

SAFE VALVE MODEL PV165



PV165 is a diaphragm type safety valve design and develop according to international standard, the body and main parts which touch medium are made from plastic and rubber, in this case it is suitable for corrosive working conditions. different materials optional for different applications.

Basic specification

Size range: DN15-DN65 (1/2 inch ~ 2-1/2 inch)
 Body materials: PVC-U, PVC-C, PVDF
 Diaphragm material: PTFE with EPDM cushion
 Connection: DIN, ANSI
 Design pressure: 1.0Mpa; 1.6Mpa

Feature of valve

Body and diaphragm that touch medium are made from plastic and rubber.

Two springs ensure the valve regulate accurately

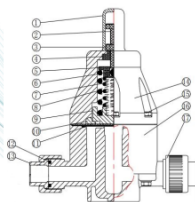
EPDM cushion protect the PTFE diaphragm from over tighten, make sealing better.

Strengthen design of bonnet and body make the valve stronger and sealing better.

PTFE diaphragm is coated with EPDM cushion, extend the diaphragm working life.

Safety valve is unidirectional valve

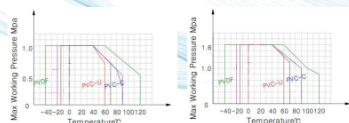
PN1.6 Mpa is customized if need



No.	Part Name	Main part&material	Part code
1	Cap	Rubber	P165-1
2	Adjusting Bolt	SS304	P165-2
3	Setting Nut	SS304	P165-3
4	Insert	Steel	P165-4
5	Press Plate	Steel	P165-5
6	Ball	SS304	P165-6
7	Spring	Steel	P165-7
8	Spring	Steel	P165-8
9	Spring Sleeve	PVC-U	P165-9
10	Stop Ring	PVC-U	P165-10
11	Seat/Seal	EPDM C/W PTFE	P165-11
12	Seal Ring	FPM	P165-12
14	Bonnet	PPGF	P165-14
15	Bolt	SS304	P165-15
16	Body	PVC-U,PVC-C,PVDF	P165-16

Note: Some inner parts are not shown on this picture, please refer to drawing for accurate information.

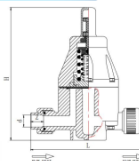
Temperature VS pressure



Working temperature of material

PVC-U	0-60°C
PVC-C	0-90°C
PVDF	-40-120°C
PP-H	-20-90°C
PP-G	-14-70°C
EPDM	-40-130°C
FPM	-40-250°C
PTFE	-70-250°C

Dimension(Unit:mm)



Nominal Size	FLANGE DIN PN10			FLANGE ANSI CL150			FLANGE JIS 10K			d	L	H	z
	D1	n	Φd	D1	n	Φd	D1	n	Φd				
15(1/2")	65	4	14	60.5	4	16.8	70	4	15	20	171	200	20
20(3/4")	75	4	14	70	4	16.8	75	4	15	25	172	200	21
25(1")	85	4	14	79.5	4	16.8	90	4	19	32	212	240	26
32(1-1/4")	100	4	18	89	4	16.8	100	4	19	40	251	288	31
40(1-1/2")	110	4	18	98.5	4	16.8	105	4	19	50	285	345	31
50(2")	125	4	18	120.5	4	19	120	4	19	63	355	415	39
65(2-1/2")	145	4	18	139.5	4	19	140	4	19	75	376	440	41

Dimension may revised due to products development, please refer to drawings for accurate dimensions

Referenced Weight (unit:kg)

Material	DN15	DN20	DN25	DN32	DN40	DN50	DN65
	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"
PVC-U	0.82	0.82	1.6	2.0	2.6	3.3	5.8
PVC-C	0.82	0.82	1.6	2.0	2.6	3.4	6.1
PVDF	0.95	0.95	2.0	2.5	2.8	3.7	6.2

Note:Weight in this sheet for reference only, please refer to drawing for accurate data.

Main steps of diaphragm replacement

- 1.Take off the cap(P165-1), loose the setting nut(P165-3) and adjusting bolt(P165-2)
- 2.Remove bolts(P165-15), and separate the bonnet from body.
- 3.Replace new diaphragm and cushion.
- 4.Connect the bonnet with body by bolts and nuts, tighten the bolts proportionately.
- 5.Set the valve again

Note:

Never remove the valve from pipeline under pressure.
 Valve should take pressure test after replace diaphragm

Trouble shoot and solve

Trouble	Trouble shoot	Solve
Leaking to the atmosphere	1.Bonnet bolts not properly tightened 2.Line pressure exceeds maximum recommended line pressure. 3.Diaphragm has ruptured or has been chemically attached.	1.Tighten the bonnet bolt. 2.Reduce the pressure of pipeline. 3.Replace diaphragm.
Valve can not open	1.Adjusting nut set incorrectly 2.Line pressure too low	1. Reset Adjusting bolt 2. Increase line pressure
Valve can not closed completely	1. Line pressure exceed adjusting bolt set 2. Diaphragm has ruptured	1.Lower line pressure or reset valve 2.Replace diaphragm