

GEMÜ 550

Pneumatically operated angle seat globe valve



Features

- Suitable for isolating and control functions with gaseous and liquid media
- Suitable for vacuum up to 20 mbar (a)
- Wide range of adaptation options for add-on components and accessories
- Free from non-ferrous metals
- Optional for food contact according to Regulation (EC) No. 1935/2004
- Particularly compact design, actuator size B

Description

The GEMÜ 550 2/2-way angle seat globe valve has a low-maintenance stainless steel piston actuator and is pneumatically operated. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Technical specifications

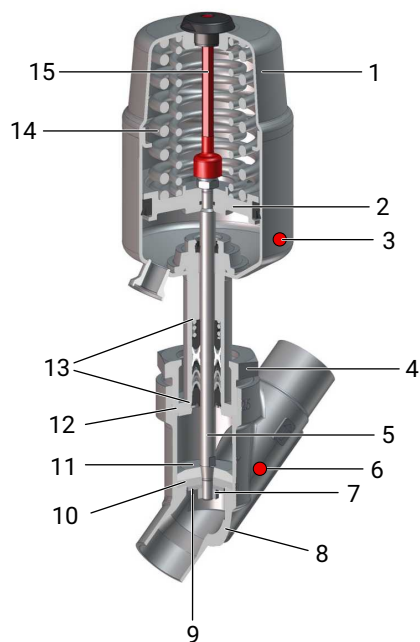
- Media temperature: -10 to 180 °C
- Ambient temperature*: -10 to 60 °C
- Operating pressure*: 0 to 25 bar
- Nominal sizes*: DN 6 to 80
- Body configurations: 2/2-way body | Angle valve body
- Connection types: Clamp | Flange | Spigot | Threaded connection
- Connection standards: ANSI | ASME | BS | DIN | EN | ISO | NPT | SMS
- Body materials: 1.4408, investment casting material | 1.4435 (316L), block material | 1.4435 (316L), forged material | 1.4435, investment casting material
- Seat seal materials: PTFE | PTFE, reinforced
- Conformities: ATEX | CRN | DVGW Gas | EAC | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | SIL | USP

* depending on version and/or operating parameters



Product description

Construction

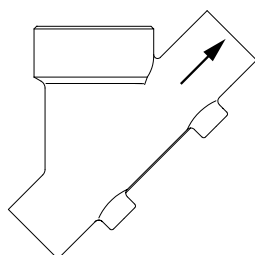


Item	Name	Materials
1	Actuator*	Stainless steel
2	Piston	
3	CONEXO actuator RFID chip (see Conexo information)	
4	Union nut	
5	Spindle	
6	CONEXO body RFID chip (see Conexo information)	
7	Nut	
8	Valve body*	1.4408 investment casting 1.4435 investment casting 1.4435 (F316L), forged body
9	Washer	
10	Seat seal*	PTFE
11	Valve plug	
12	Gasket*	
13	Gland packing	
14	Compression spring(s)	
15	Optical position indicator	

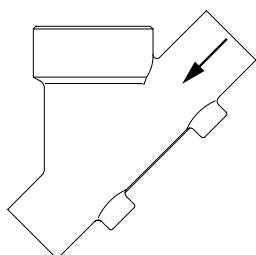
*These components are available as spare parts (see operating instructions chapter "Spare parts").

Flow direction

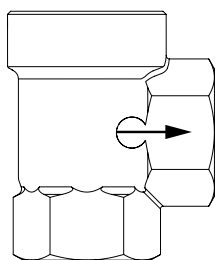
The flow direction is indicated by an arrow on the valve body.



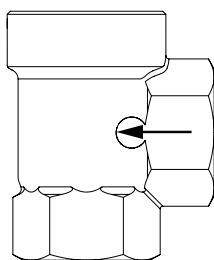
2/2-way body
under the seat



2/2-way body
over the seat

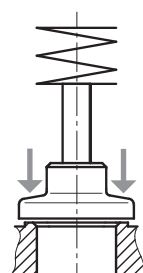


Angle valve body
under the seat

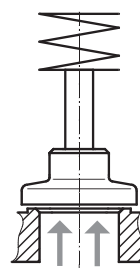


Angle valve body
over the seat

Over the seat
(code M)



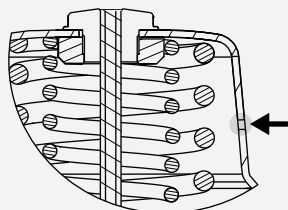
Under the seat
(code G)



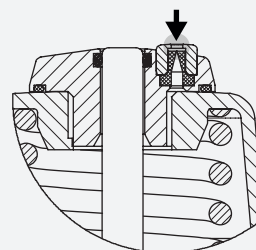
Under the seat (code G) is the preferred flow direction with incompressible liquid media to avoid water hammer
Over the seat (code M) only with control function - Normally closed (NC)

Vent hole in the actuator

To vent the control medium, the pneumatic actuator has a vent hole that is located on the side of the actuator housing (control function normally closed). In certain areas of application (e.g. the foodstuff industry), dirty water or cleaning media could enter through this vent hole and penetrate the actuator, thereby adversely affecting correct operation. A special vent system with lip check valve is available for these applications, which prevents such functional impairment. The vent hole at the side is then closed.



Standard vent hole



Special vent system K-no. 6996

Availabilities

Availability of actuators

For connection type code 10

DN	Actuator version					
	0..	1..	2..	3..	4..	5..
15	-	X	-	-	-	-
20	-	X	-	X	-	-
25	-	-	-	X	X	-
32	-	-	-	-	X	-
40	-	-	-	-	X	-
50	-	-	-	X	X	-

For all connection types, except connection type code 10

DN	Actuator version					
	0..	1..	2..	3..	4..	5..
6	X	-	-	-	-	-
8	X	X	X	-	-	-
10	X	X	X	-	-	-
15	X	X	X	-	-	-
20	-	X	X	X	-	-
25	-	-	X	X	X	-
32	-	-	X	X	X	X
40	-	-	-	X	X	X
50	-	-	-	X	X	X
65	-	-	-	-	-	X

Availability of valve bodies

Spigot, actuator size 0

DN	Connection type code ¹⁾				
	0	16	17	59	60
	Material code 40 ²⁾				
6	X	-	-	-	-
8	X	-	-	-	X
10	-	X	X	X	-
15	-	-	-	X	-

