



Explosion-proof 2-port solenoid valve for dust collector
(explosion-proof large port size dust collector)

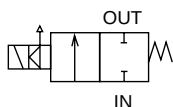
PDVE4 Series

- Pressure and explosion proof construction: d2G4 (flame-proof grade d2/ignitability G4)
- NC (open when energized)
- Port size: Rc3/4, Rc1, IN: 1 1/2-OUT: ø48, Rc1 1/2
- Certification No.: T64349



JIS symbol

- NC (open when energized)



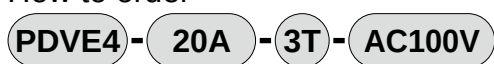
Common specifications

Item	PDVE4
Working fluid	Air (no corrosive gas)
Min. working pressure differential MPa	0.1 (≈15 psi, 1 bar)
Max. working pressure differential MPa	0.7 (≈100 psi, 7 bar)
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)
Proof pressure (water pressure) MPa	2.0 (≈290 psi, 20 bar), 1.5 (≈217 psi, 15 bar)
Fluid temperature °C	-10 (14°F) to 60 (140°F) (no freezing)
Ambient temperature °C	-10 (14°F) to 50 (122°F)
Atmosphere	Place free of corrosive gas/explosive gas, etc. (flame-proof grade 1 to 2/ignitability G1 to G4)
Valve structure	Pilot operated poppet structure (NC)
Mounting orientation	Unrestricted
Electrical specifications	
Rated voltage	100 VAC(50/60 Hz)/110 VAC(60 Hz), 200 VAC(50/60 Hz)/220 VAC(60 Hz)
Voltage fluctuation range	-10 to +5% of rated voltage
Apparent power (VA)	Holding: 18(50 Hz), 15(60 Hz) Starting: 29(50 Hz), 24(60 Hz)
Power consumption W	8(50 Hz), 7(60 Hz)
Thermal class	Class 130 (B)

Individual specifications

Item	Port size	Orifice size (mm)	Cv	Weight (kg)
Model No.				
PDVE4-20A	Rc3/4	23	11	1.21
PDVE4-25A	Rc1	28	18	1.36
PDVE4-40A	IN:Rc1 1/2 - OUT: O.D. ø48 Length 52	37	45	1.78
PDVE4-40A-RC	Rc1 1/2	37	45	1.67
PDVE4-50A	Rc2	53	62	2.76

How to order



Model No.

Coil code

A Port size and diaphragm material

*1

*2

*3

B Rated voltage

[Example of model No.]

PDVE4-25A-3T-AC100V

Model PDVE4

A Port size and diaphragm material

: Rc1, diaphragm - urethane rubber

B Rated voltage : 100 VAC(50/60 Hz)/110 VAC(60 Hz)

Code	Description	Diaphragm material	
		Urethane rubber	Nitrile rubber
A Port size and diaphragm material			
20A	Rc3/4	●	
25A	Rc1	●	
40A	IN:Rc1½ OUT: O.D. ø48, length 52		●
40A-RC	Rc1½		●
50A	Rc2		●
B Rated voltage			
AC100V	100 VAC(50/60 Hz)/110 VAC(60 Hz)	For voltages other than above, contact CKD.	
AC200V	200 VAC(50/60 Hz)/220 VAC(60 Hz)		

*1 : For Item **A** (Port size) 20A/25A, diaphragm material is urethane rubber. (Nitrile rubber diaphragm can be made to order.)

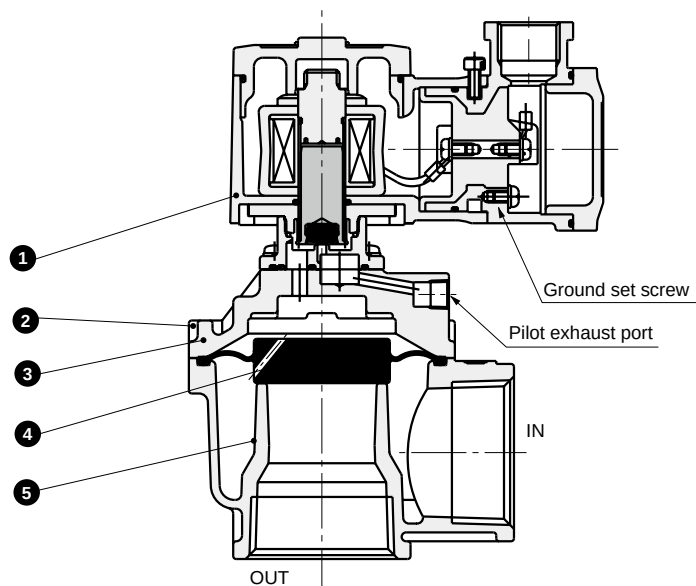
*2 : For Item **A** (Port size) 40A/40A-RC/50A, diaphragm material is nitrile rubber. (Urethane rubber diaphragm is not available.)

