

# Discontinue

2-port direct acting solenoid valve for clean blow  
(Just fit valve)

## FVB-P90 Series

Custom order product



- NC (normally closed)
- Port size: Rc1/8, Rc1/4, Rc3/8

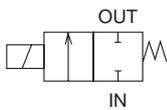


### Structure and material restriction

	Structure		Material restriction		Model No.
P9 Series	Low particle generation	Oil-prohibited	Copper-based materials prohibited (wetted parts)	Stainless steel material used (wetted parts)	<b>P90</b>

### JIS symbol

- Normally closed



### Common specifications

Descriptions	FVB
Working fluid	Air/inert gas/low vacuum ( $1.3 \times 10^{-2}$ Pa (abs))
Proof pressure (water pressure) MPa	5 (3 for $\phi 7$ orifice)
Fluid temperature °C	-10 to 40 (no freezing)
Ambient temperature °C	-20 (4°F) to 40
Thermal class	Class 130 (B)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Direct acting poppet structure
Valve seat leakage Pa·m <sup>3</sup> /sHe	$1.33 \times 10^{-6}$ or less
Mounting orientation	Free

### Model specifications

Descriptions Model No.	Port size	Orifice size (mm)	Flow characteristics		Working pressure Pa (abs)	Max. operating pressure differential (*6) (MPa)	Rated voltage	Power consumption (W)		Weight (kg)
			C [dm <sup>3</sup> /(s·bar)]	b				AC	DC	
NC (normally closed)										
FVB21-6-Z-L2CR-P90 -2-L2CR-P90	Rc1/8	1	0.14	0.49	$1.3 \times 10^{-2}$ to $1 \times 10^6$	1	100 VAC 50/60 Hz	4.3	4	0.16
		2	0.55	0.56	$1.3 \times 10^{-2}$ to $0.3 \times 10^6$	0.3		6.5	6	
FVB31- <sup>6</sup> / <sub>8</sub> -3-L2CR-P90 -5-L2CR-P90	Rc1/8	3	1.2	0.57	$1.3 \times 10^{-2}$ to $0.4 \times 10^6$	0.4	200 VAC 50/60 Hz	8.3	8	0.50
	Rc1/4	4	2.2	0.50	$1.3 \times 10^{-2}$ to $0.15 \times 10^6$	0.15				
FVB41- <sup>8</sup> / <sub>10</sub> -5-L2CR-P90 -6-L2CR-P90	Rc1/4	4	2.2	0.50	$1.3 \times 10^{-2}$ to $0.3 \times 10^6$	0.3	24 VDC 12 VDC	11.8	11.5	0.69
	Rc3/8	5	3.2	0.50	$1.3 \times 10^{-2}$ to $0.12 \times 10^6$	0.1				
FVB51- <sup>6</sup> / <sub>10</sub> -5-L2CR-P90 -6-L2CR-P90 -7-L2CR-P90	Rc1/4	4	2.2	0.50	$1.3 \times 10^{-2}$ to $0.5 \times 10^6$	0.5	24 VDC 12 VDC	11.8	11.5	0.69
	Rc3/8	5	3.2	0.50	$1.3 \times 10^{-2}$ to $0.3 \times 10^6$	0.3				
		7	5.2	0.38	$1.3 \times 10^{-2}$ to $0.15 \times 10^6$	0.15				

\*1: The voltage fluctuation range must be within  $\pm 10\%$  of the rated voltage.

\*2: The leakage current must be less than the values shown below.

\*3: 8.6 (W) for 12 VDC.

\*4: Effective cross-sectional area S and sonic conductance C are converted as  $S \cong 5.0 \times C$ .

\*5: When using in vacuum, vacuum the OUT port side.

\*6: The max. operating pressure differential is pressure difference between IN port (high-pressure side) and OUT port (low-pressure side).

\*7: The working pressure vacuum does not guarantee the vacuum attainment time or that the vacuum will not change.

