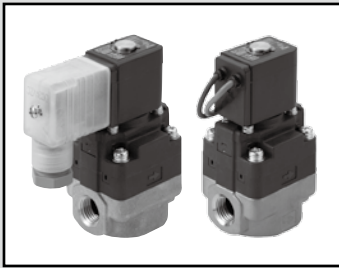


Compact pilot operated solenoid valve for water

FWD Series

- NC
- Port size: Rc1/4 to Rc1



- EXA
- FWD**
- HNB/G
- USB/G
- FAB/G
- FGB/G
- FVB
- FWB/G
- FHB
- FLB
- AB
- AG
- AP/AD
- APK/ADK
- DryAir
- EX-XPLNprf
- XPLNprf
- HVB/HVL
- SAB/NAB
- LAD/NAD
- Water-Rela
- NP/NAP/NVP
- SNP
- CHB/G
- MXB/G
- Other valves
- SWD/MWD
- DustColl
- CVE/CVSE
- CCH/CPE/D
- LifeSci
- Gas-Combus
- Auto-Water
- SpecFld
- Custom
- Ending

Specifications

Descriptions	FWD11-8A	FWD11-10A	FWD11-15A	FWD11-20A	FWD11-25A
Actuation	NC				
Working fluid	Water (excluding sewage, agricultural water, liquid manure and antifreeze liquid)				
Working pressure differential	0.02 (≈2.9 psi, 0.2 bar) to 0.7 (≈100 psi, 7 bar)				
Max. working pressure	0.7 (≈100 psi, 7 bar)				
Proof pressure (water pressure)	1.05 (≈150 psi, 10.5 bar)				
Fluid temperature	5 (41°F) to 60 (140°F) (no freezing)				
Ambient temperature	-10 (14°F) to 60 (140°F) (no freezing)				
Atmosphere	Place free of corrosive gas and explosive gas				
Valve structure	Pilot operated poppet, diaphragm drive				
Valve seat leakage	0 (water pressure) (*1)				
Mounting orientation	Unrestricted				
Degree of protection	IPX5				
Port size	Rc1/4	Rc3/8	Rc1/2	Rc3/4	Rc1
Orifice size	15 (*2)			22 (*2)	
Cv	2.8	4.2	6.0	11.0	12.0
Weight	340	320	390	730	950
Rated voltage	100 VAC 50/60 Hz, 200 VAC 50/60 Hz, 24 VDC				
Voltage fluctuation range	Rated voltage ±10%				
Apparent power	When holding (50/60 Hz): 5/4, when starting (50/60 Hz): 9/8			When holding (50/60 Hz): 9.5/7, when starting (50/60 Hz): 23/20	
Power consumption	AC(50/60 Hz):2.7/2, DC:4			AC(50/60 Hz):4/3.2, DC:4	
Thermal class	Class 130 (B)				

*1 : Valve seat leakage of 0 cm³/min means that no water drop leak is observed for one minute.

*2 : Orifice size means the size of valve seat.

How to order

FWD11 - 15 A - 0 2GS B - AC100V

Model No.

A Port size

B Thread

C Body/sealant combination

D Coil option

E Mounting plate

F Rated voltage
*2



Precautions for model No. selection

*1 : Pg9 for port sizes 8, 10 and 15, and Pg11 for 20 and 25.

*2 : Rated voltages of 110 VAC, 50/60 Hz and 220 VAC, 50/60 Hz are also available. Contact CKD for details.

[Example of model No.]

FWD11-15A-02GSB-AC100V

- A** Port size : 1/2
- B** Thread : Rc thread
- C** Body/sealant combination : Copper alloy/PPS, NBR
- D** Coil option : With DIN terminal box/surge suppressor (Pg9)
- E** Mounting plate : With mounting plate
- F** Rated voltage : 100 VAC 50/60 Hz, 110 VAC 60 Hz