*3 : For Item **A** (Port size) 40A/40A-RC, main valving element material is nylon resin.

*4 : Contact CKD when using as a dust collector for ash treatment or combustion gas at a waste incinerator.

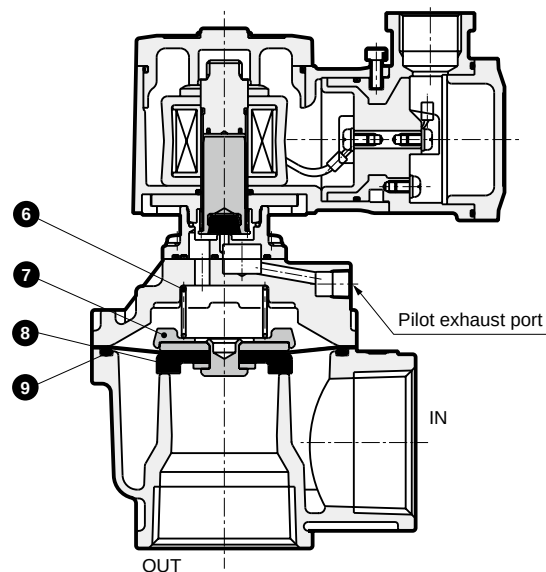
Internal structure and parts list

● 20A/25A



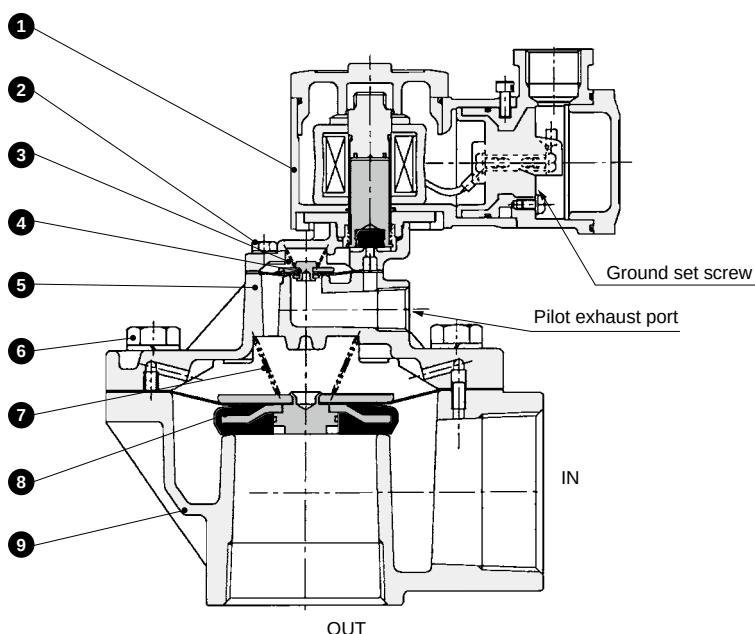
● 40A-RC/40A

* The shape of 40A body is different from the figure below.



No.	Part name	Material	No.	Part name	Material
1	Explosion-proof solenoid valve		6	Spring	SUS304 Stainless steel
2	Hex upset bolt	SUS304 Stainless steel	7	Spacer	PA Nylon resin
3	Cover	AC4C Aluminum casting	8	Diaphragm assembly	SUS304, PA NBR Stainless steel, nylon resin Nitrile rubber
4	Diaphragm	U Urethane rubber	9	O-ring	NBR Nitrile rubber
5	Body	ADC12 Aluminum die-casting			

