



Discrete direct acting 2 port solenoid valve
(general purpose valve)

AB31-AB41 Series ● NC (normally closed) type

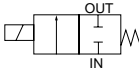
AB42 Series ● NO (normally open) type

● Port size: Rc1/8 to Rc1/2

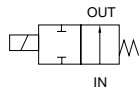


JIS symbol

● AB31/41: NC (normally closed) type



● AB42: NO (normally open) type



Common specifications

Item	Standard specifications		Optional specifications	
Working fluid	Air, low vacuum (1.33 x 10 ⁴ Pa (abs)), water, kerosene, oil (50 mm ² /s or less)		Hot water	Steam
Working pressure differential range MPa	0 to 5 (refer to max. working pressure differential in individual specifications.)			
Withstanding pressure (water) MPa	25			
Fluid temperature (Note 1) °C	-10 to 60		-10 to 90	-10 to 184
Ambient temperature °C	-20 to 60		-20 to 100	
Heat proof class	B		H	
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 (air)			300 or less (air)
Mounting attitude	Free			
Body, sealant	Brass, nitrile rubber		Brass, ethylene propylene diene rubber	Brass, PTFE

Note 1: No freezing

Individual specifications

Item Model no.	Port size	Orifice (mm)	Max. working pressure differential (MPa)								Max. working pressure (MPa)	Rated voltage	Apparent power (VA)				Power consumption (W)		Weight (kg)
			Air		Water, hot water, kerosene		Oil (50 mm ² /s)		Steam				Holding	Starting	AC	DC			
																	AC	DC	
NC (normally closed) type																			
AB31- ⁰¹ ₀₂₋₁ -2 -3 -4 -5 -6	Rc1/8 Rc1/4	1.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.0	5 5 (fluid; 1 for steam)	100 VAC 50/60 Hz	12	10	17	14	5.2/3.8	11 (8.1) ⁵	0.35
		2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.0									
		3.0	1.0	0.5	0.7	0.5	0.5	0.5	0.5	0.7									
		3.5	0.6	0.4	0.5	0.4	0.4	0.4	0.4	0.5									
		4.0	0.4	0.25	0.3	0.25	0.25	0.25	0.25	0.3									
		5.0	0.2	0.15	0.15	0.15	0.15	0.15	0.15	0.15									
AB41- ⁰² ₀₃₋₁ -2 -3 -4 -5 -6 -7	Rc1/4 Rc3/8	1.5	5.0	4.0	4.5	4.0	4.0	4.0	4.0	1.0	5 5 (fluid; 1 for steam)	110 VAC 60 Hz	18	15	29	24	6.7/5.7	11 (10.4) ⁵ (7) ⁷	0.43 (Rc1/4)
		2.0	3.0	2.5	2.7	2.5	2.5	2.5	1.0										
		3.0	1.5	0.9	1.3	0.9	0.9	0.9	1.0										
		3.5	1.2	0.6	0.9	0.6	0.6	0.6	0.9			200 VAC 50/60 Hz							0.45 (Rc3/8)
		4.0	1.0	0.5	0.7	0.5	0.5	0.5	0.7										
		5.0	0.6	0.25	0.4	0.25	0.25	0.25	0.4										
		7.0	0.25	0.1	0.2	0.1	0.15	0.1	0.2										
AB41- ⁰³ ₀₄₋₈ -8	Rc3/8 Rc1/2	10.0	0.1	0.05 (0.03) ⁸	0.1	0.05 (0.03) ⁸	0.05	0.05 (0.03) ⁸			12 VDC 24 VDC 48 VDC 100 VDC								0.54
NO (normally open) type																			
AB42- ⁰² ₀₃₋₁ -2 -3 -4 -5 -6 -7	Rc1/4 Rc3/8	1.5	2.0	2.0	2.0	2.0	2.0	2.0	1.0		2 5 (fluid; 1 for steam)	22	18	35	29	8.7/6.7	15.5 (14)	0.50 (Rc1/4) 0.52 (Rc3/8)	
		2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0										
		3.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7										
		3.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5										
		4.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4										
		5.0	0.25	0.25	0.25	0.25	0.25	0.25	0.25										
		7.0	0.15	0.15	0.15	0.15	0.15	0.15	0.15										

*1: The model numbers above show the basic port size (Rc) and orifice diameter. Refer to How to order for other combinations (e.g., for steam).

