



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



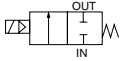
Refer to Ending 17 for more details.

Excluding ADK12

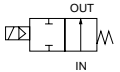


JIS symbol

- 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	AC	DC																
Model no.				AC	DC	AC	DC	AC	DC		50Hz	60Hz	50Hz	60Hz	50/60Hz																	
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																														
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)	0.9									
ADK11-20A	Rc3/4	23																														
ADK11-25A	Rc1	28															1.0															
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																														
ADK12-25A	Rc1	28																														1.2

*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

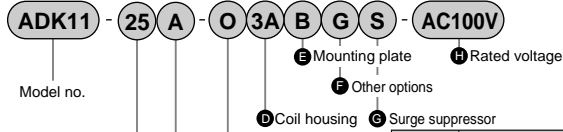
General purpose valve

Pilot kick type 2 port solenoid valve

ADK11/ADK12 Series

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		
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	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	Nitrile rubber		Air, water, low vacuum, kerosene, oil (up to 60 °C)
M Stainless steel	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 **C**: 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

C 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	Option	Open frame type (Heat proof class H)	Lead wire		B				S			100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 VDC, 100 VDC		FLB		
3K			Square terminal box (G1/2)			D	E	F				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)					G	H	S		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			Lead wire							G	H			SAB/SVB		
5K	Option	Open frame type (Diode integrated)	Square terminal box (G1/2)		B				S			100 VAC, 200 VAC		NP/NAP/NVP		
5H			Square terminal box + light (G1/2)			D	E	F				100 VAC, 200 VAC		CHB/G		
5P			Square terminal box (IP65 or equivalent) (G1/2)									100 VAC, 200 VAC		MXB/G		
5Q			Square terminal box + light (IP65 or equivalent) (G1/2)							G	H			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)
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▲ 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

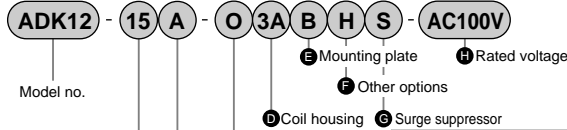
Custom order

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)	
	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)	
		Ethylene propylene diene rubber		Hot water (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)	
	Bronze	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	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)
M	Bronze	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)
P	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)
J	Bronze	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)
D	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)
B	Bronze	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)
E	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)
H	Bronze	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)
J	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)
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)
M	Bronze	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)
P	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)
R	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)
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)						100 VAC, 200 VAC, 24 VDC, 100 VDC			
3P			Square terminal box (IP65 or equivalent) (G1/2)						100 VAC, 200 VAC, 12 VDC, 24 VDC, 48 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)				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				G	H	S	100 VAC, 200 VAC			
5K			Square terminal box (G1/2)									
5H			Square terminal box + light (G1/2)									
5P			Square terminal box (IP65 or equivalent) (G1/2)									
5Q	Square terminal box + light (IP65 or equivalent) (G1/2)											

▲ 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)
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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

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FWB/G

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For dry air

Explosion proof

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Other G.P. systems

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CPE/CPD

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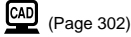
Custom order

