



2-port direct acting solenoid valve for dry air
(General purpose valve)

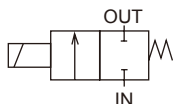
AB31/AB41-Z Series

- NC
- Port size: Rc1/8 to Rc1/2



JIS symbol

● NC



Common specifications

Descriptions	Standard specifications
Working fluid	For dry air (atmospheric dew point -60°C and over)/inert gas/low vacuum [1.33×10^2 Pa (abs)]
Working pressure differential MPa	0 to 4 (refer to max. working pressure differential in individual specifications.)
Max. working pressure MPa	5
Proof pressure (water pressure) MPa	25
Fluid temperature °C	-10 to 45 (no freezing)
Ambient temperature °C	-10 to 45
Thermal class	Class 130 (B)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Direct acting poppet structure
Valve seat leakage cm ³ /min (ANR)	0.2 or less
Mounting orientation	Unrestricted

Individual specifications

Descriptions Model No.	Port size	Orifice size (mm)	Max. working pressure differential (MPa)	Rated voltage	Power consumption (W)		Weight (kg)	
					AC	DC		
AB31- ⁰¹ ₀₂ -1-*****Z	Rc1/8 Rc1/4	1.5	2.5	100 VAC 50/60 Hz	17	14	0.45	
-2-*****Z		2.0	1.5					
-3-*****Z		3.0	0.5					
-4-*****Z		3.5	0.35					
-5-*****Z		4.0	0.2					
-6-*****Z		5.0	0.12					
AB41- ⁰² ₀₃ -1-*****Z	Rc1/4 Rc3/8	1.5	4.0	200 VAC 50/60 Hz			12 VDC 24 VDC 48 VDC 100 VDC	0.57 (Rc1/4) 0.59 (Rc3/8)
-2-*****Z		2.0	2.5					
-3-*****Z		3.0	0.9					
-4-*****Z		3.5	0.6					
-5-*****Z		4.0	0.4					
-6-*****Z		5.0	0.2					
-7-*****Z		7.0	0.1					
AB41- ⁰³ ₀₄ -8-*****Z	Rc3/8 / Rc1/2	10.0	0.03					0.68

*1: The model numbers above show the basic port size (Rc). Refer to How to order for other combinations.

*2: The port size model No. is 01 for Rc1/8 (6A), 02 for Rc1/4 (8A), 03 for Rc3/8 (10A) and 04 for Rc1/2 (15A).

*3: The voltage fluctuation range must be within $\pm 10\%$ of the rated voltage.

*4: The leakage current must be less than or equal to the values shown below.

*5: When using at low vacuum, vacuum the OUT port side.

Leakage current	Voltage	100 VAC	200 VAC	12 VDC	24 VDC	48 VDC	100 VDC
	Model No.						
	AB31-*_*-*****Z	10 mA or less	5 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less
	AB41-*_*-*****Z	10 mA or less	5 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less

Compatibility table by variation

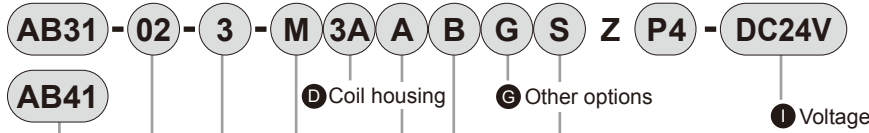
	AB3/AB4-Z
Classification	Direct acting 2-port valve for dry air
Body material	Stainless steel
P4	●
P40	●

*1: Body material Select from stainless steel products.

*2: Body material/Seal combination code M only.

*3: Pipe material is SUS316.

How to order





						Model No.	
						AB31	AB41
Code	Content	Code	Content	Code	Content		
A Port size							
01	Rc 1/8	1G	G 1/8	1N	1/8NPT	●	
02	Rc 1/4	2G	G 1/4	2N	1/4NPT	●	●
03	Rc 3/8	3G	G 3/8	3N	3/8NPT		●
B Orifice size							
1	ø1.5					●	●
2	ø2					●	●
3	ø3					●	●
4	ø3.5					●	●
5	ø4					●	●
6	ø5					●	●
7	ø7						●
C Body/sealant combination							
	Body	Seal	Treatment	Remarks			
M	Stainless steel	Fluoro rubber	Oil free	—		●	●


The combinations indicated with ● in the above table are available.

For Items ④ to ⑨, the combinations indicated with codes are available. Note that if options for Items ⑤ to ⑨ are not required, they should be left blank.