*2: The port size symbol is 01 for Rc1/8 (6A), 02 for Rc1/4 (8A), 03 for Rc3/8 (10A) and 04 for Rc1/2 (15A).

*3: Refer to DC column for the max. working pressure differential of coil with diode.

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

*5: Power consumption of coil housing 2E/2G/2H is indicated.

*6: When using with a low vacuum, vacuum the OUT port side.

*7: Power consumption of coil housing 6C/6E/6G/6H is indicated.

*8: The DC voltage of coil housing 2E/2G/2H and the max. working pressure differential of coil housing 6C/6G/6H are indicated.

Optional specifications (fluid temperature, ambient temperature, valve seat leakage)

Sealant material	Fluoro rubber		Ethylene propylene diene rubber		PTFE	
Coil (heat proof class)	B	H	B	H	B	H
Fluid temperature (Note 1) °C	-10 to 60	-10 to 90	-10 to 60	-10 to 90	-10 to 60	-10 to 184
Ambient temperature °C	-20 to 60	-20 to 100 (Note 2)	-20 to 60	-20 to 100 (Note 2)	-20 to 60	-20 to 100 (Note 2)
Valve seat leakage cm ³ /min. (ANR)	0.2 or less (air)				300 or less (air)	

Note 1: No freezing

Note 2: The range is -20 to 80°C when using the HP terminal box with indicator light for the coil housing.

Flow characteristics

Model no.	Port size	Orifice (mm)	Flow characteristics		
			C [dm ³ /(s·bar)]	b	Cv flow factor
NC (normally closed) type					
AB31-02-1	Rc1/8 Rc1/4	1.5	0.29	0.53	0.1
-2		2.0	0.53	0.52	0.15
-3		3.0	1.1	0.52	0.31
-4		3.5	1.7 (1.5)	0.49 (0.47)	0.42 (0.40)
-5		4.0	2.1 (1.9)	0.48 (0.47)	0.54 (0.48)
-6		5.0	3.0 (2.6)	0.42 (0.38)	0.8 (0.62)
AB41-02-1	Rc1/4 Rc3/8	1.5	0.29	0.53	0.1
-2		2.0	0.53	0.52	0.15
-3		3.0	1.1	0.52	0.31
-4		3.5	1.7 (1.5)	0.49 (0.47)	0.42 (0.40)
-5		4.0	2.1 (1.9)	0.48 (0.47)	0.54 (0.48)
-6		5.0	3.0 (2.6)	0.42 (0.38)	0.8 (0.62)
-7		7.0	4.8 (4.6)	0.29 (0.37)	1.0 (0.82)
AB41-03-8	Rc3/8 Rc1/2	10.0	9.3 (8.1)	0.36 (0.31)	1.88 (1.5)
NO (normally open) type					
AB42-02-1	Rc1/4 Rc3/8	1.5	0.29	0.53	0.1
-2		2.0	0.53	0.52	0.15
-3		3.0	1.1	0.52	0.31
-4		3.5	1.7 (1.5)	0.49 (0.47)	0.4
-5		4.0	2.1 (1.9)	0.48 (0.47)	0.47
-6		5.0	3.0 (2.6)	0.42 (0.38)	0.63 (0.62)
-7	7.0	4.8 (4.6)	0.29 (0.37)	1.0 (0.82)	

*1: Effective sectional area S and sonic conductance C are converted as $S = 5.0 \times C$.

*2: Values shown in () are for stainless steel body.

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
AD

APK/
ADK

For
dry air

Explosion
proof

HVB/
HVL

SAB/
SVB

NP/NAP/
NVP

CHB/G

MXB/G

Other G.P.
systems

PD/FAD/
PJ

CV/
CVSE

CPE/
CPD

Medical
analysis

Custom
order

General purpose valve

Direct acting 2 port solenoid valve

How to order

● NC (normally closed) type

AB31 - **02** - **3** - **0** **3A** **A** **B** **G** **S** - **AC100V**

AB41

Model no.

