



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

APK11 Series

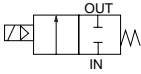
- NC (normally closed) type
- Port size: Rc1/4 to Rc1
- Piston structure



Refer to Ending 17 for more details.



JIS symbol



Common specifications

Descriptions	Standard specifications	Optional specifications
Working fluid	Air, low vacuum (1.33 x 10 ⁵ Pa (abs)), water, kerosene, oil (20 mm ² /s or less)	Steam
Working pressure differential range MPa	0 to 1.0 (Refer to max. working pressure differential on individual specifications.)	
Max. working pressure MPa	2	1
Withstanding pressure (water) MPa	4	
Fluid temperature °C	-10 to 60 (Note 1)	5 to 180
Ambient temperature °C	-10 to 60	
Heat proof class	B	H
Atmosphere	Place free of corrosive gas and explosive gas	
Valve structure	Pilot kick type poppet, piston structure	
Valve seat leakage (Note 2) cm ³ /min. (ANR)	0.2 or less (air)	400 or less (air)
Mounting attitude	Limited to range between vertical installation with coil facing up and horizontal installation. (Note 3)	
Body/sealant	Bronze, nitrile rubber	Bronze, PTFE

Note 1: No freezing

Note 2: This applies at a pneumatic pressure between 0.05 and 1.0 MPa. When using at a pressure less than 0.05 MPa, the sealant may be unstable. Consult with CKD in this case.

Note 3: If working pressure is less than 0.05 MPa, installation is limited to vertical.

Individual specifications

Model no. Descriptions	Port size	Orifice (mm)	Min. working pressure diff. (MPa)	Max. working pressure diff. (MPa)								Rated voltage	Apparent power (VA)				Power consumption (W)		Mass (kg)
				Air		Water, kerosene		Oil (20 mm ² /s)		Steam			Holding		Starting		AC	DC	
				AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	50/60Hz	DC
APK11-8A	Rc1/4	12	0	1	0.7	0.7	0.7	0.6	0.6	100 VAC 50/60Hz 110 VAC 60Hz 200 VAC 50/60Hz 220 VAC 60Hz 12 VDC 24 VDC 48 VDC 100 VDC	24	19	61	54	10/8	14	0.7	0.7	
APK11-10A	Rc3/8	12																	
APK11-15A	Rc1/2	16																	
APK11-20A	Rc3/4	23																	
APK11-25A	Rc1	28																	32

*1: The types above apply up to the basic port size (Rc). Refer to How to order for other combinations.

*2: Keep the voltage fluctuation to within ±10% of the rated voltage.

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

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

Optional specifications

Sealant	Fluoro rubber		PTFE	
	B	H	B	H
Coil (heat proof class)	B	H	B	H
Fluid temperature °C	5 to 60	5 to 90	-10 to 60 (Note 1)	5 to 180
Ambient temperature °C	-10 to 60			
Valve seat leakage (Note 2) cm ³ /min. (ANR)	0.2 or less (air)		400 or less (air)	

Note 1: No freezing

Note 2: This applies at a pneumatic pressure between 0.05 and 1.0 MPa.

When using at a pressure less than 0.05 MPa, the sealant may be unstable.
Consult with CKD in this case.

Flow characteristics

Model no.	Port size	Orifice (mm)	Flow characteristics			
			C[dm ³ /(s·bar)]	b	Cv flow factor	S (mm ²)
APK11-8A	Rc 1/4	12	9.4	0.41	2.2	-
APK11-10A	Rc 3/8	12	15	0.37	2.7	-
APK11-15A	Rc 1/2	16	20	0.31	4.5	-
APK11-20A	Rc 3/4	23	-	-	8.6	162
APK11-25A	Rc 1	28	-	-	12	231

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

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/
ADKFor
dry airExplosion
proofHVB/
HVLSAB/
SVBNP/NAP/
NVP

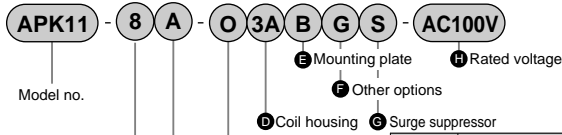
CHB/G

MXB/G

Other G.P.
systemsPD/FAD/
PJCVE/
CVSECPE/
CPDMedical
analysisCustom
order

General purpose valve
Pilot kick type 2 port solenoid valve

How to order



Symbol	Descriptions
A Port size	
8	1 / 4
10	3 / 8
15	1 / 2
20	3 / 4
25	1

B Type of screw	
A	Rc
G	G
N	NPT

C Body, sealant combination						
	Body	Valve sealant	O ring	Treat	Remarks	
Option	Stainless steel	O Std	Nitrile rubber	Nitrile rubber	Oil-prohibit	Air, water, low vacuum, kerosene, oil (up to 60 °C)
		B	Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
		C	PTFE	Fluoro rubber		Steam (up to 180 °C *1)
		D	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		E	Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
		F	PTFE	PTFE		Steam (up to 180 °C *1)
	Bronze	H	Nitrile rubber	Nitrile rubber	Air, water, low vacuum, kerosene, oil (up to 60 °C)	
		J	Fluoro rubber	Fluoro rubber	Air, low vacuum, kerosene, oil (up to 90 °C *1)	
		K	PTFE	Fluoro rubber	Steam (up to 180 °C *1)	
		L	Nitrile rubber	Nitrile rubber	Air, water, low vacuum, kerosene, oil (up to 60 °C)	
		M	Fluoro rubber	Fluoro rubber	Air, low vacuum, kerosene, oil (up to 90 °C *1)	
		N	PTFE	PTFE	Steam (up to 180 °C *1)	

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

D to H

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

<Example 1 of model number>

APK11-20A-02C-AC100V

Series: APK11

A Port size: 3/4

B Type of thread: Rc

C Body, sealant combination

: Body - bronze, valve sealant - nitrile rubber
O ring - nitrile rubber

D Coil housing: Grommet lead wire

F to **I**: Blank

H Rated voltage

:100 VAC 50/60 Hz, 110 VAC 60 Hz

<Example 2 of model number>

APK11-10G-C4ABS-AC200V

Series: APK11

A Port size: 3/8

B Type of thread: G

C Body, sealant combination

: Body - bronze, valve sealant - PTFE, O ring - fluoro rubber

D Coil housing

: Open frame type lead wire (H class coil)

E Mounting plate: With mounting plate

F Other options: Blank

S Surge suppressor: With surge suppressor

H Rated voltage

: 200 VAC 50/60 Hz, 220 VAC 60 Hz

⚠ Note on model no. selection

Note on (C)





*1: (C): When selecting 4A, 4K, 4H.

*2: When using the valve sealant PTFE with H type coil combinations, an O-ring made of fluoro rubber for steam will be enclosed.


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

D		Coil housing		E	F				Other options		G	H		Rated voltage					
Descriptions		Mounting plate		Cable gland			Conduit		Surge suppressor	Descriptions									
				(Marine cable gland)			(Conduit pipe)												
				A-15a	A-15b	A-15c	CTC 19	G 1/2											
2C	Std.	Grommet lead wire		B						S	100 VAC, 200 VAC								
2E		DIN terminal box (G1/2)																	
2G		DIN terminal box (Pg11)																	
2H		DIN terminal box + small light (Pg11)						H											
3A	Option	Lead wire		B				G	H	S	100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC								
3K		Open frame type (Heat proof class H)	Square terminal box (G1/2)		D	E	F												
3H			Square terminal box + light (G1/2)					G	H										
4A		Open frame type (Heat proof class H)	Lead wire		B				G				H	S	100 VAC, 200 VAC				
4K			Square terminal box (G1/2)																
4H	Square terminal box + light (G1/2)																		
5A	Open frame type (Diode integrated)	Lead wire		B				G	H	S	100 VAC, 200 VAC								
5K		Square terminal box (G1/2)																	
5H	Square terminal box + light (G1/2)																		

⚠ Refer to the following precautions for (D) to (H).

2C		● Grommet lead wire 300 mm
2E 2G 2H		● DIN terminal box
3A 4A 5A		● Open frame Grommet lead wire 300 mm ● 4A (Heat proof class H) ● 5A (Diode integrated)
3K 3H 4K 4H 5K 5H		● Open frame square terminal box ● 4K, 4H (Heat proof class H) ● 5K, 5H (Diode integrated)

Refer to page 222 for coil selection.

G H		● Conduit ● G (CTC19) ● H (g1/2)
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⚠ Note on model no. selection

Note on (D)

- *3: 5A, 5K, and 5H are coils which convert AC power to DC with a diode.
- *4: A waterproof specification coil with a square terminal box (excluding heat-resistant class H) is used. Contact CKD for details.

Note on (E) to (G)

- *5: The mounting plate ((E) B) is provided only with the (C) (port size) 8 (1/4) or 10 (3/8).
- *6: Select one among D, E, F, G and H for (F).
- *7: The surge suppressor is an accessory for the lead wire coil. When using the coil with terminal box, the surge suppressor is mounted in the terminal box.
- *8: Surge suppressor is incorporated in coil with diode as standard.
- *9: Tropic care treatment (rust-proof coating) is available as a measure against rust.

Note on (H)

- *10: 100 VAC coil is compatible with 100 VAC 50/60 Hz, 110 VAC 60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz, 220 VAC 60 Hz. Note that (D) 5A, 5K, and 5H coils are used only with 200 VAC 50/60 Hz or 200 VAC 50/60 Hz.
- *11: Consult with CKD about other than above voltage.
- *12: 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.

