

Discrete valve ISO size 2
 DIN terminal box type
 5 port pilot operated valve ISO conformed valve

PV5G-8 Series

● Applicable cylinder bore size: Max. $\phi 160$



Refer to Intro 17
 for details.

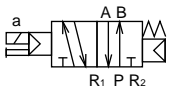


- MN3E0
- MN4E0
- 4GA/B
- M4GA/B
- MN4GA/B
- 4GA/B (Master)
- W4GA/B2
- W4GB4
- MN3S0
- MN4S0
- 4TB
- 4L2-4/LMFO
- 4SA/B0
- 4SA/B1
- 4KA/B
- 4F
- PV5G/CMF
- PV5/CMF
- 3MA/B0
- 3PA/B
- P/M/B
- NP/NAP/NVP
- 4F*0E
- HMV
- HSV
- 2QV
- 3QV
- SKH
- PCD/FS/FD
- Ending

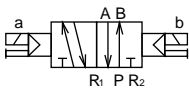
JIS symbol

● 5 port valve

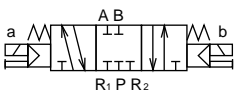
2-position single solenoid (FG-S)



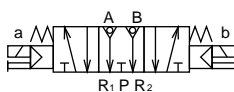
2-position double solenoid (FG-D)



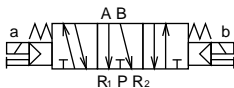
3-position all ports closed (FHG)



3-position all ports closed non-leak type (FPG)



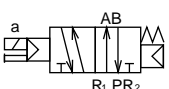
3-position A/B/R connection (FJG)



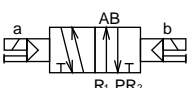
3-position P/A/B connection (FIG)



2-position single solenoid exhaust pressurization type (YZ-S)



2-position double solenoid exhaust pressurization type (YZ-D)



Common specifications

Descriptions		
Type of valve and operator	Pilot operated soft spool valve	
Working fluid	Compressed air	
Max. working pressure MPa	1.0	
Min. working pressure MPa	0.15 0.20 (3-position) Note 1	
Withstanding pressure MPa	1.50	
Ambient temperature °C	-5 to 60 (no freezing)	
Fluid temperature °C	5 to 60	
Lubrication	Not required	
Protective structure	Dust proof, jet-proof (IP65 or equivalent)	
Leakage cm ³ /min. (A, B → R port)	10 (ANR) or less 3-position all ports closed non-leak type only 0.3 (ANR) or less Note 2	
Vibration/impact m/s ²	50 or less / 300 or less	
Working environment	Use in the environment containing corrosive gas is not permissible.	

Note 1: Use the supply pressure at $R_1 > R_2 \geq 0.15$ MPa only for YZ-S.

Note 2: Indicates the default.

Electric specifications

Descriptions				
Rated voltage V	AC	100 (50 / 60 Hz)		
		110 (50 / 60 Hz)		
	DC	12, 24		
Rated voltage fluctuation range		±10%		
Apparent power VA		Without light		With light
		100 V	2.3 (0.023)	2.4 (0.024)
Note 3 (Ampere A)	AC	110 V	2.5 (0.023)	2.6 (0.024)
		DC	12 V	1.0 (0.083)
Power consumption W (Ampere A)	DC	24 V	1.0 (0.042)	1.2 (0.050)
		Heat proof class		B (molded coil)
Wiring methods		Electric plug connector		

Note 3: The AC type current is the holding current.

Individual specifications

Descriptions		PV5G-8			
Port size		Note 1	Rc3/8	Rc1/2	Rc3/4
Response time ms	2-position	Single solenoid	40 (when ON), 60 (when OFF)		
		Double solenoid	40		
Note 2	3-position		40 (when ON), 60 (when neutral)		
Weight kg	2-position	Single solenoid	0.63		
		Double solenoid	0.67		
Note 3	3-position	Other than non-leak type	0.70		
		All ports closed non-leak type	1.35		

Note 1: G threads and NPT threads are available for the piping port threads. Contact CKD for information.

Note 2: Response time is the value at an air supply of 0.5 MPa, and oil-free. The value will change based on quality of pressure and oil.

Note 3: Weight does not include the sub-plate.

