

## Datasheet Check Valve Type 561/562



### Advantages

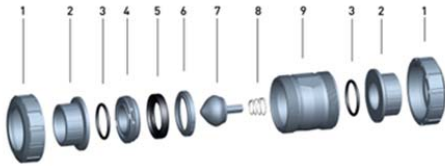
- Self closing check valve without additional energy
- Self-cleaning design for minimum maintenance
- Integrated spring for horizontal installation
- Optimized flow design
- Corrosion resistant and high pressure rating
- Wide selection of material for best chemical resistance
- High safety and efficiency

Dimensions	
d16DN10 - d110DN100, 3/8" - 4"	
Materials valve body	Sealing materials
PVC-U, PVC-C, ABS, PP-H, PVDF	EPDM, FPM
Connection types	Spring materials for Type 562
Solvent cement sockets ISO, BS, ASTM/ANSI, JIS	Standard: V2A
Solvent cement spigots ISO	Optional: Nimonic 90, Nimonic 90 Halar (ECTFE) coated
Threaded sockets Rp ISO, BS, ASTM/ANSI	Nominal pressure PN in bar
Fixed flanges ISO, BS	PVC-U, PVC-C, PVDF: PN 16
Butt fusion spigots long PE100 SDR17 ISO	PP-H, ABS: PN10
Accessories	Approvals
Strainer	ACS, FDA, DIBt, TA Luft, NAMSA

### kv 100-Values

DN mm	Zoll Inch	d mm	kv 100 l/min ( $\Delta p = 1 \text{ bar}$ )	Cv 100 gal/min ( $\Delta p = 1 \text{ psi}$ )	kv 100 m <sup>3</sup> /h ( $\Delta p = 1 \text{ bar}$ )
10	3/8	16	190	13	11
15	1/2	20	190	13	11
20	3/4	25	380	26	23
25	1	32	460	32	28
32	1 1/4	40	850	59	51
40	1 1/2	50	1080	75	65
50	2	63	1670	115	100
65	2 1/2	75	2950	204	177
80	3	90	3600	248	216
100	4	110	4150	286	249

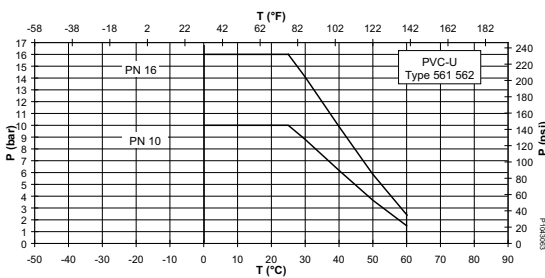
## Design



1. Coupling nut	6. Back-up ring
2. Connection part	7. Cone
3. O-ring	8. Spring (Type 562)
4. Screw-in ring	9. Housing
5. Sealing ring	

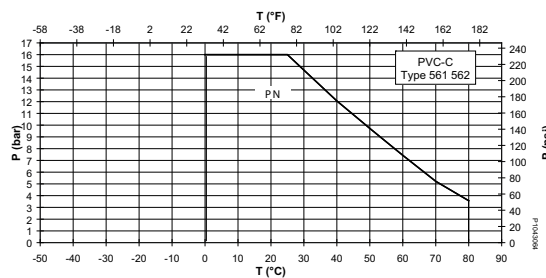
## P / T-Diagrams

### PVC-U



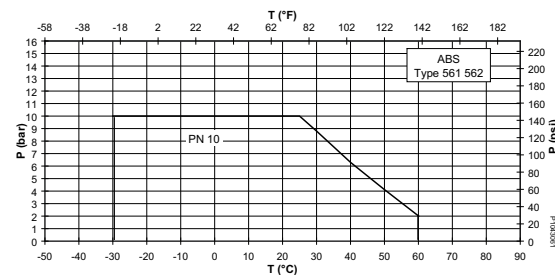
P Permissible pressure in bar, psi; T Temperature in °C, °F

### PVC-C



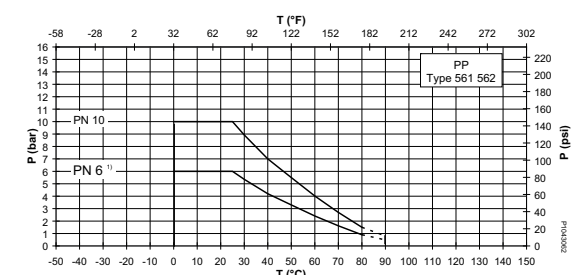
P Permissible pressure in bar, psi; T Temperature in °C, °F

