

GEMÜ 560

Check valve, angle seat design



Features

- High flow rates due to angle seat design
- Seven different connection codes for worldwide use
- Suitable for use with liquid media

Description

The GEMÜ 560 check valve comprises an angle seat valve body in stainless steel. The valve has either a PTFE or PFA seat for tight shut off. The valve is available with various connection types.

Technical specifications

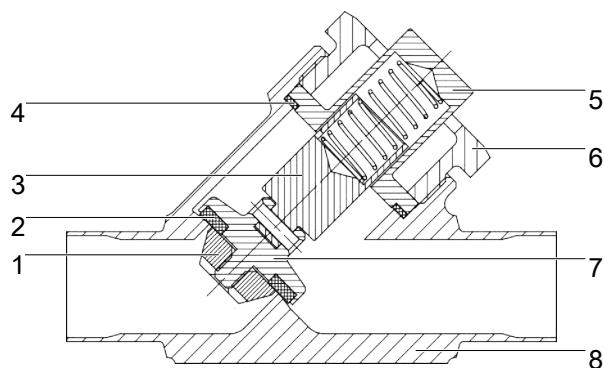
- **Media temperature :** -10 to 180 °C
- **Ambient temperature:** -10 to 60 °C
- **Operating pressure :** 0.2 to 25 bar
- **Nominal sizes:** DN 6 to 50
- **Connection types:** Clamp | Flange | Spigot | Thread
- **Connection standards:** ANSI | ASME | DIN | EN | ISO | SMS
- **Body materials:** 1.4408, investment casting material | 1.4435 (BN2), forged material | 1.4435, investment casting material
- **Seal materials:** PFA | PTFE
- **Conformities:** ATEX | EAC | FDA | RoHS

Technical data depends on the respective configuration



Product description

The GEMÜ 560 check valve comprises an angle seat valve body in stainless steel. The valve has either a PTFE or PFA seat for tight shut off. The valve is available with various connection types. The valve is available with various connection types.



Item	Name	Materials
1	Retaining washer	1.4404 / A479 316Ti
2	Seat seal	PTFE
3	Tappet	1.4404
4	Seal	PTFE with glass fibre
5	Spring barrel	1.4404
6	Union nut	1.4408
7	Valve plug	1.4404 / A479 316Ti
8	Valve body	1.4404 or 1.4435

Range overview

DN	Spigot																Threaded connection	
	Connection code																	
	0		16		17			37		59			60				1	9
	Material code																	
	34	40	34	40	34	37	40	C2	34	34	40	C2	34	37	40	C2	37	37
6	-	X*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	X*	-	-	-	-	-	-	-	-	-	-	-	-	X*	X	-	-
10	-	-	X	X*	X	-	X*	X	-	-	X*	-	X	-	-	X	X	-
15	X	-	X	-	X	X	-	X	-	X	X*	X	X	X	-	X	X	X
20	X	-	X	-	X	X	-	X	-	X	-	X	X	X	-	X	X	X
25	X	-	X	-	X	X	-	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	X	-	X	X	X
50	X	-	X	-	X	X	-	X	X	X	-	X	X	X	-	X	X	X

* only with actuator size 0

Order data

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

Products ordered with **bold marked ordering options** are so-called preferred series. Depending on the nominal size, these are available more quickly.

Order codes

1 Type	Code
Angle seat check valve	560

2 DN	Code
DN 6	6
DN 8	8
DN 10	10
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50

3 Housing configuration	Code
2/2-way body	D

4 Connection type	Code
Spigot	
Spigot DIN	0
Spigot DIN EN 10357 series B (2014 issue; formerly DIN 11850 series 1)	16
Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2	17
Spigot SMS 3008	37
Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C	59
Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/DIN 11866 series B	60
Threaded connection	
Threaded socket DIN ISO 228	1
Threaded socket Rc ISO 7-1, EN 10226-2, JIS B 0203, BS 21, end-to-end dimension ETE DIN 3202-4 series M8	3C
Threaded socket NPT, end-to-end dimension ETE DIN 3202-4 series M8	3D
Threaded spigot DIN ISO 228	9
Flange	
Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	10
Flange EN 1092, PN 25, form B	13
Flange ANSI Class 150 RF	47
Clamp	
Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 1	82
Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 1	86

