

How to order

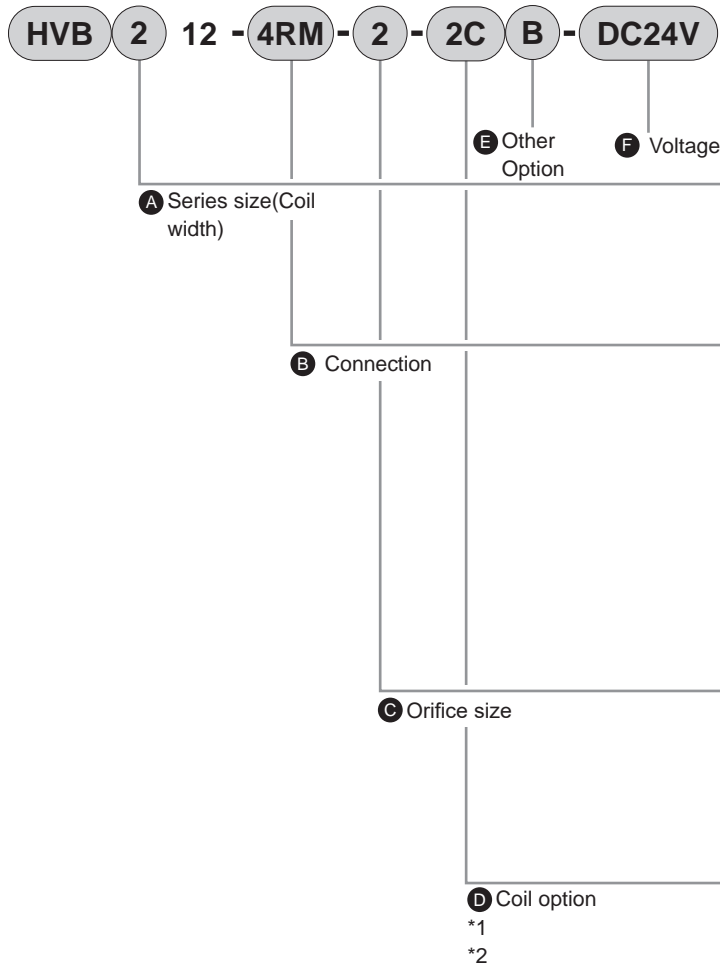


Table 1: Table of fitting and orifice size combination

				C Orifice size					
	B	Fitting	Size	Z	2	3	5	6	
HVB212	4RM	JXR male	1/4"	●	●				
	4S	Double barbed	1/4"	●	●				
	6N	NPT	1/8"	●	●				
	6	Rc	1/8"	●	●				
HVB312	4RM	JXR male	1/4"		●	●			
	4S	Double barbed	1/4"		●	●			
	6N	NPT	1/8"		●	●			
	8N	NPT	1/4"		●	●			
	6	Rc	1/8"		●	●			
	8	Rc	1/4"		●	●			
HVB412	4RM	JXR male	1/4"			●	●		
	6RM	JXR male	3/8"					●	
	4S	Double barbed	1/4"			●	●		
	6S	Double barbed	3/8"					●	
	8N	NPT	1/4"			●	●		
	10N	NPT	3/8"					●	
HVB512	8	Rc	1/4"			●	●		
	10	Rc	3/8"					●	
	4RM	JXR male	1/4"				●		
	6RM	JXR male	3/8"					●	
	4S	Double barbed	1/4"				●		
	6S	Double barbed	3/8"					●	
	8N	NPT	1/4"				●		
	10N	NPT	3/8"					●	
	8	Rc	1/4"				●		
	10	Rc	3/8"					●	