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

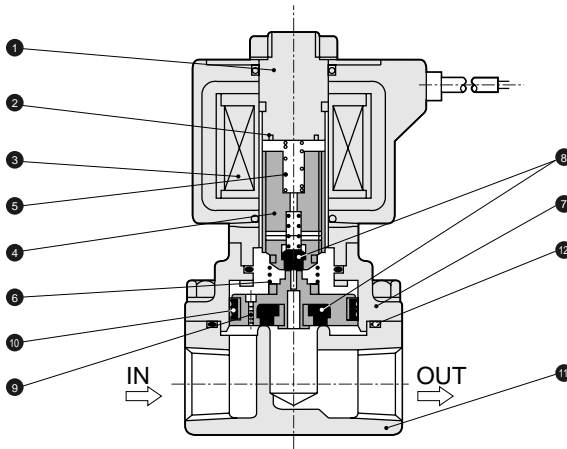
Custom order

General purpose valve

Pilot kick type 2 port solenoid valve

Internal structure and main parts materials

●APK11-8A/10A



No.	Parts name	Material	
1	Core assembly	SUS405 or equivalent, SUS316L, SUS403*1	Stainless steel
2	Shading coil *2	Cu (Ag when stainless steel body)	Copper (silver when stainless steel body)
3	Coil	-	-
4	Plunger assembly	SUS405 or equivalent, SUS304, NBR (SUS405 or equivalent, SUS304, FKM, PFA or PTFE)	Stainless steel
5	Plunger spring	SUS304	Stainless steel
6	Kick spring	SUS304	Stainless steel
7	Stuffing	CAC407 (SCS13)	Bronze casting (stainless steel casting)
8	Sealant	NBR (FKM, PTFE)	Nitrile rubber (fluoro rubber or tetrafluoroethylene resin)
9	Main valve assembly	SUS303, SUS304, NBR (SUS303, SUS304, FKM or PTFE)	Stainless steel, brass (stainless steel)
10	Seal ring set	SUS304, PTFE	Stainless steel, tetrafluoroethylene resin
11	Body	CAC407 (SCS13)	Bronze casting (stainless steel casting)
12	O ring	NBR (FKM, PTFE)	Nitrile rubber (fluoro rubber or tetrafluoroethylene resin)

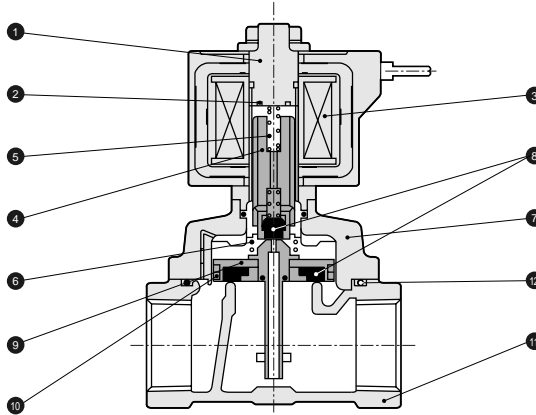
Options are shown in ().

*1: When the body and sealant combination symbol is other than O or H, the material is SUS405 or equivalent, SUS316L, SUS430.

*2: When using the DC coil or a coil with a diode, no shedding coil is used.

Internal structure and main parts materials

● APK11-15A/20A/25A



No.	Parts name	Material	
1	Core assembly	SUS405 or equivalent, SUS316L, SUS403*1	Stainless steel
2	Shading coil *2	Cu (Ag when stainless steel body)	Copper (silver when stainless steel body)
3	Coil	-	-
4	Plunger assembly	SUS405 or equivalent, SUS304, NBR (SUS405 or equivalent, SUS304, FKM, PFA or PTFE) *	Stainless steel
5	Plunger spring	SUS304	Stainless steel
6	Kick spring	SUS304	Stainless steel
7	Stuffing	CAC407 (SCS13)	Bronze casting (stainless steel casting)
8	Sealant	NBR (FKM, PTFE)	Nitrile rubber (fluoro rubber or tetrafluoroethylene resin)
9	Main valve assembly	SUS303, SUS304, NBR (SUS303, SUS304, FKM or PTFE) *	Stainless steel, brass (stainless steel)
10	Seal ring set	SUS304, PTFE	Stainless steel, tetrafluoroethylene resin
11	Body	CAC407 (SCS13)	Bronze casting (stainless steel casting)
12	O ring	NBR (FKM, PTFE)	Nitrile rubber (fluoro rubber or tetrafluoroethylene resin)

Options are shown in ().

*1: When the body and sealant combination symbol is other than O or H, the material is SUS405 or equivalent, SUS316L, SUS430.

*2: When using the DC coil or a coil with a diode, no shedding coil is used.

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

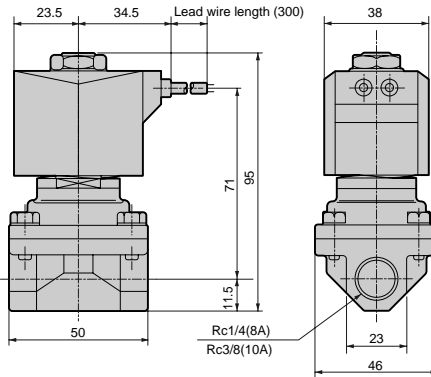
General purpose valve

Pilot kick type 2 port solenoid valve

APK11 Series

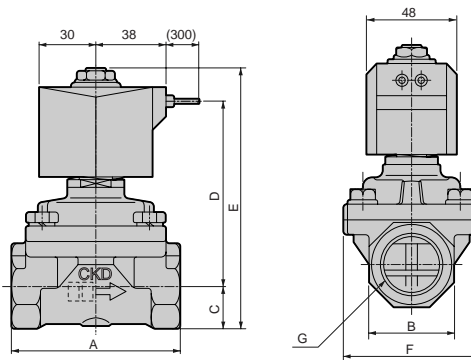
Dimensions  (Page 302)

- Grommet lead wire type
APK11-8A/10A-*2C



*1: The dimensions are the same for the G or NPT thread port size.

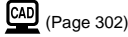
- Grommet lead wire type
APK11-15A/20A/25A-*2C



Model no.	A	B	C	D	E	F	G
APK11-15A-*2C	71	29	14.5	89	119.5	50	Rc1/2
APK11-20A-*2C	80	35	17.5	93	126.5	60	Rc3/4
APK11-25A-*2C	90	45	22.5	99	137.5	71	Rc1

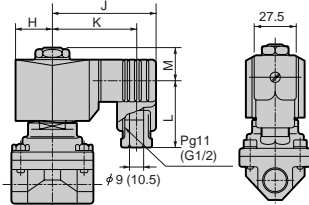
*1: The dimensions are the same for the G or NPT thread port size.

Optional dimensions



* Refer to the grommet lead wire type dimensions on the left page for the common dimensions.

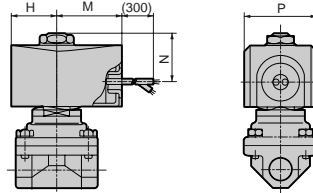
- DIN terminal box
APK11-8A to 25A-*



Dimensions shown in () are for the G1/2.

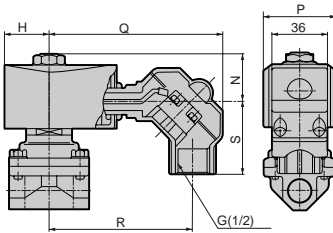
Model no.	H	J	K	L	M
APK11-8A/10A	23.5	65.5	54(53.5)	39(41)	22
APK11-15A/20A/25A	30	73	61.5(61)	39(41)	24

- Open frame lead wire type
APK11-8A to 25A-*

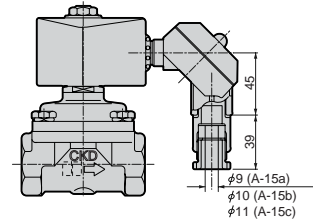


Model no.	H	M	N	P
APK11-8A/10A	28	42	29	46
APK11-15A/20A/25A	34	46	33	56

- Open frame type + square terminal box
APK11-8A to 25A-*

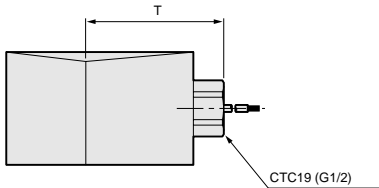


- Open frame type + cable gland
APK11-8A to 25A-*



Model no.	H	N	P	Q	R	S
APK11-8A/10A	28	29	46	110	91	45
APK11-15A/20A/25A	34	33	56	103	84	45

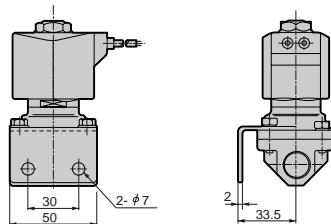
- Open frame type + conduit
APK11-8A to 25A-*



Dimensions shown in () are for the G1/2.

Model no.	T
APK11-8A/10A	57(60)
APK11-15A to 25A	59(62)

- Mounting plate
APK11-8A/10A-***



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/
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SAB/
SVB

NP/NAP/
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CHB/G

MXB/G

Other G.P.
systems

PD/FAD/
PJ

CVE/
CVSE

CPE/
CPD

Medical
analysis

Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve



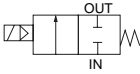
Pilot kick type 2 port solenoid valve
(general purpose valve)

APK21 Series

- NC (normally closed) type
- Port size: Rc1 1/4 to Rc2, 32 to 50 flange
- Piston structure



JIS symbol



Common specifications

Descriptions	Standard specifications	Optional specifications
Working fluid	Air, low vacuum (1.33 x 10 ⁵ Pa (abs)), water, kerosene, oil (20 mm ² s or less)	Steam
Working pressure differential range MPa	0 to 0.7 (Refer to max. working pressure differential on individual specifications.)	
Max. working pressure MPa	1	
Withstanding pressure (water) MPa	3.2	
Fluid temperature °C	-10 to 60 (Note 1)	5 to 180
Ambient temperature °C	-10 to 60	
Heat proof class	B	H
Atmosphere	Place free of corrosive gas and explosive gas	
Valve structure	Pilot kick type poppet, piston structure	
Valve seat leakage (Note 2) cm ³ /min. (ANR)	1 or less (air)	800 or less (air)
Mounting attitude	Limited to vertical position with coil facing upward	
Body/sealant	Bronze, nitrile rubber	Bronze, PTFE

Note 1: No freezing

Note 2: This applies at a pneumatic pressure between 0.05 and 0.7 MPa. When using at a pressure less than 0.05 MPa, the sealant may be unstable. Consult with CKD in this case.