4 Connection type	Code
Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 1	88

5 Valve body material	Code
1.4435, investment casting	34
1.4408, investment casting	37
1.4435 (F316L), forged body	40
1.4435, investment casting	C2

6 Seat seal	Code
PTFE	5
PTFE FDA compliant, USP class VI	5P
PFA	30

7 Actuator version	Code
Actuator size 0	0
Actuator size 1	1

8 Type of design	Code
Ra ≤ 0.6 µm (25 µinch) for media wetted surfaces, in accordance with ASME BPE SF2 + SF3 mechanically polished internal	1903
Ra ≤ 0.8 µm (30 µinch) for media wetted surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1904
Ra ≤ 0.4 µm (15 µinch) for media wetted surfaces, in accordance with DIN 11866 H4, ASME BPE SF1 mechanically polished internal	1909
Without	

9 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

Order example

Ordering option	Code	Description
1 Type	560	Angle seat check valve
2 DN	25	DN 25
3 Housing configuration	D	2/2-way body
4 Connection type	60	Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B
5 Valve body material	34	1.4435, investment casting
6 Seat seal	5	PTFE
7 Actuator version	1	Actuator size 1
8 Type of design		Without
9 CONEXO		Without

Technical data

Medium

Working medium: Corrosive, inert and liquid media which have no negative impact on the physical and chemical properties of the respective valve body and seal material.
Not suitable for gaseous media.

Temperature

Media temperature: **Seal material:**
PTFE seat seal, code 5: -10 °C to 180 °C
PTFE seat seal, FDA-compliant, USP class VI, code 5P: -10 °C to 180 °C
PFA seat seal, code 30: -10 °C to 160 °C
Others materials available on request.

Ambient temperature: -10 to 60 °C

Pressure

Operating pressure:	Nominal size	Actuator size	Operating pressure
	DN 6 to DN 15	0	25
	DN 8 to DN 40	1	25
	DN 50	1	20

Pressures in bar

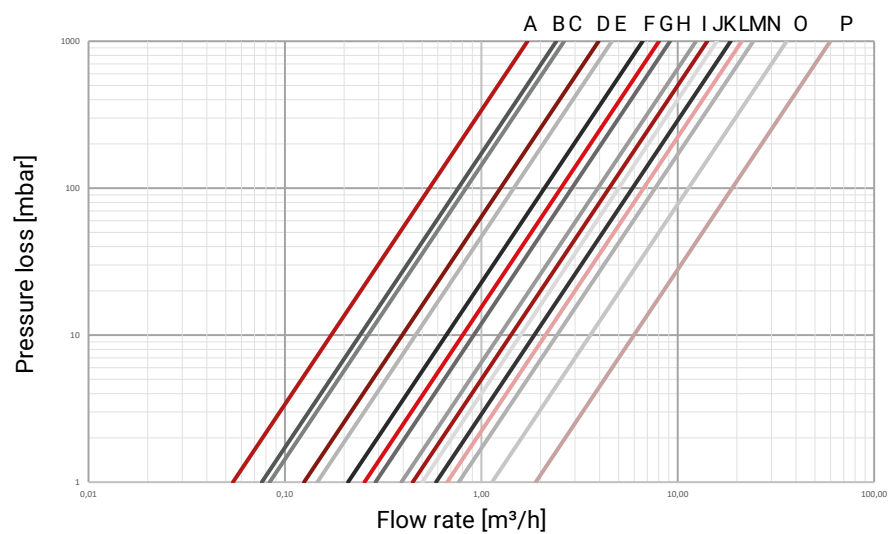
Leakage rate: Leakage rate according to EN12266, 6 bar air, leakage rate A

Open pressure: Approx. 0.2 bar

Pressure/temperature correlation:	Connection code	Material code	Room temperature in °C	Permissible operating pressures in bar				
				100	150	200	250	300
	1, 9, 17, 60, 63	37	25.0	23.8	21.4	18.9	17.5	16.1
	0, 16, 17, 37, 59, 60, 65	34	25.0	24.5	22.4	20.3	18.2	16.1
	0, 16, 17, 59, 60	40	25.0	20.6	18.7	17.1	15.8	14.8
	17, 59, 60	C2	25.0	21.2	19.3	17.9	16.8	15.9

Pressure loss:

