



Product feature

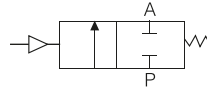
2/2-way Angle-Seat Valve
Pneumatically Operated,
for medium up to +180°C,
with Tri-Clamp Ends ends
port connection DN 15-65

1. High flow rate;
2. Long life cycle;
3. Modular universal ouessories can be assembled on NC and NO universal actuators' head;
4. Available with flow direction below or above seat;
5. Convenient conversion of the circuit function.

Symbol

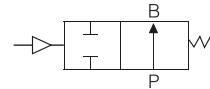
Control function A

(closed by spring force
in rest position)



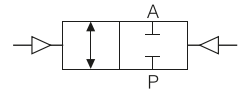
Control function B

(open in rest position)



Control function I

(double-acting actuator)



Ordering code

PV500		P	015		NC		S × 63mm				
Model		Nominal diameter		Control function		Body material		Acting type			
PV500	500 Seires angle seat valve	15	1/2"	40	1½"	NO	Normally open	Blank	S.S 304 (standard)	S	Single acting
		20	3/4"	50	2"	NC	Normally closed (standard)	4	S.S 316	D	Double acting
		25	1"	65	2½"			5	S.S 316L		
		32	1¼"								
Actuator material code											
P	Plastic actuator										
S	S.S. Actuator										
A	Aluminum actuator										

Actuator size

Port size	Standard actuator size (mm)		
	PA	S.S.	AL
DN15	40, 50	40, 50	40, 50
DN20	50, 63, 80	50, 63, 90	50, 63, 80
DN25	50, 63, 80	50, 63, 90	50, 63, 80
DN32	63, 80	63, 90	63, 80
DN40	63, 80	63, 90	63, 80
DN50	63, 80	63, 90	63, 80
DN65	80, 100	90, 125	80, 100

Clamp specification: ISO 2852-1993 ISO/JIS is also available

PV500 Series plunger pilot angle seat valve is propelled by a piston actuator, either single acting or double acting.

Actuators are made of three different materials, applicable to different working temperature:

2/2 Way stainless steel valve with big flow capacity, V type seals ensure reliable and effective sealing.

Maintenance free, compatible with various accessories, Direction indicating, stroke limiting or manual switching can be assembled conveniently.

Specifications

Model Specification	Normally closed	P015NC	P020NC	P025NC	P032NC	P040NC	P050NC	P065NC
	Normally open	P015NO	P020NO	P025NO	P032NO	P040NO	P050NO	P065NO
Material of body/ Actuator		S.S304 316 /PA						
Operating method		Plunger pilot						
Ambient and fluid		Air, Water, Oil, Steam (50CTS Bellow)						
Port size		1/2"	3/4"	1"	1¼"	1½"	2"	2½"
Nominal diameter (mm)		13	18	24	31	35	45	61
Kv (m³/h)		4.2	9	19	33	42	59	90
Model Specification	Normally closed	S015NC	S020NC	S025NC	S032NC	S040NC	S050NC	S065NC
	Normally open	S015NO	S020NO	S025NO	S032NO	S040NO	S050NO	S065NO
Material of body/ Actuator		S.S304 316 /PA						
Seat seal		PTFE/FPM						
Stem seal		PTFE/FPM						
Piston seal		PTFE/FPM/NBR						
Tempreture of medium	PTFE	-10~200℃						
	FPM	-10~150℃						
Installing		Downstream/Upstream						

Valve

2P
2V
2W
2W(Big)
2WB
2WBF
US(2L)
DG223
DG523
0927/0955
PU220
PU225
VX
QX
PT
Q24JH
K23JH
K25JH
K25JH
K35JH
K23JD
K25JD
K25JK
PV100
PV200
PV300
PV400
PV500
PV700
PV800
PV1527
PVN
MV100
MV200
NAA
GT
K
R
FAL
FP-M
NTP
SX

Valve

Pressure data sheet

Control function	Acting type	Flow direction	Water hammer	Application
Normally closed	Single acting	Upstream	Yes	For compressible medium (such as gas and steam) and liquid of comparatively low pressure
		Downstream	No	For anti water hammer pipeline, bears certain pressure difference
	Double acting	Upstream	Yes	Reliable performance, bears pressure difference; valve closes automatically in case of an emergency.
		Downstream	No	For pipeline required of better anti water hammer, bears big pressure difference
Normally open		Upstream	Yes	For pipeline where valve keeps open. double acting & normally open when silencer removed off.
		Downstream	No	For pipeline where valve keeps open, anti water hammer, double acting & normally open when silencer was removed off.