General purpose valve

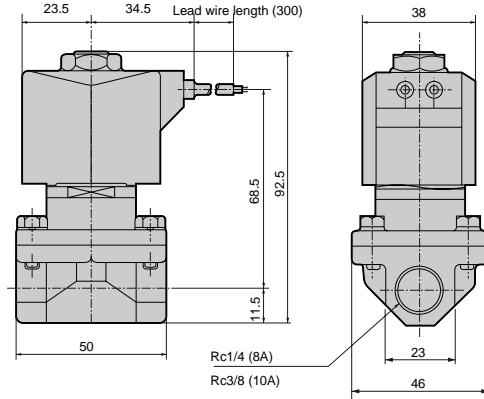
Pilot kick type 2 port solenoid valve

ADK11/ADK12 Series

Dimensions: ADK11 Series

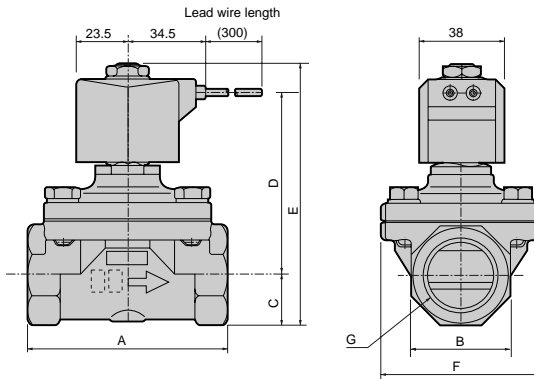


- Grommet lead wire type
ADK11-8A/10A-*2C



*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

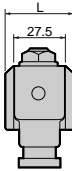
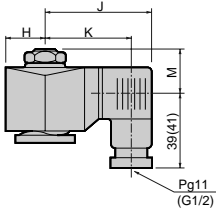


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* Refer to the grommet lead wire type dimensions on the left page for the common dimensions.

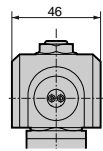
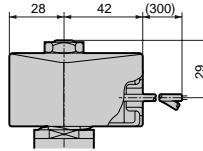
- DIN terminal box
ADK11-8A to 25A-*

2E
2G
2H



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

3A
4A
5A

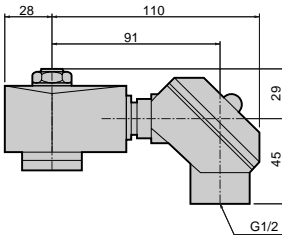


Dimensions shown in () are for the G1/2.

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

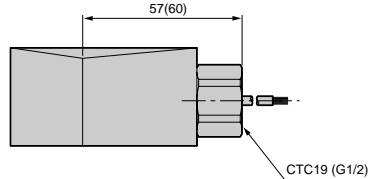
- Open frame type + square terminal box
ADK11-8A to 25A-*

3K	4K
5H	4H
P	Q



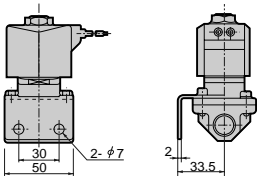
- Open frame type + conduit
ADK11-8A to 25A-*

3A	G
4A	H
5A	

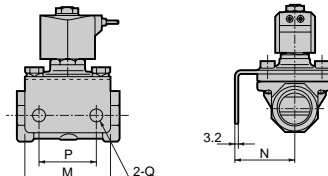


Dimensions shown in () are for the G1/2.

- 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

Custom
order

General
purpose valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

Pilot kick type 2 port solenoid valve

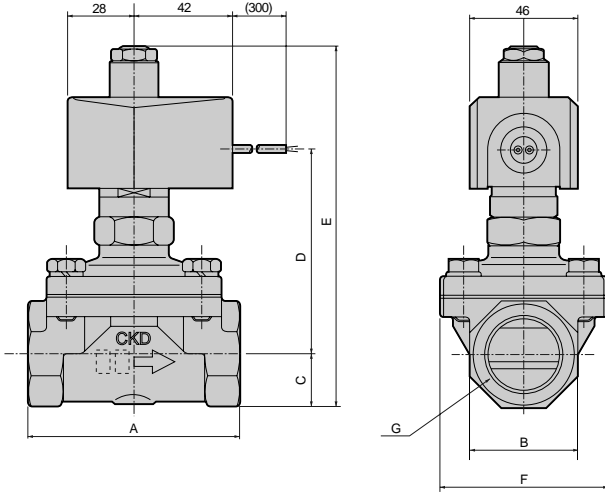
Pilot kick type 2 port solenoid valve

ADK11/ADK12 Series

Dimensions: ADK12 Series

 (Page 302)