		Model No.					
		HVB212	HVB312	HVB412	HVB512		
Code	Description						
A Series size							
2	22 mm	●					
3	28 mm		●				
4	34 mm			●			
5	40 mm				●		
B Connection (refer to Table 1)							
4RM	1/4"JXR male fitting	●	●	●	●		
6RM	3/8"JXR male fitting			●	●		
4S	1/4"Double barbed fitting	●	●	●	●		
6S	3/8"Double barbed fitting			●	●		
6N	NPT 1/8	●	●				
8N	NPT 1/4		●	●	●		
10N	NPT 3/8			●	●		
6	Rc 1/8	●	●				
8	Rc 1/4		●	●	●		
10	Rc 3/8			●	●		
C Orifice size (refer to Table 1)							
Z	ø1	●					
2	ø2	●	●				
3	ø3		●	●			
5	ø4.5			●	●		
6	ø6			●	●		
D Coil option							
For AC							
2CR	Standard	Grommet lead wire/with full-wave rectifier		●	●	●	●
For DC							
2C	Standard	Grommet lead wire		●	●	●	●
2CS	Option	Grommet lead wire with surge suppressor		●	●	●	●
2G		With DIN terminal box (Pg11)		●	●	●	●
2HS		DIN terminal box with lamp With surge suppressor (Pg11)		●	●	●	●
E Other options							
Blank	Standard	No		●	●	●	●
B	Option	Mounting plate		●	●	●	●
F Voltage							
AC100V	100 VAC 50/60Hz		●	●	●	●	
AC200V	200 VAC 50/60Hz		●	●	●	●	
DC24V	24 VDC		●	●	●	●	
DC12V	12 VDC		●	●	●	●	

Select from the combinations indicated with ● above.

*1: Surge suppressors are built into the full-wave rectifier locations as standard.

*2: For HVB212 Item 2G/2HS, the compact terminal box (Pg9) is used.

P4 Series

Pneumatic actuator
Pneumatic cylinder
Hand/Chuck
Related products
Cylinder Switch

Vacuum components

Pneumatic valves
Clean air components

Pneumatic auxiliary components
Speed controller
Fitting
Auxiliary valve
Silencer
Tube

Gas generator

Fluid control components

Electric actuator
Motor specification
Motorless specifications



General Purpose Valves
Catalog No. CB-03-1SA

Solenoid valve for high vacuum

HVB⁶₇12 Series

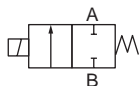
- NC (Open when energized)
- Port size: Flange ø48, ø52

P4 compliant
as standard

RoHS

JIS symbol

- NC (open when energized)



Specifications

Model No.		HVB612-12F			HVB712-15F			
Item		-8 B	-8H	-12 B	-12 B	-12H	-15 B	-15H
Working fluid		Vacuum and inert gas (*1)						
Working pressure PA(abs)		1.3 x 10 ⁻⁶ to 2.0 x 10 ⁻⁵	1.3 x 10 ⁻⁶ to 3.0 x 10 ⁻⁵	1.3 x 10 ⁻⁶ to 1.0 x 10 ⁻⁵	1.3 x 10 ⁻⁶ to 1.5 x 10 ⁻⁵	1.3 x 10 ⁻⁶ to 3.0 x 10 ⁻⁵	1.3 x 10 ⁻⁶ to 1.0 x 10 ⁻⁵	1.3 x 10 ⁻⁶ to 1.0 x 10 ⁻⁵
Max. working pressure differential (*7) MPa		0.2	0.3	0.1	0.15	0.3	0.1	0.1
Orifice size mm		8		12	12		15	
Cv	Straight	1.8		2.7	3.2		4.3	
	L direction	2.1		3.2	3.6		4.7	
Back pressure (*2) MPa		0.1		0.02	0.1		0.02	0.1
Valve seat leakage Pa·m ³ /s (He)		1.0 x 10 ⁻⁹ or less (*6)						
External leakage Pa·m ³ /s (He)		1.0 x 10 ⁻⁹ or less						
Proof pressure MPa		0.5						
Fluid temperature °C		5 to 55						
Ambient temperature °C		0 to 55						
Frequency cycles/min. or less		10						
Mounting orientation		Unrestricted						
Port size		ø48 flange			ø52 flange			
Weight kg		1.15			2.0			
Electrical specifications								
Rated voltage		100/200 VAC (50/60Hz), 24 VDC						
Voltage fluctuation range		Rated voltage ±10%						
Power consumption W		14.3	28	14.3	19	AC: 32.5 DC: 40	19	AC: 32.5 DC: 40
Thermal class		B	H	B	B	H	B	H
Temperature rise K		75	125	75	75	125	75	125

*1: The number of durability times may become much lower depending on the degree of dryness.

*2: Atmospheric pressure at port B that can be applied from port A. (Reverse vacuum is not possible with HVB612-12F-12B and HVB712-15F-15B.)

*3: Grease for high vacuum is used on the O-rings of gas contacting parts.