Individual specifications

Descriptions Model no.	Port size	Orifice (mm)	Min. working pressure diff. (MPa)	Max. working pressure diff. (MPa)								Rated voltage	Apparent power (VA)				Power consumption (W)		Mass (kg)
				Air		Water, kerosene		Oil (20 mm ² /s)		Steam	Holding		Starting		AC	DC			
				AC	DC	AC	DC	AC	DC	AC		50Hz	60Hz	50Hz	60Hz	50/60Hz			
APK21-32A	Rc1 1/4	35	0	0.7	0.6	0.7	0.6	0.5	0.5	0.7	100 VAC 50/60Hz 200 VAC 50/60Hz 12 VDC 24 VDC 48 VDC 100 VDC	64	69	274	289	44/48	20	4.5	
APK21-32F	32 flange																	8	
APK21-40A	Rc1 1/2	43																5.5	
APK21-40F	40 flange																	9	
APK21-50A	Rc2	53																7	
APK21-50F	50 flange		11.5																

*1: Models above show basic port size. Refer to How to order for other combinations.

*2: Refer to DC column for maximum working pressure differential of coil with diode.

*3: Variation of rated voltage should be within ± 10%.

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

Optional specifications

Sealant	Fluoro rubber		PTFE	
	B	H	B	H
Coil (heat proof class)				
Fluid temperature °C	5 to 60	5 to 90	-10 to 60 (Note 1)	5 to 180
Ambient temperature °C	-10 to 60			
Valve seat leakage (Note 2) cm ³ /min. (ANR)	1 or less (air)		800 or less (air)	

Note 1: No freezing

Note 2: This applies at a pneumatic pressure between 0.05 and 0.7 MPa.

When using at a pressure less than 0.05 MPa, the sealant may be unstable.

Consult with CKD in this case.

Flow characteristics

Model no.	Port size	Orifice (mm)	Cv flow factor	Effective sectional area (mm ²)
APK21-32A	Rc 1 1/4	35	25	460
APK21-32F	32 flange			
APK21-40A	Rc 1 1/2	43	34	625
APK21-40F	40 flange			
APK21-50A	Rc 2	53	53	975
APK21-50F	50 flange			

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

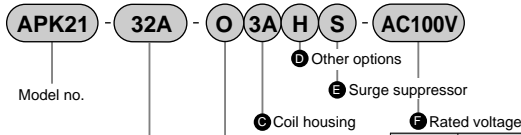
CPE/
CPD

Medical
analysis

Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve

How to order



A Port size
*1
*2

B Body, sealant combination
*3
*4

Symbol	Descriptions
A Port size	
32A	Rc 1 1/4
32F	32 flange
40A	Rc 1 1/2
40F	40 flange
50A	Rc 2
50F	50 flange

B Body, sealant combination					
	Body	Valve sealant	O ring	Treat	Remarks
O	Std	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
B	Bronze	Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	Fluoro rubber		Steam (up to 180 °C *3)
		PTFE	PTFE		Steam (up to 180 °C *3)
D	Option	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	Fluoro rubber		Steam (up to 180 °C *3)
E	Stainless steel	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	PTFE		Steam (up to 180 °C *3)
F	Option	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	Fluoro rubber		Steam (up to 180 °C *3)
K	Stainless steel	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	PTFE		Steam (up to 180 °C *3)
L	Option	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	PTFE		Steam (up to 180 °C *3)
M	Stainless steel	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	PTFE		Steam (up to 180 °C *3)
N	Option	Nitrile rubber	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *3)
		PTFE	PTFE		Steam (up to 180 °C *3)

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

G to **F**

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

<Example 1 of model number>

APK21-32F-03A-DC24V

Series: APK21

A Port size: 32 flange

B Body, sealant combination

: Body - bronze, valve sealant - nitrile rubber
O ring - nitrile rubber

C Coil housing: Open frame lead wire

D **E**: Blank

F Rated voltage: 24 VDC

<Example 2 of model number>

APK21-50F-B4FD-DC100V

Series: APK21

A Port size: 50 flange

B Body, sealant combination

: Body - bronze, valve sealant - fluoro rubber
O ring - fluoro rubber

C Coil housing: Open frame type
(H class coil) round terminal (G3/4)

D Other options: Cable gland A-20a

E Surge suppressor: Blank

F Rated voltage: 100 VAC 50/60 Hz

▲ Note on model no. selection

*1: The phase flange is JIS B2210 10K. (No flange is enclosed with the product, but must be purchased separately.)

*2: G and NPT threads are used for piping port. Contact CKD for details.

Note on (B)



*3: (B): When selecting 4A, 4K, 4H.


*4: When using the valve sealant PTFE with H type coil combinations, an O-ring made of fluoro rubber for steam will be enclosed.

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

C Coil housing			D Other options				E	F Rated voltage	
Descriptions			Cable gland		Conduit		Surge suppressor	Descriptions	
			(Marine cable gland)		(Conduit pipe)				
			A-15a A-20a	A-15b A-20b	A-15c A-20c	G 1 / 2			
3A	Std.	Open frame type	Lead wire				H	100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC	
3E			Round terminal box (G1/2)				S		
3F			Round terminal box (G3/4)						
3L		Round terminal box with light (G1/2)				H		100 VAC, 200 VAC, 24 VDC, 100 VDC	
4A	Option	Open frame type (Heat proof class H)	Lead wire				H	100 VAC, 200 VAC	
4E				Round terminal box (G1/2)					S
4F				Round terminal box (G3/4)					
4L				Round terminal box with light (G1/2)					
5A		Open frame type (Diode integrated)	Lead wire				H	100 VAC, 200 VAC	
5E			Round terminal box (G1/2)				S		
5F			Round terminal box (G3/4)						
5L		Round terminal box with light (G1/2)				H			

⚠ Refer to the following precautions for (C) to (F).

3A 4A 5A		<ul style="list-style-type: none"> ● Open frame type lead wire 300 mm ● Direct conduit wiring screw CTC19 integrated
3E 3L 4E 4F 4L 5E 5F 5L		<ul style="list-style-type: none"> ● Open frame type round terminal box ● 4E, 4F, 4L (heat proof class H) ● 5E, 5F, 5L (diode integrated)

H		<ul style="list-style-type: none"> ● Conduit (G1/2)
---	-----------------------------------------------------------------------------------	--------------------------------------------------------------------

Refer to page 223 for coil selection.

⚠ Note on model no. selection

Note on (C)

*5: 5A, 5E, 5F, and 5L are coils which convert AC power to DC with a diode.

Note on (D), (E)

- *6: Select one among D, E, F, and H for (D).
- *7: The surge suppressor is an accessory for the lead wire coil. When using the coil with terminal box, the surge suppressor is mounted in the terminal box.
- *8: Surge suppressor is incorporated in coil with diode as standard.
- *9: Tropic care treatment (rust-proof coating) is available as a measure against rust.

Note on (F)

- *10: Consult with CKD about other than above voltage.
- *11: 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.

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

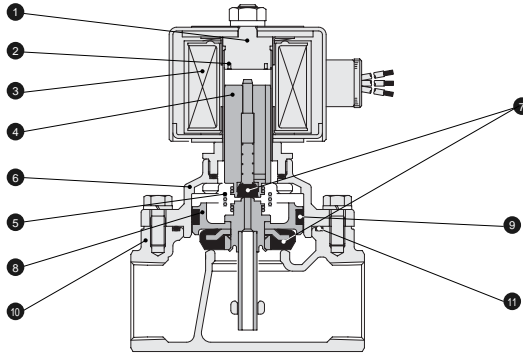
Medical
analysis

Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve

APK21 Series

Internal structure and main parts materials



No.	Parts name	Material	
1	Core assembly	SUS405 or equivalent, SUS316L, SUS403	Stainless steel
2	Shading coil *1	Cu (Ag when stainless steel body)	Copper (silver when stainless steel body)
3	Coil	-	-
4	Plunger assembly	SUS405 or equivalent, SUS304, C3604, NBR (SUS405 or equivalent, SUS304, FKM, PFA or PTFE)	Stainless steel
5	Kick spring	SUS304	Stainless steel
6	Stuffing	CAC407 (SCS13)	Bronze casting (stainless steel casting)
7	Sealant	NBR (FKM, PTFE)	Nitrile rubber (fluoro rubber or tetrafluoroethylene resin)
8	Main valve assembly	SUS303, SUS304, NBR (SUS303, SUS304, FKM or PTFE)	Stainless steel, brass (stainless steel)
9	Seal ring set	SUS304, PTFE	Stainless steel, tetrafluoroethylene resin
10	Body	CAC407 (SCS13)	Bronze casting (stainless steel casting)
11	O ring	NBR (FKM, PTFE)	Nitrile rubber (fluoro rubber or tetrafluoroethylene resin)

Options are shown in ().

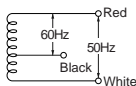
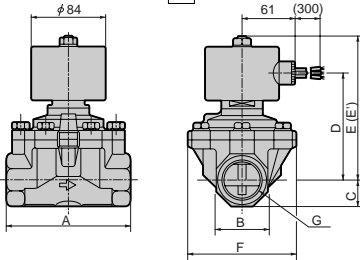
*1: When using the DC coil or a coil with a diode, no shedding coil is used.

