



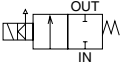
Explosion proof 2 port solenoid valve for dust collector control
(explosion proof pulsejet valve)

PDVE4 Series

- Pressure and explosion proof structure d2G4 (flame-proof grade 2, ignitability G4)
- NC (normally closed) type
- Port size: Rc3/4, Rc1, IN: 1 1/2 - OUT: ø48, Rc1 1/2
- Certification No.: No. T64349

JIS symbol

- NC (normally closed) type



Common specifications

Item	PDVE4
Working fluid	Air (no corrosive gas)
Min. working pressure dif. MPa	0.1
Max. working pressure dif. MPa	0.7
Max. working pressure MPa	0.7
Withstanding pressure (water) MPa	2.0
Fluid temperature °C	-10 to 60 (no freezing)
Ambient temperature °C	-10 to 50
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Pilot operated poppet structure (normally closed)
Mounting attitude	Free
Electric 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)
Heat proof class	B

Individual specifications

Item	Port size	Orifice (mm)	Cv flow factor	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: OD 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

PDVE4 - **20A** - **3T** - **AC100V**

Model no.

Coil symbol

A Port size and diaphragm material

*1

*2

*3

B Voltage

<Example of model number>

PDVE4-25A-3T-AC100V

Model no.: PDVE4

A Port size and diaphragm material: Rc1, diaphragm - urethane rubber

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

Symbol	Descriptions	Diaphragm material	
		Urethane rubber	Nitrile rubber
A Port size and diaphragm material			
20A	Rc3/4	●	
25A	Rc1	●	
40A	IN: Rc1 1/2 OUT: OD ø48, length 52		●
40A-RC	Rc1 1/2		●
50A	Rc2		●
B Voltage			
AC100V	100 VAC (50/60 Hz), 110 VAC (60 Hz)	Consult with CKD about other optional voltages.	
AC200V	200 VAC (50/60 Hz), 220 VAC (60 Hz)		

*1: When **A** (port size) is 20A or 25A, the diaphragm material is urethane rubber. (Nitrile rubber diaphragm is custom ordered.)

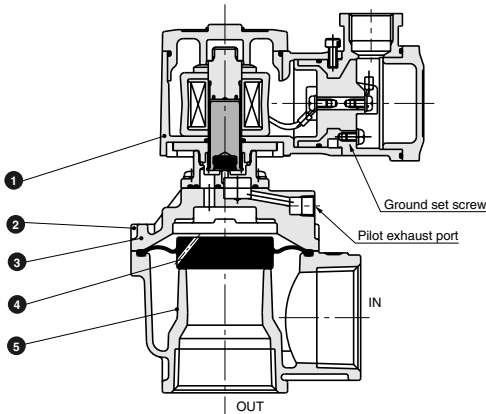
*2: When **A** (port size) is 40A, 40A-RC or 50A, the diaphragm material is nitrile rubber. (Urethane rubber diaphragm is not available.)

*3: When **A** (port size) is 40A or 40A-RC, the main valving element material is nylon resin.

*4: Consult with CKD when using the valve at a garbage incineration plant for smoke treatment, or in a dust collector for combustible gas, etc.