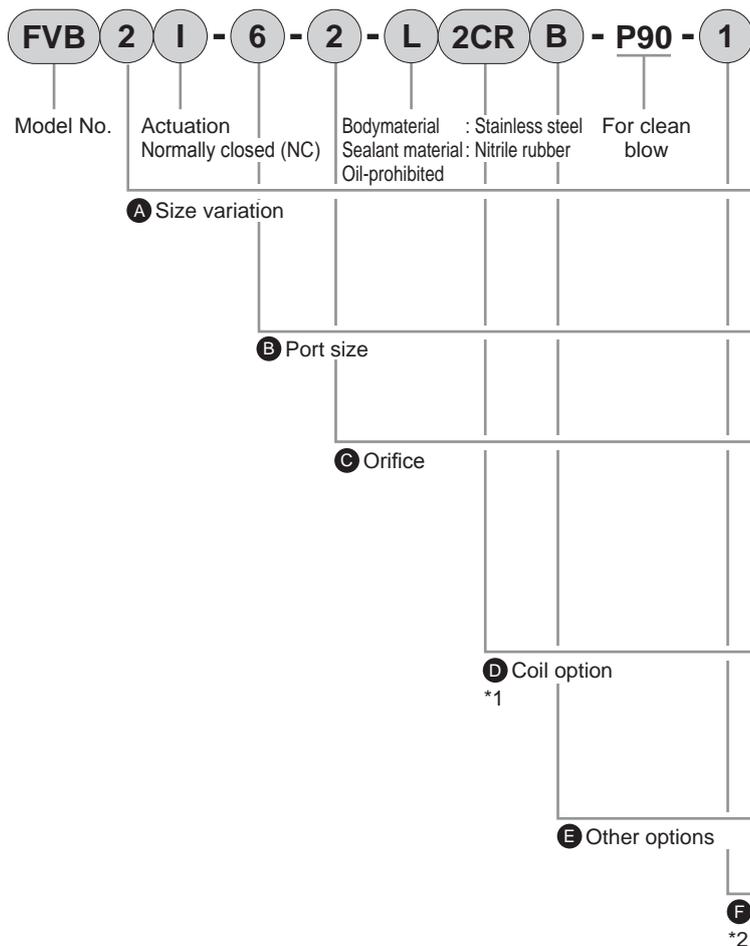
\*8: Model number displays that for AC voltage.

For other voltages other than above, refer to coil options (exhibit).

Also, coil is all wave rectifier for AC voltage.

Leakage current	Voltage	100 VAC	200 VAC	24 VDC	12 VDC
	Model No.				
FVB		2 mA or less	1 mA or less	1 mA or less	2 mA or less

### How to order



		Model No.			
		FVB21	FVB31	FVB41	FVB51
Code	Content				
<b>A</b> Size variation	2 22 mm	●			
	3 28 mm		●		
	4 34 mm			●	
	5 40 mm				●
<b>B</b> Port size	6 Rc1/8	●	●		
	8 Rc1/4		●	●	●
	10 Rc3/8			●	●
<b>C</b> Orifice	Z ø1	●			
	2 ø2	●			
	3 ø3		●		
	5 ø4		●	●	●
	6 ø5			●	●
	7 ø7				●
	<b>D</b> Coil option	<b>For AC</b>			
2CR		Grommet lead wire with all wave rectifier	●	●	●
<b>For DC</b>					
2C	Grommet lead wire	●	●	●	
<b>E</b> Other options	Blank	Standard None	●	●	●
	B	Option Mounting plate	●	●	●
<b>F</b> Voltage	1	100 VAC 50/60 Hz	●	●	●
	2	200 VAC 50/60 Hz	●	●	●
	3	24 VDC	●	●	●
	4	12 VDC	●	●	●

[Example of model No.]

### FVB21-6-Z-L2CRB-P90-1

Model: FVB

- A** Size variation : 22 mm
- B** Port size : Rc1/8
- C** Orifice : ø1
- D** Coil option : Grommet lead wire with all wave rectifier
- E** Other options : Mounting plate
- F** Voltage : 100 VAC 50/60 Hz

\*1: Coils for 2CR have a diode to convert AC to DC power supply.

\*2: For voltages other than above, contact CKD.

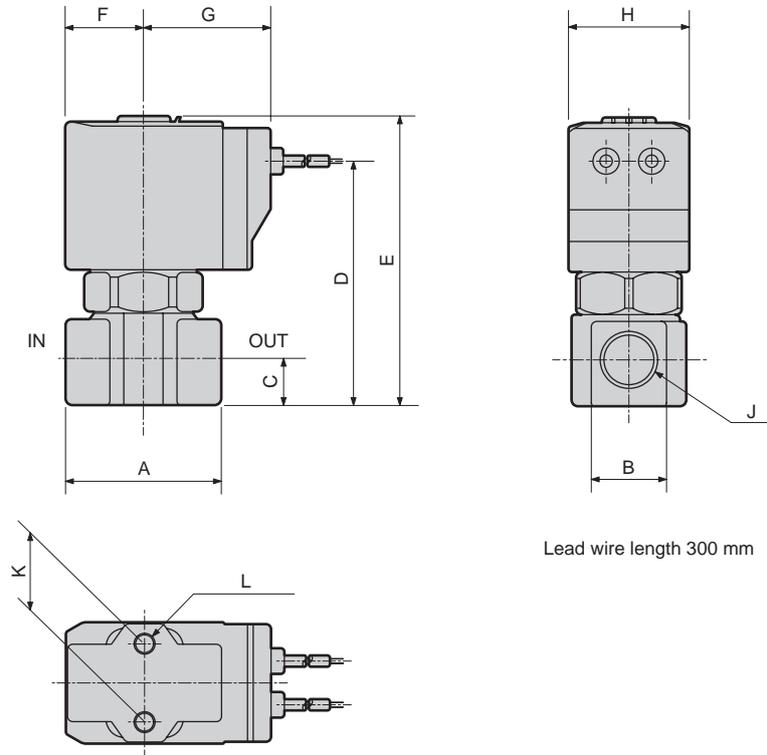
• Select from the combinations indicated with ● above.  
 • Contact CKD for details for manifold.

