



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

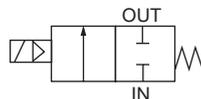
Pilot kick 2-port solenoid valve  
(general purpose valve)

# APK21-FP1 Series

- NC (normally closed)
- Port size: Rc1<sup>1</sup>/<sub>4</sub>- Rc2, 32 to 50 flange
- Piston drive



## JIS symbol

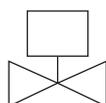


## Common specifications

Item	Specifications
Working fluid	Steam
Working pressure differential MPa	0 to 0.7
Max. working pressure MPa	1
Proof pressure (water pressure) MPa	3.2
Fluid temperature °C	5 to 180
Ambient temperature °C	-10 to 60
Thermal class	Class 180 (H)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Pilot kick poppet, piston drive
Valve seat leakage (*), cm <sup>3</sup> /min (ANR)	800 or less (air)
Mounting orientation	Limited to vertical orientation with the coil on top

\* Value at pneumatic pressure 0.05 to 0.7MPa. When used at a pressure less than 0.05 MPa, the sealant may be unstable. Contact CKD in this case.

## Mounting orientation



## Individual specifications

Item Model No.	Port size	Orifice size (mm)	Min. working pressure differential (MPa)	Max. working pressure differential (MPa)	Rated voltage	Apparent power (VA)				Power consumption (W) 50/60Hz	Weight (kg)
						When holding		When starting			
						50Hz	60Hz	50Hz	60Hz		
APK21-32A	Rc1 <sup>1</sup> / <sub>4</sub>	35	0	0.7	100 VAC 50/60Hz	64	69	274	289	44/48	4.5
APK21-32F	32 flange										8
APK21-40A	Rc1 <sup>1</sup> / <sub>2</sub>	43									200 VAC 50/60Hz
APK21-40F	40 flange				9						
APK21-50A	Rc2	53			200 VAC 50/60Hz	64	69	274	289	44/48	
APK21-50F	50 flange										11.5

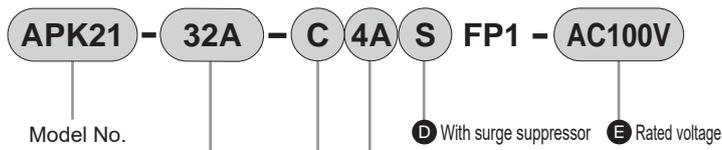
\*1: The model numbers above are for the basic port size. Refer to How to order for other combinations.

\*2: The voltage fluctuation range must be within ±10% of the rated voltage.

## Flow characteristics

Model No.	Port size	Orifice size (mm)	Cv	Effective cross-sectional area (mm <sup>2</sup> )
APK21-32A	Rc1 <sup>1</sup> / <sub>4</sub>	35	25	460
APK21-32F	32 flange			
APK21-40A	Rc1 <sup>1</sup> / <sub>2</sub>	43	34	625
APK21-40F	40 flange			
APK21-50A	Rc 2	53	53	975
APK21-50F	50 flange			

### How to order



Code	Description
<b>Ⓐ Port size</b>	
32A	Rc1 <sup>1</sup> / <sub>4</sub>
32F	32 flange
40A	Rc1 <sup>1</sup> / <sub>2</sub>
40F	40 flange
50A	Rc2
50F	50 flange

<b>Ⓑ Body/sealant combination</b>				
		Body	Valve seal	O-ring
C	Standard	Copper alloy	PTFE	Fluoro rubber
F	Option	Stainless steel		

**Ⓒ to Ⓔ**

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

[Example of model No.]

**APK21-32F-C4A-FP1-AC100V**

Model: APK21

- Ⓐ Port size : 32 flange
- Ⓑ Body/sealant combination : Body - copper alloy, valve seal - PTFE  
O-ring - fluoro rubber
- Ⓒ Coil housing : Open frame lead wire
- Ⓓ : None
- Ⓔ Rated voltage : 100 VAC

### ⚠ Precautions for model No. selection

\*1: The companion flange is JIS B2210 10K. (Flange is not attached with the product and must be purchased separately.)

For Items Ⓒ to Ⓔ, the combinations indicated with codes are available.

Note that if an option for Item Ⓓ is not required, this item should be left blank.

<b>Ⓒ Coil housing</b>			<b>Ⓓ</b>	<b>Ⓔ Rated voltage</b>
Description			With surge suppressor	Description
4A	Standard	Open	S	100 VAC, 200 VAC
4M	Option	Frame type (Thermal class 180 (H))		
4N		HP terminal box with lamp (G1/2)		

⚠ Ⓓ Refer to the following cautions for Item D.

### ⚠ Precautions for model No. selection

Ⓓ Notes for Item

\*2: A surge suppressor is attached, if applicable.

For dimensions, refer to the APK21 Series in "General Purpose Valves (CB-03-1SA)".

Electric actuator  
 Pneumatic cylinders  
 Assistive device  
 Pneumatic valves  
 FRL/Auxiliary Components  
 Electronic Component  
 Vacuum components  
 Main line components  
 Fluid control valves  
 Main line components  
 Anti-bacterial/bacteria-removing filter  
 Vacuum components  
 Fluid control valves