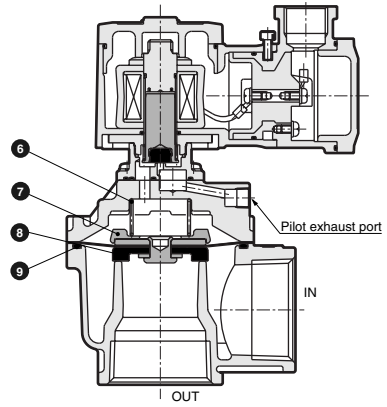
Internal structure and parts list

● 20A/25A



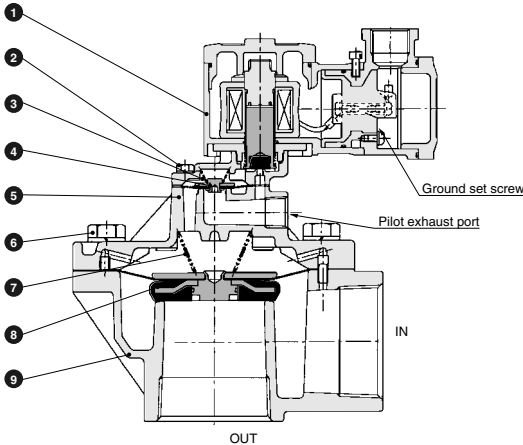
● 40A-RC/40A

* 40A has a different shape than below.



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

● 50A



No.	Parts name	Material	No.	Parts name	Material
1	Explosion proof solenoid valve		6	Hexagon head bolt	SUS304 Stainless steel
2	Hexagon head upset head bolt	SUS304 Stainless steel	7	Main spring	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 Stainless steel, nitrile rubber, tetrafluoroethylene resin	9	Body	ADC12 Aluminum die casting
5	Stuffing	ADC12 Aluminum die casting			