- 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

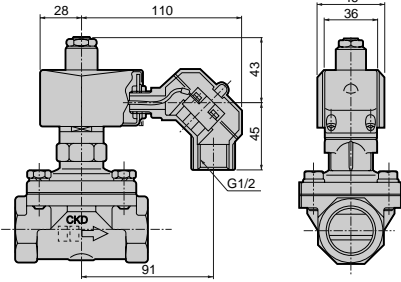
Optional dimensions: ADK12 Series



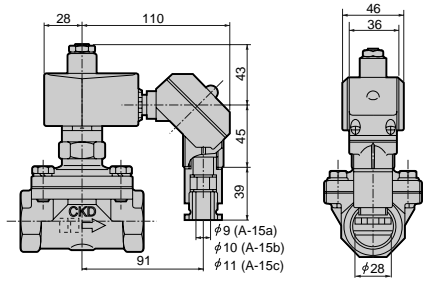
(Page 302)

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

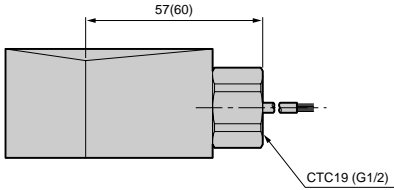
- Open frame type + square terminal box
ADK12-15A/20A/25A-*



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

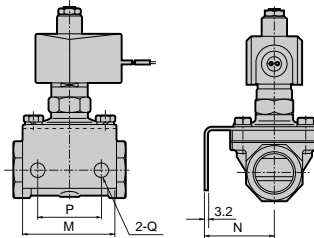


- Open frame type + conduit
ADK12-15A/20A/25A-*



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

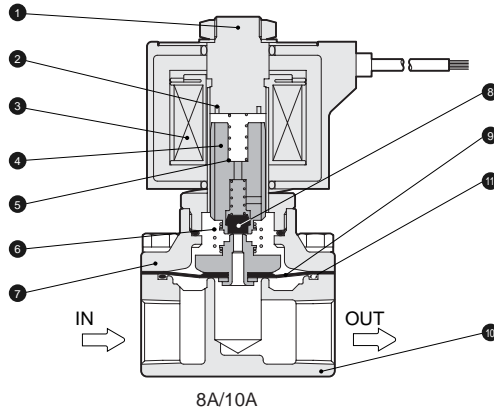
Custom
order

General purpose valve
Pilot kick type 2 port solenoid valve

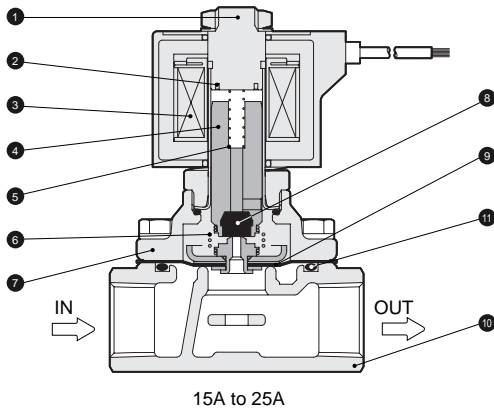
ADK11/ADK12 Series

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 ().

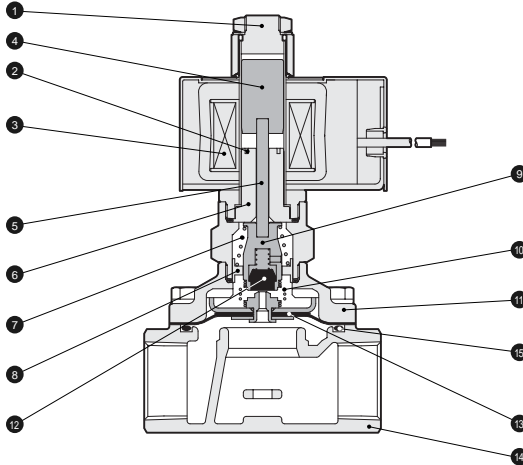
*1: When using the DC coil or a coil with a diode, no shedding coil is used.

*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