Dimensions (Page 302)

● Open frame lead wire type (Rc screw in type)

APK21-32A/40A/50A-*

3A
4A



● Conduit size
Sheet steel conduit thread
JIS B 0204 CTC19

● Lead wire

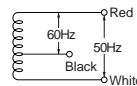
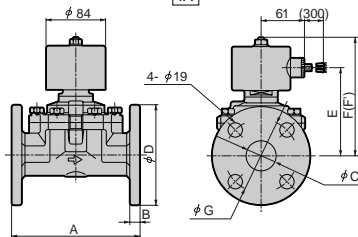
30/0.18(0.75mm²)

Length 300mm

● Open frame lead wire type (flange type)

APK21-32F/40F/50F-*

3A
4A



● Conduit size
Sheet steel conduit thread
JIS B 0204 CTC19

● Lead wire

30/0.18(0.75mm²)

Length 300mm

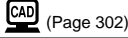
The (E') dimensions apply only for the APK21-32A, 40A and 50A-*3A DC specifications.

Model no.	A	B	C	D	E	E'	F	G
APK21-32A-□A	125	54	27	116.5	158.5	183.5	112	Rc1 ¹ / ₄
APK21-40A-□A	140	60	30	123.5	165.5	190.5	122	Rc1 ¹ / ₂
APK21-50A-□A	160	74	37	132.5	174.5	199.5	132	Rc2

The (F) dimensions apply only for the APK21-32F, 40F and 50F-*3A DC specifications.

Model no.	A	B	C	D	E	F	F'	G
APK21-32F-□A	170	12	36	135	116.5	158.5	183.5	100
APK21-40F-□A	180	14	42	140	123.5	165.5	190.5	105
APK21-50F-□A	180	14	53	155	132.5	174.5	199.5	120

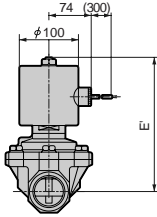
Optional dimensions



(Page 302)

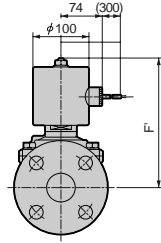
* Refer to open frame lead wire type dimensions on a left page for common dimensions.

- Open frame diode integrated lead wire type (Rc screw in type)
APK21-32A/40A/50A-***5A**



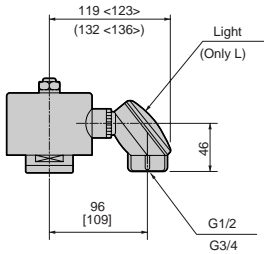
Model no.	E'
APK21-32A-*5A	183.5
APK21-40A-*5A	190.5
APK21-50A-*5A	199.5

- Open frame diode integrated lead wire type (flange type)
APK21-32F/40F/50F-***5A**



Model no.	F'
APK21-32F-*5A	183.5
APK21-40F-*5A	190.5
APK21-50F-*5A	199.5

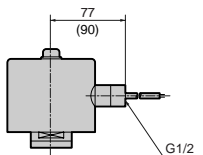
- Open frame type + round terminal box
APK21-32[‡] to 50[‡]-***5**



Values in () are for the APK21-32[‡] to 50[‡]-***5** type.

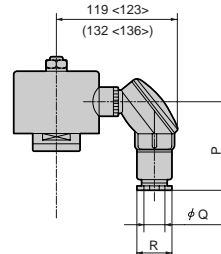
Values in < > are for the type with indicator light.

- Open frame type + conduit
APK21-32[‡] to 50[‡]-***5**



Values in () are for the APK21-32[‡] to 50[‡]-***5** type.

- Open frame type + cable gland
APK21-32[‡] to 50[‡]-***5**



Values in () are for the APK21-32[‡] to 50[‡]-***5** type.

Values in < > are for the type with indicator light.

Coil housing	3E, 3L 4E, 4L 5E, 5L			3F 4F 5F		
	A-15a	A-15b	A-15c	A-20a	A-20b	A-20c
Cable gland	P	85			89	
Symbol	Q	φ 9	φ 10	φ 11	φ 12	φ 13 φ 15
	R	28			34	

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
Pilot kick type 2 port solenoid valve



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

ADK11/ADK12 Series

- NC (normally closed) type, NO (normally open) type
- Port size: Rc1/4 to Rc1
- Diaphragm structure



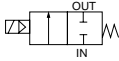
Refer to Ending 17 for more details.

Excluding ADK12

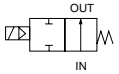


JIS symbol

- ADK11: NC (normally closed) type



- ADK12: NO (normally open) type



Common specifications

Descriptions	Standard specifications	Optional specifications
Working fluid	Air, low vacuum (1.33×10^2 Pa (abs.)), water, kerosene, oil (50 mm ² /s or less)	Hot water
Working pressure differential range MPa	0 to 1.0 (Refer to max. working pressure differential on individual specifications.)	
Max. working pressure MPa	2	
Withstanding pressure (water) MPa	4	
Fluid temperature (Note 1) °C	-10 to 60	-10 to 90
Ambient temperature °C	-10 to 60	
Heat proof class	B	H
Atmosphere	Place free of corrosive gas and explosive gas	
Valve structure	Pilot kick type poppet diaphragm structure	
Valve seat leakage (Note 2) cm ³ /min. (ANR)	1 or less (air)	
Mounting attitude	Free	
Body/sealant	Bronze, nitrile rubber	Bronze, ethylene propylene diene rubber

Note 1: No freezing

Note 2: For ADK11 (NC (normally closed)), these values apply at pneumatic pressure 0.02 to 1.0 MPa.

and for the ADK12 (NO (normally open)), these apply at pneumatic pressure 0.02 to 0.6 MPa.

When used at a pressure less than 0.02 MPa, the sealant may be unstable. Consult CKD.

Individual specifications

Descriptions	Port size	Orifice (mm)	Min. working pressure diff. (MPa)	Max. working pressure diff. (MPa)						Rated voltage	Apparent power (VA)				Power consumption (W)		Mass (kg)							
				Air		Water, kerosene		Oil (50mm ² /s)			Holding	Starting	AC	DC										
Model no.				AC	DC	AC	DC	AC	DC		50Hz	60Hz	50Hz	60Hz	50/60Hz	DC								
NC (normally closed) type																								
ADK11-8A	Rc1/4	12	0	1	0.7	0.7	0.7	0.6	0.6	100 VAC 50/60Hz	24	19	61	54	10/8	11*2 (10.4)	0.65							
ADK11-10A	Rc3/8	12															0.65							
ADK11-15A	Rc1/2	16									0.6	0.6	0.6	0.5	0.5	200 VAC 50/60Hz	25	21	84	75	10/8.5	14*3 (17)	1.0	0.9
ADK11-20A	Rc3/4	23																						1.0
ADK11-25A	Rc1	28															1.4							
NO (normally open) type																								
ADK12-15A	Rc1/2	16	0	0.6	0.6	0.6	0.6	0.5	0.5	24 VDC	30	25	180	150	13/11	14	1.0							
ADK12-20A	Rc3/4	23															1.2							
ADK12-25A	Rc1	28															1.6							

*1: Models above show basic port size (Rc). Refer to How to order for other combinations.

*2: The values in () are the power consumption for the type with DIN terminal box.

*3: The values in [] are the power consumption for the coil with diode.

*4: Refer to DC column for maximum working pressure differential of coil with diode.

*5: Keep the voltage fluctuation to within $\pm 10\%$ of the rated voltage.

*6: Consider using the AB71 Series if the pressure is 0.02 MPa or less.

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

Optional specifications

Sealant	Fluoro rubber		Ethylene propylene diene rubber	
	B	H	B	H
Coil (heat proof class)				
Fluid temperature °C	5 to 60	5 to 90	-10 to 60 (Note 1)	-10 to 90 (Note 1)
Ambient temperature °C	-10 to 60			
Valve seat leakage (Note 2) cm ³ /min. (ANR)	1 or less (air)			

Note 1: No freezing

Note 2: For ADK11 (NC (normally closed)), these values apply at pneumatic pressure 0.02 to 1.0 MPa, and for the ADK12 (NO (normally open)), these apply at pneumatic pressure 0.02 to 0.6 MPa. When used at a pressure less than 0.02 MPa, the sealant may be unstable. Consult CKD.

Flow characteristics

Model no.	Port size	Orifice (mm)	Flow characteristics			
			C[dm ³ /(s·bar)]	b	Cv flow factor	S (mm ²)
NC (normally closed) type						
ADK11-8A	Rc 1/4	12	9.2	0.36	2.0	-
ADK11-10A	Rc 3/8	12	11	0.46	2.4	-
ADK11-15A	Rc 1/2	16	20	0.31	4.5	-
ADK11-20A	Rc 3/4	23	-	-	8.6	162
ADK11-25A	Rc 1	28	-	-	12.0	231
NO (normally open) type						
ADK12-15A	Rc 1/2	16	20	0.31	4.5	-
ADK12-20A	Rc 3/4	23	-	-	8.6	162
ADK12-25A	Rc 1	28	-	-	12.0	231

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

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

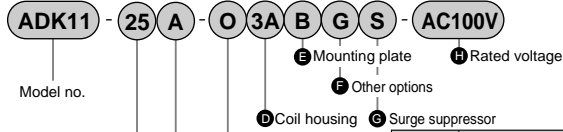
Medical
analysis

Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve

How to order

● NC (normally closed) type



Symbol	Descriptions
A	Port size
8	1 / 4
10	3 / 8
15	1 / 2
20	3 / 4
25	1

Symbol	Descriptions
B	Type of screw
A	Rc
G	G
N	NPT

C Body, sealant combination					
	Body	Sealant	Treat	Remarks	
O	Std	Nitrile rubber	-	Air, water, low vacuum, kerosene, oil (up to 60 °C)	
B	Bronze	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)	
D	Stainless steel	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)	
E		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)	
H	Option	Nitrile rubber	Oil-prohibit	Air, water, low vacuum, kerosene, oil (up to 60 °C)	
J		Bronze		Fluoro rubber	Air, low vacuum, kerosene, oil (up to 90 °C *1)
P				Ethylene propylene diene rubber	Hot water (up to 90 °C *1)
L		Stainless steel		Nitrile rubber	Air, water, low vacuum, kerosene, oil (up to 60 °C)
M				Fluoro rubber	Air, low vacuum, kerosene, oil (up to 90 °C *1)
R				Ethylene propylene diene rubber	Hot water (up to 90 °C *1)