④ Coil housing			⑤ Manual override (locking)	⑥ Mounting plate	⑦ Other options		⑧ With surge suppressor	⑨ Rated voltage
Content					Conduit (conduit piping)			Content
3A	Open frame	Lead wire	A	B	G	H	S	12 VDC, 24 VDC, 48 VDC, 100 VDC
3I		HP terminal box (IP65 or equivalent) (G1/2)						
3J		HP terminal box with lamp (IP65 or equivalent) (G1/2)						12 VDC, 24 VDC, 100 VDC
5A	Open frame	Lead wire	A	B	G	H		100 VAC, 200 VAC
5I		HP terminal box (IP65 or equivalent) (G1/2)						
5J		HP terminal box with lamp (IP65 or equivalent) (G1/2)						

Refer to the following cautions for Items ④ to ⑨.

3A 5A		<ul style="list-style-type: none"> ● Open frame grommet lead wire 300 mm ● 5A (diode integrated)
3I 3J 5I 5J		<ul style="list-style-type: none"> ● Open frame HP terminal box (IP65 or equivalent) ● 5I, 5J (diode integrated)

G H		<ul style="list-style-type: none"> ● Conduit ● G(CTC19) ● H(G1/2)
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Refer to "General Purpose Valves" (Catalog No. CB-03-1SA) for details on coil selection.

Precautions for model No. selection

Notes for Item ④

*1: Coils for 5A, 5I, 5J have a diode to convert AC to DC voltage. Voltage of less than 100 VAC is not available.

Notes for Items ⑤ to ⑨

*2: Manual override (Item ⑤ A) cannot be mounted on the low pressure large flow rate AB41-03/04-8.

*3: For ③, select an option from G and H.

*4: The surge suppressor is attached with the lead wire coil. When selecting a coil with a terminal box, the surge suppressor is mounted in the terminal box.

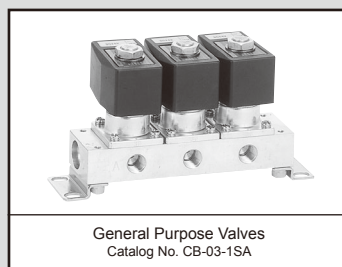
*5: Surge suppressor is incorporated as standard in the coil with diode.

Notes for Item ⑨

*6: 100 VAC coil is compatible with 100 VAC 50/60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz.

*7: For voltages other than above, contact CKD.

*8: The lead wire is available in the standard 300 mm length, and 500 mm, 1000 mm, 2000 mm and 3000 mm lengths. Contact CKD for more information.



Direct acting 2-port solenoid valve for dry air, manifold/actuator (general purpose valve)

GAB312/GAB352/GAB412/GAB452-Z Series

● NC

● Common supply (port C pressurization), individual supply (port A pressurization)

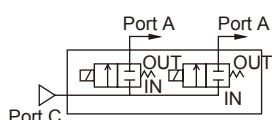
RoHS

CAD

JIS symbol

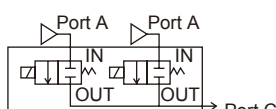
● GAB312/412-Z

(common supply/port C pressurization)



● GAB352/452-Z

(individual supply/port A pressurization)



Common specifications

Descriptions	Standard specifications
Working fluid	For dry air (atmospheric dew point -60°C and over)/inert gas/low vacuum [1.33×10^2 Pa (abs)]
Working pressure differential MPa	0 to 4 (refer to max. working pressure differential in individual specifications.)
Max. working pressure MPa	5
Proof pressure (water pressure) MPa	10
Fluid temperature °C	-10 to 45 (no freezing)
Ambient temperature °C	-10 to 45
Thermal class	Class 130 (B)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Direct acting poppet structure
Valve seat leakage cm ³ /min (ANR)	0.2 or less
Mounting orientation	Unrestricted

Individual specifications

Descriptions	Port size	Orifice size (mm)	Max. working pressure differential (MPa)	Rated voltage	Power consumption (W)		
Model No.					AC50/60 Hz	DC	
GAB312/352-1-Z	—	1.5	2.5	100 VAC 50/60 Hz	17	14	
-2-Z		2.0	1.5				
-3-Z		3.0	0.5				
-4-Z		3.5	0.35				
-5-Z		4.0	0.2				
-6-Z		5.0	0.12				
GAB412/452-1-Z	—	1.5	4.0	200 VAC 50/60 Hz			
-2-Z		2.0	2.5				
-3-Z		3.0	0.9				12 VDC 24 VDC 48 VDC 100 VDC
-4-Z		3.5	0.6				
-5-Z		4.0	0.4				
-6-Z		5.0	0.2				
-7-Z		7.0	0.1				

*1: The model numbers above are for basic orifice sizes. Refer to How to order for other combinations.