1) **Connection type**

Code 0: Spigot DIN

Code 16: Spigot EN 10357 series B, formerly DIN 11850 series 1

Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

2) **Valve body material**

Code 40: 1.4435 (F316L), forged body

Spigot, actuator size 1, 2, 3, 4, 5

DN	Connection type code ¹⁾														
	0	16	17			37		59			60			63	65
	Material code ²⁾														
	34	34	34	37	C2	34	37	34	37	C2	34	37	C2	37	34
8	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-
10	-	X	X	-	X	-	-	-	-	-	X	-	X	-	-
15	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
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
65	-	-	-	X	X	-	X	-	X	X	-	X	X	X	-
80	-	-	-	X	X	-	X	-	X	X	-	X	X	X	-

1) Connection type

Code 0: Spigot DIN

Code 16: Spigot EN 10357 series B, formerly DIN 11850 series 1

Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A

Code 37: Spigot SMS 3008

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

Code 63: Spigot ANSI/ASME B36.19M schedule 10s

Code 65: Spigot ANSI/ASME B36.19M schedule 40s

2) Valve body material

Code 34: 1.4435, investment casting

Code 37: 1.4408, investment casting

Code C2: 1.4435, investment casting

Threaded connection, actuator size 0

DN	Connection type code ¹⁾			
	1	3D	9	
	Material code ²⁾			
	37	37	37	40
6	-	-	-	X
8	X	X	X	-
10	X	X	X	-
15	X	X	X	-

1) Connection type

Code 1: Threaded socket DIN ISO 228

Code 3D: Threaded socket NPT, end-to-end dimension ETE DIN 3202-4 series M8

Code 9: Threaded spigot DIN ISO 228

2) Valve body material

Code 37: 1.4408, investment casting

Code 40: 1.4435 (F316L), forged body

Threaded connection, actuator size 1, 2, 3, 4, 5

DN	Connection type code ¹⁾			
	1	3C	3D	9
	Material code 37 ²⁾			
	Body configuration code D ³⁾			
10	X	-	-	-
15	X	X	X	X
20	X	X	X	X
25	X	X	X	X
32	X	X	X	X
40	X	X	X	X
50	X	X	X	X
65	X	X	X	X
80	X	X	X	X

DN	Connection type code ¹⁾			
	1	3C	3D	9
	Material code 37 ²⁾			
	Body configuration code E ³⁾			
10	-	-	-	-
15	X	X	X	X
20	X	X	X	X
25	X	X	X	X
32	X	X	X	X
40	X	X	X	X
50	X	X	X	X
65	-	X	-	X
80	-	X	-	X

1) **Connection type**

Code 1: Threaded socket DIN ISO 228

Code 3C: Threaded socket Rc ISO 7-1, EN 10226-1, JIS B 0203, BS 21, end-to-end dimension ETE DIN 3202-4 series M8

Code 3D: Threaded socket NPT, end-to-end dimension ETE DIN 3202-4 series M8

Code 9: Threaded spigot DIN ISO 228

2) **Valve body material**

Code 37: 1.4408, investment casting

3) **Body configuration**

Code D: 2/2-way body

Code E: Angle valve body

Flange, actuator size 1, 2, 3, 4, 5

DN	Connection type code ¹⁾		
	10	13	47
	Material code ²⁾		
	37	34	34
15	X	X	X
20	X	X	X
25	X	X	X
32	X	X	X
40	X	X	X
50	X	X	X

1) Connection type

Code 10: Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
 Code 13: Flange EN 1092, PN 25, form B
 Code 47: Flange ANSI Class 150 RF

2) Valve body material

Code 34: 1.4435, investment casting
 Code 37: 1.4408, investment casting

Clamp, actuator size 1, 2, 3, 4, 5

DN	Connection type code ¹⁾						
	80	82	86	88			
	Material code ²⁾						
	34	34	C2	34	C2	34	C2
8	-	-	X	-	-	-	-
10	-	-	X	-	-	-	-
15	X	X	X	X	X	X	X
20	X	X	X	X	X	X	X
25	X	X	X	X	X	X	X
32	-	X	X	X	X	-	-
40	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X
65	-	-	X	-	X	-	X
80	-	-	X	-	X	-	X

1) Connection type

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE
 Code 82: Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 1
 Code 86: Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 1
 Code 88: Clamp ASME BPE, face-to-face dimension FTF EN 558 series 1

2) Valve body material

Code 34: 1.4435, investment casting
 Code C2: 1.4435, investment casting

Availability for gas applications (special function G)

Configuration options for actuators

Nominal sizes	Actuator sizes	
	2M1	3M1
DN 15	●	-
DN 20	●	-
DN 25	●	-
DN 32	-	●
DN 40	-	●
DN 50	-	●

Configuration options for valve bodies

Nominal size	Connection types ¹⁾			
	1	17	60	63
DN 15	●	●	●	●
DN 20	●	●	●	●
DN 25	●	●	●	●
DN 32	●	●	●	-
DN 40	●	●	●	●
DN 50	●	●	●	●

1) Connection type

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

Code 1: Threaded socket DIN ISO 228

Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A

Code 63: Spigot ANSI/ASME B36.19M schedule 10s

Availabilities for food-related applications

Seat seal	Valve body material			
	34	37	40	C2
5G	X	X	X	X
5	X	X	X	X
5P	X	X	X	X

Availability for oxygen applications

Special function	Seat seal		
	5	5G	5P
O	X	X	X

Order data

The order data provide an overview of standard configurations.

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

Order codes

1 Type	Code
Angle seat globe valve, pneumatically operated, stainless steel piston actuator	550

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
DN 65	65
DN 80	80

3 Body configuration	Code
2/2-way body	D
Angle valve body	E

4 Connection type	Code
Spigot	
Spigot DIN	0
Spigot EN 10357 series B, formerly DIN 11850 series 1	16
Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A	17
Spigot SMS 3008	37
Spigot ASME BPE	59
Spigot ISO 1127/EN 10357 series C/DIN 11866 series B	60
Spigot ANSI/ASME B36.19M schedule 10s	63
Spigot ANSI/ASME B36.19M schedule 40s	65
Threaded connection	
Threaded socket DIN ISO 228	1
Threaded socket Rc ISO 7-1, EN 10226-1, 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 ASME BPE, face-to-face dimension FTF ASME BPE	80

4 Connection type	Code
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
Clamp 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
Note: A surface finish from the order code table "K number" must be specified for valve body material C2.	