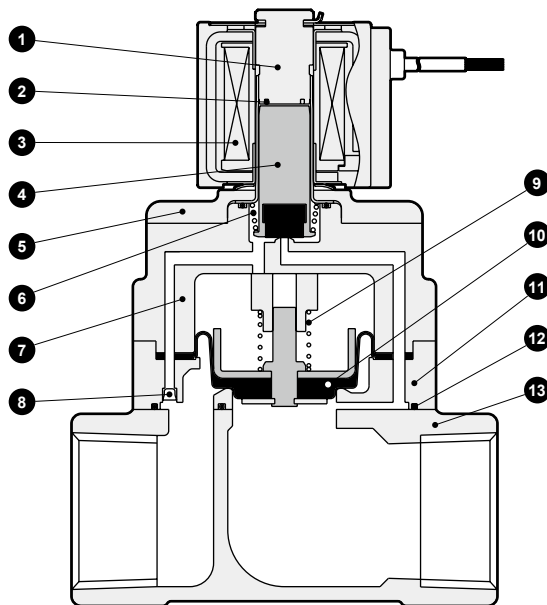
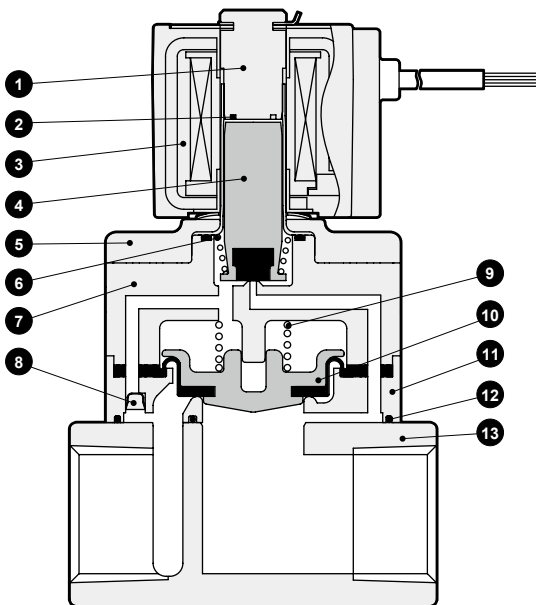
Code	Content	
A Port size		
8	1/4	
10	3/8	
15	1/2	
20	3/4	
25	1	
B Thread		
A	Rc thread	
G	G thread	
N	NPT thread	
C Body/sealant combination		
	Body	Seal
0	Copper alloy/PPS (port size: 8, 10, 15)	NBR
	Bronze/PPS (port size: 20, 25)	
D	Stainless steel/PPS	NBR
D Coil option		
2C	Grommet lead wire	
2CS	Grommet lead wire with surge suppressor	
2G	With DIN terminal box (*1)	
2GS	DIN terminal box/with surge suppressor (*1)	
2H	DIN terminal box/with lamp (*1)	
2HS	DIN terminal box/with lamp/surge suppressor (*1)	
E Mounting plate		
Blank	None	
B	Mounting plate (port size: 8, 10 and 15 only)	
F Rated voltage		
AC100V	100 VAC 50/60 Hz, 110 VAC 60 Hz	
AC200V	200 VAC 50/60 Hz, 220 VAC 60 Hz	
DC24V	24 VDC	

EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/AD
APK/ADK
DryAir
EX-XPLNprf
XPLNprf
HVB/HVL
SDB/NAB
LAD/NAD
Water-Rela
NP/NAP/NVP
SNP
CHB/G
MXB/G
Other valves
SWD/MWD
DustColl
CVE/CVSE
CCH/CPE/D
LifeSci
Gas-Combus
Auto-Water
SpecFld
Custom
Ending

Internal structure and parts list

● FWD11-8/10/15

● FWD11-20/25



No.	Part name	Material	Material
1	Core assembly	SUS	Stainless steel
2	Shading coil *1	Cu (Ag for stainless steel body)	Copper (silver for stainless steel body)
3	Coil	-	-
4	Plunger	SUS/NBR	Stainless steel, nitrile rubber
5	Holder plate	PPS	Polyphenylene sulfide
6	Plunger spring	SUS	Stainless steel
7	Stuffing assembly	PPS/SUS/NBR	Polyphenylene sulfide/ Stainless steel/nitrile rubber
8	Filter	SUS	Stainless steel
9	Valve spring	SUS	Stainless steel
10	Diaphragm assembly	Port size: 8, 10, 15; PPS/NBR Port size: 20, 25; SUS/NBR	Polyphenylene sulfide/nitrile rubber Stainless steel/nitrile rubber
11	Valve body	PPS	Polyphenylene sulfide
12	Gasket	NBR	Nitrile rubber
13	Main body	Port size: 8, 10, 15; C3771 (SCS13) Port size: 20, 25; CAC408 (SCS13)	Copper alloy (stainless steel) Bronze (stainless steel)

Note: Screws are steel.