D Coil housing **G** Other options **J** Voltage
E Manual override (locking) **H** Surge suppressor
F Mounting plate **I** Copper and PTFE free

A Port size

B Orifice

C Body/sealant combination

*1
*2
*3
*4
*5
*6
*7

Model no.		AB31		AB41		AB41	
						Low pressure large flow rate	
Symbol	Descriptions	Symbol	Descriptions	Symbol	Descriptions		
A Port size							
01	Rc1/8	1G	G1/8	1N	1/8NPT	●	
02	Rc1/4	2G	G1/4	2N	1/4NPT	●	●
03	Rc3/8	3G	G3/8	3N	3/8NPT		●
04	Rc1/2	4G	G1/2	4N	1/2NPT		●

B Orifice							
1	ø1.5					●	●
2	ø2					●	●
3	ø3					●	●
4	ø3.5					●	●
5	ø4					●	●
6	ø5					●	●
7	ø7						●
8	ø10						

C Body/sealant combination							
	Blank	Body	Sealant	Treatment	Remarks		
*1	B	Brass or bronze	Nitrile rubber	-	Air, water, low vacuum, kerosene (up to 60°C)	●	●
	V		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)	●	●
	C		PTFE		Steam (up to 184°C *2)	●	●
	D		Fluoro rubber		Medium vacuum	●	●
*2	V	Stainless steel	Nitrile rubber	-	Air, water, low vacuum, kerosene (up to 60°C)	●	●
	E		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)	●	●
	F		PTFE		Steam (up to 184°C *2)	●	●
	W		Fluoro rubber		Medium vacuum	●	●
*3	H	Brass	Nitrile rubber	Oil free	Air, water, low vacuum, kerosene (up to 60°C)	●	●
	J		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)	●	●
	K		PTFE		Steam (up to 184°C *2)	●	●
	P		Ethylene propylene diene rubber		Hot water (up to 90°C *2)	●	●
*4	L	Stainless steel	Nitrile rubber	Oil free	Air, water, low vacuum, kerosene (up to 60°C)	●	●
	M		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)	●	●
	N		PTFE		Steam (up to 184°C *2)	●	●
	R		Ethylene propylene diene rubber		Hot water (up to 90°C *2)	●	●

Refer to page 36 in the Introduction for details on the material combinations.

D to **J**

Refer to the following page for details on the coil housing, other options and voltage, etc.

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

Note on model no. selection

Note on **C**

- *1: Leave blank for standard. However, to select options in **D** to **J**, indicate 0 for **C**.
- *2: When 4A, 4M or 4N is selected for **D**.
- *3: The body for the low pressure large flow rate AB41-**03**-8 is bronze (standard) or stainless steel (optional).
- *4: For option symbols V and W, vacuum is inspected at "leakage amount: 1.33 x 10⁻⁶ Pa·m³/s or less".
- *5: When **C** of the low pressure large flow rate AB41-**03**-8 is V or W, DC voltage is not available.
- *6: The ethylene propylene diene rubber seal combination (**C** P/R) cannot be used with air. (Compressed air contains oil, and ethylene propylene diene rubber is not oil-resistant.)
- *7: When **C** is C, F, K, P, N or R, the coil housings **D** 6C, 6E, 6G and 6H cannot be selected.

<Example 1 of model number>

AB31-02-3-AC100V

Model no.: AB31

- A** Port size: Rc1/4
B Orifice: ø3
C Body/sealant combination: Body - brass, sealant - nitrile rubber
D Coil housing: Grommet lead wire
E to **J**: Blank
J Rated voltage: 100 VAC 50/60Hz, 110 VAC 60Hz

<Example 2 of model number>

AB41-02-3-AC100V






Model no.: AB41


- A** Port size: Rc1/4
B Orifice: ø3
C Body/sealant combination: Body - brass, sealant - nitrile rubber
D Coil housing: Grommet lead wire
E Manual override (locking): Selected
F to **J**: Blank
I Surge suppressor: Selected
J Rated voltage: 100 VAC 50/60Hz, 110 VAC 60Hz

For ③ to ⑤, the combinations indicated with symbols can be manufactured.
Note that if options ⑥ to ① are not required, no symbol is indicated.