6 Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G
PTFE FDA-compliant, USP class VI	5P

7 Control function	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3

8 Actuator version	Code
Actuator size 0G1	0G1
Actuator size 0M1	0M1
Actuator size 1G1	1G1
Actuator size 1M1	1M1
Actuator size 2G1	2G1
Actuator size 2M1	2M1
Actuator size 3G1	3G1
Actuator size 3M1	3M1
Actuator size 4G1	4G1
Actuator size 5G1	5G1

9 Type of design	Code
Without	
For higher operating temperatures	2023
Special vent system integrated in actuator	6996
Ra ≤ 0.6 µm (25 pinch) for media wetted surfaces, in accordance with ASME BPE SF2 + SF3 mechanically polished internal	1903
Ra ≤ 0.8 µm (30 pinch) for media wetted surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1904

Order data

9 Type of design	Code
Ra ≤ 0.4 µm (15 µinch) for media wetted surfaces, in accordance with DIN 11866 H4, ASME BPE SF1 mechanically polished internal	1909
Ra ≤ 0.6 µm for media wetted surfaces, in accordance with ASME BPE SF6, electropolished internal/external	1953
Ra ≤ 0.8 µm for media wetted surfaces, in accordance with DIN 11866 HE3, electropolished internal/external	1954
Ra ≤ 0.4 µm for media wetted surfaces, in accordance with DIN 11866 HE4/ASME BPE SF5, electropolished internal/external	1959

10 Special version	Code
Without	
Certified to DIN EN 161, class A	G
Special version for oxygen, maximum medium temperature: 60 °C, media wetted seal materials and auxiliary materials with BAM testing	S

11 CONEXO	Code
Without	

Order codes

Ordering option	Code	Description
1 Type	550	Angle seat globe valve, pneumatically operated, stainless steel piston actuator
2 DN	15	DN 15
3 Body configuration	D	2/2-way body
4 Connection type	1	Threaded socket DIN ISO 228
5 Valve body material	37	1.4408, investment casting
6 Seat seal	5	PTFE
7 Control function	1	Normally closed (NC)
8 Actuator version	1G1	Actuator size 1G1
9 Type of design		Without
10 Special version	G	Certified to DIN EN 161, class A
11 CONEXO		Without

Technical data

Medium

Working medium: Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and seal material.

Control medium: Inert gases

Max. permissible viscosity: 600 mm²/s (cSt)
Other versions for lower/higher temperatures and higher viscosities on request.

Temperature

Media temperature: -10 – 180 °C
for special function G: -10 – 60 °C
with special function S: -10 – 60 °C

Ambient temperature: -10 – 60 °C

Control medium temperature: 0 – 60 °C

Storage temperature: -30 – 60 °C

Pressure

Operating pressure: Control function 1 (NC) - Flow direction under the seat

Actuator version code	0G1	1G1	2G1	3G1	4G1	5G1
DN						
6	10.0	-	-	-	-	-
8	10.0	10.0	-	-	-	-
10	10.0	10.0	22.0	-	-	-
15	10.0	10.0	22.0	-	-	-
20	-	6.0	12.0	25.0	-	-
25	-	3.5	7.0	16.0	25.0	-
32	-	-	4.0	10.0	18.0	25.0
40	-	-	2.5	6.0	12.0	20.0
50	-	-	-	3.0	7.0	15.0
65	-	-	-	-	-	10.0
80	-	-	-	-	-	7.0

All pressures are gauge pressures. When the flow is over the seat (M), there may be the danger of water hammer with liquid media! For max. operating pressures the pressure/temperature correlation must be observed.

Operating pressure:

Control function 1 (NC) - Flow direction over the seat

Actuator version code	0M1	1M1	2M1	3M1
DN				
6	10.0	-	-	-
8	10.0	10.0	-	-
10	10.0	10.0	-	-
15	10.0	10.0	10.0	-
20	-	10.0	10.0	10.0
25	-	10.0	10.0	10.0
32	-	-	10.0	10.0
40	-	-	8.0	10.0
50	-	-	5.0	10.0
65	-	-	-	-
80	-	-	-	-

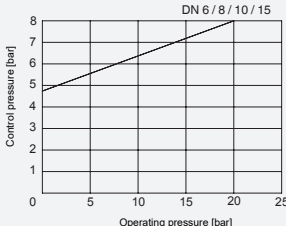
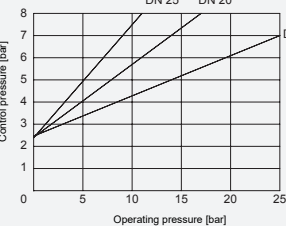
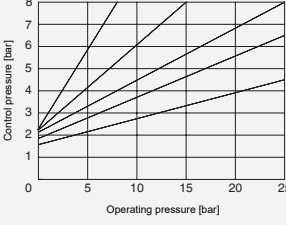
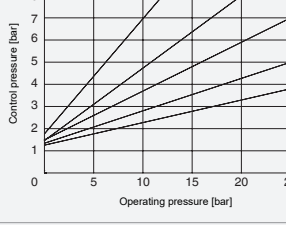
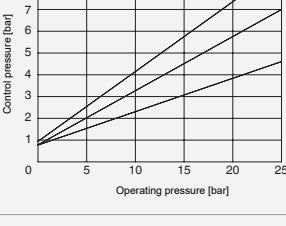
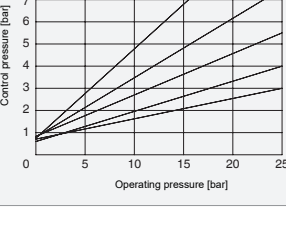
All pressures are gauge pressures. When the flow is over the seat (M), there may be the danger of water hammer with liquid media! For max. operating pressures the pressure/temperature correlation must be observed.

Pressure rating:

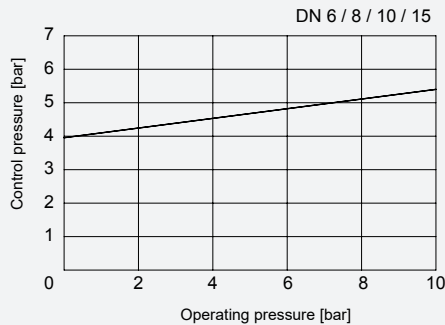
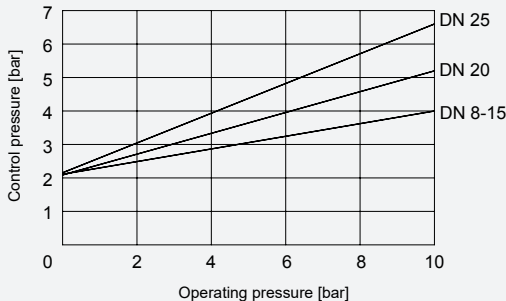
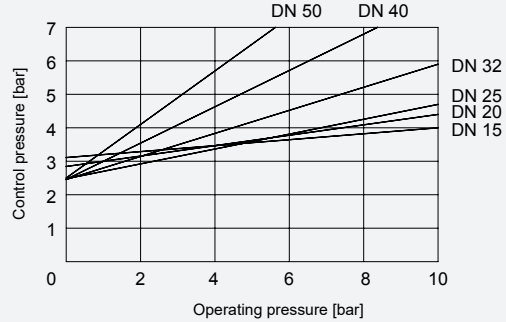
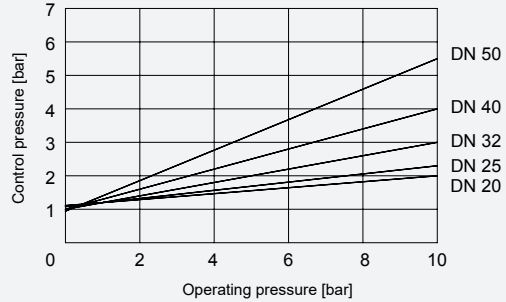
PN 16