Flow characteristics

Model no.	Port size	Solenoid position	P → A/B		A/B → R1/R2	
			C (dm ³ /(s·bar))	b	C (dm ³ /(s·bar))	b
PV5G-8	Rc3/8	2-position single solenoid	10.7	0.17	13.0	0.19
		2-position double solenoid	10.7	0.17	13.0	0.19
		3-position all ports closed	10.0	0.16	11.0	0.25
		3-position A/B/R connection	9.9	0.14	13.0	0.16
		3-position P/A/B connection	11.0	0.12	12.0	0.21
		3-position all ports closed non-leak	6.6	-	6.2	-

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

Coolant proof specifications

Can be selected with "D" option "A" in How to Order on page 990.

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

Discrete 5 port pilot operated valve

PV5G-8 Series

Discrete valve: ISO size 2

How to order DIN terminal box type

● ISO size 2

PV5G - 8 - FG-S - 3 - N - A03

Model no.

ISO size 2

A Solenoid position

B Voltage

C Light and surge suppressor

D Option

E Sub-plate and port size

⚠ Note on model no. selection

Note 1: Refer to page 978 for the circuit diagram of the type with indicator light and surge suppressor.

<Example of model number>

PV5G-8-FG-S-3-N-A03

Model: PV5G/ISO size 2 (DIN terminal box type)

A Solenoid position : P pressurization type 2-position single solenoid

B Rated voltage : 24 VDC

C Power indicator light : With light and surge suppressor

D Option : None

E Sub-plate port size : Side porting Rc3/8
Port R Rc1/2

Symbol	Descriptions	Model no.
A Solenoid position		
FG-S	P pressurization type	2-position single solenoid ●
FG-D		2-position double solenoid ●
FHG-D		3-position all ports closed ●
FJG-D		3-position A/B/R connection ●
FIG-D		3-position P/A/B connection ●
FPG-D		3-position all ports closed non-leak ●
YZ-S	Exhaust	2-position single solenoid ●
YZ-D	pressurization type	2-position double solenoid ●
B Voltage		
1	100 VAC	●
3	24 VDC	●
4	12 VDC	●
5	110 VAC	●
C Light and surge suppressor		
Blank	None	●
N	With light / surge suppressor Note 1	●
D Option		
Blank	None	●
A	Coolant proof	●
E Sub-plate and port size		
Blank	Without sub-plate	●
A03	Side porting Rc3/8 (Rc1/2 for R port)	●
A04	Side porting Rc1/2	●
A06	Side porting Rc3/4	●
B03	Back porting Rc3/8 (Rc1/2 for R port)	●
B04	Back porting Rc1/2	●
B06	Back porting Rc3/4	●

ISO size 2 Sub-plate specifications and how to order

CB2 - A03

A Port connection

Symbol	Method	P/A/B port	R1/R2 port	Weight (kg)
A Port connection				
A03	Side porting	Rc3/8	Rc1/2	0.66
A04		Rc1/2		0.64
A06		Rc3/4	Rc3/4	1.40
B03	Back porting	Rc3/8	Rc1/2	0.62
B04		Rc1/2		0.61
B06		Rc3/4	Rc3/4	1.40

PV5G-8 Series

Discrete valve: ISO size 2

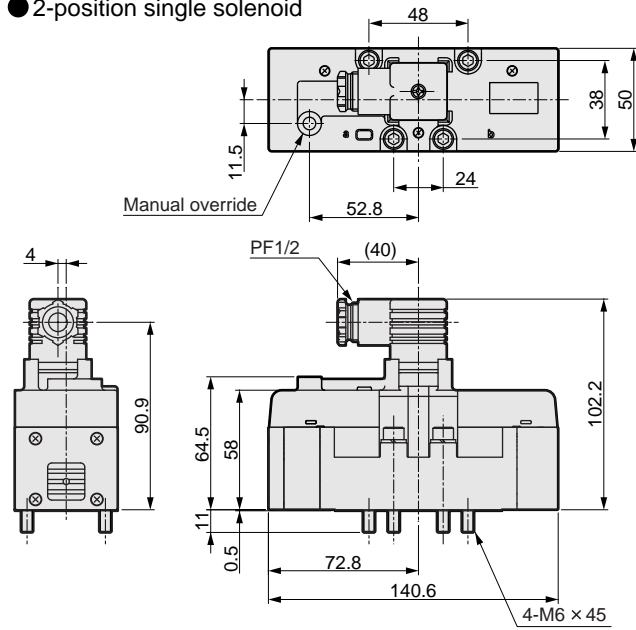
MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMFO
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV/HSV
2QV/3QV
SKH
PCD/FS/FD
Ending

Dimensions: DIN terminal box type (without sub-plate)

