



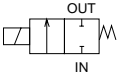
Large bore size direct acting 2 port solenoid valve
(general purpose valve)

AB71 Series

- NC (normally closed) type
- Port size: Rc1/2, Rc3/4, Rc1



JIS symbol



Specifications

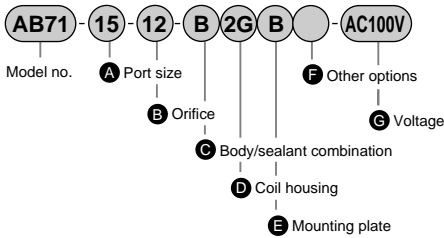
Item	AB71-15-12	AB71-20-15	AB71-25-18
Working fluid	Air, water, kerosene, oil (20 mm ² /s)		
Working pressure range	Air AC: 0 to 100, DC: 0 to 80 Water, kerosene, oil kPa AC: 0 to 80, DC: 0 to 80	AC: 0 to 70, DC: 0 to 40 AC: 0 to 50, DC: 0 to 40	AC: 0 to 40, DC: 0 to 30 AC: 0 to 30, DC: 0 to 30
Withstanding pressure (water) MPa	1		
Fluid viscosity mm ² /s	20 or less		
Fluid temperature °C	-5 to 60 (no freezing)		
Ambient temperature °C	-10 to 60		
Valve seat leakage cm ³ /min. (ANR)	0.2 or less (air)		
Port size	Rc1/2	Rc3/4	Rc1
Orifice mm	12	15	18
Mounting attitude	Limited to vertical position with coil facing upward to horizontal position		
Electric specifications			
Rated voltage	100 VAC 50/60 Hz, 200 VAC 50/60 Hz, 110 VAC 60 Hz, 220 VAC 60 Hz, 12 VDC, 24 VDC, 48 VDC, 100 VDC		
Apparent power VA	Holding (50/60 Hz)	32/26	
Starting (50/60 Hz)	123/106		
Power consumption W	AC: 13/11 (50/60 Hz), DC: 20		

Flow characteristics

Model no.	Port size	Orifice (mm)	Flow characteristics			
			C [dm ³ /(s·bar)]	b	Cv flow factor	S (mm ²)
AB71-15-12	Rc1/2	12	15	0.21	2.8	-
AB71-20-15	Rc3/4	15	-	-	4.3	106
AB71-25-18	Rc1	18	-	-	6.3	148

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

How to order



Symbol	Descriptions			
A	Port size			
15	Rc1/2			
20	Rc3/4			
25	Rc1			
B	Orifice			
12	ø12 (only AB71-15 (port size Rc1/2))			
15	ø15 (only AB71-20 (port size Rc3/4))			
18	ø18 (only AB71-25 (port size Rc1))			
C	Body/sealant combination			
	Body	Stuffing	Sealant	Treatment
B	Bronze	Brass	Fluoro rubber	D
J	Bronze	Brass	Fluoro rubber	Oil free

<Example of model number>

AB71-15-12-B2GB-AC100V
Model no.: AB71

- A** Port size: Rc1/2
- B** Orifice: ø12
- C** Body/sealant combination: Body - bronze, stuffing - brass, sealant - fluoro rubber
- D** Coil housing: DIN terminal box (G1/2)
- E** Mounting plate: Selected
- F** Other options: Blank
- G** Rated voltage: 100 VAC 50/60Hz, 110 VAC 60Hz

D Coil housing			E Mounting plate	F Other options			G Rated voltage					
Descriptions			Mounting plate	Cable gland (Marine cable gland)			Conduit (Conduit pipe)					
				A-15a	A-15b	A-15c	CTC19	G1/2	Descriptions			
2C	Std.	Grommet lead wire	B							100 VAC, 200 VAC		
2E	Option	DIN terminal box (G1/2)										
2G		DIN terminal box (Pg11)										
2H		DIN terminal box + small light (Pg11)										
3A	Open frame type	Lead wire	B				G H			100 VAC, 200 VAC		
3M		HP terminal box (G1/2)		D E F						12 VDC, 24 VDC, 48 VDC, 100 VDC		
3N		HP terminal box + light (G1/2)								100 VAC, 200 VAC, 24 VDC, 100 VDC		
5A	Open frame type (diode integrated)	Lead wire	B				G H			100 VAC, 200 VAC		
5M		HP terminal box (G1/2)		D E F								
5N		HP terminal box + light (G1/2)										

For **D** to **G**, the combinations indicated with symbols can be manufactured.
Note that if options **E** and **F** are not required, no symbol is indicated.

