

# Datasheet Angle Seat Check Valves Type 303/304



### Advantages

- Self closing check valve
- For horizontal and vertical installation
- Easy maintenance of check element without dismantling the valve
- Overall length according to EN588

Dimensions	
d15DN10 - d90DN 80, 3/8" - 3"	
Materials Valve Body	Sealing Materials
PVC-U, ABS	EPDM, FPM
Connection Types	Nominal pressure PN in bar
Solvent cement sockets ISO	PN 10
Solvent cement Spigots JIS	Actuation
Flanges JIS	Hand-operated

### kv 100-Values

DN mm	Zoll Inch	d mm	kv 100 l/min (Δp = 1 bar)	Cv 100 US gal./min (Δp = 1 psi)	kv 100 m³/h (Δp = 1 bar)
10	3/8	16	45	3.2	2
15	1/2	20	95	6.7	5
20	3/4	25	170	11.9	10
25	1	32	300	21.0	18
32	1 1/4	40	440	30.8	26
40	1 1/2	50	700	49.0	42
50	2	63	1100	77.0	66
65	2 1/2	75	1700	119.0	102
80	3	90	2400	168.0	144

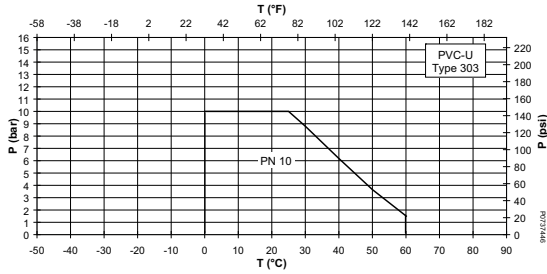
### Design



1. Body	5. Valve top
2. Flat gasket	6. Union
3. Piston	7. Circlip
4. O-Ring	

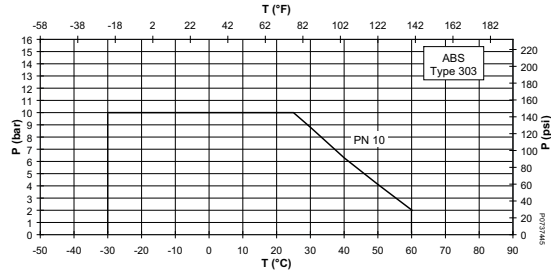
## P / T-Diagrams

### PVC-U



P Permissible pressure in bar, psi; T Temperature in °C, °F

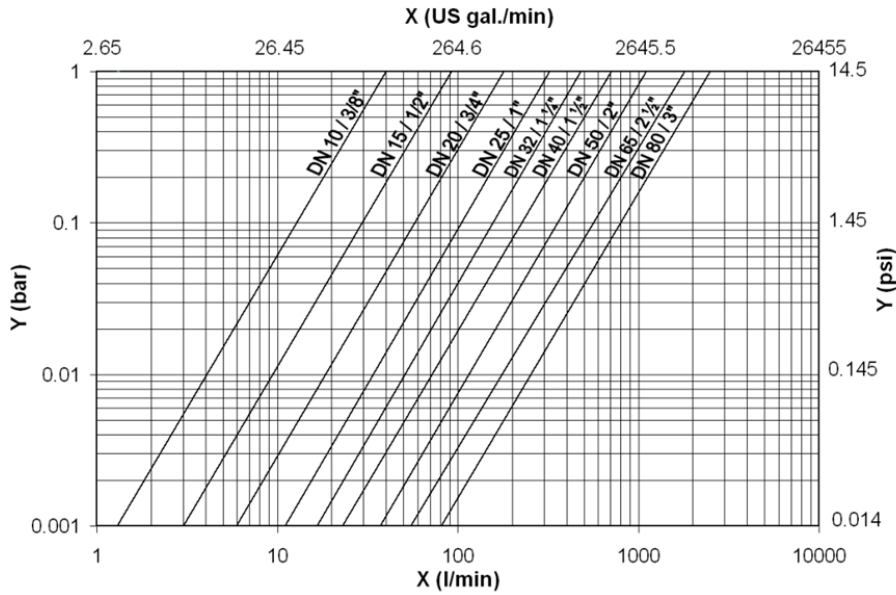
### ABS



P Permissible pressure in bar, psi; T Temperature in °C, °F

The pressure temperature diagrams are based on a lifetime of 25 years and the medium water or similar media.