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

CVB/
CVSE

CPE/
CPD

Medical
analysis

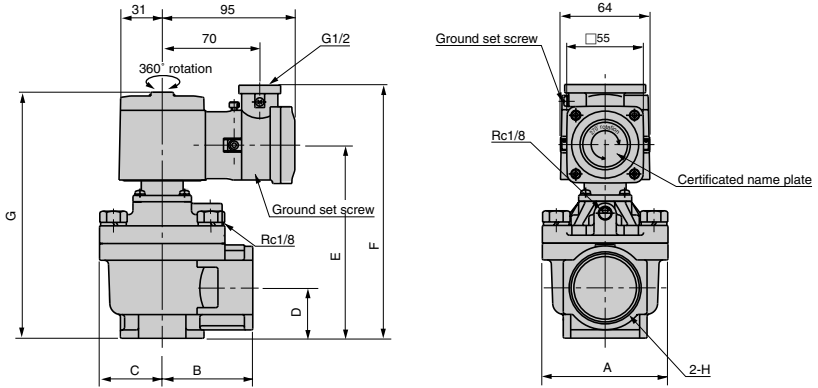
Custom
order

For dust collector control
Fluid control components for air blow

PDVE4 Series

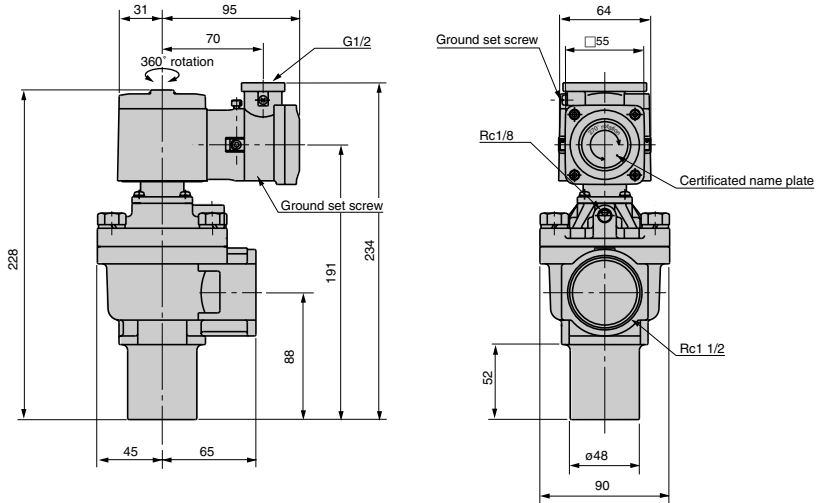
Dimensions

● 20A/25A/40A-RC



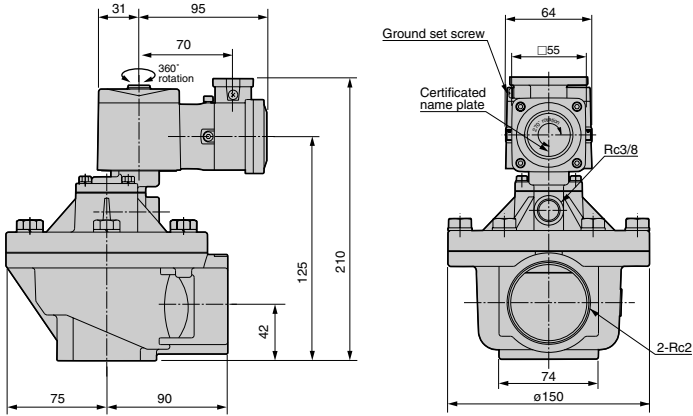
Model no.	A	B	C	D	E	F	G	H
PDVE4-20A-3T	60	40	31.5	31	113	156	150	Rc3/4
PDVE4-25A-3T	71	45	37.5	39	126	169	163	Rc1
PDVE4-40A-RC-3T	90	65	45	36	139	182	176	Rc1 1/2

● 40A



Dimensions

● 50A



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/
P.J

CVE/
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Medical
analysis

Custom
order

For dust collector control
Fluid control components for air blow

Fluid control components for air blow

Electronic Catalog file list

Fluid control components for air blow

High performance direct acting 2 port solenoid valve (page 669)

Electronic Catalog file list is applied to "CAD DATA 2006".

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
PJ-C6	PJ_GPJ	pj_c6	CKD-PJ-C6
GPJ-0		gpj_0	CKD-GPJ-0

Pilot operated 2 port solenoid valve (pages 673 to 674)

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
FAD-8A/10A-2C	FAD	fad_8a_10a_2c	CKD-FAD-8A/10A-2C
FAD-8A/10A-2CS		fad_8a_10a_2cs	CKD-FAD-8A/10A-2CS
FAD-8A/10A-2G		fad_8a_10a_2g	CKD-FAD-8A/10A-2G
FAD-L10/15A-2C		fad_l10_15a_2c	CKD-FAD-L10/15A-2C
FAD-L10/15A-2G		fad_l10_15a_2g	CKD-FAD-L10/15A-2G
FAD-L10/15A-2CS		fad_l10_15a_2cs	CKD-FAD-L10/15A-2CS
FAD-L10/15A-2CG		fad_l10_15a_2cg	CKD-FAD-L10/15A-2CG
FAD-L10/15A-3T		fad_l10_15a_3t	CKD-FAD-L10/15A-3T
Accessory (mounting plate)		fad_f	CKD-FAD-F

Direct acting 2 port solenoid valve (page 677)

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
FAPB-8-5	FAPB	fapb_8_5	CKD-FAPB-8-5

Pilot operated 2 port valve for dust collector control (pages 681 to 683)

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
PD3-20A	PD3_PDV3	pd3_20a	CKD-PD3-20A
PD3-25A		pd3_25a	CKD-PD3-25A
PD3-40A		pd3_40a	CKD-PD3-40A
PD3-40A-RC		pd3_40a_rc	CKD-PD3-40A-RC
PDV3-20A		pdv3_20a	CKD-PDV3-20A
PDV3-25A		pdv3_25a	CKD-PDV3-25A
PDV3-40A		pdv3_40a	CKD-PDV3-40A
PDV3-40A-RC		pdv3_40a_rc	CKD-PDV3-40A-RC
Accessory DIN terminal box (G1/2, Pg11), with light, conduit (CTC19, G1/2), T type terminal box (G1/2), with light		pdv3_f	CKD-PDV3-F

Box type manifold solenoid valve for control (page 691)

Model no.	DXF		MICRO CADAM
	Folder name	Filename	Filename (GROUP: CAD, USER: STDLIB)
PJVB-6	PJVB	pjvb_6	CKD-PJVB-6
PJVB-8		pjvb_8	CKD-PJVB-8