*2: For port size, refer to "How to order and Dimensions" ("General Purpose Valves" (catalog No. CB-03-1SA)).

*3: The voltage fluctuation range must be within $\pm 10\%$ of the rated voltage.

*4: The leakage current must be less than or equal to the values shown below.

*5: When using at low vacuum, vacuum the OUT port side.

Leakage current	Voltage	100 VAC	200 VAC	12 VDC	24 VDC	48 VDC	100 VDC
	Model No.						
	GAB312/352*-*****Z	10 mA or less	5 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less
	GAB412/452*-*****Z	10 mA or less	5 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less

Compatibility table by variation

	GAB3/GAB4-Z
Classification	Direct acting 2-port valve for dry air
Body material	Stainless steel
P4	●
P40	●

*1: Body material Select from stainless steel products.

*2: Body material/Seal combination code M only.

*3: Pipe material is SUS316.

How to order

- Common supply (port C pressurization)

GAB312 - **1** - **5** - **M** **5A** **A** **G** **S** **Z** **P4** - **AC100V**

- Individual supply (port A pressurization)

GAB352

- Common supply (port C pressurization)

GAB412

- Individual supply (port A pressurization)

GAB452

Model No.

- D** Coil housing
- E** Manual override (locking)
- F** Other options
- G** With surge suppressor
- H** Rated voltage

Model No.

GAB312 GAB412
GAB352 GAB452

Code	Content		
A Orifice size			
1	ø1.5	●	●
2	ø1.5	●	●
3	ø3	●	●
4	ø3.5	●	●
5	ø4	●	●
6	ø5	●	●
7	ø7		●
B Manifold station No.			
2	2		
to	to	●	●
10	10 stations		
0	Actuator only	●	●
C Body/sealant combination			
	Body	Seal	Treatment
	M	Stainless steel	Fluoro rubber
			Oil free
			Remarks
			—


The combinations indicated with ● in the above table are available.

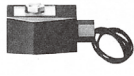
For Items **D** to **H**, the combinations indicated with codes can be manufactured. Note that if options for Items **E** to **G** are not required, it should be blank.

D Coil housing			E	F Other options		G	H Rated voltage
Content			Manual override (locking)	Conduit		With surge suppressor	Content
				(conduit piping)			
				CTC-19	G1/2		
3A	Open frame	Lead wire	A	G	H	S	12 VDC, 24 VDC, 48 VDC, 100 VDC
3I		HP terminal box (IP65 or equivalent) (G1/2)					12 VDC, 24 VDC, 100 VDC
3J		HP terminal box with lamp (IP65 or equivalent) (G1/2)					
5A	Open frame	Lead wire	A	G	H		100 VAC, 200 VAC
5I		HP terminal box (IP65 or equivalent) (G1/2)					
5J		(diode integrated)		HP terminal box with lamp (IP65 or equivalent) (G1/2)			

Refer to the following cautions for Items **D** to **H**.

3A 5A		<ul style="list-style-type: none"> Open frame grommet lead wire 300 mm 5A (diode integrated)
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3I 3J 5I 5J		<ul style="list-style-type: none"> Open frame HP terminal box (IP65 or equivalent) 5I, 5J (diode integrated)
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G H		<ul style="list-style-type: none"> Conduit G(CTC19) H(G1/2)
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Refer to "General Purpose Valves" (Catalog No. CB-03-1SA) for details on coil selection.

Precautions for model No. selection

*1: Orders for only the masking plate and sub-plate are also available. Contact CKD for details.

Notes for Item **B**

*2: For 11 or more manifold station No., contact CKD.

Notes for Item **D**

*3: Coils for 5A, 5I, 5J have a diode to convert AC to DC voltage.

Notes for Items **F** to **G**

*4: For Item **F**, select an option from G and H.

*5: The surge suppressor is attached with the lead wire coil. When selecting a coil with a terminal box, the surge suppressor is mounted in the terminal box.

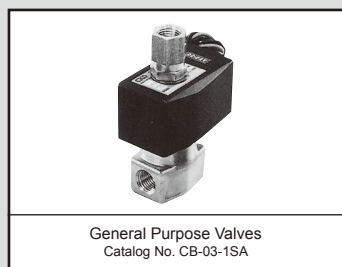
*6: Surge suppressor is incorporated as standard in the coil with diode.