Control pressure:

Flow direction: under the seat

Actuator version code	Control function 1 normally closed (NC)	Control function 2 and 3 normally open (NO) and double acting (DA) (NC)
0G1	4 – 8 bar	
1G1	4 – 8 bar	
2G1	4 – 8 bar	
3G1	4 – 8 bar	
4G1	4 – 8 bar	
5G1	5 – 8 bar	

Control pressure:
Flow direction: over the seat

Actuator version code	Control function 1 normally closed (NC)
0M1	5 – 8 bar 
1M1	5 – 8 bar 
2M1	5 – 8 bar 
3M1	5 – 8 bar 

Filling volume:

Actuator version code	Filling volume	Piston diameter
0G1, 0M1	0.006 dm ³	28 mm
1G1, 1M1	0.025 dm ³	42 mm
2G1, 2M1	0.084 dm ³	60 mm
3G1, 3M1	0.245 dm ³	80 mm
4G1	0.437 dm ³	100 mm
5G1	0.798 dm ³	130 mm

Leakage rate:

Leakage rate A to P11/P12 EN 12266-1

Pressure/temperature correlation:

Connection types code ¹⁾	Material code ²⁾	Max. allowable operating pressures in bar at temperature in °C ³⁾					
		RT	100	150	200	250	300
1, 9, 17, 37, 60, 63, 3C, 3D	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
13 (DN 15 - DN 50)	34	25.0	23.6	21.5	19.8	18.6	17.2
80, 88 (DN 15 - DN 40)	34	25.0	21.2	19.3 *	-	-	-
80, 88 (DN 50 - DN 80)	34	16.0	16.0	16.0 *	-	-	-
82 (DN 15 - DN 32)	34	25.0	21.2	19.3 *	-	-	-
82 (DN 40 - DN 65)	34	16.0	16.0	16.0 *	-	-	-
86 (DN 15 - DN 40)	34	25.0	21.2	19.3 *	-	-	-
86 (DN 50 - DN 65)	34	16.0	16.0	16.0 *	-	-	-
10 (DN 15 - DN 50)	37	25.0	25.0	22.7	21.0	19.8	18.5
47 (DN 15 - DN 50)	34	15.9	13.3	12.0	11.1	10.2	9.7
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

* max. temperature 140 °C

All pressures are gauge pressures.

The valves may be used to -10 °C

Pressure/temperature correlation:
1) Connection type

Code 0: Spigot DIN
 Code 1: Threaded socket DIN ISO 228
 Code 1A: Spigot DIN 11866 series A
 Code 1B: Spigot DIN 11866 series B
 Code 3C: Threaded socket Rc ISO 7-1, EN 10226-1, JIS B 0203, BS 21, end-to-end dimension ETE DIN 3202-4 series M8
 Code 3D: Threaded socket NPT, end-to-end dimension ETE DIN 3202-4 series M8
 Code 9: Threaded spigot DIN ISO 228
 Code 10: Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
 Code 13: Flange EN 1092, PN 25, form B
 Code 16: Spigot EN 10357 series B, formerly DIN 11850 series 1
 Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A
 Code 18: Spigot DIN 11850 series 3
 Code 37: Spigot SMS 3008
 Code 47: Flange ANSI Class 150 RF
 Code 59: Spigot ASME BPE
 Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B
 Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE
 Code 82: Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 1
 Code 86: Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 1
 Code 88: Clamp ASME BPE, face-to-face dimension FTF EN 558 series 1

2) Valve body material

Code 34: 1.4435, investment casting
 Code 37: 1.4408, investment casting
 Code 40: 1.4435 (F316L), forged body
 Code C2: 1.4435, investment casting

Kv values:

DN	Butt weld spigot DIN 11850	Butt weld spigot DIN 11866	Threaded socket DIN ISO 228
6	1.6	-	-
8	1.8	2.2	-
10	2.4	4.5	4.5
15	2.4	5.5	5.4
20	-	11.7	10.0
25	-	20.5	15.2
32	-	33.0	23.0
40	-	51.0	41.0
50	-	61.0	68.0
65	-	110.0	95.0
80	-	117.0	130.0

Kv values in m³/h

Kv values determined in accordance with EN 60534. The Kv value data refers to control function 1 (NC) and the largest actuator for each nominal size. The Kv values for other product configurations (e.g. other connection types or body materials) may differ.

Product conformity

Food:

Regulation (EC) No. 1935/2004*

Regulation (EC) No. 10/2011*

FDA*

* depending on version and/or operating parameters

Pressure Equipment Directive:

2014/68/EU

Machinery Directive:

2006/42/EC

Gas:	EN 161 EN 16678
Gas identification:	Valve group: 2 Valve class: A
Explosion protection:	ATEX (2014/34/EU) on request

Mechanical data

Weight:

Actuator

DN	Actuator size					
	0	1	2	3	4	5
6	0.24	-	-	-	-	-
8	0.24	0.62	0.90	-	-	-
10	0.24	0.62	0.90	-	-	-
15	0.24	0.66	0.97	-	-	-
20	-	0.73	1.00	1.70	-	-
25	-	-	1.10	1.80	3.20	-
32	-	-	1.30	2.00	3.40	6.50
40	-	-	1.60	2.10	3.50	6.60
50	-	-	-	2.30	3.70	6.80
65	-	-	-	-	-	7.40
80	-	-	-	-	-	8.10