### ABS



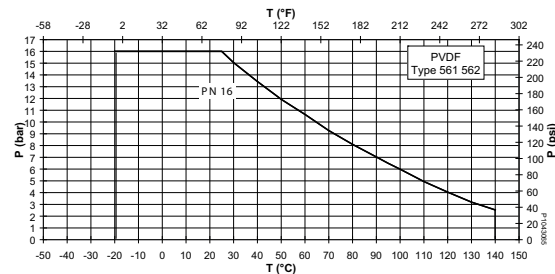
P Permissible pressure in bar, psi; T Temperature in °C, °F

### PP



P Permissible pressure in bar, psi; T Temperature in °C, °F  
 1) E.g. check valves with PP or PE100 SDR17 spigot end in case of applications with the temperatures in the range of the dotted lines, please contact your GF representative.

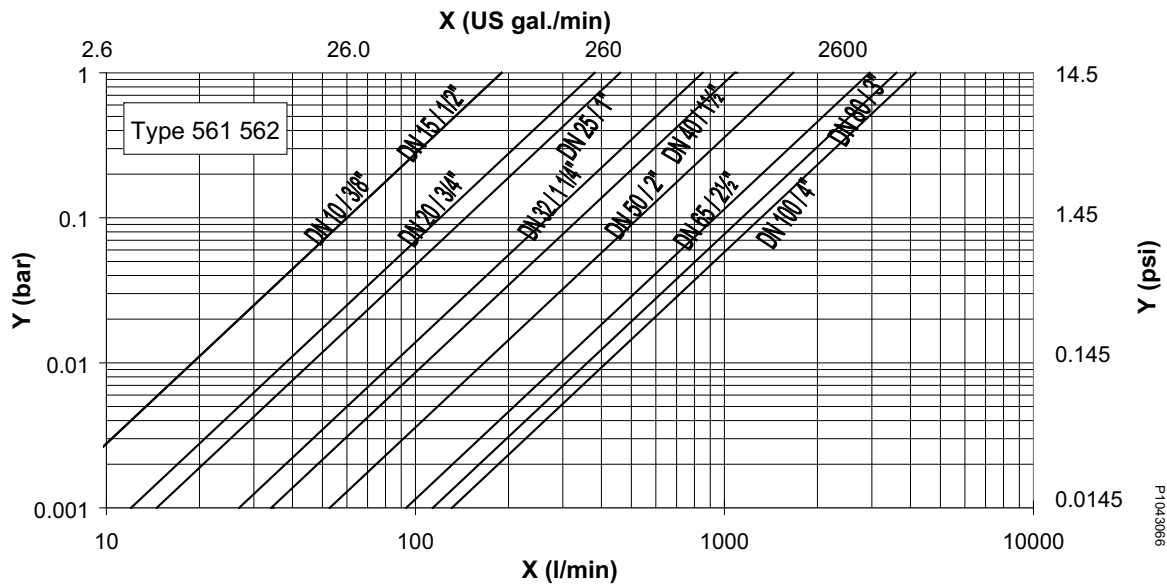
### PVDF



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

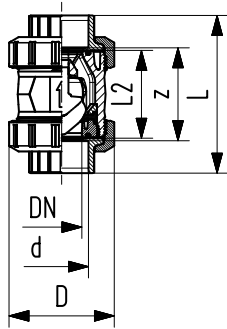
## Pressure loss diagram



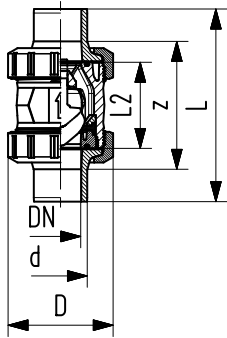
DN mm	Open (vertical installation)				Closed*	
	Differential pressure for take-off of cone bar	Differential pressure for full stroke of cone bar	Min. flow for full stroke of cone l/min	Min. flow rate for full stroke m/sec	tight at bar	Type 562 tight at bar
10	0.003	0.01	8	0.7	0.2	0.1
15	0.003	0.01	9	0.7	0.2	0.1
20	0.003	0.01	13	0.7	0.2	0.1
25	0.005	0.01	18	0.8	0.2	0.1
32	0.005	0.01	35	0.8	0.2	0.1
40	0.010	0.01	70	0.8	0.2	0.1
50	0.020	0.01	100	0.8	0.2	0.1
65	0.025	0.01	120	0.9	0.2	0.1
80	0.030	0.01	170	0.9	0.2	0.1
100	0.030	0.08	250	1.0	0.2	0.1

Minimum pressure for valve opening Type 562	
DN mm	Differential pressure to lift the cone bar
10	0.028
15	0.028
20	0.030
25	0.030
32	0.035
40	0.040
50	0.050
65	0.060
80	0.060
100	0.060

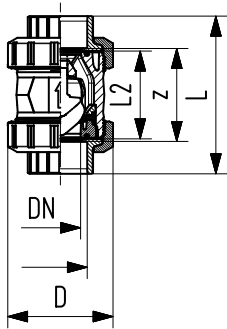
## Dimensions



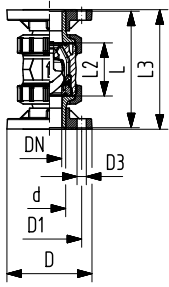
Type 561 with solvent cement sockets metric						
D	DN	D	L	L2	z	closest
mm	mm	mm	mm	mm	mm	inch
16	10	50	92	56	64	$\frac{3}{8}$
20	15	50	95	56	64	$\frac{1}{2}$
25	20	58	110	65	72	$\frac{3}{4}$
32	25	68	123	71	79	1
40	32	84	146	85	94	1 $\frac{1}{4}$
50	40	97	157	89	95	1 $\frac{1}{2}$
63	50	124	183	101	107	2
75	65	166	233	136	144	2 $\frac{1}{2}$
90	80	200	254	141	151	3
110	100	238	301	164	174	4



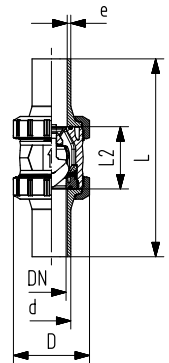
Type 561 with solvent cement spigots metric					
d	DN	D	L	L2	closest
mm	mm	mm	mm	mm	inch
16	10	50	114	56	$\frac{3}{8}$
20	15	50	124	56	$\frac{1}{2}$
25	20	58	144	65	$\frac{3}{4}$
32	25	68	154	71	1
40	32	84	174	85	1 $\frac{1}{4}$
50	40	97	194	89	1 $\frac{1}{2}$
63	50	124	224	101	2
75	65	166	284	136	2 $\frac{1}{2}$
90	80	200	300	141	3
110	100	238	340	164	4



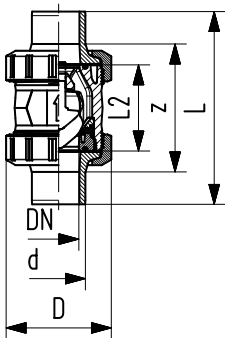
Type 561 with threaded sockets Rp					
Rp	DN	D	L	L2	z
Inch	mm	mm	mm	mm	mm
$\frac{3}{8}$	10	50	95	56	69
$\frac{1}{2}$	15	50	100	56	67
$\frac{3}{4}$	20	58	114	65	78
1	25	68	127	71	85
1 $\frac{1}{4}$	32	84	146	85	100
1 $\frac{1}{2}$	40	97	152	89	106
2	50	124	177	101	121
2 $\frac{1}{2}$	65	166	233	136	144
3	80	200	254	141	151
4	100	238	301	164	174



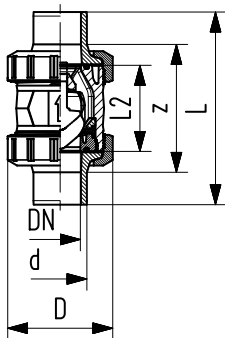
Type 561 fixed flange metric								
d	DN	D	D1	D3	L	L2	L3	closest
mm	mm	mm	mm	mm	mm	mm	mm	inch
20	15	95	65	14	124	56	130	1/2
25	20	105	75	14	144	65	150	3/4
32	25	115	85	14	154	71	160	1
40	32	140	100	18	174	85	180	1 1/4
50	40	150	110	18	194	89	200	1 1/2
63	50	165	125	18	224	101	230	2



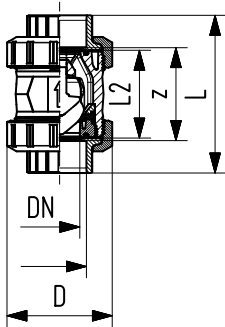
Type 561 with butt fusion spigots long metric							
d	DN	D	L	L2	e	closest	
mm	mm	mm	mm	mm	mm	mm	inch
20	15	50	193	56	2.3	1/2	
25	20	58	216	65	2.3	3/4	
32	25	68	223	71	3	1	
40	32	84	249	85	3.7	1 1/4	
50	40	97	271	89	4.6	1 1/2	
63	50	124	321	101	5.8	2	



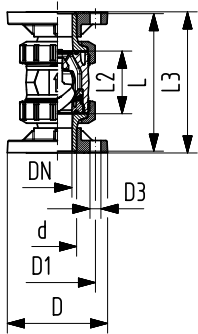
Type 562 with solvent cement sockets metric						
d	DN	D	L	L2	z	closest
mm	mm	mm	mm	mm	mm	inch
16	10	50	92	56	64	3/8
20	15	50	95	56	64	1/2
25	20	58	110	65	72	3/4
32	25	68	123	71	79	1
40	32	84	146	85	94	1 1/4
50	40	97	157	89	95	1 1/2
63	50	124	183	101	107	2
75	65	166	233	136	144	2 1/2
90	80	200	254	141	151	3
110	100	238	301	164	174	4



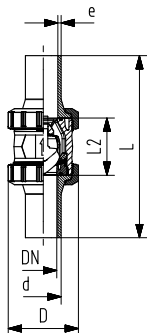
Type 562 with solvent cement spigots metric					
d	DN	D	L	L2	closest
mm	mm	mm	mm	mm	inch
16	10	50	114	56	3/8
20	15	50	124	56	1/2
25	20	58	144	65	3/4
32	25	68	154	71	1
40	32	84	174	85	1 1/4
50	40	97	194	89	1 1/2
63	50	124	224	101	2
75	65	166	284	136	2 1/2
90	80	200	300	141	3
110	100	238	340	164	4



Type 562 with threaded sockets Rp					
Rp	DN	D	L	L2	z
inch	mm	mm	mm	mm	mm
3/8	10	50	95	56	69
1/2	15	50	100	56	67
3/4	20	58	114	65	78
1	25	68	127	71	85
1 1/4	32	84	146	85	100
1 1/2	40	97	152	89	106
2	50	124	177	101	121
2 1/2	65	166	233	136	144
3	80	200	254	141	151
4	100	238	301	164	174



Type 562 with fixed flange metric								
d	DN	D	D1	D3	L	L2	L3	closest
mm	mm	mm	mm	mm	mm	mm	mm	inch
20	15	95	65	14	124	56	130	1/2
25	20	105	75	14	144	65	150	3/4
32	25	115	85	14	154	71	160	1
40	32	140	100	18	174	85	180	1 1/4
50	40	150	110	18	194	89	200	1 1/2
63	50	165	125	18	224	101	230	2



Type 562 with butt fusion spigots long metric						
d	DN	D	L	L2	e	closest
mm	mm	mm	mm	mm	mm	inch
20	15	50	193	56	2.3	1/2
25	20	58	216	65	2.3	3/4
32	25	68	223	71	3	1
40	32	84	249	85	3.7	1 1/4
50	40	97	271	89	4.6	1 1/2
63	50	124	321	101	5.8	2

### Specifications

All Cone check valves, according to EN ISO 16137, metric sizes DN 10-100 mm metric, shall be true double union design. Seals shall be EPDM or FPM. Union bushes shall have a left hand thread to prevent possible unscrewing when threaded end connectors are removed from pipe. This valve shall be suitable for mounting in a vertical and horizontal position. It shall be equipped with a spring made of stainless steel (V2A) to allow position independent installation. The valves shall be designed for a nominal pressure of 16 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)