Notes for Item **H**

*7: 100 VAC coil is compatible with 100 VAC 50/60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz.

*8: For voltages other than above, contact CKD.

*9: The lead wire is available in the standard 300 mm length, and 500 mm, 1000 mm, 2000 mm and 3000 mm lengths. Contact CKD for more information.



3-port direct acting solenoid valve for dry air
(General purpose valve)

AG3*/AG4*-Z Series

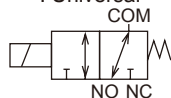
- Universal, NC pressurization, NO pressurization
- Port size: Rc1/8, Rc1/4, Rc3/8



JIS symbol

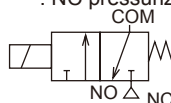
- AG31/41-Z

: Universal



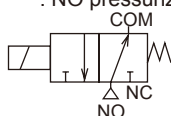
- AG33/43-Z

: NC pressurization



- AG34/44-Z

: NO pressurization



Common specifications

Descriptions	Standard specifications
Working fluid	For dry air (atmospheric dew point -60°C and over)/inert gas/low vacuum [1.33 x 10 ² Pa (abs)]
Working pressure differential MPa	0 to 1 (refer to max. working pressure differential in individual specifications.)
Proof pressure (water pressure) MPa	25
Fluid temperature °C	-10 to 45 (no freezing)
Ambient temperature °C	-10 to 45
Thermal class	Class 130 (B)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Direct acting poppet structure
Valve seat leakage cm ³ /min (ANR)	0.2 or less
Mounting orientation	Unrestricted

Individual specifications

Descriptions	Port size	Orifice size (mm)		Max. working pressure differential (MPa)	Max. working pressure MPa	Rated voltage	Power consumption (W)		Weight (kg)
Model No.		TOP	BODY				AC	DC	
Universal						100 VAC 50/60 Hz	17	14	
AG31- ⁰¹ ₀₂ -1-*****Z	Rc1/8	1.5	1.5	0.7	1				
-2-*****Z	Rc1/4	2.0	2.0	0.4					0.45
AG41- ⁰² ₀₃ -1-*****Z	Rc1/4	2.0	2.0	0.65					0.57 (Rc1/4)
-2-*****Z	Rc3/8	2.3	2.3	0.4					0.59 (Rc3/8)
NC pressurization						200 VAC 50/60 Hz	17	14	
AG33- ⁰¹ ₀₂ -1-*****Z	Rc1/8	1.5	1.5	1.0	1				
-2-*****Z	Rc1/4	2.0	2.0	0.7					0.45
AG43- ⁰² ₀₃ -4-*****Z	Rc1/4	3.0	3.0	0.7					0.57 (Rc1/4)
-5-*****Z	Rc3/8	3.5	3.0	0.4					0.59 (Rc3/8)
NO pressurization						12 VDC			
AG34- ⁰¹ ₀₂ -1-*****Z	Rc1/8	1.5	1.5	1.0	1.5	24 VDC			
-2-*****Z	Rc1/4	2.0	2.0	0.45		48 VDC	0.45		
AG44- ⁰² ₀₃ -1-*****Z	Rc1/4 Rc3/8	2.0	2.0	0.75		100 VDC	0.57 (Rc1/4)		
-3-*****Z		2.0	3.0	0.7		0.59 (Rc3/8)			
-4-*****Z		3.0	3.0	0.25					

*1: The model numbers above show the basic port size (Rc). Refer to How to order for other combinations.

*2: The port size model No. is 01 for Rc1/8 (6A), 02 for Rc1/4 (8A) and 03 for Rc3/8 (10A).

*3: The voltage fluctuation range must be within ±10% of the rated voltage.

*4: The leakage current must be less than or equal to the values shown below.

*5: When using at low vacuum, vacuum the NO port side of NC pressurization type or the NC port side of NO pressurization type.

Leakage current	Voltage	100 VAC	200 VAC	12 VDC	24 VDC	48 VDC	100 VDC
	Model No.						
	AG31/33/34-1-*****Z	6 mA or less	3 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less
	AG41/43/44-1-*****Z	8 mA or less	4 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less

Compatibility table by variation

	AG3/AG4-Z
Classification	Direct acting 3-port valve for dry air
Body material	Stainless steel
P4	●
P40	●

*1: Body material Select from stainless steel products.
 *2: Body material/Seal combination code M only.
 *3: Pipe material is SUS316.

