

Check Valve, Plastic

Construction

The GEMÜ N560 check valve comprises an angle seat globe valve body made of plastic (either PVC-U or PP-H). The sealing elements are manufactured from EPDM and FKM.

Features

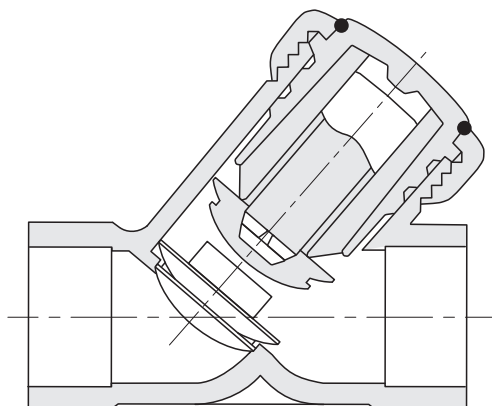
- Corrosion-resistant materials
- Various connections are available (spigots, threaded sockets, solvent cement/welded sockets, flanges)

Advantages

- Easy to service
- Good flow capability due to the angle seat design
- Low weight



Sectional view



Technical data

Working medium

Corrosive, inert and liquid media which do not adversely affect the physical and chemical properties of the relevant valve body and seal materials.

Media temperature:

PVC-U	50 to 140 °F
PP-H, grey	41 to 176 °F

Operating pressure

PVC-U at 68 °F (water)	max. 232 psi
PP-H, grey at 68 °F (water)	max. 150 psi

Ambient temperature

Valve body PVC-U	50 to 122 °F
Valve body PP-H	41 to 122 °F

Cv values [gpm]

DN	10	15	20	25	32	40	50	65	80	100
PVC-U	3.3	7.72	14.39	26.33	39.31	58.62	91.26	136.89	182.52	245.7
PP-H, grey	-	7.72	14.39	26.33	39.31	58.62	91.26	136.89	182.52	-

Cv values determined for water at 68 °F, Δp 15 psi, with a fully open valve.

Pressure / temperature correlation

Temperature in °F (plastic body)		-4	14	32	41	50	68	77	86	104	122	140	158	176
Valve body material		Permissible operating pressure in psi												
PVC-U	Code 1	-	-	-	-	232	232	232	186	139	81	35	-	-
PP-H	Code G5	-	-	-	150	150	150	150	123	105	80	60	39	22

Data for extended temperature ranges on request. Please note that the ambient temperature and medium temperature generate a combined temperature at the valve body which must not exceed the above values.

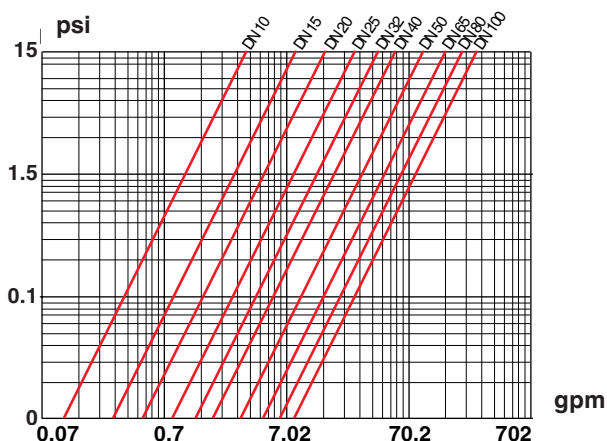
Minimum pressure for tightness

DN	10	15	20	25	32	40	50	65	80	100
mm H ₂ O	5.91	5.91	7.87	13.78	13.78	13.78	13.78	13.78	13.78	13.78
mbar	0.21	0.21	0.28	0.50	0.50	0.50	0.50	0.50	0.50	0.50

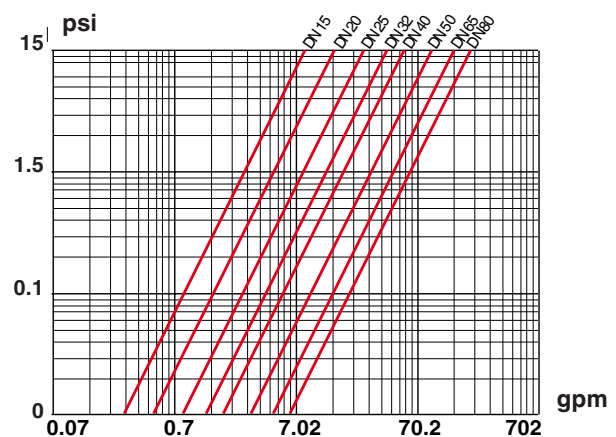
Valve plug in closed position

Pressure loss diagram

PVC-U



PP-H, grey



Order data

Body configuration	Code
2/2-way body	D

Nominal size		Code
DN 10	NPS 3/8"	10
DN 15	NPS 1/2"	15
DN 20	NPS 3/4"	20
DN 25	NPS 1"	25
DN 32	NPS 1 1/4"	32
DN 40	NPS 1 1/2"	40
DN 50	NPS 2"	50
DN 65	NPS 2 1/2"	65
DN 80	NPS 3"	80
DN 100	NPS 4"	100