Weights in kg

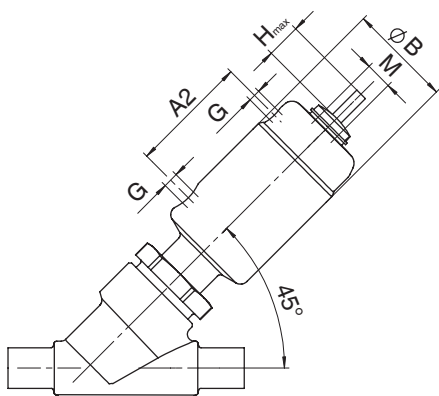
Body

DN	Spigot K514	Threaded socket	Threaded spigot	Flange K514	Clamp
	Connection types code				
	0, 16, 17, 37, 59, 60, 63, 65	1	9	10, 13, 47	80, 82, 86, 88
6	0.12	-	0.14	-	-
8	0.12	0.25	0.12	-	-
10	0.12	0.25	0.14	-	-
15	0.16	0.25	0.14	-	-
10	0.25	0.25	-	-	-
15	0.24	0.35	0.31	1.80	0.37
20	0.50	0.35	0.50	2.50	0.63
25	0.50	0.35	0.65	3.10	0.63
32	0.90	0.75	1.00	4.60	1.08
40	1.10	0.98	1.30	5.10	1.28
50	1.80	1.70	1.80	7.20	2.07
65	3.40	3.20	3.40	-	3.69
80	4.20	4.10	4.40	-	4.60

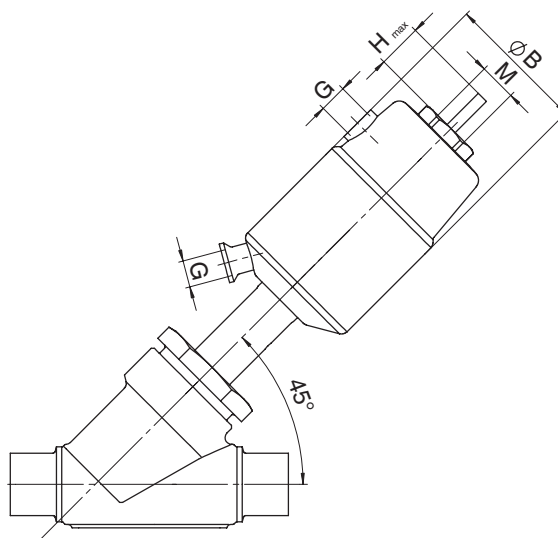
Weights in kg

Dimensions

Actuator dimensions



Actuator size 0, 1



Actuator size 2 - 5

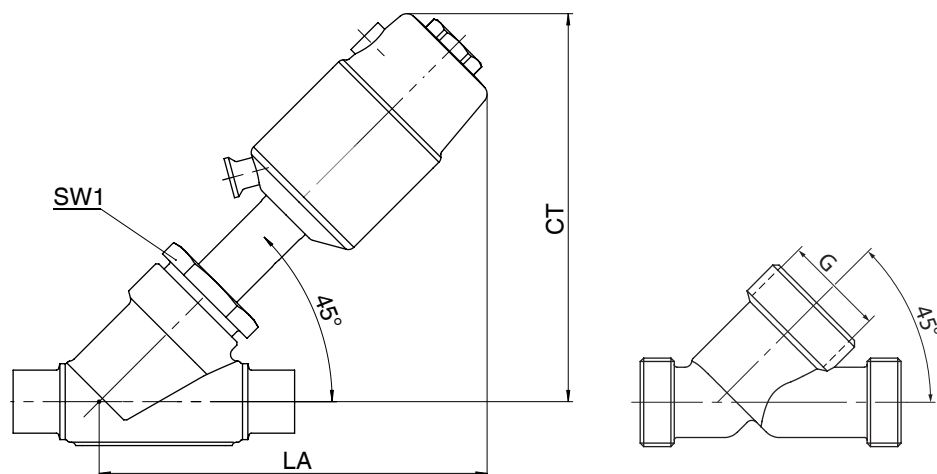
Actuator size	ØB	M	H max*	G	A2
0	32.0	M 12 x 1	6.0	M 5	35.4
1	46.0	M 16 x 1	12.0	G 1/8	53.0
2	63.0	M 16 x 1	22.0	G 1/8	-
3	84.0	M 16 x 1	28.0	G 1/4	-
4	104.0	M 22 x 1.5	32.0	G 1/4	-
5	135.0	M 22 x 1.5	41.0	G 1/4	-

Dimensions in mm

H max*: dependent on nominal size

Installation dimensions

Valve with 2/2-way body

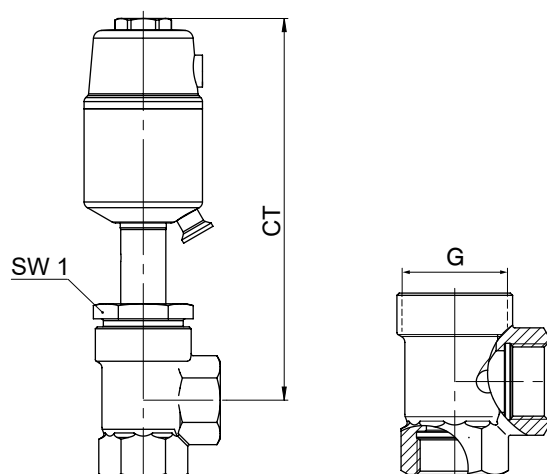


Actuator size			0	1	2	3	4	5
DN	SW	G	CT/LA	CT/LA	CT/LA	CT/LA	CT/LA	CT/LA
6	24	-	91.0	-	-	-	-	-
8	24	-	91.0	-	-	-	-	-
10	24	-	91.0	-	-	-	-	-
15	24	-	91.0	-	-	-	-	-
8	36	-	-	134.0	171.0	-	-	-
10	36	-	-	134.0	171.0	-	-	-
15	36	M 34 x 1.5	-	137.0	174.0	-	-	-
20	41	M 40 x 1.5	-	143.0	180.0	198.0	-	-
25	46	M 45 x 1.5	-	-	184.0	202.0	235.0	-
32	55	M 52 x 1.5	-	-	192.0	210.0	243.0	269.0
40	60	M 60 x 2.0	-	-	187.0	215.0	248.0	274.0
50	55	M 72 x 2.0	-	-	-	223.0	256.0	282.0
65	75	M 90 x 2.0	-	-	-	-	-	295.0
80	75	M 105 x 2.0	-	-	-	-	-	312.0

Dimensions in mm

The specified dimensions refer to control function 1 (normally closed NC).

The dimensions are smaller for control function 2 (normally open NO).