How to order

● Universal

AG31 - 02 - 2 - M 3A A B G S Z P4 - DC24V

AG41

● NC pressurization

AG33

AG43

● NO pressurization

AG34

AG44

Model No.

D Coil housing

G Other options

E Manual override (locking)

F Mounting plate

H With surge suppressor

I Voltage

A Port size

B Orifice size

C Body/sealant combination



Model No.					
AG31	AG41	AG33	AG43	AG34	AG44
Code	Content	Code	Content	Code	Content
A Port size					
01	Rc1 / 8	1G	G 1 / 8	1N	1 / 8NPT
02	Rc1 / 4	2G	G 1 / 4	2N	1 / 4NPT
03	Rc3 / 8	3G	G 3 / 8	3N	3 / 8NPT
B Orifice size					
	AG31	AG41	AG33	AG43	AG34
	TOP BODY	TOP BODY	TOP BODY	TOP BODY	TOP BODY
1	ø1.5 ø1.5	ø2.0 ø2.0	ø1.5 ø1.5	- -	ø1.5 ø1.5
2	ø2.0 ø2.0	ø2.3 ø2.3	ø2.0 ø2.0	- -	ø2.0 ø2.0
3	- -	- -	- -	- -	ø2.0 ø3.0
4	- -	- -	- -	ø3.0 ø3.0	- -
5	- -	- -	- -	ø3.5 ø3.0	- -
C Body/sealant combination					
	Body	Seal	Treatment	Remarks	
M	Stainless steel	Fluoro rubber	Oil free	—	

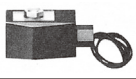
The combinations indicated with ● in the above table are available.

For Items ④ to ①, the combinations indicated with codes are available. Note that if options for Items ⑤ to ⑧ are not required, they should be left blank.

D Coil housing			E	F	G Other options			H	I Rated voltage
Content			Manual override (locking)	Mounting plate	Cable gland (marine cable gland)			Conduit (conduit piping)	Content
					A-15a	A-15b	A-15c	CTC-19	G 1 / 2
3A	Open frame	Lead wire	A	B				G	H
3I		HP terminal box (IP65 or equivalent) (G1/2)						S	12 VDC, 24 VDC, 48 VDC, 100 VDC
3J		HP terminal box with lamp (IP65 or equivalent) (G1/2)			D	E	F		12 VDC, 24 VDC, 100 VDC
5A	Open frame	Lead wire	A	B				G	H
5I		HP terminal box (IP65 or equivalent) (G1/2)						S	100 VAC, 200 VAC
5J		HP terminal box with lamp (IP65 or equivalent) (G1/2)			D	E	F		

Refer to the following cautions for Items ④ to ①.

3A 5A		<ul style="list-style-type: none"> Open frame grommet lead wire 300 mm 5A (diode integrated)
3I 3J 5I 5J		<ul style="list-style-type: none"> Open frame HP terminal box (IP65 or equivalent) 5I, 5J (diode integrated)

G H		<ul style="list-style-type: none"> Conduit G(CTC19) H(G1/2)
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Refer to "General Purpose Valves" (Catalog No. CB-03-1SA) for details on coil selection.

⚠ Precautions for model No. selection

Notes for Item ④

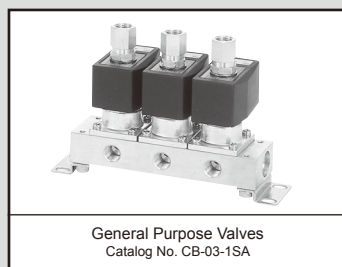
*1: Coils for 5A, 5I, 5J have a diode to convert AC to DC voltage. Voltage of less than 100 VAC is not available.

Notes for Items ⑤ to ⑧

*2: For ⑤, select an option from G and H.
 *3: The surge suppressor is attached with the lead wire coil. When selecting a coil with a terminal box, the surge suppressor is mounted in the terminal box.
 *4: Surge suppressor is incorporated as standard in the coil with diode.

Notes for Item ①

*5: 100 VAC coil is compatible with 100 VAC 50/60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz.
 *6: For voltages other than above, contact CKD.
 *7: The lead wire is available in the standard 300 mm length, and 500 mm, 1000 mm, 2000 mm and 3000 mm lengths. Contact CKD for more information.