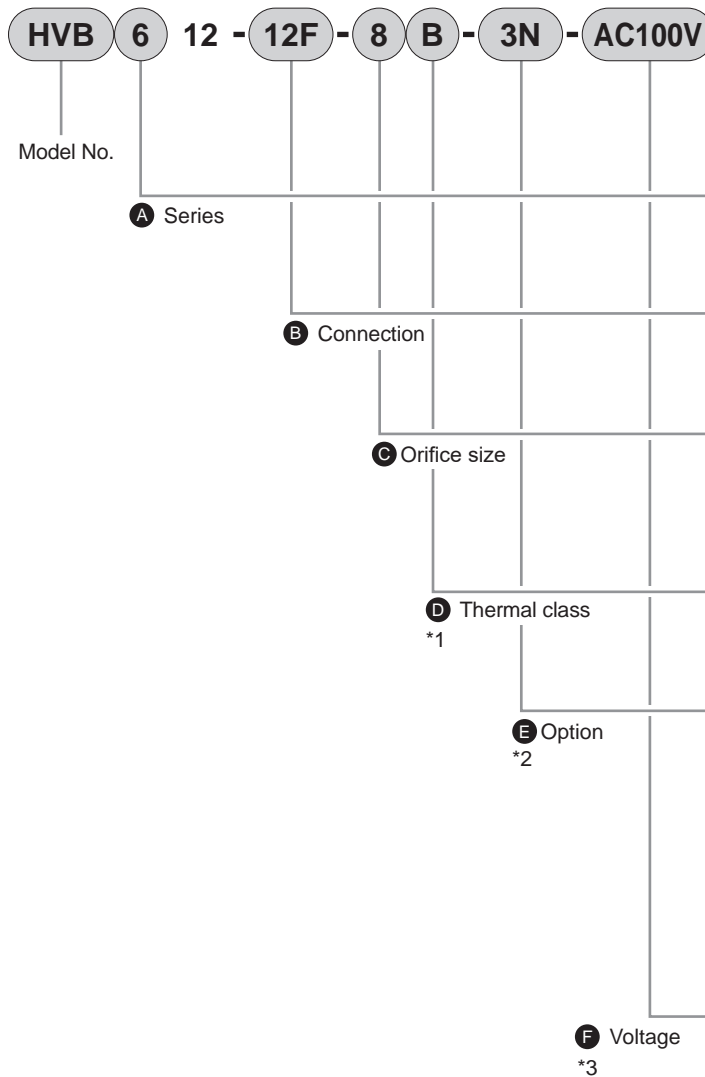
*4: The working pressure vacuum does not guarantee the vacuum attainment time or that the vacuum will not change.

*5: FKM is used for sealant material, so consider the generation of discharge gas during use.

*6: Value when port A is on the vacuum side.

*7: The max. working pressure differential is the difference between port B (high-pressure side) and port A (low-pressure side).

How to order



Code	Description	HVB612	HVB712
A Series size			
6	60 mm	●	
7	70 mm		●
B Connection			
12F	Flange ø48	●	
15F	Flange ø52		●
C Orifice size			
8	ø8	●	
12	ø 12	●	●
15	ø 15		●
D Thermal class			
B	Class 130 (B)	●	●
H	Class 180 (H)	●	●
E Option			
Blank	No	●	●
3M	HP terminal box G1/2	●	●
3 N	HP terminal box with lamp G 1/2	●	●
F	With companion flange	●	●
3MF	HP terminal box G1/2 + companion flange	●	●
3NF	HP terminal box with lamp G 1/2 + Companion flange	●	●
F Voltage			
AC100V	100 VAC (50/60 Hz) With full-wave rectifier	●	●
AC200V	200 VAC (50/60 Hz) With full-wave rectifier	●	●
DC24V	24 VDC	●	●

⚠ Precautions for model No. selection

*1: For Item **D** H, HVB612 with orifice size ø12 is not available.

*2: For 3M/3N/3MF/3NF of Item **E** with H selected for Item **D**, AC voltage type is not available.

*3: Surge suppressor is included as standard in the models with full-wave rectifier.

P4
Series

Pneumatic actuator
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Hand/Chuck
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Switch

Vacuum components

Pneumatic valves

Pneumatic auxiliary components
Clean air components
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Silencer
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