Water hammer (or, more generally, fluid hammer) is a pressure surge or wave caused when a fluid (usually a liquid but sometimes also a gas) in motion is forced to stop or change direction suddenly (momentum change). A water hammer commonly occurs when a valve closes suddenly at an end of a pipeline system, and a pressure wave propagates in the pipe. It is also called hydraulic shock.

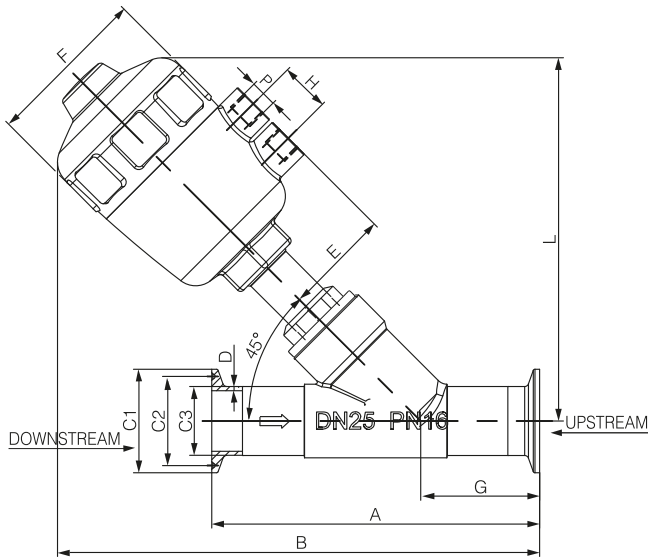
This pressure wave can cause major problems, from noise and vibration to pipe collapse. It is possible to reduce the effects of the water hammer pulses with accumulators, expansion tanks, surge tanks, and other features.

Designed to close againstflow. Will not chatter or produce water hammer. Operates smoothly and quietly.