● 50A



No.	Part name	Material	No.	Part name	Material
1	Explosion-proof solenoid valve		6	Hexagon head bolt	SUS304 Stainless steel
2	Hex upset bolt	SUS304 Stainless steel	7	Mainspring	SUS304 Stainless steel
3	Pilot spring	SUS304 Stainless steel	8	Main diaphragm assembly	SUS304, 316L, NBR Stainless steel, nitrile rubber
4	Pilot diaphragm assembly	SUS304, NBR, PTFE S.S., NBR, TFE resin	9	Body	ADC12 Aluminum die-casting
5	Body	ADC12 Aluminum die-casting			

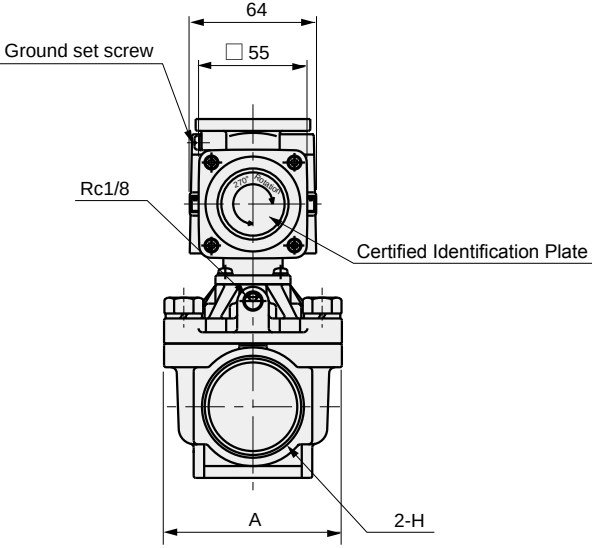
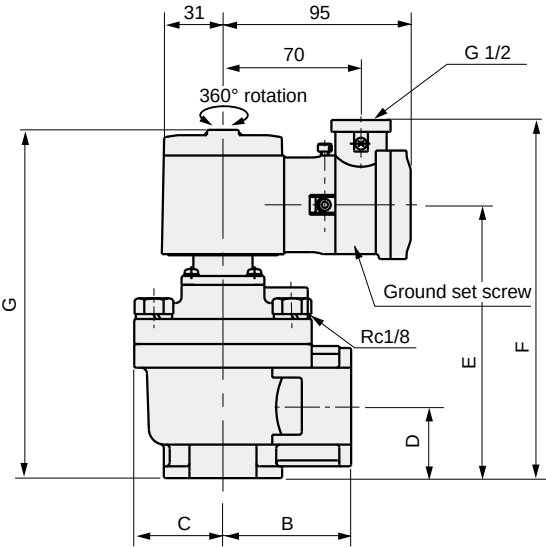
EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/
AD
APK/
ADK
DryAir
EX-
XPLNprf
XPLNprf
HVB/
HVL
S B/
NAB
LAD/
NAD
Water-
Rela
NP/NAP/
NVP
SNP
CHB/G
MXB/G
Other valves
SWD/
MWD
DustColl
CVE/
CVSE
CCH/
CPE/D
LifeSci
Gas-
Combus
Auto-
Water
Outdoor
SpecFld
Custom
Ending

PDVE4 Series

- 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
- NPN/NP/
NVP
- SNP
- CHB/G
- MXB/G
- Other
valves
- SWD/
MWD
- DustColl
- CVE/
CVSE
- CCH/
CPE/D
- LifeSci
- Gas-
Combus
- Auto-
Water
- Outdoor
- SpecFld
- Custom
- Ending