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

D to H

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

<Example 1 of model number>

ADK11-15A-02C-AC100V

Series: ADK11

A Port size: 1/2

B Type of thread: Rc

Body, sealant combination

: Body - bronze, sealant - nitrile rubber

D Coil housing: Grommet lead wire

E to **G**: Blank

H Rated voltage

:100 VAC 50/60 Hz, 110 VAC 60 Hz

<Example 2 of model number>

ADK11-20N-B4ABS-AC200V

Series: ADK11

A Port size: 3/4

B Type of thread: NPT

C Body, sealant combination

: Body - bronze, sealant - fluoro rubber

D Coil housing

: Open frame type lead wire (H class coil)

E Mounting plate: With mounting plate

F Other options: Blank

G Surge suppressor: With surge suppressor

H Rated voltage

: 200 VAC 50/60 Hz, 220 VAC 60 Hz

▲ Note on model no. selection

Note on (C)

*1: (C): When selecting 4A, 4K, 4H.

*2: Only (A) (port size) 15 (1/2), 20 (3/4) or 25 (1) is available for (C) P or R.






*3: The maximum working pressure difference is 0.6 MPa for the ethylene propylene diene rubber seal combination ((C) P, R).

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

D		Coil housing		E	F				Other options		G	H		Rated voltage	
Descriptions		Mounting plate	Cable gland			Conduit		Surge suppressor	Descriptions						
			(Marine cable gland)			(Conduit pipe)									
		A-15a	A-15b	A-15c	CTC 19	G 1 / 2									
2C	Std	Grommet lead wire		B				S			100 VAC, 200 VAC				
2E		DIN terminal box (G1/2)									100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC		FVB		
2G		DIN terminal box (Pg11)									100 VAC, 200 VAC, 24 VDC		FWB/G		
2H		DIN terminal box + small light (Pg11)							G	H	100 VAC, 200 VAC, 24 VDC		FHB		
3A		Lead wire									100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC		FLB		
3K	Option	Open frame type (Heat proof class H)	Square terminal box (G1/2)		B	D	E	F	S			100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC		AB	
3H			Square terminal box + light (G1/2)							100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC		AG			
3P			Square terminal box + light (IP65 or equivalent) (G1/2)							100 VAC, 200 VAC, 24 VDC, 100 VDC		AP/AD			
3Q			Square terminal box + light (IP65 or equivalent) (G1/2)							100 VAC, 200 VAC, 24 VDC, 100 VDC		APK/ADK			
4A	Option	Open frame type (Heat proof class H)	Lead wire		B				S			100 VAC, 200 VAC		For dry air	
4K			Square terminal box (G1/2)			D	E	F				100 VAC, 200 VAC		Explosion proof	
4H			Square terminal box + light (G1/2)									100 VAC, 200 VAC		HVB/HVL	
5A	Option	Open frame type (Diode integrated)	Lead wire		B				S			100 VAC, 200 VAC		SAB/SVB	
5K			Square terminal box (G1/2)							100 VAC, 200 VAC		NP/NAP/NVP			
5H			Square terminal box + light (G1/2)									CHB/G			
5P			Square terminal box + light (IP65 or equivalent) (G1/2)									MXB/G			
5Q			Square terminal box + light (IP65 or equivalent) (G1/2)								Other G.P. systems				

▲ Refer to the following precautions for (D) to (H).

2C		● Grommet lead wire 300 mm
2E 2G 2H		● DIN terminal box
3A 4A 5A		● Open frame Grommet lead wire 300 mm ● 4A (Heat proof class H) ● 5A (Diode integrated)
3K 3H 4K 4H 5K 5H		● Open frame square terminal box ● 4K, 4H (Heat proof class H) ● 5K, 5H (Diode integrated)
3P 3Q 5P 5Q		● Open frame square terminal box (IP65 or equivalent) ● 5P, 5Q (Diode integrated)

Refer to page 222 for coil selection.

G H		● Conduit ● G (CTC19) ● H (G1/2)
--------	-----------------------------------------------------------------------------------	----------------------------------------

▲ Note on model no. selection

Note on (D)

*5: 5A, 5K, 5H, 5P and 5Q are coils which convert AC power to DC with a diode.

Note on (E) to (G)

- *6: Select one among D, E, F, G and H for (F).
- *7: The surge suppressor is an accessory for the lead wire coil. When using the coil with terminal box, the surge suppressor is mounted in the terminal box.
- *8: The coil with a diode and the (D) 2H 24 VDC coil have a surge suppressor incorporated as standard.
- *9: Tropic care treatment (rust-proof coating) is available as a measure against rust.

Note on (H)

*10: 100 VAC coil is compatible with 100 VAC 50/60 Hz, 110 VAC 60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz, 220 VAC 60 Hz. Note that the (D) 5A, 5K, 5H, 5P and 5Q coil can be used only with 100 VAC 50/60 Hz or 200 VAC 50/60 Hz.

*11: Consult with CKD about other than above voltage.

*12: 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.

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

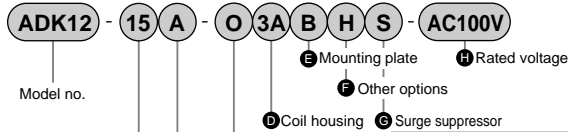
Custom order

General purpose valve

Pilot kick type 2 port solenoid valve

How to order

● NO (normally open) type



Symbol	Descriptions			
A Port size				
15	1 / 2			
20	3 / 4			
25	1			
B Type of screw				
A	Rc			
G	G			
N	NPT			
C Body, sealant combination				
	Body	Sealant	Treat	Remarks
O	Std.	Nitrile rubber	-	Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
	Bronze	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
H	Std.	Nitrile rubber	Oil-prohibit	Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
		Ethylene propylene diene rubber		Hot water (up to 90 °C *1)
		Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
	Bronze	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
		Ethylene propylene diene rubber		Hot water (up to 90 °C *1)
		Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
L	Stainless steel	Nitrile rubber	Oil-prohibit	Air, water, low vacuum, kerosene, oil (up to 60 °C)
		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90 °C *1)
R	Stainless steel	Ethylene propylene diene rubber		Hot water (up to 90 °C *1)
Refer to page 36 in the introduction for details on the material combinations.				
D to H				
Refer to the following page for details on the coil housing, other options and voltage, etc.				

<Example 1 of model number>

ADK12-20A-03A-DC24V

Series: ADK12

A Port size: 3/4

B Type of thread: Rc

C Body, sealant combination

: Body - bronze, sealant - nitrile rubber

D Coil housing: Open frame lead wire

E to **G**: Blank

H Rated voltage: 24 VDC

<Example 2 of model number>

ADK12-15G-B3HBD-AC100V

Series: ADK12

A Port size: 1/2

B Type of thread: G

C Body, sealant combination

: Body - bronze, sealant - fluoro rubber

D Coil housing: Open frame type

Square terminal box with light (G1/2)

E Mounting plate: With mounting plate

F Other options: Cable gland A-15a

G Surge suppressor: Blank

H Rated voltage

:100 VAC 50/60 Hz, 110 VAC 60 Hz

▲ Note on model no. selection




Note on (C)


*1: (C): When selecting 4A, 4K, 4H.

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

D Coil housing			E			F Other options			G		H Rated voltage	
Descriptions		Mounting plate	Cable gland			Conduit		Surge suppressor	Descriptions			
			(Marine cable gland)			(Conduit pipe)						
			A-15a	A-15b	A-15c	CTC19	G 1 / 2					
3A Std.	Open frame type	Lead wire				G	H	S	100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC			
3K		Square terminal box (G1/2)							100 VAC, 200 VAC, 24 VDC, 100 VDC			
3H		Square terminal box + light (G1/2)	D	E	F				100 VAC, 200 VAC, 24 VDC, 100 VDC			
3P		Square terminal box (IP65 or equivalent) (G1/2)							100 VAC, 200 VAC, 24 VDC, 100 VDC			
3Q	Square terminal box + light (IP65 or equivalent) (G1/2)						100 VAC, 200 VAC, 24 VDC, 100 VDC					
4A	Option Open frame type (Heat proof class H)	Lead wire				G	H	S	100 VAC, 200 VAC			
4K		Square terminal box (G1/2)	D	E	F				100 VAC, 200 VAC			
4H	Square terminal box + light (G1/2)						100 VAC, 200 VAC					
5A	Open frame type (Diode integrated)	Lead wire				G	H	S	100 VAC, 200 VAC			
5K		Square terminal box (G1/2)	D	E	F				100 VAC, 200 VAC			
5H		Square terminal box + light (G1/2)							100 VAC, 200 VAC			
5P		Square terminal box (IP65 or equivalent) (G1/2)							100 VAC, 200 VAC			
5Q	Square terminal box + light (IP65 or equivalent) (G1/2)						100 VAC, 200 VAC					

▲ Refer to the following precautions for (D) to (H).

3A 4A 5A		<ul style="list-style-type: none"> ● Open frame Grommet lead wire 300 mm ● 4A (Heat proof class H) ● 5A (Diode integrated)
3K 3H 4K 4H 5K 5H		<ul style="list-style-type: none"> ● Open frame square terminal box ● 4K, 4H (Heat proof class H) ● 5K, 5H (Diode integrated)
3P 3Q 5P 5Q		<ul style="list-style-type: none"> ● Open frame square terminal box (IP65 or equivalent) ● 5P, 5Q (Diode integrated)

G H		<ul style="list-style-type: none"> ● Conduit ● G (CTC19) ● H (G1/2)
--------	-----------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------

Refer to page 222 for coil selection.