() shows options.

*1 : No shading coil is used for DC coil.

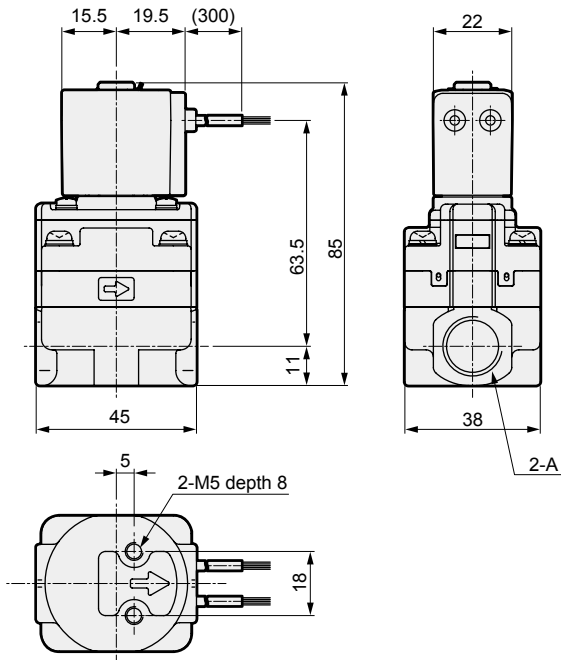
- EXA
- FWD
- HNB/G
- USB/G
- FAB/G
- FGB/G
- FVB
- FWB/G
- FHB
- FLB
- AB
- AG
- AP/
AD
- APK/
ADK
- DryAir
- EX-
XPLNprf
- XPLNprf
- HVB/
HVL
- S Δ B/
NAB
- LAD/
NAD
- Water-
Rela
- NP/NAP/
NVP
- SNP
- CHB/G
- MXB/G
- Other valves
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- CCH /
CPE/D
- LifeSci
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Water
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Dimensions (port size: 8A, 10A, 15A)

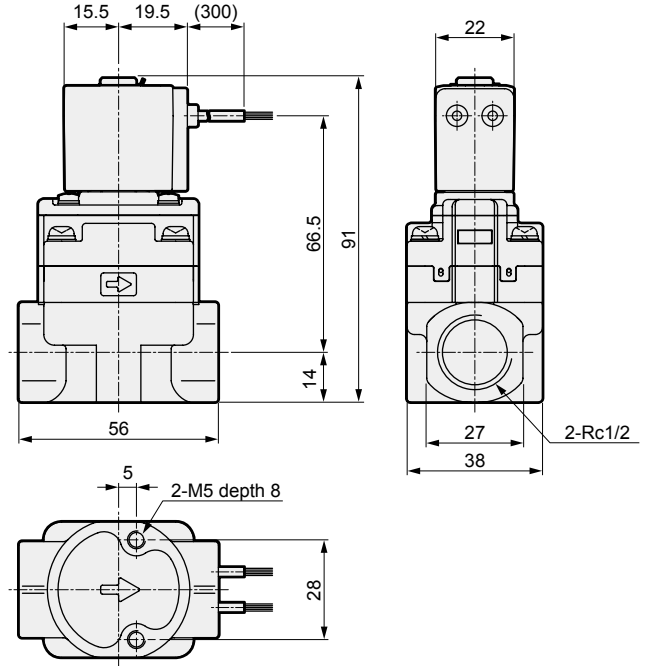


● Grommet lead wire

FWD11-8A/10A-*2C



FWD11-15A-*2C

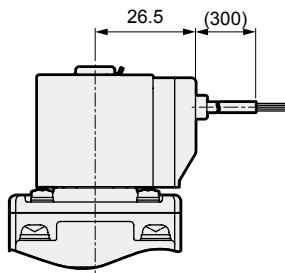


Model No.	A
FWD11-8A	Rc1/4
FWD11-10A	Rc3/8

Optional dimensions (port size: 8A, 10A, 15A)