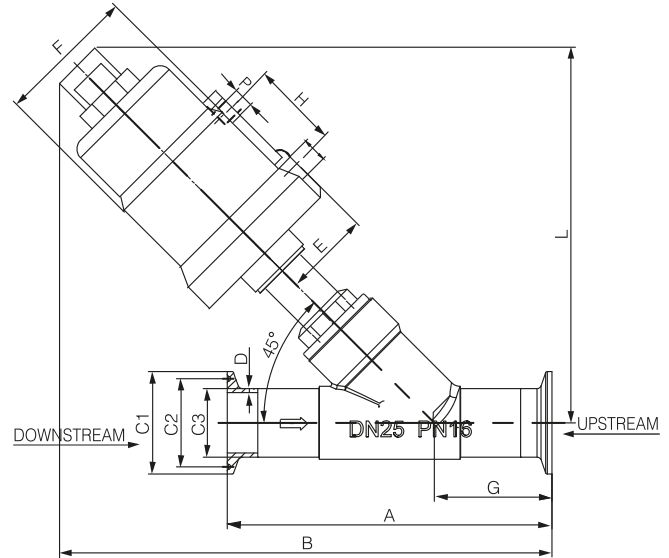
Port size	DN (mm)	Actuator (mm)	Normally closed				Normally closed				Normally open					
			Upstream		Downstream		Upstream		Downstream		Upstream		Downstream		Double acting assistant pressure MPa	Rest position pressure MPa
			Press. range MPa	Control press. MPa	Press. range MPa	Control press. MPa	Press. range MPa	Control press. MPa	Press. range MPa	Control press. MPa	Press. range MPa	Control press. MPa	Press. range MPa	Control press. MPa		
1/2"	DN15	40	0~1.6	0.3~0.45	0~1.1					≥0.3				0.2~0.4	≥0.4	0~0.2
		50	0~1.6	0.3~0.35	0~1.4	0.45	0~1.6	0.3~0.35	0~1.6	≥0.3	0~1.6	0~1.6	0~1.6	0.2~0.4	≥0.4	0~0.1
3/4"	DN20	50	0~1.6	0.3~0.4	0~1.4	0.45	0~1.6	0.3~0.4	0~1.6	≥0.3	0~1.6	0~1.2	0~1.6	0.3~0.65	0.3~0.4	0~0.2
		63	0~1.6	0.3~0.38	0~1.4	0.45	0~1.6	0.3~0.38	0~1.6	0.3~0.5	0~1.6	0~1.4	0~1.6	0.35~0.7	0.3~0.35	0~0.35
		80	0~1.6	0.2~0.35	0~1.4	0.4	0~1.6	0.2~0.35	0~1.6	0.3~0.4	0~1.6	0~1.4	0~1.6	0.35~0.7	0.3~0.4	0~0.5
		90 SS	0~1.6	0.2~0.3	0~1.4	0.35	0~1.6	0.2~0.3	0~1.6	0.3~0.4	0~1.6	0~1.6	0~1.6	0.35~0.7	0.3~0.4	0~0.4
1"	DN25	50	0~1.6	0.3~0.45	0~0.75	0.45	0~1.6	0.3~0.45	0~1.3	0.3~0.6	0~1.6	0~0.3	0~1.3	0.3~0.6	0.3~0.4	0~0.35
		63	0~1.6	0.3~0.35	0~1.4	0.5	0~1.6	0.3~0.35	0~1.6	0.3~0.4	0~1.6	0~1.6	0~1.6	0.35~0.6	0.3~0.55	0~0.35
		80	0~1.6	0.2~0.3	0~1.4	0.45	0~1.6	0.2~0.3	0~1.6	0.3~0.4	0~1.6	0~1.6	0~1.6	0.35~0.6	0.35~0.55	0~0.5
		90 SS	0~1.6	0.2~0.25	0~1.4	0.4	0~1.6	0.2~0.25	0~1.6	0.2~0.3	0~1.6	0~1.6	0~1.6	0.35~0.6	0.35~0.55	0~0.4
1-1/4"	DN32	63	0~1.6	0.3~0.5	0~0.06	0.5	0~1.4	0.3~0.5	0~1.4	0.3~0.6	0~1.6	0~1.4	0~1.3	0.35~0.7	0.3~0.5	0~0.4
		80	0~1.6	0.2~0.45	0~1.4	0.6	0~1.6	0.2~0.45	0~1.6	0.3~0.5	0~1.6	0~1.6	0~1.6	0.35~0.7	0.3~0.55	0~0.5
		90 SS	0~1.6	0.2~0.35	0~1.6	0.65	0~1.6	0.2~0.35	0~1.6	0.2~0.4	0~1.6	0~1.6	0~1.6	0.35~0.7	0.3~0.55	0~0.4
1-1/2"	DN40	63	0~1.6	0.3~0.6	0~0.05	0.5	0~1.1	0.3~0.6	0~1.3	0.3~0.7	0~1.6	0~1.4	0~0.65	0.35~0.7	0.3~0.6	0~0.4
		80	0~1.6	0.3~0.55	0~1.4	0.6	0~1.6	0.3~0.55	0~1.6	0.3~0.6	0~1.6	0~1.6	0~1.6	0.35~0.7	0.3~0.7	0~0.5
		90 SS	0~1.6	0.2~0.35	0~1.6	0.65	0~1.6	0.2~0.35	0~1.6	0.2~0.6	0~1.6	0~1.6	0~1.6	0.35~0.7	0.3~0.7	0~0.5
2"	DN50	63	0~1.0	0.3~0.65	0~0.35	0.5	0~0.9	0.3~0.65	0~0.8	0.35~0.8	0~1.0	0~0.6	0~0.5	0.35~0.7	0.35~0.7	0~0.8
		80	0~1.6	0.3~0.55	0~0.9	0.65	0~1.6	0.3~0.55	0~1.6	0.3~0.7	0~1.6	0~1.0	0~0.6	0.35~0.7	0.35~0.7	0~0.5
		90 SS	0~1.6	0.3~0.5	0~1.1	0.65	0~1.6	0.3~0.5	0~1.6	0.3~0.6	0~1.6	0~1.0	0~1.2	0.35~0.7	0.35~0.7	0~0.4
		100	0~1.6	0.25~0.4	0~1.4	0.65	0~1.6	0.25~0.4	0~1.6	0.3~0.6	0~1.6	0~1.4	0~1.4	0.35~0.7	0.35~0.7	0~0.4
		125 SS	0~1.6	0.2~0.3	0~1.6	0.65	0~1.6	0.2~0.3	0~1.6	0.3~0.4	0~1.6	0~1.4	0~1.4	0.35~0.7	0.35~0.7	0~0.5
2-1/2"	DN65	80	0~1.6	0.3~0.65	0~0.5	0.65	0~1.6	0.3~0.65	0~1.1	0.3~0.7	0~1.6	0~0.5	0~0.75	0.3~0.65	0.35~0.7	0~0.5
		90 SS	0~1.6	0.2~0.6	0~0.7	0.65	0~1.6	0.2~0.6	0~1.6	0.3~0.7	0~1.6	0~1.0	0~1.4	0.3~0.6	0.35~0.7	0~0.4
		100	0~1.6	0.3~0.45	0~0.8	0.65	0~1.6	0.3~0.45	0~1.6	0.3~0.55	0~1.6	0~1.0	0~0.8	0.35~0.7	0.35~0.7	0~0.4
		125 SS	0~1.6	0.2~0.7	0~0.9	0.65	0~1.6	0.2~0.7	0~1.6	0.2~0.55	0~1.6	0~1.4	0~1.4	0.3~0.7	0.35~0.7	0~0.5

Dimensions

Tri-clamp ends -- PV500P



Tri-clamp ends -- PV500S



Tri-clamp ends -- PV500P

Port size	DN(mm)	Actuator(mm)	A	B	C1	C2	C3	D	E	F	G	L	H	P
1/2"	DN15	50	133	188	50.5	43.5	20.5	2	64	44	49	115	24	1/4"
3/4"	DN20	50	143	195	50.5	43.5	25.5	2.4	64	44	56.5	131	24	1/4"
1"	DN25	50	143	206	50.5	43.5	31.3	2.4	64	44	58	138	24	1/4"
		63	143	238	50.5	43.5	31.3	2.4	79.5	54	58	166	24	1/4"
1-1/4"	DN32	63	153	248	50.5	43.5	38.3	2.4	79.5	54	57.5	172	24	1/4"
1-1/2"	DN40	63	182	252	64	56.5	47.2	2.6	79.5	54	69	174	24	1/4"
2"	DN50	63	200	272	64	56.5	55.5	2.6	79.5	54	77.5	193	24	1/4"
		80	200	283	64	56.5	55.5	2.6	101	62	77.5	202	24	1/4"
2-1/2"	DN65	80	232	310	91	83.5	68	2.6	101	62	90	209	24	1/4"

Tri-clamp ends -- PV500S

Port size	DN(mm)	Actuator(mm)	A	B	C1	C2	C3	D	E	F	G	L	H	P
1/2"	DN15	50	133	202	50.5	43.5	20.5	2	56	35	49	142	38	1/8"
3/4"	DN20	50	143	209	50.5	43.5	25.5	2.4	56	35	56.5	152	38	1/8"
1"	DN25	50	143	227	50.5	43.5	31.3	2.4	56	35	58	155	38	1/8"
		63	143	237	50.5	43.5	31.3	2.4	70	43	58	176	44	1/8"
1-1/4"	DN32	63	153	242	50.5	43.5	38.3	2.4	70	43	57.5	177	44	1/8"
1-1/2"	DN40	63	182	245	64	56.5	47.2	2.6	70	43	69	182	44	1/8"
2"	DN50	63	200	269	64	56.5	55.5	2.6	70	43	77.5	196	44	1/8"
		80/90	200	289	64	56.5	55.5	2.6	94	56	77.5	206	67	1/4"
2-1/2"	DN65	80/90	232	320	91	83.5	68	2.6	94	56	90	215	67	1/4"

Valve

2P
2V
2W
2W(Big)
2WB
2WBF
US(2L)
DG223
DG523
0927/0955
PU220
PU225
VX
QX
PT
Q24 ³ / ₈ H
K23 ³ / ₈
K25 ³ / ₈
K25 ⁵ / ₈ H
K35 ⁵ / ₈ H
K23JD
K25JD
K25JK
PV100
PV200
PV300
PV400
PV500
PV700
PV800
PV1527
PVN
MV100
MV200
NAA
GT
K
R
FAL
FP-M
NTP
SX