▲ Note on model no. selection

Note on (D)

*2: 5A, 5K, 5H, 5P and 5Q are coils which convert AC power to DC with a diode.

Note on (E) to (G)

- *3: Select one among D, E, F, G and H for (F).
- *4: The surge suppressor is an accessory for the lead wire coil. When using the coil with terminal box, the surge suppressor is mounted in the terminal box.
- *5: Surge suppressor is incorporated in coil with diode as standard.
- *6: Tropic care treatment (rust-proof coating) is available as a measure against rust.

Note on (H)

- *7: 100 VAC coil is compatible with 100 VAC 50/60 Hz, 110 VAC 60 Hz, and 200 VAC coil is compatible with 200 VAC 50/60 Hz, 220 VAC 60 Hz. Note that (D) 5A, 5K, 5H, 5P, and 5Q coils are used only with 100 VAC 50/60 Hz or 200 VAC 50/60 Hz.
- *8: Consult with CKD about other than above voltage.
- *9: 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.

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

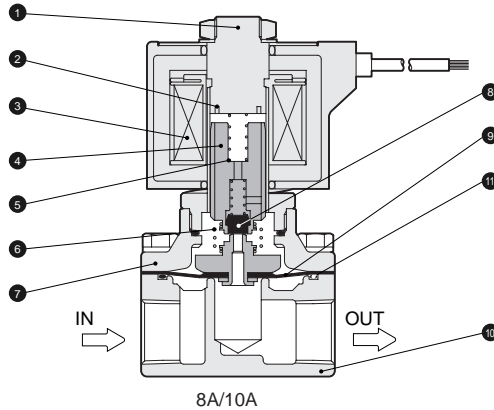
General purpose valve

Pilot kick type 2 port solenoid valve

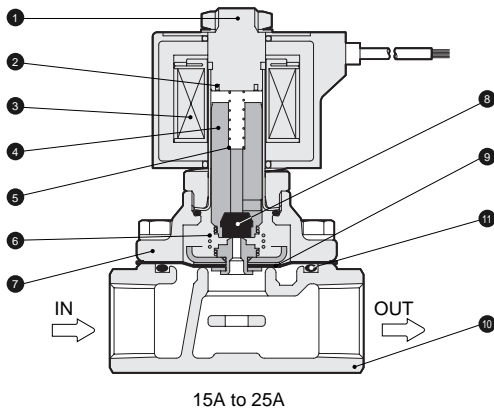
ADK11/ADK12 Series

Internal structure and main parts materials

●ADK11-8A/10A



●ADK11-15A/20A/25A



No.	Parts name	Material	
1	Core assembly	SUS405 or equivalent, SUS316L, SUS403	Stainless steel
2	Shading coil *1	Cu (Ag when stainless steel body)	Copper (silver when stainless steel body)
3	Coil	-	-
4	Plunger assembly	SUS405 or equivalent, SUS304, NBR (SUS405 or equivalent, SUS304, FKM or EPDM) *2, 3	Stainless steel
5	Plunger spring	SUS304	Stainless steel
6	Kick spring	SUS304	Stainless steel
7	Stuffing	C3771 (SCS13)	Bronze casting (stainless steel casting)
8	Sealant	NBR (FKM, EPDM)	Nitrile rubber (fluoro rubber or ethylene propylene diene rubber)
9	Diaphragm assembly	SUS303, SUS304, NBR (SUS303, SUS304, FKM or EPDM) *3	Stainless steel and nitrile rubber (stainless steel, fluoro rubber or ethylene propylene diene rubber)
10	Body	CAC407 (SCS13)	Bronze casting (stainless steel casting)
11	O ring	NBR (FKM, EPDM)	Nitrile rubber (fluoro rubber or ethylene propylene diene rubber)

Options are shown in ().

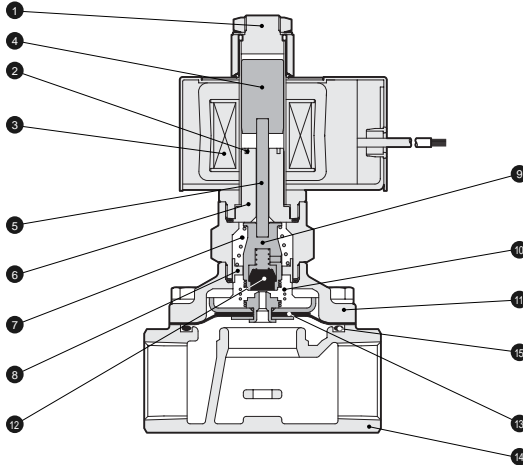
*1: When using the DC coil or a coil with a diode, no shedding coil is used.

*2: SUS304 is not used for the port size 15 (1/2) to 25 (1).

*3: EPDM is not compatible with the port size 8 (1/4) and 10 (3/8).

Internal structure and main parts materials

● ADK12 Series



No.	Parts name	Material	
1	Core assembly	SUS403, SUS316L, SUS304 *1	Stainless steel
2	Shading coil *2	Cu (Ag when stainless steel body)	Copper (silver when stainless steel body)
3	Coil	-	-
4	Plunger	SUS405 or equivalent	Stainless steel
5	Push rod	SUS304	Stainless steel
6	Fixed ferrous core	SUS405 or equivalent	Stainless steel
7	Spring	SUS304	Stainless steel
8	Spring holder	POM (SUS303)	Acetal resin (stainless steel)
9	NO valve assembly	SUS303, SUS304, NBR (SUS303, SUS304, FKM, EPDM)	Stainless steel and nitrile rubber (stainless steel, fluoro rubber or ethylene propylene diene rubber)
10	Kick spring	SUS304	Stainless steel
11	Stuffing	C3771 (SCS13)	Bronze casting (stainless steel casting)
12	Sealant	NBR (FKM, EPDM)	Nitrile rubber (fluoro rubber or ethylene propylene diene rubber)
13	Diaphragm assembly	SUS303, SUS304, NBR (SUS303, SUS304, FKM or EPDM)	Stainless steel and nitrile rubber (stainless steel, fluoro rubber or ethylene propylene diene rubber)
14	Body	CAC407 (SCS13)	Bronze casting (stainless steel casting)
15	O ring	NBR (FKM, EPDM)	Nitrile rubber (fluoro rubber or ethylene propylene diene rubber)

Options are shown in ().

*1: When the body and sealant combination symbol is other than O or H, the material is SUS430, SUS316L, SUS304.

*2: When using the DC coil or a coil with a diode, no shedding coil is used.

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

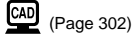
Medical
analysis

Custom
order

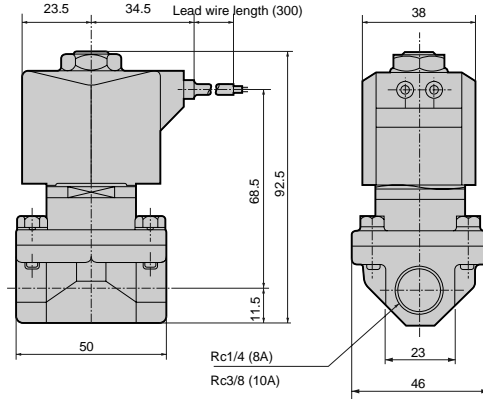
General purpose valve
Pilot kick type 2 port solenoid valve

ADK11/ADK12 Series

Dimensions: ADK11 Series

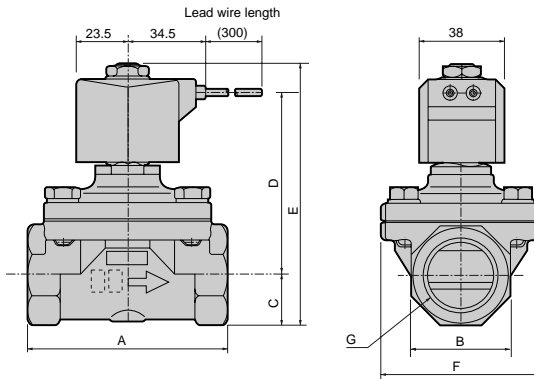


- Grommet lead wire type
ADK11-8A/10A-*2C



*1: The dimensions are the same for the G or NPT thread port size.

- Grommet lead wire type
ADK11-15A/20A/25A-*2C



*1: The dimensions are the same for the G or NPT thread port size.

Model no.	A	B	C	D	E	F	G
ADK11-15A-02C	71	29	14.5	75.5	102	50	Rc1/2
ADK11-20A-02C	80	35	17.5	79	108.5	60	Rc3/4
ADK11-25A-02C	90	45	22.5	84.5	119	71	Rc1

Optional dimensions: ADK11 Series

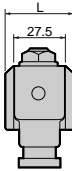
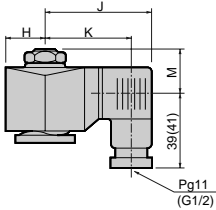


(Page 302)

* Refer to the grommet lead wire type dimensions on the left page for the common dimensions.

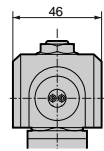
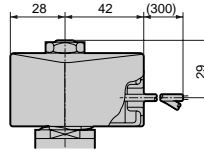
- DIN terminal box
ADK11-8A to 25A-*

2E
2G
2H



- Open frame type lead wire
ADK11-8A to 25A-*

3A
4A
5A

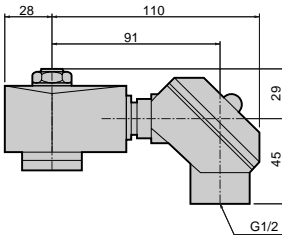


Dimensions shown in () are for the G1/2.