Direct acting 3-port solenoid valve for dry air, manifold/actuator (general purpose valve)

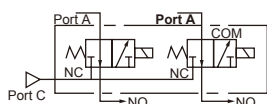
GAG31*/GAG35*/GAG41*/GAG45* -Z Series

- Universal
- Common supply/individual exhaust, common supply/separate flow

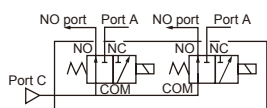


Manifold circuit configuration Common specifications

- GAG31*/41*-Z
(common supply/individual exhaust)



- GAG35*/45*-Z
(common supply/separate flow)



Descriptions	Standard specifications
Working fluid	For dry air (atmospheric dew point -60°C and over)/inert gas/low vacuum [1.33 x 10 ² Pa (abs)]
Working pressure differential MPa	0 to 1 (refer to max. working pressure differential in individual specifications.)
Max. working pressure MPa	1
Proof pressure (water pressure) MPa	10
Fluid temperature °C	-10 to 45 (no freezing)
Ambient temperature °C	-10 to 45
Thermal class	Class 130 (B)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Direct acting poppet structure
Valve seat leakage cm ³ /min (ANR)	0.2 or less
Mounting orientation	Unrestricted

Individual specifications

Descriptions	NO port size	Orifice size (mm)		Max. working pressure differential (MPa)	Rated voltage	Power consumption (W)	
Model No.		TOP	BODY			AC50/60 Hz	DC
GAG 311-1-Z	Rc1/8	1.5	1.5	0.7	100 VAC 50/60 Hz	17	14
351-2-Z		2.0	2.0	0.4			
GAG 312-1-Z	Rc1/4	1.5	1.5	0.7	200 VAC 50/60 Hz		
352-2-Z		2.0	2.0	0.4			
GAG 412-1-Z	Rc1/4	2.0	2.0	0.65	12 VDC 24 VDC 48 VDC 100 VDC		
452-2-Z		2.3	2.3	0.4			
GAG 413-1-Z	Rc3/8	2.0	2.0	0.65			
453-2-Z		2.3	2.3	0.4			

*1: The model numbers above are for the basic NO port size and orifice size. Refer to How to order for other combinations.

*2: For the sizes of ports A and C, refer to "How to order and Dimensions" ("General Purpose Valves" (Catalog No. CB-03-1SA)).

*3: The voltage fluctuation range must be within ±10% of the rated voltage.

*4: When using in a continuously energized state, use fluoro rubber seal.

*5: The leakage current must be less than or equal to the values shown below.

Leakage current	Voltage	100 VAC	200 VAC	12 VDC	24 VDC	48 VDC	100 VDC
	Model No.						
	GAG31*-*****Z	6 mA or less	3 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less
	GAG41*-*****Z	8 mA or less	4 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less

Compatibility table by variation

	GAG3/GAG4-Z
Classification	Direct acting 3-port valve for dry air
Body material	Stainless steel
P4	●
P40	●

*1: Body material Select from stainless steel products.

*2: Body material/Seal combination code M only.

*3: Pipe material is SUS316.

How to order

● Common supply/individual exhaust (port C pressurization)

GAG31 **1** - **1** - **7** - **M** **5A** **A** **G** **S** **Z** **P4** - **AC100V**

● Common supply/separate flow (port C pressurization)

GAG35 **1**

● Common supply/individual exhaust (port C pressurization)

GAG41 **2**

● Common supply/separate flow (port C pressurization)

GAG45 **2**

Model No.

● A NO port size

● B Orifice size

● C Manifold station No.

*2

● D Body/sealant combination

● E Coil housing

● H With surge suppressor

● F Manual override (locking)

● G Other options

● I Rated voltage

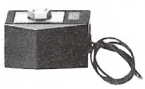

<div>F</div> Manual override (locking)		<div>I</div> Rated voltage		Model No.		
				GAG3**	GAG4**	
<div>G</div> Other options						
Code		Content				
<div>A</div> NO port size						
1	1/8			●		
2	1/4			●	●	
3	3/8				●	
<div>B</div> Orifice size						
	GAG3**		GAG4**			
	TOP	BODY	TOP	BODY		
1	ø1.5	ø1.5	ø2.0	ø2.0	●	●
2	ø2.0	ø2.0	ø2.3	ø2.3	●	●
<div>C</div> Manifold station No.						
2	2					
to	to				●	●
10	10 stations					
0	Actuator only				●	●
<div>D</div> Body/sealant combination						
	Body	Seal	Treatment	Remarks		
M	Stainless steel	Fluoro rubber	Oil free	—	●	●

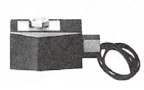
The combinations indicated with ● in the above table are available.

For Items (E) to (I), the combinations indicated with codes are available. Note that if options for Items (F) to (H) are not required, they should be left blank.