Connection	Code
Spigots DIN	0
Threaded sockets DIN ISO 228	1
Solvent cement / welded sockets DIN	2
Flanges EN 1092, form B	4
Flanges ANSI Class 150 FF	41

Valve body material	Code
PVC-U, grey	1
PP-H, grey	G5

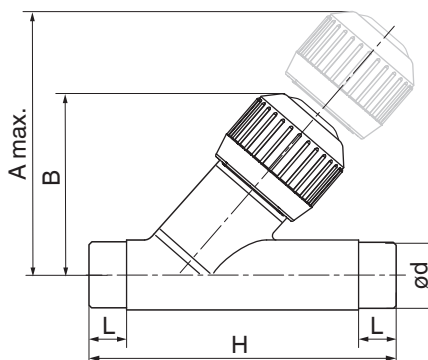
Seal	Code
FKM	4
EPDM	14

Order example	N560	25	D	2	1	4
Type	N560					
Nominal size		25				
Body configuration (code)			D			
Connection (code)				2		
Valve body material (code)					1	
Seal (code)						4

Dimensions [inch]

Spigots, connection code 0 Valve body material: PVC-U grey (code 1)

DN	PN Operating pressure	ød	A max.	B	L	H	Weight [lbs]
10	232 psi	0.630	4.92	2.83	0.55	4.49	0.3
15	232 psi	0.787	4.92	2.83	0.63	4.88	0.3
20	232 psi	0.984	5.71	3.31	0.75	5.67	0.5
25	232 psi	1.260	6.50	3.74	0.87	6.06	0.8
32	232 psi	1.575	7.48	4.37	1.02	6.85	1.3
40	232 psi	1.969	8.27	4.72	1.22	7.64	1.8
50	232 psi	2.480	9.45	5.47	1.50	8.82	3.1



Dimensions [inch]

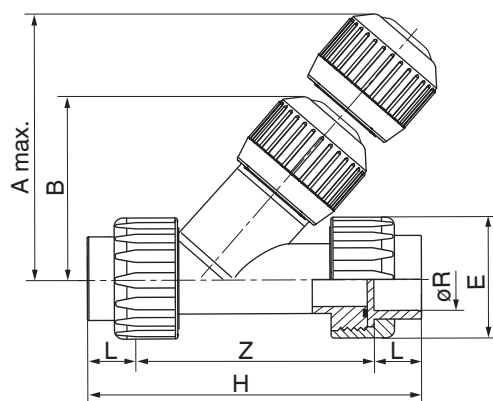
Threaded sockets, connection code 1 Valve body material: PVC-U grey (code 1)

DN	PN Operating pressure	øR	A max.	B	E	L	Z	H	K	Weight [lbs]
10	232 psi	3/8"	4.92	2.83	2.17	0.45	4.42	5.31	-	0.5
15	232 psi	1/2"	4.92	2.83	2.17	0.59	4.45	5.63	-	0.5
20	232 psi	3/4"	5.71	3.31	2.6	0.64	5.02	6.30	-	0.9
25	232 psi	1"	6.5	3.74	2.95	0.75	5.7	7.20	-	1.3
32	232 psi	1 1/4"	7.48	4.37	3.43	0.84	6.74	8.43	-	2.0
40	232 psi	1 1/2"	8.27	4.72	3.94	0.84	7.57	9.25	-	3.00
50	232 psi	2"	9.45	5.47	4.72	1.01	9.2	11.22	-	5.2
65	150 psi	2 1/2"	11.81	7.05	4.09	1.19	7.19	9.57	3.78	7.7
80	90 psi	3"	12.8	7.56	4.57	1.31	7.69	10.31	4.13	10.0
100	90 psi	4"	15.16	9.09	5.43	1.55	9.70	12.80	-	15.4

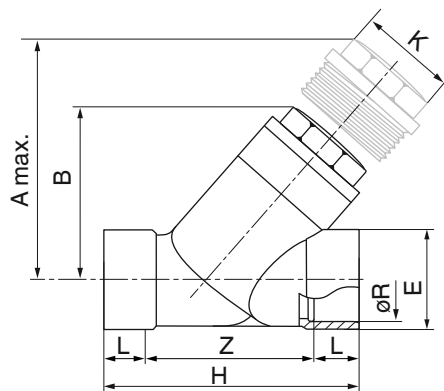
Threaded sockets, connection code 1 Valve body material: PP-H grey (code G5)