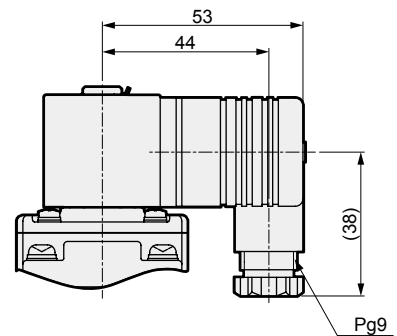
● Grommet lead wire with surge suppressor

FWD11-8A/10A/15A-*2CS



● With DIN terminal box

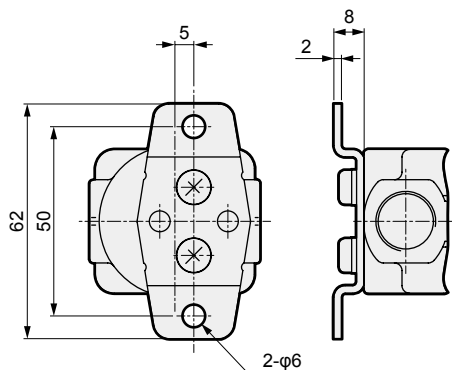
FWD11-8A/10A/15A-*2G/2GS/2H/2HS



● Mounting plate

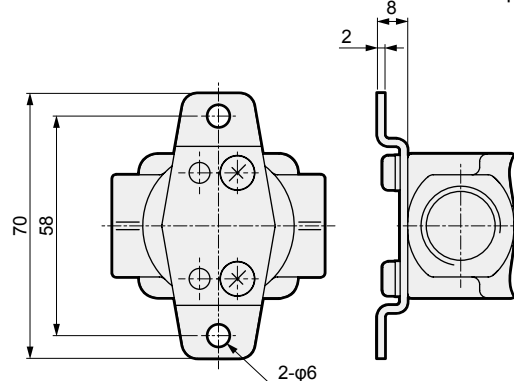
FWD11-8A/10A-***B

Material: Steel
Zinc plated



FWD11-15A-***B

Material: Steel
Zinc plated



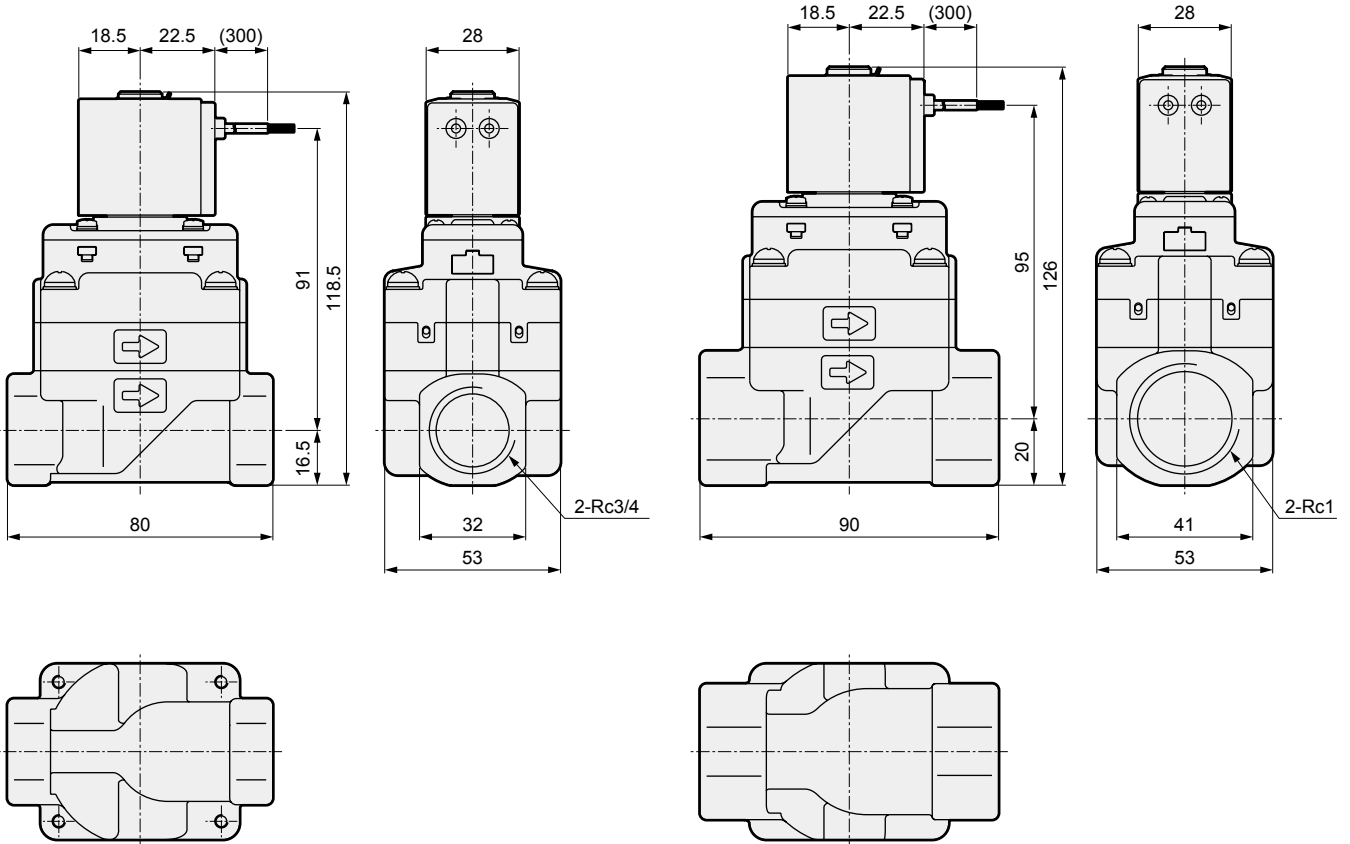
EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
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AB
AG
AP/ AD
APK/ ADK
DryAir
EX- XPLNprf
XPLNprf
HVB/ HVL
S◇B/ NAB
LAD/ NAD
Water- Rela
NP/NAP/ NVP
SNP
CHB/G
MXB/G
Other valves
SWD/ MWD
DustColl
CVE/ CVSE
CCH / CPE/D
LifeSci
Gas- Combus
Auto- Water
SpecFld
Custom
Ending