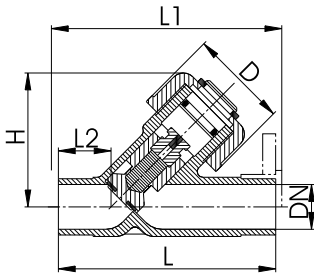
## Pressure Loss Diagram



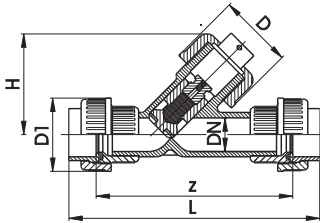
Medium Water, 20 °C; X Flow rate (l/min), (US gal./min); Y Pressure loss  $\Delta p$  (bar), (psi)

DN mm	Zoll Inch	Open			Closed Tight at bar
		Differential pressure for full stroke bar	Min. flow for full stroke l/min	Min. flow rate for full stroke m/sec	
10	3/8"	0.02	5	1.1	0.2
15	1/2"	0.02	10	1.1	0.2
20	3/4"	0.02	18	1.1	0.2
25	1"	0.02	28	1.1	0.2
32	1 1/4"	0.02	50	1.2	0.2
40	1 1/2"	0.03	95	1.4	0.2
50	2"	0.03	200	1.5	0.2
65	2 1/2"	0.03	280	1.8	0.2
80	3"	0.03	420	1.8	0.2

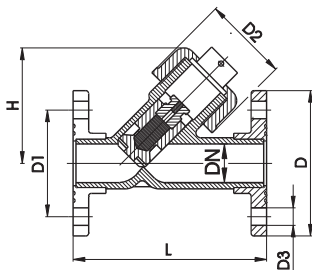
## Dimensions



d	DN	D	L	L1	L2	H	closest
mm	mm	mm	mm	mm	mm	mm	inch
16	10	39	114	120	24	58	3/8
20	15	43	124	130	28	65	1/2
25	20	47	144	150	37	75	3/4
32	25	56	154	160	37	90	1
40	32	64	174	180	44	102	1 1/4
50	40	82	194	200	48	123	1 1/2
63	50	95	224	230	60	144	2
75	65	92	284	290	74	186	2 1/2
90	80	104	300	310	85	204	3



Zoll	DN	z	D	D1	L	H
inch	mm	mm	mm	mm	mm	mm
1/2	15	162	43	53	194	65
3/4	20	170	47	53	208	75
1	25	180	56	53	224	90
1 1/4	32	204	64	74	256	102
1 1/2	40	228	82	83	290	123
2	50	266	95	103	342	144



Zoll	DN	D	D1	D2	D3	L	H
inch	mm	mm	mm	mm	mm	mm	mm
1/2	15	95	70	48	15	130	65
3/4	20	100	75	54	15	150	75
1	25	125	90	62	19	160	90
1 1/4	32	135	100	71	19	180	102
1 1/2	40	140	105	88	19	200	123
2	50	155	120	103	19	230	144
2 1/2	65	185	140	106	19	290	186
3	80	200	150	120	19	310	204

## Specifications

All Angle Seat Check Valves shall be manufactured according to EN ISO 16137 and overall length according to EN 558-1, available in metric sizes DN 10-80 mm with EPDM or FPM seals and with solvent cement spigots. The Angle Seat Check Valves shall be leakproof from a water column of 2 m for EPDM and 3 m for FPM seals as supplied by manufacturer standards. The Angle Seat Check valves shall be designed for a nominal pressure rate of 10 bar..

## Planning Fundamentals

The following link will lead you to the Georg Fischer Planning Fundamentals. These detailed documents will support you by choosing the right valve for your application.

[http://www.gfps.com/content/gfps.com/en/support\\_and\\_services/planning\\_assistance/planning\\_fundamentals.html?lang=en](http://www.gfps.com/content/gfps.com/en/support_and_services/planning_assistance/planning_fundamentals.html?lang=en)