Valve with angle valve body

Actuator size			1	2	3	4	5
DN	SW	G	CT/LA	CT/LA	CT/LA	CT/LA	CT/LA
15	36	M 34 x 1.5	149.0	195.0	-	-	-
20	41	M 40 x 1.5	152.0	198.0	214.0	-	-
25	46	M 45 x 1.5	-	202.0	218.0	256.0	-
32	55	M 52 x 1.5	-	205.0	221.0	259.0	286.0
40	60	M 60 x 2.0	-	-	226.0	264.0	291.0
50	55	M 72 x 2.0	-	-	233.0	271.0	298.0

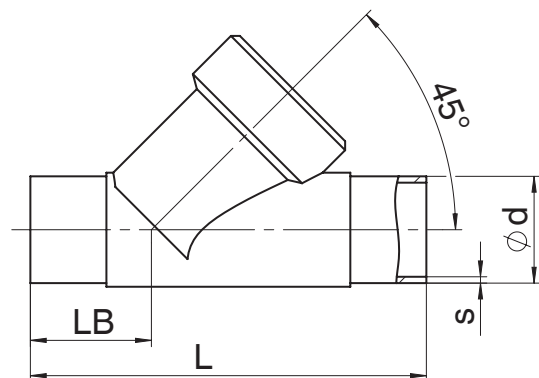
Dimensions in mm

The specified dimensions refer to control function 1 (normally closed NC).

The dimensions are smaller for control function 2 (normally open NO).

Body dimensions

Spigot DIN/EN/ISO/ASME (code 0, 16, 17, 59, 60), actuator size 0



Connection type spigot DIN/EN/ISO/ASME (code 0, 16, 17, 59, 60)¹⁾, forged material (code 40)²⁾

DN	NPS	ød					L	LB	s				
		Connection type							Connection type				
		0	16	17	59	60			0	16	17	59	60
6	1/8"	8.0	-	-	-	-	80.0	26.5	1.0	-	-	-	-
8	1/4"	10.0	-	-	-	13.5	80.0	26.5	1.0	-	-	-	1.6
10	3/8"	-	12.0	13.0	9.53	-	80.0	26.5	-	1.0	1.5	0.89	-
15	1/2"	-	-	-	12.70	-	80.0	26.5	-	-	-	1.65	-

Dimensions in mm

1) Connection type

Code 0: Spigot DIN

Code 16: Spigot EN 10357 series B, formerly DIN 11850 series 1

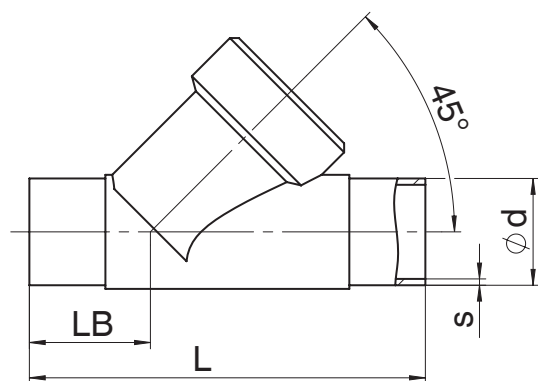
Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Spigot DIN/EN/ISO/ASME (code 0, 16, 17, 37, 59, 60), actuator size 1, 2, 3, 4, 5**Connection type spigot DIN/EN/ISO (code 0, 16, 17, 60)¹⁾, investment casting material (code 34)²⁾**

DN	NPS	ød				L	LB	s			
		Connection type						Connection type			
		0	16	17	60			0	16	17	60
10	3/8"	-	12.0	13.0	17.2	105.0	35.5	-	1.0	1.5	1.6
15	1/2"	18.0	18.0	19.0	21.3	105.0	35.5	1.5	1.0	1.5	1.6
20	3/4"	22.0	22.0	23.0	26.9	120.0	39.0	1.5	1.0	1.5	1.6
25	1"	28.0	28.0	29.0	33.7	125.0	38.5	1.5	1.0	1.5	2.0
32	1¼"	-	34.0	35.0	42.4	155.0	48.0	-	1.0	1.5	2.0
40	1½"	40.0	40.0	41.0	48.3	160.0	47.0	1.5	1.0	1.5	2.0
50	2"	52.0	52.0	53.0	60.3	180.0	48.0	1.5	1.0	1.5	2.0

Connection type spigot ASME/SMS (code 37, 59)¹⁾, investment casting material (code 34)²⁾

DN	NPS	ød		L	LB	s	
		Connection type				Connection type	
		37	59			37	59
15	1/2"	-	12.70	105.0	35.5	-	1.65
20	3/4"	-	19.05	120.0	39.0	-	1.65
25	1"	25.0	25.40	125.0	38.5	1.2	1.65
40	1½"	38.0	38.10	160.0	47.0	1.2	1.65
50	2"	51.0	50.80	180.0	48.0	1.2	1.65

Dimensions in mm

1) Connection type

Code 0: Spigot DIN

Code 16: Spigot EN 10357 series B, formerly DIN 11850 series 1

Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A

Code 37: Spigot SMS 3008

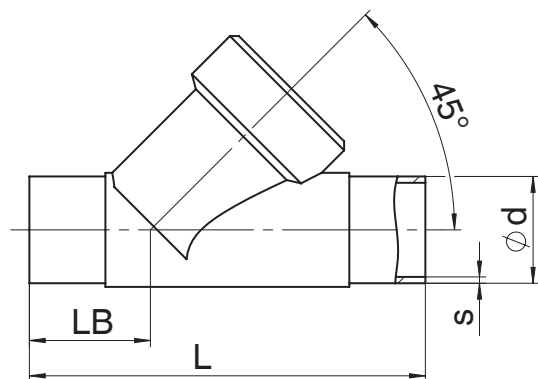
Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

2) Valve body material

Code 34: 1.4435, investment casting

Spigot EN/ISO (code 17, 37, 59, 60), actuator size 1, 2, 3, 4, 5



Connection type spigot EN/ISO (code 17, 60)¹⁾, investment casting material (code 37)²⁾

DN	NPS	ød		L	LB	s	
		Connection type				Connection type	
		17	60			17	60
15	1/2"	19.0	21.3	100.0	33.0	1.5	1.6
20	3/4"	23.0	26.9	108.0	33.0	1.5	1.6
25	1"	29.0	33.7	112.0	32.0	1.5	2.0
32	1¼"	35.0	42.4	137.0	39.0	1.5	2.0
40	1½"	41.0	48.3	146.0	40.0	1.5	2.0
50	2"	53.0	60.3	160.0	38.0	1.5	2.0
65	2½"	70.0	76.1	290.0	96.0	2.0	2.0
80	3"	85.0	88.9	310.0	95.0	2.0	2.3

Connection type spigot EN/ISO (code 37, 59)¹⁾, investment casting material (code 37)²⁾

DN	NPS	ød		L	LB	s	
		Connection type				Connection type	
		37	59			37	59
65	2½"	63.5	63.5	290.0	96.0	1.6	1.65
80	3"	76.1	76.0	310.0	95.0	1.6	1.65