DN	PN Operating pressure	øR	A max.	B	E	L	Z	H	Weight [lbs]
15	150 psi	1/2"	4.92	2.80	2.17	0.59	4.45	5.63	0.4
20	150 psi	3/4"	5.71	3.27	2.56	0.64	5.02	6.30	0.5
25	150 psi	1"	6.50	3.70	2.91	0.75	5.70	7.20	0.8
32	150 psi	1 1/4"	7.48	4.29	3.39	0.84	6.74	8.43	1.4
40	150 psi	1 1/2"	8.27	4.69	3.90	0.84	7.57	9.25	2.0
50	150 psi	2"	9.45	5.61	4.72	1.01	9.20	11.22	3.4

DN 10 – DN 50



DN 65 – DN 100



Dimensions [inch]

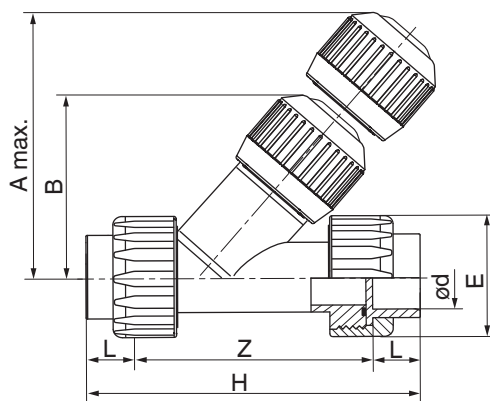
Solvent cement sockets, connection code 2 Valve body material: PVC-U grey (code 1)

DN	PN Operating pressure	ød	A max.	B	E	L	Z	H	K	Weight [lbs]
10	232 psi	0.630	4.92	2.83	2.17	0.55	4.21	5.31	-	0.5
15	232 psi	0.787	4.92	2.83	2.17	0.63	4.06	5.31	-	0.5
20	232 psi	0.984	5.71	3.31	2.60	0.75	4.72	6.22	-	0.9
25	232 psi	1.260	6.50	3.74	2.95	0.87	5.20	6.93	-	1.3
32	232 psi	1.575	7.48	4.37	3.43	1.02	6.10	8.15	-	2.0
40	232 psi	1.969	8.27	4.72	3.94	1.22	7.13	9.57	-	2.9
50	232 psi	2.480	9.45	5.47	4.72	1.50	8.74	11.73	-	5.1
65	150 psi	2.953	11.81	7.05	4.09	1.73	6.10	9.57	3.78	7.7
80	90 psi	3.543	12.80	7.56	4.57	2.01	6.30	10.31	4.13	10.0
100	90 psi	4.331	15.16	9.09	5.43	2.40	7.99	12.80	-	15.8

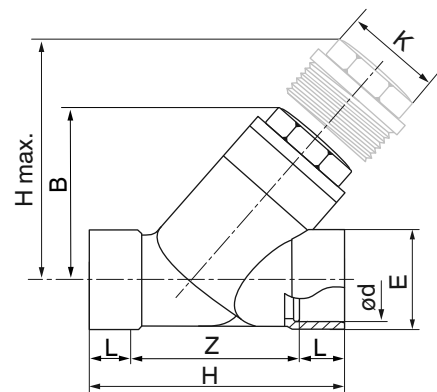
Welded sockets, connection code 2 Valve body material: PP-H grey (code G5)

DN	PN Operating pressure	ød	A max.	B	E	L	Z	H	K	Weight [lbs]
15	150 psi	0.787	4.92	2.80	2.17	0.57	4.04	5.41	-	0.4
20	150 psi	0.984	5.71	3.27	2.56	0.63	4.92	6.18	-	0.5
25	150 psi	1.260	6.50	3.70	2.91	0.71	5.61	7.03	-	0.8
32	150 psi	1.575	7.48	4.29	3.39	0.81	6.46	8.07	-	1.4
40	150 psi	1.969	8.27	4.69	3.90	0.93	7.74	9.59	-	2.0
50	150 psi	2.480	9.45	5.61	4.72	1.08	9.41	11.57	-	3.4
65	90 psi	2.953	11.81	6.93	4.06	1.22	7.05	9.49	3.78	5.4
80	60 psi	3.543	12.80	7.60	4.53	1.40	7.44	10.24	4.13	6.9

DN 10 – DN 50



DN 65 – DN 100



Dimensions [inch]

Flanges – DIN, connection code 4 Valve body material: PVC-U grey (code 1)