Group	Nominal size	Code	Group	Nominal size	Code
A	8	D137	K	25	D1737
B	15	D59C2		25	D6037
C	8	D60C2		25	D60C2
	10	D17C2	L	32	D1737
D	10	D137		32	D17C2
	10	D60C2		32	D60C2
	15	D137	M	32	D137
	15	D17C2	N	32	D6037
E	15	D1737		40	D1737
	15	D6037		40	D17C2
	15	D60C2		40	D59C2
F	20	D59C2		40	D60C2
G	20	D137	O	40	D137
	20	D17C2		40	D6037
H	20	D1737		50	D1737
	20	D6037		50	D17C2
	20	D60C2		50	D59C2
I	25	D59C2		50	D60C2
J	25	D137	P	50	D137
	25	D17C2		50	D6037



Product compliance

Machinery Directive: 2006/42/EC

Pressure Equipment Directive: 2014/68/EU

Food: FDA*

TA Luft (German Clean Air Act): The product meets the following requirements under the max. permissible operating conditions:

- Tightness or compliance with the specific leak rate within the sense of TA-Luft as well as VDI 2440
- Compliance with the requirements in accordance with DIN EN ISO 15848-1, Table C.2, Class BH

Explosion protection: ATEX (2014/34/EU)
* This feature is not possible for all versions.

Mechanical data

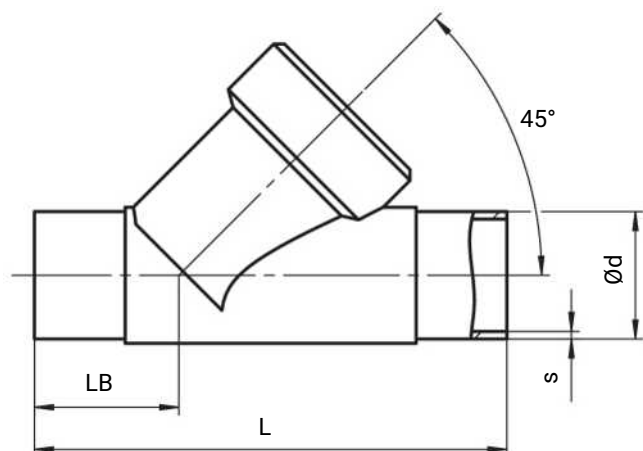
Weight:

Nominal size	Actuator size	Weight
6 - 15	0	0.21
8 - 15	1	0.48
20	1	0.70
25	1	0.78
32	1	1.53
40	1	1.74
50	1	2.70

Weights in kg

Dimensions

Butt weld spigot



Material code 34 and 37

Connection codes 0, 16, 17

DN	Material code 34		Material code 37		Connection code					
					0		16		17	
	L	LB	L	LB	Ød	s	Ød	s	Ød	s
10	105.00	35.50	-	-	-	-	12.00	1.00	13.00	1.50
15	105.00	35.50	100.00	33.00	18.00	1.50	18.00	1.00	19.00	1.50
20	120.00	39.00	108.00	33.00	22.00	1.50	22.00	1.00	23.00	1.50
25	125.00	38.50	112.00	32.00	28.00	1.50	28.00	1.00	29.00	1.50
32	155.00	48.00	137.00	39.00	-	-	34.00	1.00	35.00	1.50
40	160.00	47.00	146.00	40.00	40.00	1.50	40.00	1.00	41.00	1.50
50	180.00	48.00	160.00	38.00	52.00	1.50	52.00	1.00	53.00	1.50

Dimensions in mm

Connection codes 37, 59, 60

DN	Material code 34		Material code 37		Connection code					
					37		59		60	
	L	LB	L	LB	Ød	s	Ød	s	Ød	s
10	105.00	35.50	-	-	-	-	-	-	17.20	1.60
15	105.00	35.50	100.00	33.00	-	-	12.70	1.65	21.30	1.60
20	120.00	39.00	108.00	33.00	-	-	19.05	1.65	26.90	1.60
25	125.00	38.50	112.00	32.00	25.00	1.20	25.40	1.65	33.70	2.00
32	155.00	48.00	137.00	39.00	-	-	-	-	42.40	2.00
40	160.00	47.00	146.00	40.00	38.00	1.20	38.10	1.65	48.30	2.00
50	180.00	48.00	160.00	38.00	51.00	1.20	50.80	1.65	60.30	2.00