PV5G-8-FG-S-*

PV5G-8-YZ-S-*

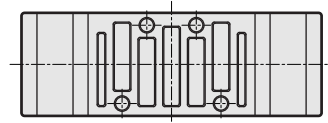
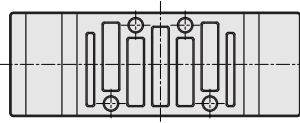
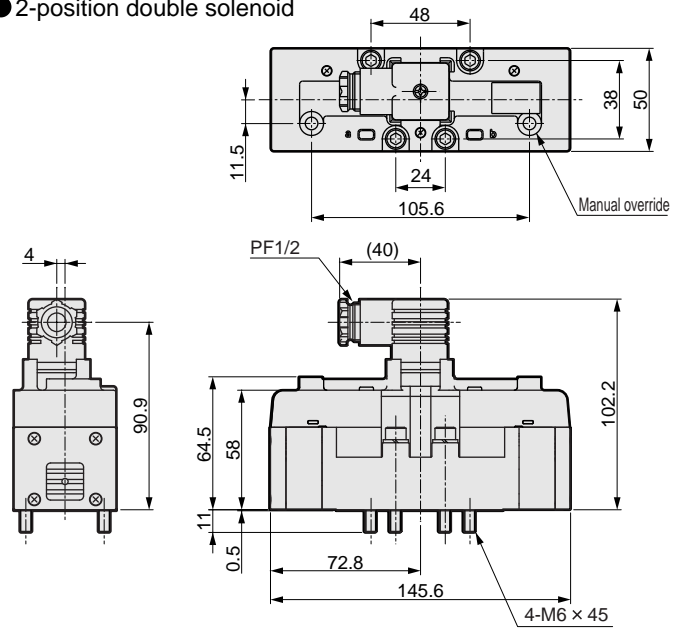
● 2-position single solenoid



PV5G-8-FG-D-*

PV5G-8-YZ-D-*

● 2-position double solenoid

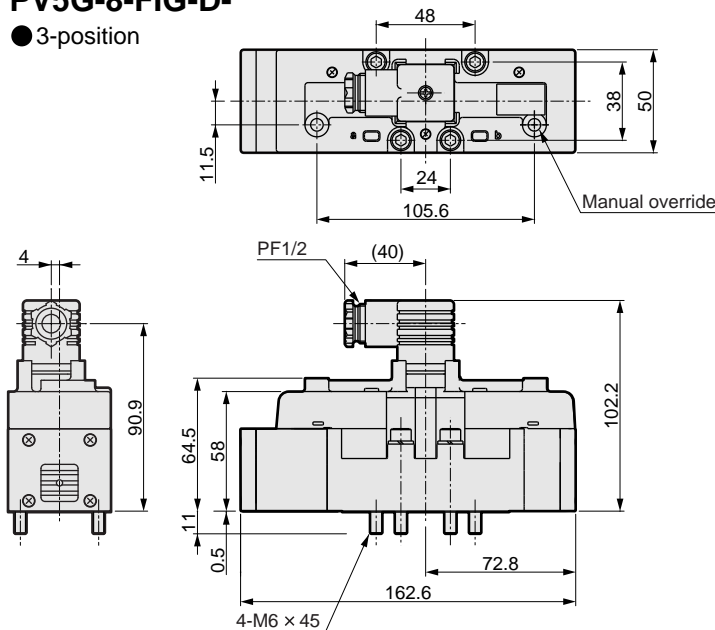


PV5G-8-FHG-D-*

PV5G-8-FJG-D-*

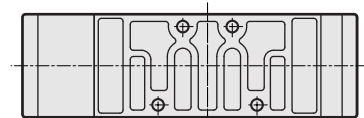
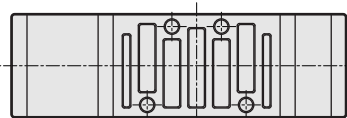
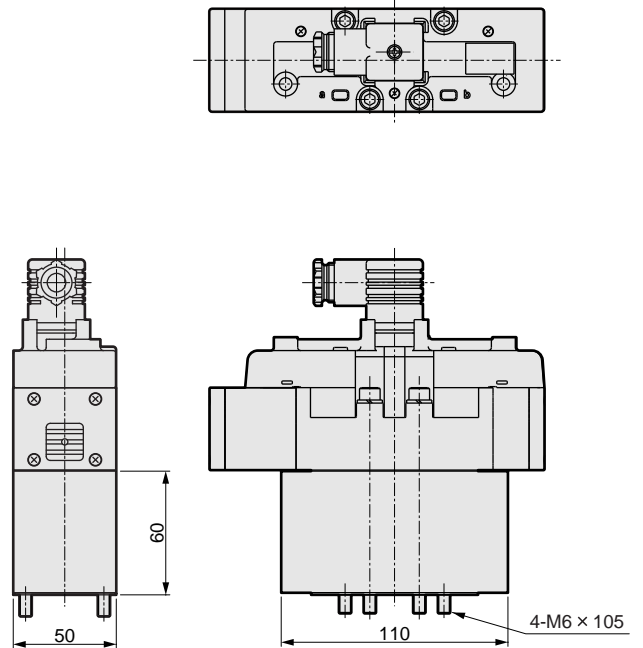
PV5G-8-FIG-D-*