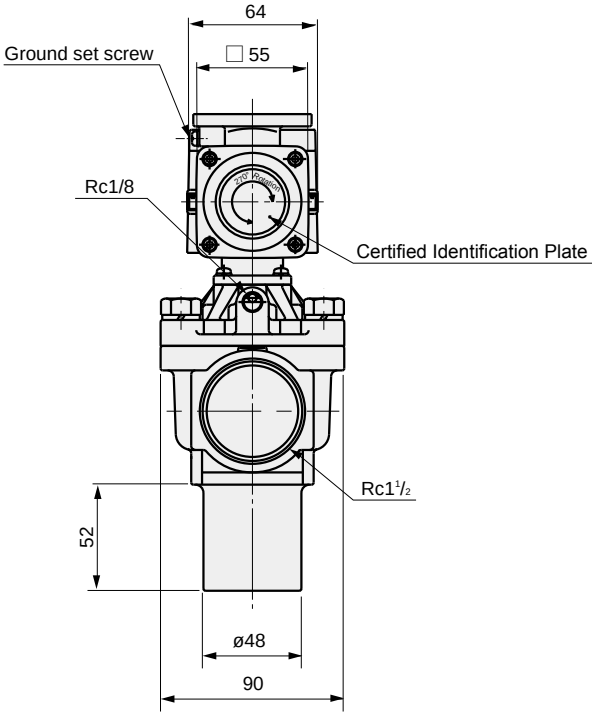
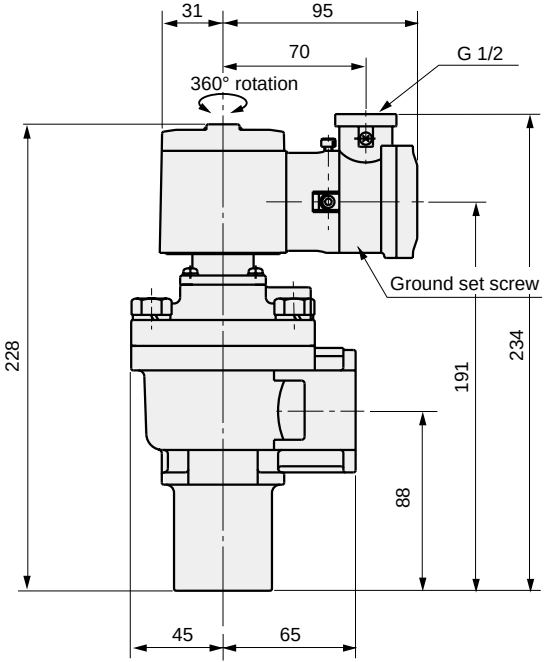
Dimensions

● 20A/25A/40A-RC



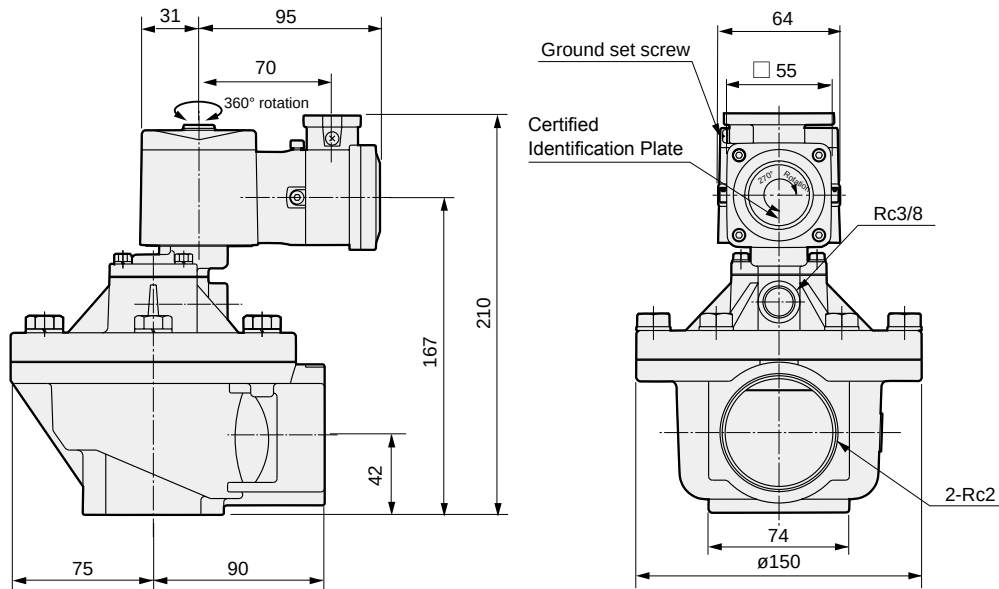
Model No.	A	B	C	D	E	F	G	H
PDVE4-20A-3T	60	40	31.5	31	113	156	150	Rc3/4
PDVE4-25A-3T	71	45	37.5	39	126	169	163	Rc1
PDVE4-40A-RC-3T	90	65	45	36	139	182	176	Rc1½

● 40A



Dimensions

● 50A



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
Outdoor
SpecFld
Custom
Ending