Dimensions in mm

Material code 40

DN	L	LB	Connection code									
			0		16		17		59		60	
			Ød	s	Ød	s	Ød	s	Ød	s	Ød	s
6*	80.00	26.50	8.00	1.00	-	-	-	-	-	-	-	-
8*	80.00	26.50	10.00	1.00	-	-	-	-	-	-	13.50	1.60
10*	80.00	26.50	-	-	12.00	1.00	13.00	1.50	9.53	0.89	-	-
15*	80.00	26.50	-	-	-	-	-	-	12.70	1.65	-	-

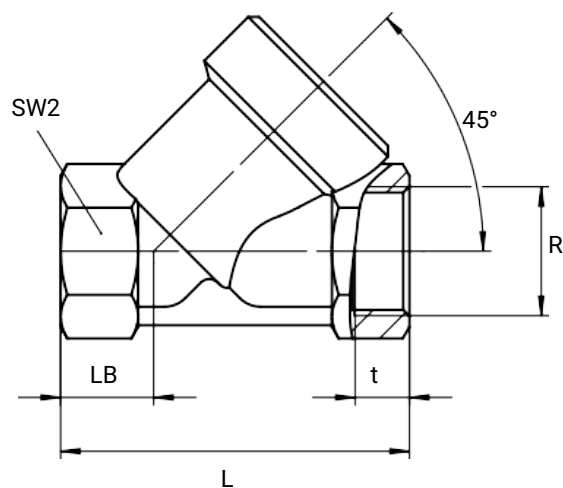
Dimensions in mm

* only with actuator size 0

Material code C2

DN	L	LB	Connection code					
			17		59		60	
			Ød	s	Ød	s	Ød	s
8	105.00	35.50	-	-	-	-	13.50	1.60
10	105.00	35.50	13.00	1.50	-	-	17.20	1.60
15	105.00	35.50	19.00	1.50	12.70	1.65	21.30	1.60
20	120.00	39.00	23.00	1.50	19.05	1.65	26.90	1.60
25	125.00	39.50	29.00	1.50	25.40	1.65	33.70	2.00
32	155.00	48.00	35.00	1.50	-	-	42.40	2.00
40	160.00	47.00	41.00	1.50	38.10	1.65	48.30	2.00
50	180.00	48.00	53.00	1.50	50.80	1.65	60.30	2.00

Dimensions in mm

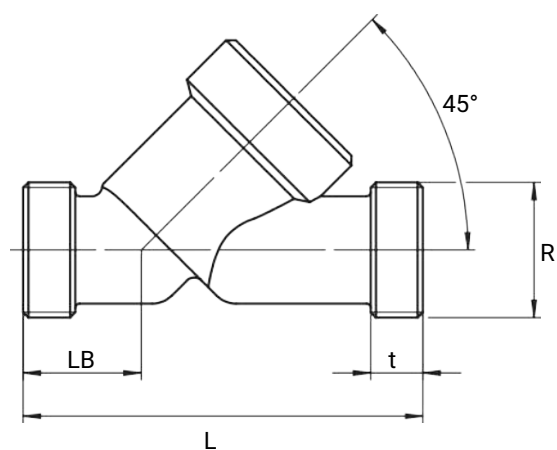
Threaded socket

DN	Connection code 1 Material code 37					
	L	LB	R	t	SW2	
15	65.00	16.50	G 1/2	15.00	27.00	6-kt
20	75.00	17.50	G 3/4	16.30	32.00	6-kt
25	90.00	24.00	G 1	19.10	41.00	6-kt
32	110.00	33.00	G 1 1/4	21.40	50.00	8-kt
40	120.00	30.00	G 1 1/2	21.40	55.00	8-kt

Dimensions

DN	Connection code 1 Material code 37					
	L	LB	R	t	SW2	
50	150.00	40.00	G 2	25.70	70.00	8-kt

Dimensions in mm

Threaded spigot

DN	Connection code 9 Material code 37			
	L	LB	R	t
10	90.00	25.00	G1/2	12.45
15	90.00	25.00	G 3/4	12.00
20	110.00	30.00	G 1	15.00
25	118.00	30.00	G 1 1/4	15.00
32	130.00	38.00	G 1 1/2	13.00
40	140.00	35.00	G 1 3/4	13.00
50	175.00	50.00	G 2 3/8	15.00

Dimensions in mm



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