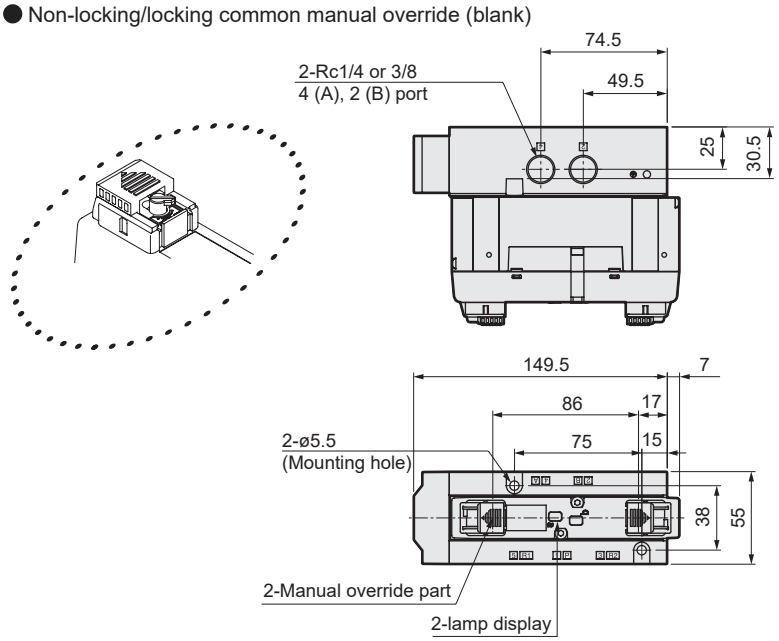
● Terminal block (blank)



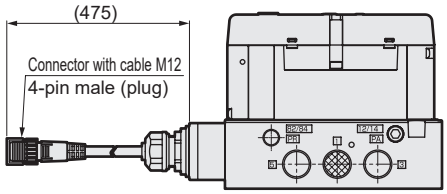


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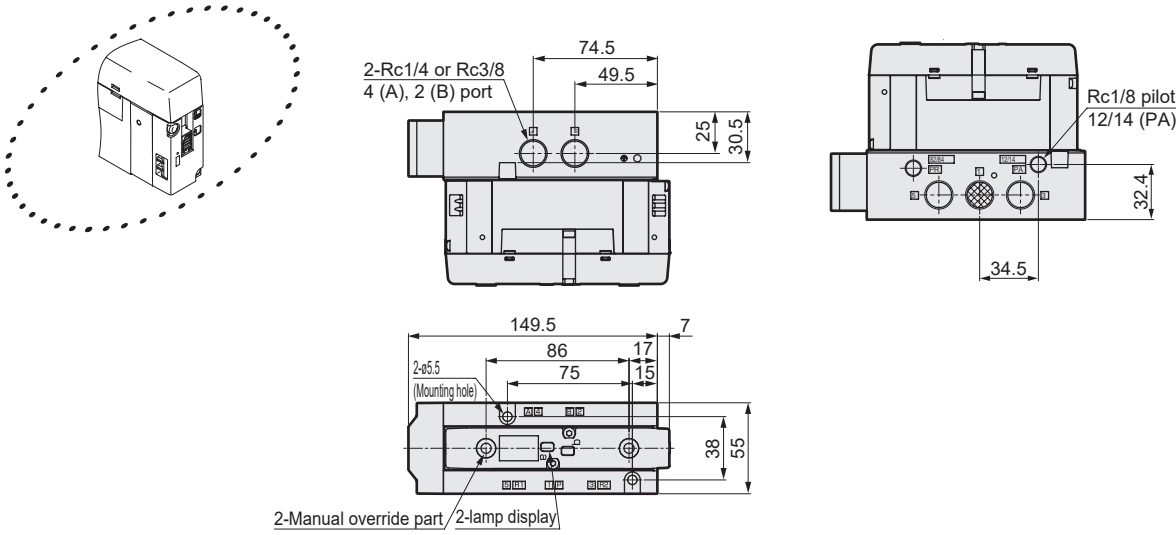
● Non-locking/locking common manual override (blank)



● I/O connector (R1)
Cable used: VA-4DBXO5KUG3-CKD276-PG7 (Correns)



● With pilot air OFF function (M7)



● External pilot (K)