EXA Dimensions (port size 20A, 25A)

FWD ● Grommet lead wire
FWD11-20A-*2C

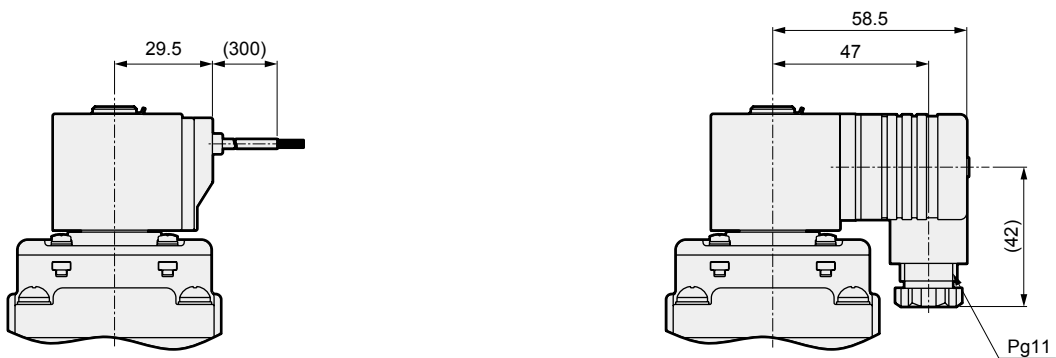
FWD11-25A-*2C



SNP Optional dimensions (port size: 20A, 25A)

CHB/G ● Grommet lead wire with surge suppressor
FWD11-20A/25A-*2CS

● With DIN terminal box
FWD11-20A/25A-*2G/2GS/2H/2HS



MEMO

EXA

FWD

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
AD

APK/
ADK

DryAir

EX-
XPLNprf

XPLNprf

HVB/
HVL

S[◇]B/
NAB

LAD/
NAD

Water-
Rela

NP/NAP/
NVP

SNP

CHB/G

MXB/G

Other
valves

SWD/
MWD

DustColl

CVE/
CVSE

CCH /
CPE/D

LifeSci

Gas-
Combus

Auto-
Water

SpecFld

Custom

Ending