Model no.	H	J	K	L	M
ADK11-8A to 25A-*(2)□-AC	23.5	65.5	54(53.5)	38	22
ADK11-8A/10A-*(2)□-DC	23.5	66	54.5(54)	38	22
ADK11-15A to 25A-*(2)□-DC	28	72	60.5(60)	46	22

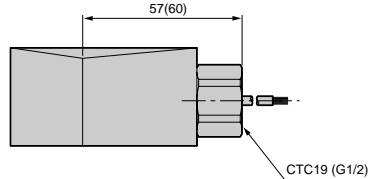
- Open frame type + square terminal box
ADK11-8A to 25A-*

3K	4K
5H	4H
P	Q



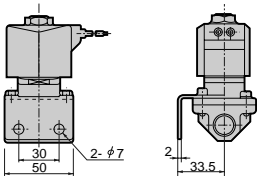
- Open frame type + conduit
ADK11-8A to 25A-*

3A	G
4A	H
5A	

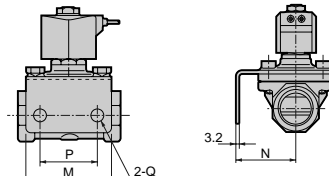


Dimensions shown in () are for the G1/2.

- Mounting plate
ADK11-8A/10A-***



- Mounting plate
ADK11-15A/20A/25A-***



Model no.	M	N	P	Q
ADK11-15A-***B	56	45	40	φ9
ADK11-20A-***B	63	50	45	φ9
ADK11-25A-***B	75	56	50	φ11

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

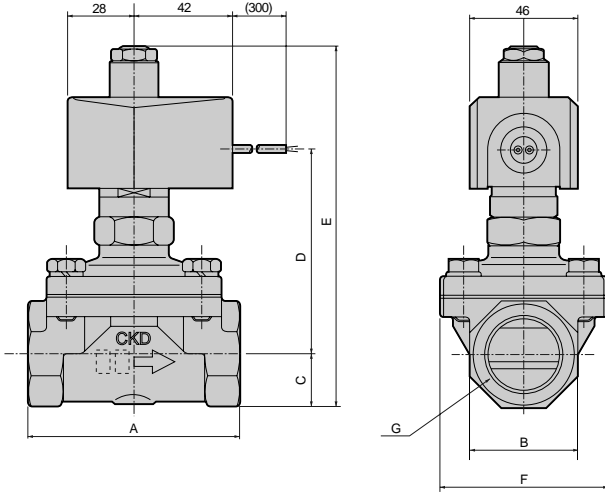
Medical
analysis

Custom
order

Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve

- Open frame lead wire type
ADK12-15A/20A/25A-*3A



*1: The dimensions are the same for the G or NPT thread port size.

Model no.	A	B	C	D	E	F	G
ADK12-15A-03A	71	29	14.5	77	134.5	50	Rc1/2
ADK12-20A-03A	80	35	17.5	80.5	141	60	Rc3/4
ADK12-25A-03A	90	45	22.5	86	151.5	71	Rc1

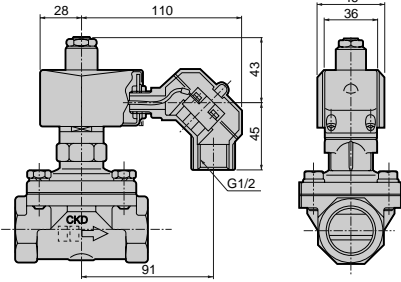
Optional dimensions: ADK12 Series



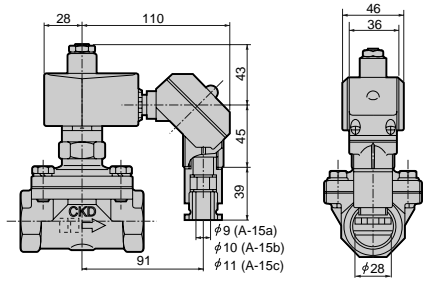
(Page 302)

* Refer to open frame lead wire type dimensions on a left page for common dimensions.

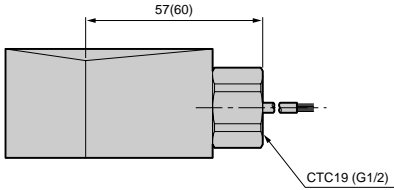
- Open frame type + square terminal box
ADK12-15A/20A/25A-*



- Open frame type + cable gland
ADK12-15A/20A/25A-*

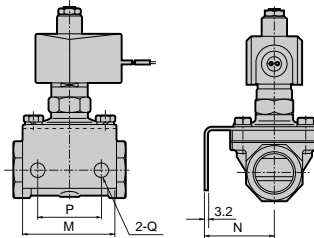


- Open frame type + conduit
ADK12-15A/20A/25A-*



Dimensions shown in () are for the G1/2.

- Mounting plate
ADK12-15A/20A/25A-***B



Model no.	M	N	P	Q
ADK12-15A-***B	56	45	40	φ 9
ADK12-20A-***B	63	50	45	φ 9
ADK12-25A-***B	75	56	50	φ 11

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
Pilot kick type 2 port solenoid valve



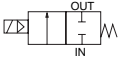
Pilot kick type 2 port solenoid valve
(general purpose valve)

ADK21 Series

- NC (normally closed) type
- Port size: Rc1 1/4 to Rc2, 32 to 50 flange
- Diaphragm structure



JIS symbol



Common specifications

Descriptions	Standard specifications
Working fluid	Air, low vacuum (1.33×10^3 Pa (abs)), water, kerosene, oil (50 mm ² /s or less)
Working pressure differential range MPa	0 to 0.7 (Refer to max. working pressure differential on individual specifications.)
Max. working pressure MPa	1
Withstanding pressure (water) MPa	3.2
Fluid temperature °C	-10 to 60 (no freezing)
Ambient temperature °C	-10 to 60
Heat proof class	B
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Pilot kick type poppet diaphragm structure
Valve seat leakage (Note 1) cm ³ /min. (ANR)	1 or less (air)
Mounting attitude	Limited to vertical position with coil facing upward
Body/sealant	Bronze, nitrile rubber

Note 1: This value applies at a pneumatic pressure between 0.02 and 0.7 MPa. When used at a pressure less than 0.02 MPa, the sealant may be unstable. Consult with CKD in this case.

Individual specifications

Descriptions Model no.	Port size	Orifice (mm)	Max. working pressure diff. (MPa)								Rated voltage	Apparent power (VA)				Power consumption (W)		Mass (kg)	
			Air		Water, kerosene		Oil (50mm ² /s)		Holding			Starting		AC 50/60Hz	DC				
			AC	DC	AC	DC	AC	DC	50Hz	60Hz		50Hz	60Hz						
ADK21-32A	Rc1 1/4	35									100 VAC	50/60Hz							4.5
ADK21-32F	32 flange										200 VAC	50/60Hz							8
ADK21-40A	Rc1 1/2	43									12 VDC		64	69	274	289	44/48	20	5.5
ADK21-40F	40 flange		0	0.7	0.6	0.7	0.6	0.5	0.5		24 VDC								9
ADK21-50A	Rc2	53									48 VDC								7
ADK21-50F	50 flange										100 VDC								11.5

*1: Models above show basic port size. Refer to How to order for other combinations.

*2: Refer to DC column for maximum working pressure differential of coil with diode.

*3: Variation of rated voltage should be within ±10%.

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

Optional specifications

Sealant	Fluoro rubber	
	B	H
Coil (heat proof class)	B	H
Fluid temperature °C	5 to 60	5 to 90
Ambient temperature °C	-10 to 60	
Valve seat leakage (Note 1) cm ³ /min. (ANR)	1 or less (air)	

Note 1: This value applies at a pneumatic pressure between 0.02 and 0.7 MPa. When using at a pressure less than 0.02 MPa, the sealant may be unstable. Consult with CKD in this case.

Flow characteristics

Model no.	Port size	Orifice (mm)	Cv flow factor	Effective sectional area(mm ²)
ADK21-32A	Rc 1 1/4	35	25	460
ADK21-32F	32 flange			
ADK21-40A	Rc 1 1/2	43	34	625
ADK21-40F	40 flange			
ADK21-50A	Rc 2	53	53	975
ADK21-50F	50 flange			

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/AD

APK/
ADKFor
dry airExplosion
proofHVB/
HVLSAB/
SVBNP/NAP/
NVP

CHB/G

MXB/G

Other G.P.
systemsPD/FAD/
PJCVE/
CVSECPE/
CPDMedical
analysisCustom
order

General purpose valve
 Pilot kick type 2 port solenoid valve

How to order

ADK21 - **32A** - **O** **3A** **H** **S** - **AC100V**

Model no.

A Port size
*1
*2

B Body, sealant combination
*3

b Other options
E Surge suppressor

C Coil housing

F Rated voltage

Symbol	Descriptions
A Port size	
32A	Rc 1 ¹ / ₄
32F	32 flange
40A	Rc 1 ¹ / ₂
40F	40 flange
50A	Rc 2
50F	50 flange

B Body, sealant combination				
	Body	Sealant	Treat	Remarks
O	Std	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60°C)
B	Bronze	Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90°C *3)
D	Option	Nitrile rubber	Oil-prohibit	Air, water, low vacuum, kerosene, oil (up to 60°C)
E		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90°C *3)
H	Stainless steel	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60°C)
J		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90°C *3)
L		Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60°C)
M		Fluoro rubber		Air, low vacuum, kerosene, oil (up to 90°C *3)

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

C to **F**

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

<Example 1 of model number>

ADK21-50F-03A-DC24V

Series: ADK21

A Port size : 50 flange

B Body, sealant combination

: Body - bronze, sealant - nitrile rubber

C Coil housing : Open frame lead wire

D **E**: Blank

F Rated voltage : 24 VDC

<Example 2 of model number>

ADK21-40F-B4FD-AC200V

Series: ADK21

A Port size : Flange 40

B Body, sealant combination

: Body - bronze, sealant - fluoro rubber

C Coil housing : Open frame type

(H class coil) round terminal box (G3/4)

D Other options : Cable gland A-20a

E Surge suppressor : Blank

F Rated voltage : 200 VAC 50/60 Hz

▲ Note on model no. selection

*1: The phase flange is JIS B2210 10K.(No flange is enclosed with the product, but must be purchased separately.)