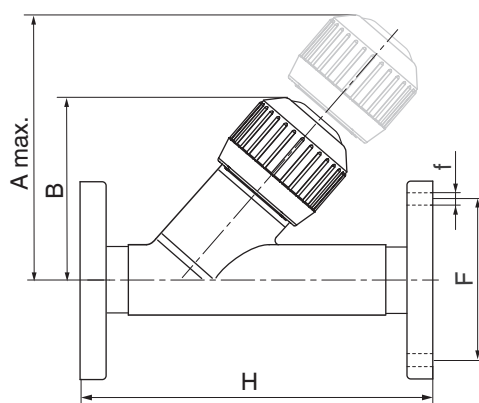
DN	PN Operating pressure	d	A max.	B	H	F	f	Weight [lbs]
15	232 psi	0.79	4.92	2.83	5.12	2.56	0.55	0.6
20	232 psi	0.98	5.71	3.31	5.91	2.95	0.55	0.9
25	232 psi	1.26	6.50	3.74	6.30	3.35	0.55	1.4
32	232 psi	1.57	7.48	4.37	7.09	3.94	0.71	2.3
40	232 psi	1.97	8.27	4.72	7.87	4.33	0.71	3.1
50	232 psi	2.48	9.45	5.47	9.06	4.92	0.71	4.9
65	150 psi	2.95	11.81	7.05	14.02	5.71	0.67	10.1
80	90 psi	3.54	12.80	7.56	15.91	6.30	0.67	13.9
100	90 psi	4.33	15.16	9.09	18.70	7.09	0.67	20.3

Flanges – DIN, connection code 4 Valve body material: PP-H grey (code G5)

DN	PN Operating pressure	d	A max.	B	H	F	f	Weight [lbs]
15	150 psi	0.79	4.92	2.83	6.40	2.56	0.55	0.6
20	150 psi	0.98	5.71	3.31	7.60	2.95	0.55	0.7
25	150 psi	1.26	6.50	3.74	8.29	3.35	0.55	1.1
32	150 psi	1.57	7.48	4.37	9.59	3.94	0.71	1.7
40	150 psi	1.97	8.27	4.72	10.91	4.33	0.71	2.3
50	150 psi	2.48	9.45	5.47	13.01	4.92	0.71	3.8

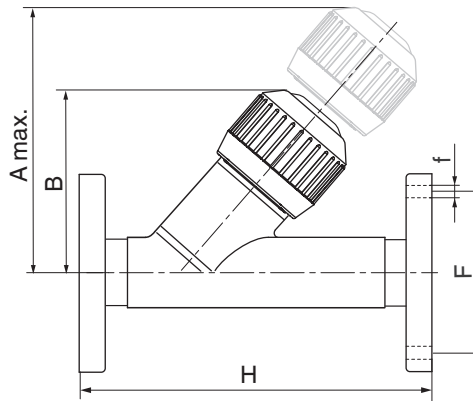
Flanges – ANSI, connection code 41 Valve body material: PP-H grey (Code 1)

DN	PN Operating pressure	d	A max.	B	H	F	f	Weight [lbs]
15	150 psi	0.79	4.92	2.83	5.12	2.36	0.63	0.62
20	150 psi	0.98	5.71	3.31	5.94	2.76	0.63	0.95
25	150 psi	1.26	6.50	3.74	6.30	3.11	0.63	1.41
32	150 psi	1.57	7.48	4.37	7.13	3.50	0.63	2.28
40	150 psi	1.97	8.27	4.72	7.87	3.86	0.63	3.10
50	150 psi	2.48	9.45	5.47	9.06	4.76	0.75	4.93
65	150 psi	2.95	11.81	7.05	13.27	5.51	0.75	10.14
80	150 psi	3.54	12.80	7.56	14.72	5.98	0.75	13.89
100	150 psi	4.33	15.16	9.09	17.99	7.48	0.75	20.28



Flanges – ANSI, connection code 41
Valve body material: PP-H grey (code G5)

DN	PN Operating pressure	d	A max.	B	H	F	f	Weight [lbs]
15	150 psi	0.79	4.92	2.83	6.40	2.37	0.63	0.58
20	150 psi	0.98	5.71	3.31	7.60	2.75	0.63	0.72
25	150 psi	1.26	6.50	3.74	8.29	3.13	0.63	1.06
32	150 psi	1.57	7.48	4.37	9.59	3.50	0.63	1.75
40	150 psi	1.97	8.27	4.72	10.91	3.87	0.63	2.35
50	150 psi	2.48	9.45	5.47	13.01	4.75	0.75	3.76



Overview of valve bodies for GEMÜ N560

Connection code	0	1		2		4		41	
Material code	1	1	G5	1	G5	1	G5	1	G5
DN									
10	X	X	-	X	-	-	-	-	-
15	X	X	X	X	X	X	X	X	X
20	X	X	X	X	X	X	X	X	X
25	X	X	X	X	X	X	X	X	X
32	X	X	X	X	X	X	X	X	X
40	X	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X	X
65	-	X	-	X	X	X	-	X	-
80	-	X	-	X	X	X	-	X	-
100	-	X	-	X	-	X	-	X	-

GEMÜ VALVES, MEASUREMENT
AND CONTROL SYSTEMS