Dimensions in mm

1) Connection type

Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A

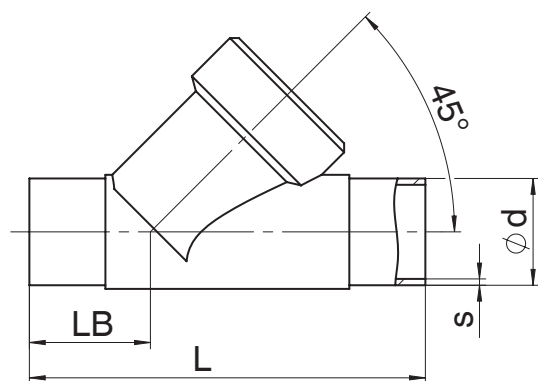
Code 37: Spigot SMS 3008

Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

2) Valve body material

Code 37: 1.4408, investment casting

Spigot EN/ISO/ASME (code 17, 59, 60), actuator size 1, 2, 3, 4, 5**Connection type spigot EN/ISO/ASME (code 17, 59, 60)¹⁾, investment casting material (code C2)²⁾**

DN	NPS	ød			L	LB	s		
		Connection type					Connection type		
		17	59	60			17	59	60
8	1/4"	-	-	13.5	105.0	35.5	-	-	1.6
10	3/8"	13.0	-	17.2	105.0	35.5	1.5	-	1.6
15	1/2"	19.0	12.70	21.3	105.0	35.5	1.5	1.65	1.6
20	3/4"	23.0	19.05	26.9	120.0	39.0	1.5	1.65	1.6
25	1"	29.0	25.40	33.7	125.0	39.5	1.5	1.65	2.0
32	1¼"	35.0	-	42.4	155.0	48.0	1.5	1.65	2.0
40	1½"	41.0	38.10	48.3	160.0	47.0	2.0	1.65	2.0
50	2"	53.0	50.80	60.3	180.0	48.0	1.5	1.65	2.0
65	2½"	70.0	63.50	76.1	290.0	96.0	2.0	1.65	2.0
80	3"	85.0	76.20	88.9	310.0	95.0	2.0	76.20	2.3

Dimensions in mm

1) Connection type

Code 17: Spigot EN 10357 series A (formerly DIN 11850 series 2)/DIN 11866 series A

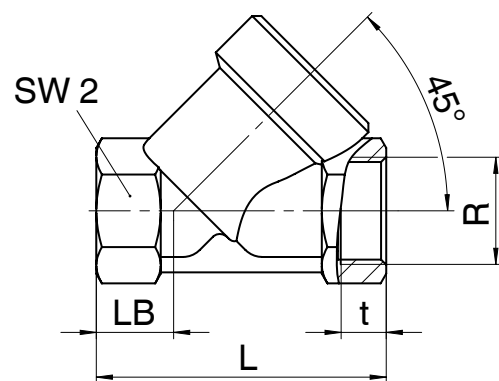
Code 59: Spigot ASME BPE

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

2) Valve body material

Code C2: 1.4435, investment casting

Threaded socket DIN/NPT body configuration D (code 1, 3D), actuator size 0



Connection type threaded socket DIN/NPT (code 1, 3D)¹⁾, investment casting material (code 37)²⁾

DN	NPS	L	LB		R		SW2	t	
			Connection type		Connection type			Connection type	
			1	3D	1	3D		1	3D
8	1/4"	65.0	19.0	19.0	G 1/4	1/4" NPT	17	12.0	10.1
10	3/8"	65.0	19.0	27.0	G 3/8	3/8" NPT	24	12.0	10.4
15	1/2"	65.0	19.0	27.0	G 1/2	1/2" NPT	24	11.4	13.6

Dimensions in mm

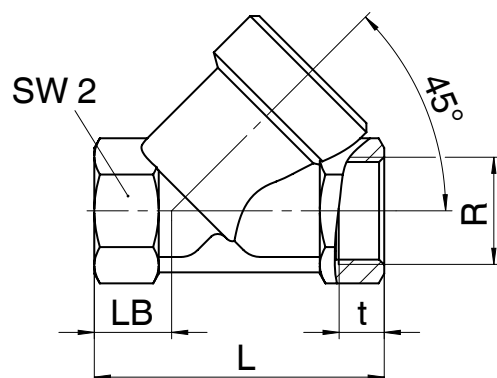
1) Connection type

Code 1: Threaded socket DIN ISO 228

Code 3D: Threaded socket NPT, end-to-end dimension ETE DIN 3202-4 series M8

2) Valve body material

Code 37: 1.4408, investment casting

Threaded socket DIN/Rc/NPT body configuration D (code 1, 3C, 3D) actuator size 1, 2, 3, 4, 5

Connection type threaded socket DIN (code 1)¹⁾, investment casting material (code 37)²⁾

DN	NPS	L	LB	R	SW2	t
10	3/8"	65.0	16.5	G 3/8	27	11.4
15	1/2"	65.0	16.5	G 1/2	27	15.0
20	3/4"	75.0	17.5	G 3/4	32	16.3
25	1"	90.0	24.0	G 1	41	19.1
32	1¼"	110.0	33.0	G 1¼	50	21.4
40	1½"	120.0	30.0	G 1½	55	21.4
50	2"	150.0	40.0	G 2	70	25.7
65	2½"	190.0	46.0	G 2½	85	30.2
80	3"	220.0	50.0	G 3	100	33.3

Connection type threaded socket Rc/NPT (code 3C, 3D)¹⁾, investment casting material (code 37)²⁾

DN	NPS	L	LB	R		SW2	t	
				Connection type			Connection type	
				3C	3D		3C	3D
15	1/2"	65.0	16.5	Rc 1/2	1/2" NPT	27	15.0	13.6
20	3/4"	75.0	17.5	Rc 3/4	3/4" NPT	32	16.3	14.1
25	1"	90.0	24.0	Rc 1	1" NPT	41	19.1	17.0
32	1¼"	110.0	33.0	Rc 1¼	1¼" NPT	50	21.4	17.5
40	1½"	120.0	30.0	Rc 1½	1½" NPT	55	21.4	17.3
50	2"	150.0	40.0	Rc 2	2" NPT	70	25.7	17.8
65	2½"	190.0	46.0	Rc 2½	2½" NPT	85	30.2	23.7
80	3"	220.0	50.0	Rc 3	3" NPT	100	33.3	25.8

Dimensions in mm

1) Connection type

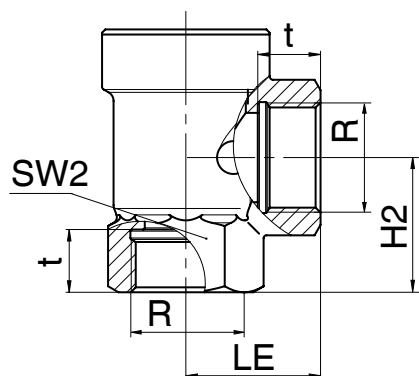
Code 1: Threaded socket DIN ISO 228

Code 3C: Threaded socket Rc ISO 7-1, EN 10226-1, JIS B 0203, BS 21, end-to-end dimension ETE DIN 3202-4 series M8