*2: G and NPT threads are used for piping port. Contact CKD for details.



Note on (B)


*3: (B): When selecting 4A, 4K, 4H.

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

C Coil housing			D Other options				E	F Rated voltage
Descriptions			Cable gland		Conduit		Surge suppressor	Descriptions
			(Marine cable gland)		(Conduit pipe)			
			A-15a A-20a	A-15b A-20b	A-15c A-20c	G1 / 2		
3A	Std.	Open frame type	Lead wire				H	100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC
3E	Option		Round terminal box (G1/2)		D	E	F	
3F			Round terminal box (G3/4)					
3L		Round terminal box with light (G1/2)						
4A	Option	Open frame type (heat proof class H)	Lead wire				H	100 VAC, 200 VAC
4E			Round terminal box (G1/2)		D	E	F	
4F			Round terminal box (G3/4)					
4L	Round terminal box with light (G1/2)							
5A	Option	Open frame type (Diode integrated)	Lead wire				H	100 VAC, 200 VAC
5E			Round terminal box (G1/2)		D	E	F	
5F			Round terminal box (G3/4)					
5L	Round terminal box with light (G1/2)							

▲ Refer to the following precautions for (C) to (F).

3A 4A 5A		<ul style="list-style-type: none"> ● Open frame type lead wire 300 mm ● Direct conduit wiring screw CTC19 integrated
3E 3L 4E 4F 4L 5E 5F 5L		<ul style="list-style-type: none"> ● Open frame type round terminal box ● 4E, 4F, 4L (heat proof class H) ● 5E, 5F, 5L (diode integrated)

H		<ul style="list-style-type: none"> ● Conduit (G1/2)
---	-----------------------------------------------------------------------------------	--------------------------------------------------------------------

Refer to page 223 for coil selection.

▲ Note on model no. selection

Note on (C)

*4: 5A, 5E, 5F, and 5L are coils which convert AC power to DC with a diode.

Note on (D), (E)

- *5: Select one among D, E, F, and H for (D).
- *6: The surge suppressor is an accessory for the lead wire coil. When using the coil with terminal box, the surge suppressor is mounted in the terminal box.
- *7: Surge suppressor is incorporated in coil with diode as standard.
- *8: Tropic care treatment (rust-proof coating) is available as a measure against rust.

Note on (F)

- *9: Consult with CKD about other than above voltage.
- *10: 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.

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

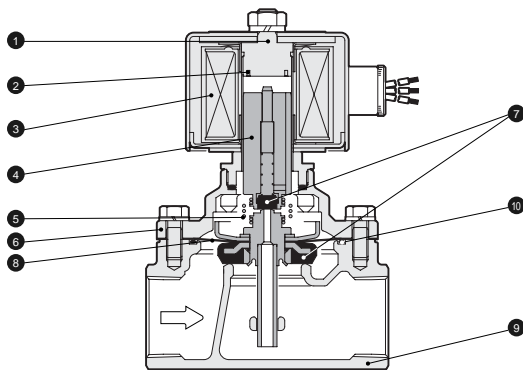
Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve

ADK21 Series

Internal structure and main parts materials

● ADK21 Series



No.	Parts name	Material	
1	Core assembly	SUS405 or equivalent, SUS316L, SUS403	Stainless steel
2	Shading coil *1	Cu (Ag when stainless steel body)	Copper (silver when stainless steel body)
3	Coil	-	-
4	Plunger assembly	SUS405 or equivalent, SUS304, C3604, NBR (SUS405 or equivalent, SUS304, FKM)	Stainless steel
5	Kick spring	SUS304	Stainless steel
6	Stuffing	CAC407 (SCS13)	Bronze casting (stainless steel casting)
7	Sealant	NBR (FKM)	Nitrile rubber (fluoro rubber)
8	Diaphragm assembly	SUS303, SUS304, NBR (SUS303, SUS304, FKM)	Stainless steel, nitrile rubber (stainless steel, fluoro rubber)
9	Body	CAC407 (SCS13)	Bronze casting (stainless steel casting)
10	O ring	NBR (FKM)	Nitrile rubber (fluoro rubber)

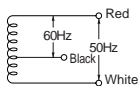
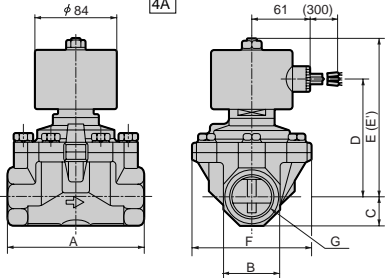
Options are shown in ().

*1: When using the DC coil or a coil with a diode, no shedding coil is used.

Dimensions (Page 302)

● Open frame lead wire type (Rc screw in type)

ADK21-32A/40A/50A-^{3A}_{4A}

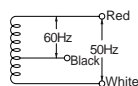
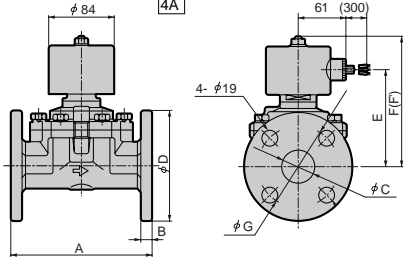


● Conduit size
Sheet steel conduit thread
JIS B 0204 CTC19

● Lead wire
30/0.18(0.75mm²)
Length 300mm

● Open frame lead wire type (flange type)

ADK21-32F/40F/50F-^{3A}_{4A}



● Conduit size
Sheet steel conduit thread
JIS B 0204 CTC19

● Lead wire
30/0.18(0.75mm²)
Length 300mm

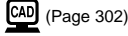
The (E') dimensions apply only for the ADK21-32A, 40A and 50A-3A DC specifications.

Model no.	A	B	C	D	E	E'	F	G
ADK21-32A- ^{3A} _{4A}	125	54	27	116.5	158.5	183.5	112	Rc1 ¹ / ₄
ADK21-40A- ^{3A} _{4A}	140	60	30	123.5	165.5	190.5	122	Rc1 ¹ / ₂
ADK21-50A- ^{3A} _{4A}	160	74	37	132.5	174.5	199.5	132	Rc2

The (F) dimensions apply only for the ADK21-32F, 40F and 50F-3A DC specifications.

Model no.	A	B	C	D	E	F	F'	G
ADK21-32F- ^{3A} _{4A}	170	12	36	135	116.5	158.5	183.5	100
ADK21-40F- ^{3A} _{4A}	180	14	42	140	123.5	165.5	190.5	105
ADK21-50F- ^{3A} _{4A}	180	14	53	155	132.5	174.5	199.5	120

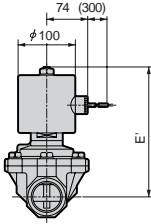
Optional dimensions



(Page 302)

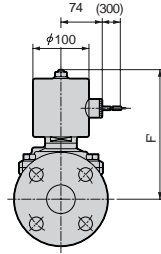
* Refer to open frame lead wire type dimensions on a left page for common dimensions.

- Open frame diode integrated lead wire type (Rc screw in type)
ADK21-32A/40A/50A-*5A



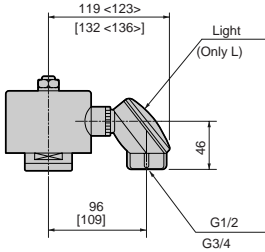
Model no.	E'
ADK21-32A-*5A	183.5
ADK21-40A-*5A	190.5
ADK21-50A-*5A	199.5

- Open frame diode integrated lead wire type (flange type)
ADK21-32F/40F/50F-*5A



Model no.	F'
ADK21-32F-*5A	183.5
ADK21-40F-*5A	190.5
ADK21-50F-*5A	199.5

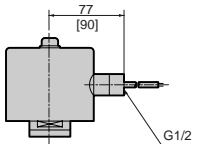
- Open frame type + round terminal box
ADK21-32 \hat{F} to 50 \hat{F} -*



Values in [] are for the ADK21-32 \hat{F} to 50 \hat{F} -*5 L type.

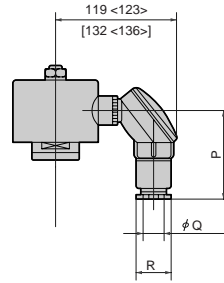
Values in < > are for the type with indicator light.

- Open frame type + conduit
ADK21-32 \hat{F} to 50 \hat{F} -*



Values in [] are for the ADK21-32 \hat{F} to 50 \hat{F} -*5 L type.

- Open frame type + cable gland
ADK21-32 \hat{F} to 50 \hat{F} -*



Values in [] are for the ADK21-32 \hat{F} to 50 \hat{F} -*5 L type.

Values in < > are for the type with indicator light.

Coil housing	3E, 3L 4E, 4L 5E, 5L			3F 4F 5F		
	A-15a	A-15b	A-15c	A-20a	A-20b	A-20c
Cable gland	85			89		
Symbol	P	Q	R	Q	R	R
		$\phi 9$	$\phi 10$	$\phi 11$	$\phi 12$	$\phi 13$
					$\phi 15$	
		28			34	

HNB/G
USB/G
FAB/G
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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

PDF/FAD/
PJ
CVE/
CVSE

CPE/
CPD
Medical
analysis

Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve