

S4 WAFER CHECK VALVE - PVC, PP, PVDF

SPECIFICATIONS:

- Sizes:	2" to 20"
- Dimensions:	DN 50 - DN 500
- Body Materials:	PVC-u - PP - PVDF
- O-rings:	EPDM, Viton, Teflon
- With or without return spring	

RETURN SPRING (S4.70)

Material:	- 316 Stainless Steel
	- Hastelloy-C (WST 24610)
Spacer Ring required for sch.80 pipes (contact factory)	

Applications:

- Water and waste water treatment
- Contaminated and aggressive fluids
- Chemical industry
- Process technology
- Environmental technology
- Systems engineering

FEATURES:

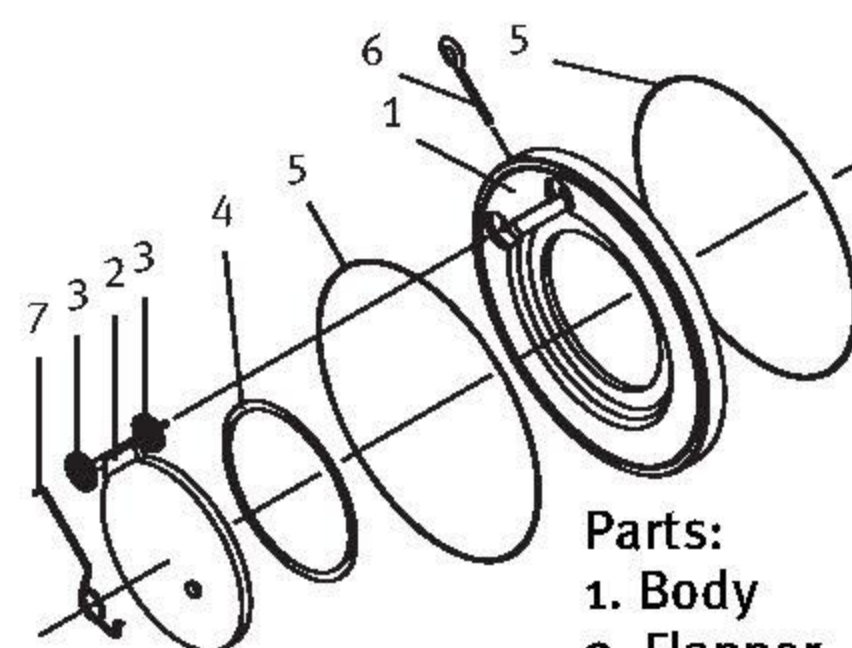
- Compact - Requires little space in piping system
- Economical - Simple and robust construction
- Easy installation - Wafer body slips between standard flanges
- Light weight
- chemical resistant
- no corrosion
- Available with or without spring
- Type S4 60: without return spring
- Type S4 70: with return spring

MOUNTING INSTRUCTIONS:

- The valve's wafer body slips between standard flanges and can be used in either vertical or horizontal installation.
- Use spring assisted type S4 70 valve for pulsating flow and horizontal piping.
- Use S4 60 valve for applications where it is not desirable for the process stream to come in contact with metals.
- In case of mounting on a pump (at pressure side) please note the following:
 - no direct mounting on pump flange or following elbow
 - for velocity relief zone allow 5 times the pipe diameter (ie install 4" valve at least 20" away from pump discharge).
- Praher offers full range of plastic spacer rings which are required for installation with SCH 80 pipe (the disc will open fully inside the spacer cavity and not slam against the inside pipe wall).



optional SPACER RING

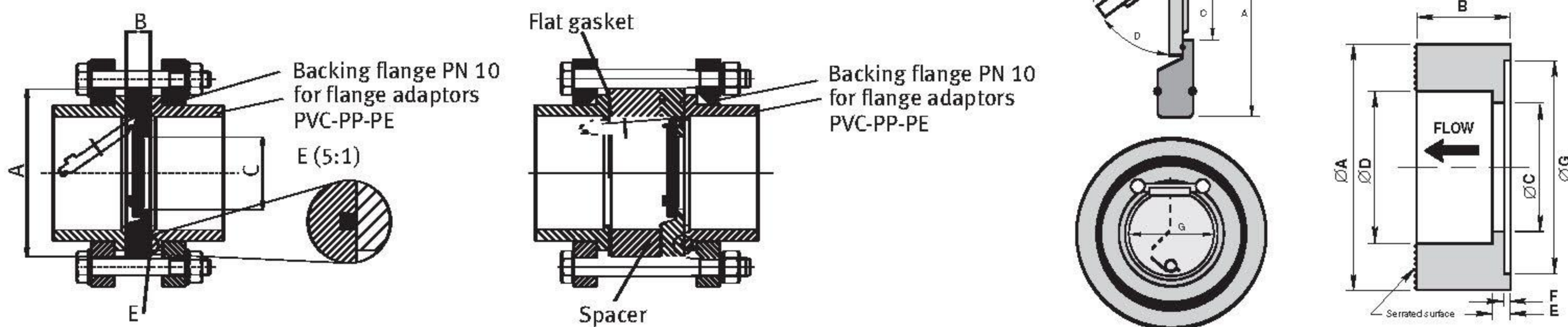


Parts:

1. Body
2. Flapper
3. Flapper mounting screw
4. O-Ring
5. O-Ring
6. Installation device
7. Spring

size	Weights LB		Cv Values	
	Without Spacer	With Spacer	Sch 40 Without Spacer	Sch 80 With Spacer
2"	0.5	0.9	58	74
2.5"	0.6	2.1	77	108
3"	0.7	1.6	105	203
4"	1.1	3.1	224	300
6"	2.3	4.7	718	949
8"	4.5	11.0	980	1175
10"	7.0	17.4	1880	2050
12"	11.5	28.3	2520	2940

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pipe size	inch	2	2 1/2	3	4	6	8	10	12	14	16	18	20
pipe size DN	mm	50	65	80	100	150	200	250	300	350	400	450	500
A	mm	109	123	137	164	220	275	330	380	440	491	541	596
A	in	4.3	4.85	5.39	6.45	8.66	10.82	12.99	14.96	17.32	19.33	21.3	23.46
B	mm	20	20	20	22	26	35	40	45	49	65	68	78
B	in	.787	.787	.787	.866	1.02	1.377	1.57	1.77	1.93	2.56	2.67	3
C	mm	32	40	52	70	112	150	190	216	266	310	350	400
C	in	1.26	1.57	2.04	2.76	4.4	5.9	7.48	8.62	10.47	12.2	13.78	15.75
D° opening angle	deg	68	73	75	73	72	77	73	74	70	70	70	70
E	mm	46	58	60	72	76	105	140	195	N/A	N/A	N/A	N/A
E	in	1.81	2.28	2.36	2.83	2.99	4.13	5.5	7.67	N/A	N/A	N/A	N/A
F (with spring)	in	1.8	2.0	2.9	3.6	5.8	7.5	9.0	10.2	9.64	11.22	13	15.15
G (disc diameter)	mm	45	60	72	90	132	176	222	260	300	340	390	440
G (disc diameter)	in	1.77	2.36	2.83	3.54	5.19	6.93	8.74	10.23	11.81	13.38	15.35	17.32
Pressure PN	bar	10	10	10	10	10	10	10	10	3	3	2	2
Pressure rating	PSI	145	145	145	145	145	145	145	145	43.5	43.5	27	27

Working Pressure PSI												
Size	PVC				PP				PVDF			
	20°C 68°F	40°C 104°F	60°C 140°F	80°C 176°F	20°C 68°F	40°C 104°F	60°C 140°F	80°C 176°F	20°C 68°F	40°C 104°F	60°C 140°F	80°C 176°F
2"	145	130	65	20	145	130	50	20	145	130	50	20
2-1/2"	145	130	65	20	145	130	50	20	145	130	50	20
3"	145	130	65	20	145	130	50	20	145	130	50	20
4"	145	110	50	20	145	110	50	20	145	110	50	20
6"	145	110	45	20	145	110	50	20	145	110	50	20
8"	100	87	45	15	100	87	30	15	100	87	30	15
10"	87	60	36	15	87	60	30	15	87	60	30	15
12"	87	60	36	15	87	60	30	15	87	60	30	15

Spacer Dimensions PVC/PP/PVDF

Valve Size/ Inch	A mm	B mm	C mm	D mm	E mm	F mm	G mm
2"	105	25	59	59	0	0	0
2.5"	123	38	79	79	4	0	0
3"	136	40	99	99	0	0	0
4"	174	50	108	114	8	4	165
6"	220	50	157	172	7	0	0
8"	277	90	213	217	7	0	0
10"	330	100	260	260	0	0	0
12"	400	150	300	340	10	0	0
14"	450	160	340	378	10	0	0
16"	492	160	400	410	10	0	0

Size	Pressure to Open PSI			Sealing Pressure With or Without Spring	Max. Allowable Flow Rates	
	With Spring Horiz.	Without Spring Horiz.	Without Spring Vert.		At Start-Up & Shut Down	Running
2"	0.3	0.1	0.2	1.0	50	60
2-1/2"	0.3	0.1	0.2	1.0	70	80
3"	0.3	0.1	0.2	1.0	110	125
4"	0.3	0.1	0.2	1.0	200	250
6"	0.3	0.1	0.2	1.0	320	400
8"	0.3	0.1	0.3	1.0	400	750
10"	0.3	0.1	0.3	1.0	600	1100
12"	0.3	0.1	0.3	1.0	750	1500

Kv Values (1/min at delta P of 1 bar)

Valve Size inch	DIN PIPE PN 10 w/o spacer PVC	ANSI PVC SCH 40 w/o spacer	ANSI PVC SCH 80 with spacer
2"	950	825	1050
2.5"	1255	1105	1540
3"	1650	1505	2905
4"	3190	3200	4290
6"	9500	10260	13550
8"	14100	13990	16800
10"	26900	26900	29300
12"	32000	36000	42000
14"	50000	50000	53000
16"	60500	60500	64000
20"	80500	80500	85000

Note: 2" through 12" are measured values.
14" through 20" are estimated values.