● 3-position



PV5G-8-FPG-D-*

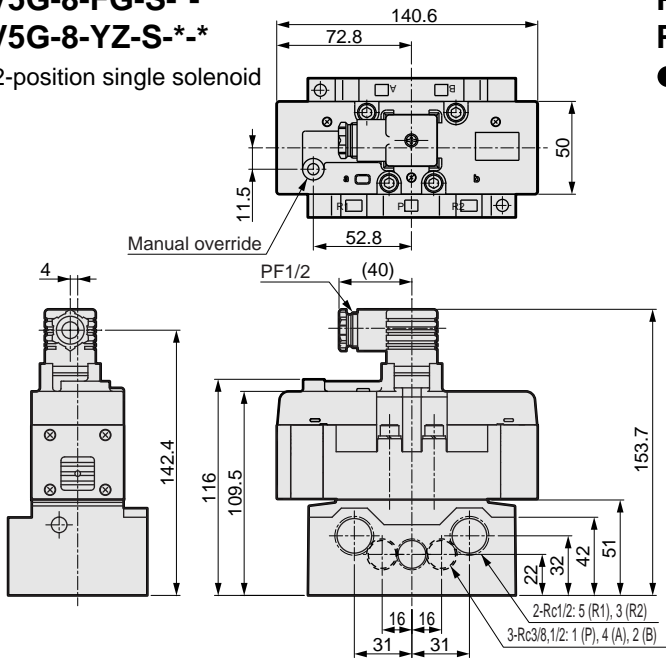
● 3-position, non-leak type



Dimensions: DIN terminal box type (with sub-plate)

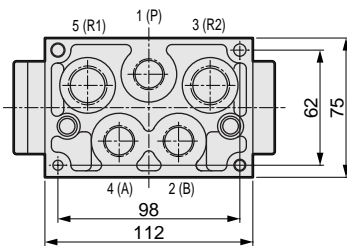
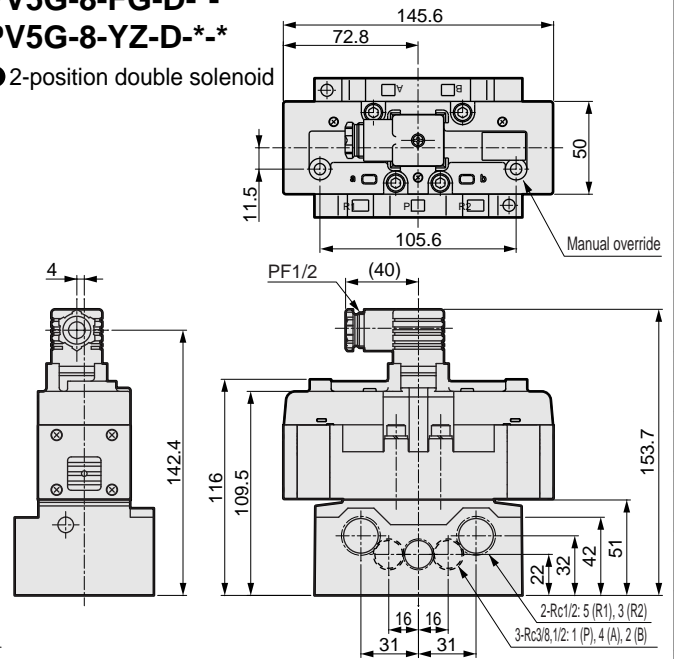
PV5G-8-FG-S--***
PV5G-8-YZ-S--***