⚠ Note on model no. selection

Note on **C**

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

Note on **D**

- *2: Refer to page 4 for coil selection.
- *3: 5A, 5M and 5N are coils for which AC power is converted to DC with a diode.
- *4: When working fluid is air, type 5A is recommended.
- *5: Contact CKD for details on the heat proof class H coil.

Note on **F**

*6: Select one among D, E, F, G and H for **F**.

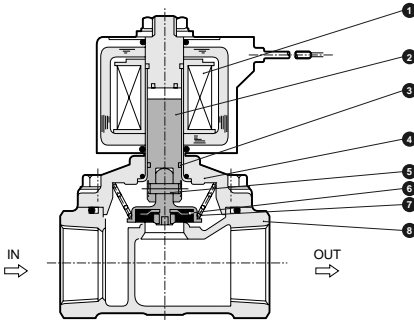
Note on **G**

- *7: 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 **D** 5A/5K/5H can be used only with 100 VAC 50/60 Hz or 200 VAC 50/60 Hz.
- *8: For voltages other than above, consult with CKD.
- *9: Lead wire length is 300 mm. Additional lengths are available in 500 mm increments. Contact CKD for details.

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/E/ CVSE
CPE/CPD
Medical analysis
Custom order

General purpose valve
Discrete direct acting 2 port solenoid valve

Internal structure and parts list



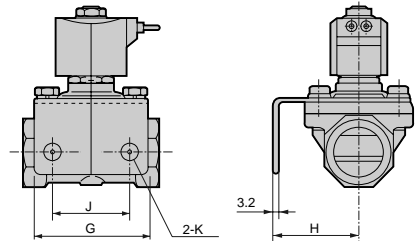
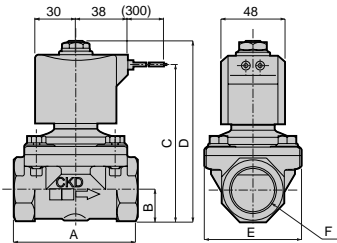
No.	Parts name	Material	
1	Coil	—	—
2	Plunger	SUS405	Stainless steel
3	Wear ring	PTFE	Tetrafluoroethylene resin
4	Stuffing assembly (Core assembly)	C3771	Brass
		SUS405, Cu	Stainless steel, copper
5	Spring pin	SUS420	Stainless steel
6	Main valve	SUS304, FKM	Stainless steel, fluoro rubber
7	Main valve spring	SUS304	Stainless steel
8	Body	CAC407	Bronze

Dimensions



- Grommet lead wire type
AB71-**-**2C

- Mounting plate
AB71-**-**B



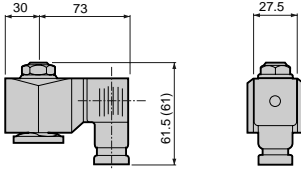
Model no.	A	B	C	D	E	F	G	H	J	K
AB71-15-12	71	14.5	95	110.5	50	Rc1/2	56	45	40	ø9
AB71-20-15	80	17.5	101	116	60	Rc3/4	63	50	45	ø9
AB71-25-18	90	22.5	111	126	71	Rc1	75	56	50	ø11

Optional dimensions



● DIN terminal box

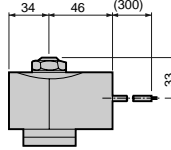
AB71-**-**2
E
G
H



Dimensions shown in () are for G1/2.

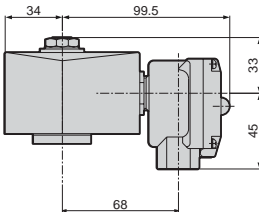
● Open frame lead wire type

AB71-**-**3
3A
5A



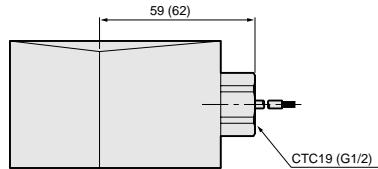
● Open frame type + HP terminal box

AB71-**-**3
3 M
5 N



● Open frame type + conduit

AB71-**-**3
3A G
5A H



Dimensions shown in () are for G1/2.

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

CVB/
CVSE

CPE/
CPD

Medical
analysis

Custom
order

General purpose valve

Discrete direct acting 2 port solenoid valve