E Coil housing			F	G Other options		H	I Rated voltage
Content			Manual override (locking)	Conduit (conduit piping)		With surge suppressor	Content
				CTC-19	G 1 / 2		
3A	Open frame	Lead wire	A	G	H	S	12 VDC, 24 VDC, 48 VDC, 100 VDC
3I		HP terminal box (IP65 or equivalent) (G1/2)					12 VDC, 24 VDC, 100 VDC
3J		HP terminal box with lamp (IP65 or equivalent) (G1/2)					
5A	Open frame	Lead wire	A	G	H		100 VAC, 200 VAC
5I		HP terminal box (IP65 or equivalent) (G1/2)					
5J		HP terminal box with lamp (IP65 or equivalent) (G1/2)					

⚠ Refer to the following cautions for Items (E) to (I).

3A 5A		<ul style="list-style-type: none"> Open frame grommet lead wire 300 mm 5A (diode integrated)
3I 3J 5I 5J		<ul style="list-style-type: none"> Open frame HP terminal box (IP65 or equivalent) 5I, 5J (diode integrated)

G H		<ul style="list-style-type: none"> Conduit G(CTC19) H(G1/2)
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⚠ Precautions for model No. selection

*1: Orders for only the masking plate and sub-plate are also available. Contact CKD for details.

Notes for Item C

*2: For 11 or more manifold station No., contact CKD.

Notes for Item E

*3: Coils for 5A, 5I, 5J have a diode to convert AC to DC voltage.

Notes for Items G to H

*4: For Item G, select an option from G and H.

Refer to "General Purpose Valves" (Catalog No. CB-03-1SA) for details on coil selection.

*5: The surge suppressor is attached with the lead wire coil. When selecting a coil with a terminal box, the surge suppressor is mounted in the terminal box.

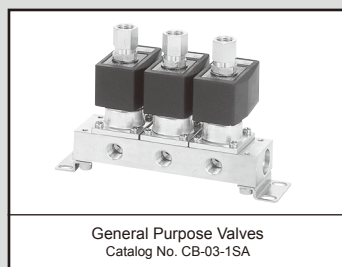
*6: Surge suppressor is incorporated as standard in the coil with diode.

Notes for Item I

*7: 100 VAC coil is compatible with 100 VAC 50/60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz.

*8: For voltages other than above, contact CKD.

*9: The lead wire is available in the standard 300 mm length, and 500 mm, 1000 mm, 2000 mm and 3000 mm lengths. Contact CKD for more information.



Direct acting 3-port solenoid valve for dry air, manifold/actuator (general purpose valve)

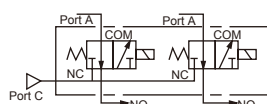
GAG33*/GAG43*-Z Series

- NC pressurization
- Common supply/individual exhaust



JIS symbol

- GAG33*/GAG43*-Z (common supply/individual exhaust)



Common specifications

Descriptions	Standard specifications
Working fluid	For dry air (atmospheric dew point -60°C and over)/inert gas/low vacuum [1.33×10^2 Pa (abs)]
Working pressure differential MPa	0 to 1 (refer to max. working pressure differential in individual specifications.)
Max. working pressure MPa	1
Proof pressure (water pressure) MPa	10
Fluid temperature °C	-10 to 45 (no freezing)
Ambient temperature °C	-10 to 45
Thermal class	Class 130 (B)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Direct acting poppet structure
Valve seat leakage cm ³ /min (ANR)	0.2 or less
Mounting orientation	Unrestricted

Individual specifications

Descriptions	NO port size	Orifice size (mm)		Max. working pressure differential (MPa)	Rated voltage	Power consumption (W)	
Model No.		TOP	BODY			AC50/60 Hz	DC
GAG331-1-Z	Rc1/8	1.5	1.5	1.0	100 VAC 50/60 Hz	17	14
-2-Z		2.0	2.0	0.7			
GAG332-1-Z	Rc1/4	1.5	1.5	1.0	200 VAC 50/60 Hz		
-2-Z		2.0	2.0	0.7			
GAG432-4-Z	Rc1/4	3.0	3.0	0.7	12 VDC 24 VDC 48 VDC 100 VDC		
-5-Z		3.5	3.0	0.4			
GAG433-4-Z	Rc3/8	3.0	3.0	0.7			
-5-Z		3.5	3.0	0.4			

*1: The model numbers above are for the basic NO port size (Rc) and orifice size. Refer to How to order for other combinations.