● 2-position single solenoid

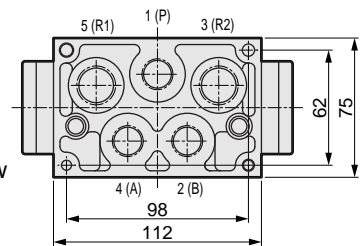


PV5G-8-FG-D--***
PV5G-8-YZ-D--***

● 2-position double solenoid



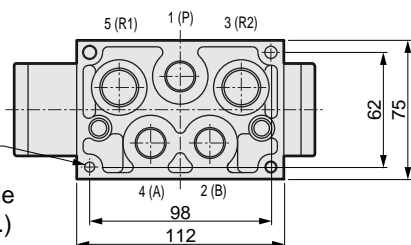
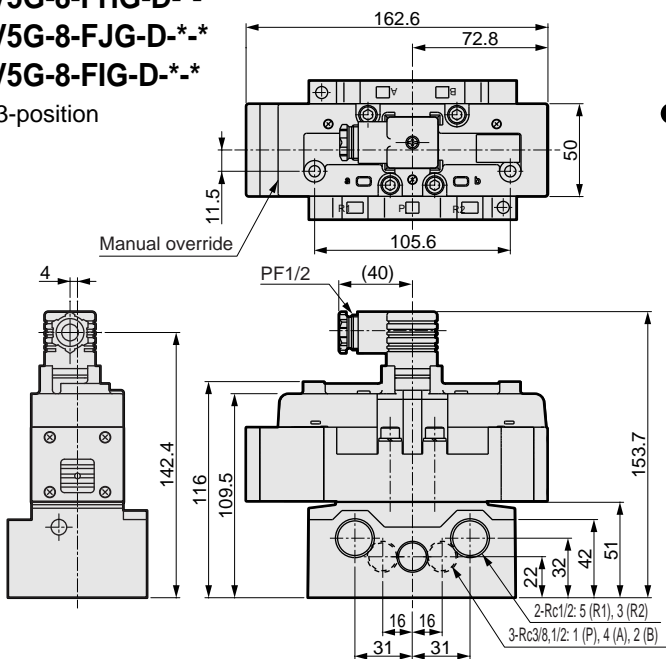
(Note: Refer to table below for CB2-^A_B06 dimension.)



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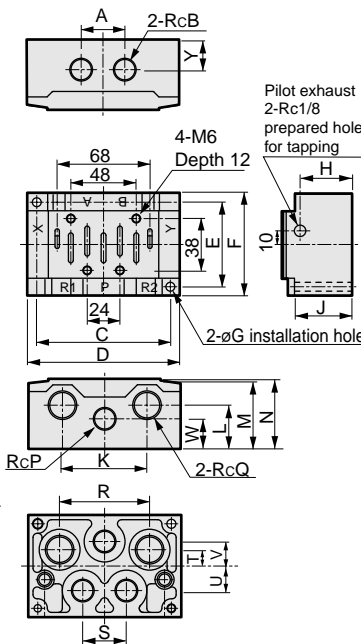
PV5G-8-FHG-D--***
PV5G-8-FJG-D--***
PV5G-8-FIG-D--***

● 3-position



(Note: Refer to right table for CB2-^A_B06 dimension.)

● Sub-plate dimensions (CB2-*)



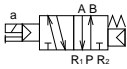
Model no.	CB2- ^A _B 03	CB2- ^A _B 04	CB2- ^A _B 06
A	32	40	
B	3/8	1/2	3/4
C	98	128	
D	112	142	
E	62	72	
F	75	86	
G	6.5	7.5	
H	38	53	
J	42	55	
K	62	84	
L	32	42	
M	50	62	
N	51	63	
P	3/8	1/2	3/4
Q	1/2	3/4	
R	66	84	
S	32	40	
T	12	16	
U	18	22	
V	18	23	
W	22	30	

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
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4L2-4/LMFO
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4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending
Discrete 5 port pilot operated valve