SCPD3
SCM
SSD2
MDC2
SMG
LCM
LCR
LCG
LCX
STM
STG
STR2
MRL2
GRC
Cylinder Switch
MN3E MN4E
4GA/B
M4GA/B
MN4GA/B
F.R.(module unit)
Clean F.R
Precision R
Press gauge Diff. press gauge
Electro-pneumatic R
Speed controller
Auxiliary valve
Fitting/tube
Clean air unit
Pressure sensor
Flow rate sensor
Valve for air blow
Ending

## FVB-P90 Series

### Dimensions

- Grommet lead wire with all wave rectifier  
FVB\*1-□-□-L2CR-P90

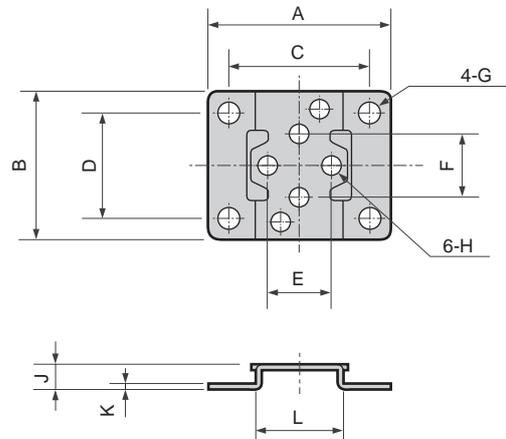
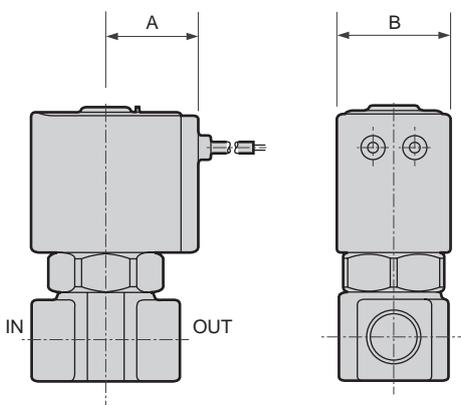


Model No.	A	B	C	D	E	F	G	H	J	K	L
<b>FVB21-P90</b>	32	14	8	45.5	56	15.5	26.5	22	Rc1/8	15	M4 depth 6
<b>FVB31-P90</b>	36	18	11	57.5	68.5	18.5	29.5	28	Rc1/8, Rc1/4	18	M5 depth 6
<b>FVB41-P90</b>	40	21	12	67	81	22.5	34	34	Rc1/4, Rc3/8	18	M5 depth 8
<b>FVB51-P90</b>	40	21	12	73.5	89	26	37.5	40	Rc1/4, Rc3/8	18	M5 depth 8

Option dimensions (refer to the dimensions of grommet lead wire with all wave rectifier for common dimensions.)

- Grommet lead wire  
FVB\*1-□-□-L2C-P90

- Mounting plate  
FVB\*1-□-□-L\*\*B-P90



Model No.	A	B
<b>FVB21-P90</b>	19.5	22
<b>FVB31-P90</b>	22.5	28
<b>FVB41-P90</b>	26	34
<b>FVB51-P90</b>	29.5	40

Model No.	A	B	C	D	E	F	G	H	J	K	L
<b>FVB21-P90</b>	40	34	30	25	15	15	ø5	ø4.5	6	1.2	20
<b>FVB31-P90</b>	52	42	40	30	18	18	ø6	ø5.5	7	1.6	25
<b>FVB41-P90</b>	56	48	44	36	18	18	ø6	ø5.5	7	1.6	30
<b>FVB51-P90</b>											