*2: For the sizes of ports A and C, refer to "How to order and Dimensions" ("General Purpose Valves" (Catalog No. CB-03-1SA)).

*3: The voltage fluctuation range must be $\pm 10\%$ of the rated voltage.

*4: The leakage current must be less than or equal to the values shown below.

*5: When using at low vacuum, vacuum the NO port side.

Leakage current	Voltage	100 VAC	200 VAC	12 VDC	24 VDC	48 VDC	100 VDC
	Model No.						
	GAG33*-*****Z	6 mA or less	3 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less
	GAG43*-*****Z	8 mA or less	4 mA or less	40 mA or less	20 mA or less	10 mA or less	5 mA or less

Compatibility table by variation

	GAG3/GAG4-Z
Classification	Direct acting 3-port valve for dry air
Body material	Stainless steel
P4	●
P40	●

*1: Body material Select from stainless steel products.

*2: Body material/Seal combination code M only.

*3: Pipe material is SUS316.

How to order

● Common supply/individual exhaust (port C pressurization)

GAG33 **1** **2** **6** **M** **5A** **A** **G** **S** **Z** **P4** **-AC100V**

GAG43

Model No.

A NO port size

B Orifice size

C Manifold station No.
*2

D Body/sealant combination

E Coil housing
F Manual override (locking)
G Other options
H With surge suppressor
I Rated voltage

Model No.	
GAG33*	GAG43*

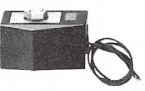

Code	Content		
A NO port size			
1	1/8	●	
2	1/4	●	●
3	3/8		●
B Orifice size			
	GAG33*		GAG43*
	TOP	BODY	TOP BODY
1	ø1.5	ø1.5	- -
2	ø2.0	ø2.0	- -
4	-	-	ø3.0 ø3.0
5	-	-	ø3.5 ø3.0
C Manifold station No.			
2	2		
to	to	●	●
10	10 stations		
0	Actuator only	●	●
D Body/sealant combination			
	Body	Seal	Treatment Remarks
M	Stainless steel	Fluoro rubber	Oil free —

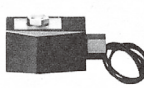
The combinations indicated with ● in the above table are available.

For Items (E) to (I), the combinations indicated with codes are available. Note that if options (F) to (H) are not required, they should be blank.

E Coil housing			F	G Other options		H	I Rated voltage
Content			Manual override (locking)	Conduit		With surge suppressor	Content
				(conduit piping)			
				CTC-19	G1/2		
3A	Open frame	Lead wire	A	G	H	S	12 VDC, 24 VDC, 48 VDC, 100 VDC
3I		HP terminal box (IP65 or equivalent) (G1/2)					
3J		HP terminal box with lamp (IP65 or equivalent) (G1/2)					12 VDC, 24 VDC, 100 VDC
5A	Open frame	Lead wire	A	G	H		100 VAC, 200 VAC
5I		HP terminal box (IP65 or equivalent) (G1/2)					
5J		(diode integrated) HP terminal box with lamp (IP65 or equivalent) (G1/2)					

⚠ Refer to the following cautions for Items (E) to (I).

3A 5A		<ul style="list-style-type: none"> Open frame grommet lead wire 300 mm 5A (diode integrated)
3I 3J 5I 5J		<ul style="list-style-type: none"> Open frame HP terminal box (IP65 or equivalent) 5I, 5J (diode integrated)

G H		<ul style="list-style-type: none"> Conduit G(CTC19) H(G1/2)
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Refer to "General Purpose Valves" (Catalog No. CB-03-1SA) for details on coil selection.

⚠ Precautions for model No. selection

*1: Orders for only the masking plate and sub-plate are also available. Contact CKD for details.

Notes for Item (C)

*2: For 11 or more manifold station No., contact CKD.

Notes for Item (E)

*3: Coils for 5A, 5I, 5J have a diode to convert AC to DC voltage.

Notes for Items (G) to (H)

*4: For Item (G), select an option from G and H.

*5: The surge suppressor is attached with the lead wire coil. When selecting a coil with a terminal box, the surge suppressor is mounted in the terminal box.

*6: Surge suppressor is incorporated as standard in the coil with diode.

Notes for Item (I)

*7: 100 VAC coil is compatible with 100 VAC 50/60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz.

*8: For voltages other than above, contact CKD.

*9: The lead wire is available in the standard 300 mm length, and 500 mm, 1000 mm, 2000 mm and 3000 mm lengths. Contact CKD for more information.