Internal structure and parts list: DIN terminal box type

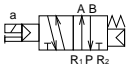
PV5G-8-FG-S

- 2-position single solenoid



PV5G-8-YZ-S

- 2-position single solenoid exhaust pressurization type



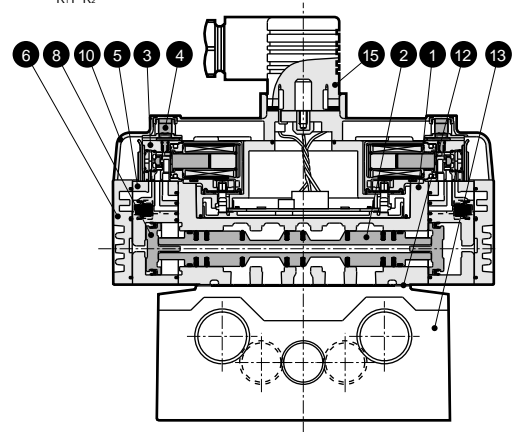
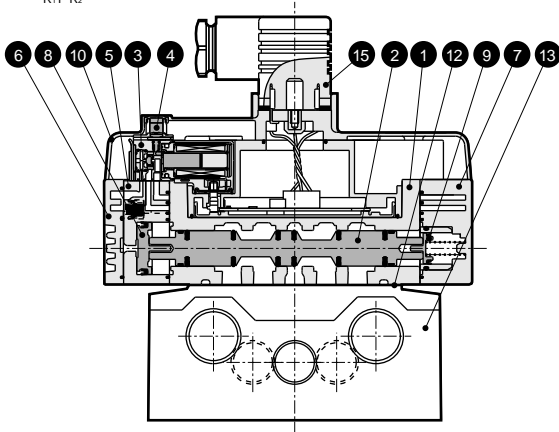
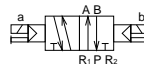
PV5G-8-FG-D

- 2-position double solenoid



PV5G-8-YZ-D

- 2-position double solenoid exhaust pressurization type



PV5G-8-FHG-D

- 3-position all ports closed



PV5G-8-FJG-D

- 3-position A/B/R connection



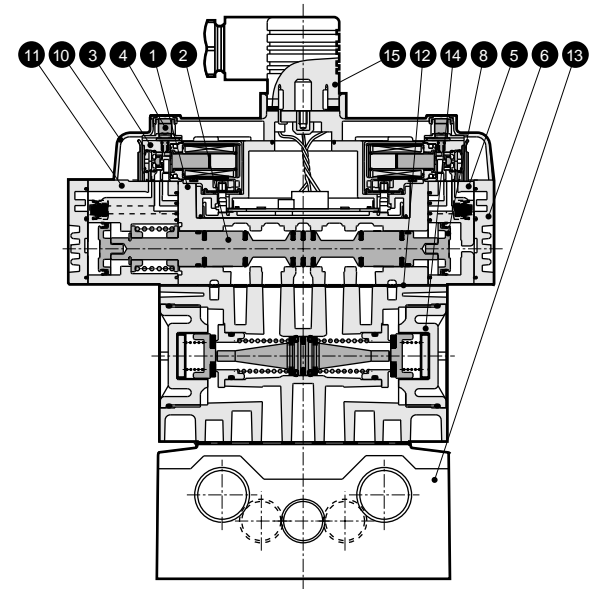
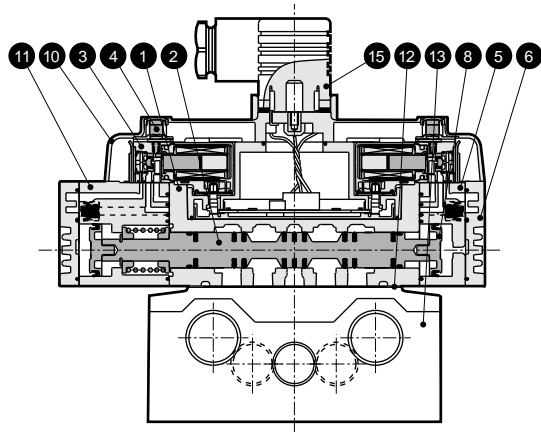
PV5G-8-FIG-D

- 3-position P/A/B connection



PV5G-8-FPG-D

- 3-position all ports closed non-leak type



Main parts list

No.	Parts name	Material	No.	Parts name	Material
1	Body	Aluminum alloy die-casting	9	Piston S assembly	-
2	Spool assembly	-	10	Electric cover	Resin
3	Pilot valve	-	11	Pilot valve assembly for 3-position	Resin
4	Manual override	-	12	Gasket	-
5	Pilot valve assembly double	Resin	13	Sub-plate	Aluminum alloy die-casting
6	Cap D	Resin	14	Air pilot check valve	-
7	Cap S	Resin	15	DIN terminal box	-
8	Piston D assembly	-			

MN3E0
MN4E0
4GA/B
M4GA/B
MN4GA/B
4GA/B (Master)
W4GA/B2
W4GB4
MN3S0
MN4S0
4TB
4L2-4/LMF0
4SA/B0
4SA/B1
4KA/B
4F
PV5G/CMF
PV5/CMF
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD/FS/FD
Ending

Discrete 5 port pilot operated valve