D		Coil housing		E	F	G Other options				H	I	J Rated voltage	
Descriptions				Manual override (locking)	Mounting plate	Cable gland		Conduit		Surge suppressor	Copper and PTFE line	Descriptions	
						(Marine cable gland)		(Conduit pipe)					
						A-15a	A-15b	A-15c	CTC19				G1/2
Blank	Std	Grommet lead wire		A	B				S	P6	100 VAC, 200 VAC		
2E		DIN terminal box (G1/2)									100 VAC, 200 VAC		
2G		DIN terminal box (Pg11)									12 VDC, 24 VDC, 48 VDC, 100 VDC		
2H		DIN terminal box + small light (Pg11)						H			100 VAC, 200 VAC, 24 VDC		
3A	Open frame type	Lead wire		A	B				G	H	S	P6	100 VAC, 200 VAC
3M		HP terminal box (G1/2)							12 VDC, 24 VDC, 48 VDC, 100 VDC				
3N		HP terminal box + light (G1/2)							100 VAC, 200 VAC, 12 VDC, 24 VDC, 100 VDC				
3I		HP terminal box (IP65 or equivalent) (G1/2)				D			E	F			100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC
3J		HP terminal box + light (IP65 or equivalent) (G1/2)							100 VAC, 200 VAC, 12 VDC, 24 VDC, 100 VDC				
4A	Option	Lead wire		A	B				G	H	S	P6	100 VAC, 200 VAC
4M		HP terminal box (G1/2)				D			E	F			
4N		HP terminal box + light (G1/2)											
5A	Open frame type (slide integrated)	Lead wire		A	B				G	H	P6	100 VAC, 200 VAC	
5M		HP terminal box (G1/2)											
5N		HP terminal box + light (G1/2)				D			E	F			
5I		HP terminal box (IP65 or equivalent) (G1/2)											
5J		HP terminal box + light (IP65 or equivalent) (G1/2)											
6C		Grommet lead wire 7W		A	B				S	P6	12 VDC, 24 VDC		
6E		DIN terminal box (G1/2) 7W											
6G		DIN terminal box (Pg11) 7W											
6H		DIN terminal box + small light (Pg11) 7W						H					

Refer to the following precautions for ③ to ⑤.

Blank 6C		● Grommet lead wire 300 mm
2E 2G 2H 6E 6G 6H		● DIN terminal box
3A 4A 5A		● Open frame type grommet lead wire 300 mm ● 4A (heat proof class H) ● 5A (diode integrated)
3M 3N 4M 4N 5M 5N		● Open frame HP terminal box ● 4M, 4N (heat proof class H) ● 5M, 5N (diode integrated)
3I 3J 5I 5J		● Open frame HP terminal box (IP65 or equivalent) ● 5I, 5J (diode integrated)

G H		● Conduit ● G (CTC19) ● H (G1/2)
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Note on model no. selection

Note on ①

- *8: Leave blank for the standard coil housing. However, to select options in ③ to ⑤, indicate 00 for ③.
- *9: 5A, 5M, 5N, 5I and 5J are coils for which AC power is converted to DC with a diode.
- *10: A DC coil for steam is available for AB41. Contact CKD for more information.
- *11: 6C, 6E, 6G or 6H can be selected for only AB41.
- *12: The coil housings 6C, 6E and 6G are 12 VDC and 24 VDC dedicated. 6H is 24 VDC dedicated.

Note on ③ to ⑤

- *13: The manual override (③ A) is not available for the low pressure large flow rate AB41-8.
- *14: When ③ is C, F, K, N, V or W, the manual override (③ A) is not available.
- *15: Select one among D, E, F, G and H for ③.
- *16: The surge suppressor is an accessory for the lead wire coil. When selecting a coil with terminal box, the surge suppressor is mounted in the terminal box.
- *17: As standard, the surge suppressor is incorporated in the coil with diode and the 24 VDC coil (③ 2H/6H), so the surge suppressor symbol S cannot be selected.
- *18: ③ P6 is available only when ③ is L, M or R.
- *19: Tropicalization (rust-proof coating) is available as a measure against rust. Contact CKD for more information.
Note that the tropicalization is not available when the manual override option A and the coil option 6C/6E/6G/6H are selected.

Note on ①

- *20: 100 VAC coil is compatible with 100 VAC 50/60 Hz and 110 VAC 60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz and 220 VAC 60 Hz. Note that the coils ③ 5A/5M/5N/5I/5J can be used only with 100 VAC 50/60 Hz or 200 VAC 50/60 Hz.
- *21: For voltages other than above, consult with CKD.
- *22: 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.

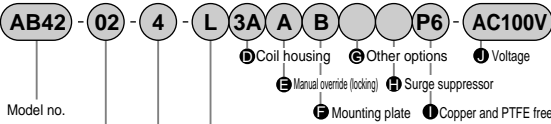
Refer to page 122 for coil selection.

HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/
AD
APK/
ADK
For
dry air
Explosion
proof
HVB/
HVL
SAB/
SVB
NP/NAP/
NVP
CHB/G
MXB/G
Other G.P.
systems
PD/FAD/
PJ
CVE/
CVSE
CPE/
CPD
Medical
analysis
Custom
order

General purpose valve
Direct acting 2 port solenoid valve

How to order

● NO (normally open) type



Symbol	Descriptions	Symbol	Descriptions	Symbol	Descriptions
A Port size					
02	Rc1/4	2G	G 1/4	2N	1/4NPT
03	Rc3/8	3G	G 3/8	3N	3/8NPT

B Orifice	
1	ø1.5
2	ø2
3	ø3
4	ø3.5
5	ø4
6	ø5
7	ø7

C Body/sealant combination				
	Body	Sealant	Treatment	Remarks
Blank	Brass	Nitrile rubber	-	Air, water, low vacuum, kerosene (up to 60°C)
B		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)
C		PTFE		Steam (up to 184°C *2)
V		Fluoro rubber	Vacuum inspection	Medium vacuum
D	Stainless steel	Nitrile rubber	-	Air, water, low vacuum, kerosene (up to 60°C)
E		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)
F		PTFE		Steam (up to 184°C *2)
W		Fluoro rubber	Vacuum inspection	Medium vacuum
H	Brass	Nitrile rubber	Oil free	Air, water, low vacuum, kerosene (up to 60°C)
J		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)
K		PTFE		Steam (up to 184°C *2)
P		Ethylene propylene diene rubber		Hot water (up to 90°C *2)
L	Stainless steel	Nitrile rubber	Oil free	Air, water, low vacuum, kerosene (up to 60°C)
M		Fluoro rubber		Air, low vacuum, kerosene (up to 90°C *2)
N		PTFE		Steam (up to 184°C *2)
R		Ethylene propylene diene rubber		Hot water (up to 90°C *2)

Refer to page 36 in the Introduction for details on the material combinations.

D to J
Refer to the following page for details on the coil housing, other options and voltage, etc.

<Example 1 of model number>

AB42-02-1-AC100V
Model no.: AB42

- A Port size: Rc1/4
B Orifice: ø1.5
C Body/sealant combination: Body - brass, sealant - nitrile rubber
D Coil housing: Grommet lead wire
E Manual override (locking): Blank
F Rated voltage: 100 VAC 50/60Hz, 110 VAC 60Hz

<Example 2 of model number>

AB42-03-6-000AS-AC100V
Model no.: AB42

- A Port size: Rc3/8
B Orifice: ø5
C Body/sealant combination: Body - brass, sealant - nitrile rubber
D Coil housing: Grommet lead wire
E Manual override (locking): Selected
F Surge suppressor: Blank
H Rated voltage: 100 VAC 50/60Hz, 110 VAC 60Hz

Note on model no. selection






Note on


- *1: Leave blank for standard. However, to select options in D to J, indicate 0 for C.
*2: When 4A, 4M or 4N is selected for D.
*3: For option symbols V and W, vacuum is inspected at "leakage amount: 1.33 x 10⁻⁶ Pa·m³/s or less".
*4: The ethylene propylene diene rubber seal combination (C P/R) cannot be used with air. (Compressed air contains oil, and ethylene propylene diene rubber is not oil-resistant.)

For ① to ④, the combinations indicated with symbols can be manufactured.
Note that if options ⑤ to ① are not required, no symbol is indicated.

D	Coil housing		E	F	G Other options				H	I	J Rated voltage		
Descriptions			Manual override (locking)	Mounting plate	Cable gland		Conduit		Surge suppressor	Copper and PTFE-free	Descriptions		
					(Marine cable gland)		(Conduit pipe)						
			A-15a	A-15b	A-15c	CTC19	G1/2						
Blank	Option	Grommet lead wire	A	B						S	P6	100 VAC, 200 VAC	
2E		DIN terminal box (G1/2)										100 VAC, 200 VAC	
2G		DIN terminal box (Pg11)										12 VDC, 24 VDC, 48 VDC, 100 VDC	
2H		DIN terminal box + small light (Pg11)										100 VAC, 200 VAC, 24 VDC	
3A		Open frame type	Lead wire				G	H	S	P6	100 VAC, 200 VAC		
3M			HP terminal box (G1/2)					12 VDC, 24 VDC, 48 VDC, 100 VDC					
3N			HP terminal box + light (G1/2)	D	E	F					100 VAC, 200 VAC, 12 VDC, 24 VDC, 100 VDC		
3I			HP terminal box (IP65 or equivalent) (G1/2)								100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC		
3J		Open frame type (heat proof class II)	HP terminal box + light (IP65 or equivalent) (G1/2)								100 VAC, 200 VAC, 12 VDC, 24 VDC, 100 VDC		
4A			Lead wire	A	B				G	H	S	P6	100 VAC, 200 VAC
4M			HP terminal box (G1/2)			D	E	F					
4N			HP terminal box + light (G1/2)										
5A		Open frame type (diode integrated)	Lead wire	A	B				G	H	S	P6	100 VAC, 200 VAC
5M			HP terminal box (G1/2)										
5N			HP terminal box + light (G1/2)			D	E	F					
5I	HP terminal box (IP65 or equivalent) (G1/2)												
5J		HP terminal box + light (IP65 or equivalent) (G1/2)											

⚠ Refer to the following precautions for ① to ④.

Blank		● Grommet lead wire 300 mm
2E 2G 2H		● DIN terminal box
3A 4A 5A		● Open frame type grommet lead wire 300 mm ● 4A (heat proof class H) ● 5A (diode integrated)
3M 3N 4M 4N 5M 5N		● Open frame HP terminal box ● 4M, 4N (heat proof class H) ● 5M, 5N (diode integrated)
3I 3J 5I 5J		● Open frame HP terminal box (IP65 or equivalent) ● 5I, 5J (diode integrated)

G H		● Conduit ● G (CTC19) ● H (G1/2)
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⚠ Note on model no. selection

Note on ①

- *5: Leave blank for the standard coil housing. However, to select options in ⑤ to ①, indicate 00 for ①.
- *6: 5A, 5M, 5N, 5I and 5J are coils for which AC power is converted to DC with a diode.

Note on ② to ①

- *7: When ② is C, F, K, N, V or M, the manual override (⑤ A) is not available.
- *8: Select one among D, E, F, G and H for ③.
- *9: The surge suppressor is an accessory for the lead wire coil. When selecting a coil with terminal box, the surge suppressor is mounted in the terminal box.
- *10: As standard, the surge suppressor is incorporated in the coil with diode and the 24 VDC coil (② 2H), so the surge suppressor symbol S cannot be selected.
- *11: ① P6 is available only when ② is L.
- *12: Tropicalization (rust-proof coating) is available as a measure against rust. Contact CKD for more information.
Note that the tropicalization is not available when the manual override option A is selected.

Note on ④

- *13: 100 VAC coil is compatible with 100 VAC 50/60 Hz and 110 VAC 60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz and 220 VAC 60 Hz. Note that the coils ④ 5A/5M/5N/5I/5J can be used only with 100 VAC 50/60 Hz or 200 VAC 50/60 Hz.
- *14: For voltages other than above, consult with CKD.
- *15: 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.

* Refer to page 122 for coil selection.

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
AD

APK/
ADK

For
dry air

Explosion
proof

HVB/
HVL

SAB/
SVB

NP/NAP/
NVP

CHB/G

MXB/G

Other G.P.
systems

PD/FAD/
PJ

CVE/
CVSE

CPE/
CPD

Medical
analysis

Custom
order

General purpose valve

Direct acting 2 port solenoid valve