Code 3D: Threaded socket NPT, end-to-end dimension ETE DIN 3202-4 series M8

2) Valve body material

Code 37: 1.4408, investment casting

Threaded socket DIN/NPT body configuration E (code 1, 3D)**Connection type threaded socket DIN/NPT (code 1, 3D)¹⁾, investment casting material (code 37)²⁾**

DN	NPS	H2	LE	SW2	R		t	
					Connection type		Connection type	
					1	3D	1	3D
15	1/2"	30.0	30.0	27	G 1/2	1/2" NPT	15.0	13.6
20	3/4"	37.5	35.0	32	G 3/4	3/4 " NPT	16.3	14.1
25	1"	41.0	41.0	41	G 1	1" NPT	19.1	17.0
32	1 1/4"	48.0	50.0	50	G 1 1/4	1 1/4" NPT	21.4	17.5
40	1 1/2"	55.0	50.0	55	G 1 1/2	1 1/2" NPT	21.4	17.3
50	2"	62.0	60.0	70	G 2	2" NPT	25.7	17.8

Dimensions in mm

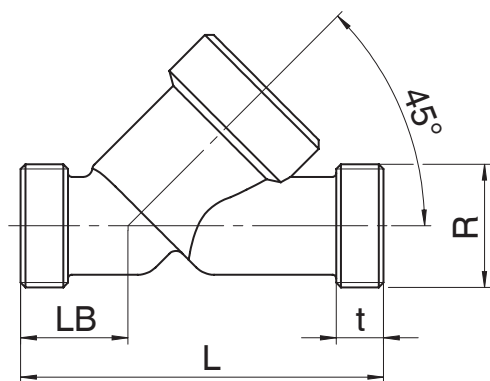
1) Connection type

Code 1: Threaded socket DIN ISO 228

Code 3D: Threaded socket NPT, end-to-end dimension ETE DIN 3202-4 series M8

2) Valve body material

Code 37: 1.4408, investment casting

Threaded spigot DIN (code 9), actuator size 0**Connection type threaded spigot DIN (code 9)¹⁾, forged material (code 40)²⁾**

DN	NPS	L	LB	R	t
6	1/8"	65.0	19.0	G 1/4	12.0

Connection type threaded spigot DIN (code 9)¹⁾, investment casting material (code 37)²⁾

DN	NPS	L	LB	R	t
8	1/4"	65.0	19.0	G 3/8	12.0
10	3/8"	65.0	19.0	G 1/2	12.0
15	1/2"	65.0	19.0	G 3/4	12.0

Dimensions in mm

1) Connection type

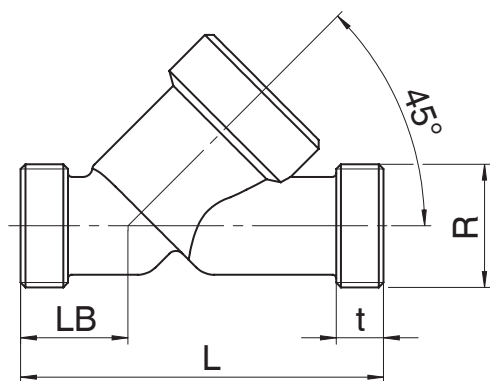
Code 9: Threaded spigot DIN ISO 228

2) Valve body material

Code 37: 1.4408, investment casting

Code 40: 1.4435 (F316L), forged body

Threaded spigot DIN (code 9), actuator size 1, 2, 3, 4, 5



Connection type threaded spigot DIN (code 9)¹⁾, investment casting material (code 37)²⁾

DN	NPS	L	LB	R	t
15	1/2"	90.0	25.0	G 3/4	12.0
20	3/4"	110.0	30.0	G 1	15.0
25	1"	118.0	30.0	G 1 1/4	15.0
32	1 1/4"	130.0	38.0	G 1 1/2	13.0
40	1 1/2"	140.0	35.0	G 1 3/4	13.0
50	2"	175.0	50.0	G 2 3/8	15.0
65	2 1/2"	216.0	52.0	G 3	15.0
80	3"	254.0	64.0	G 3 1/2	18.0

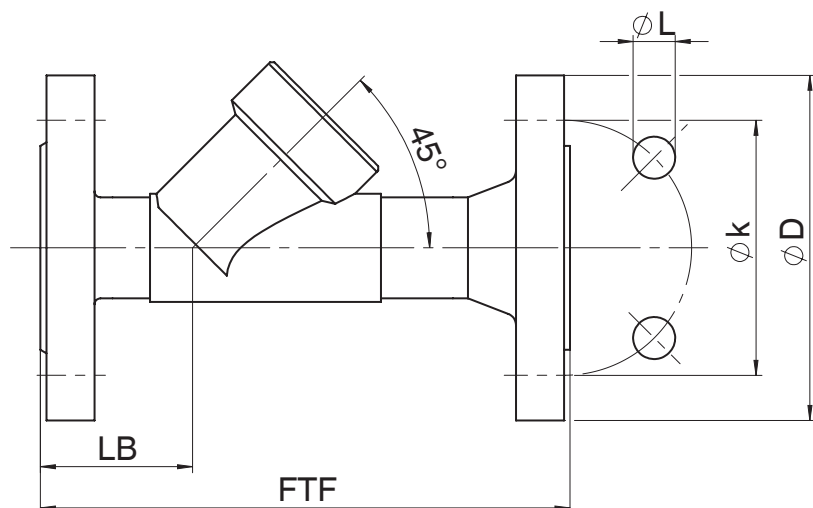
Dimensions in mm

1) Connection type

Code 9: Threaded spigot DIN ISO 228

2) Valve body material

Code 37: 1.4408, investment casting

Flange EN (code 10), actuator size 1, 2, 3, 4, 5**Connection type flange EN (code 10)¹⁾, investment casting material (code 37)²⁾**

DN	NPS	ø D	FTF	ø k	ø L	LB	n
15	1/2"	95.0	130.0	65.0	14.0	33.0	4
20	3/4"	105.0	150.0	75.0	14.0	45.0	4
25	1"	115.0	160.0	85.0	14.0	44.0	4
32	1¼"	140.0	180.0	100.0	18.0	51.0	4
40	1½"	150.0	200.0	110.0	18.0	52.0	4
50	2"	165.0	230.0	125.0	18.0	50.0	4

Dimensions in mm

n = number of bolts

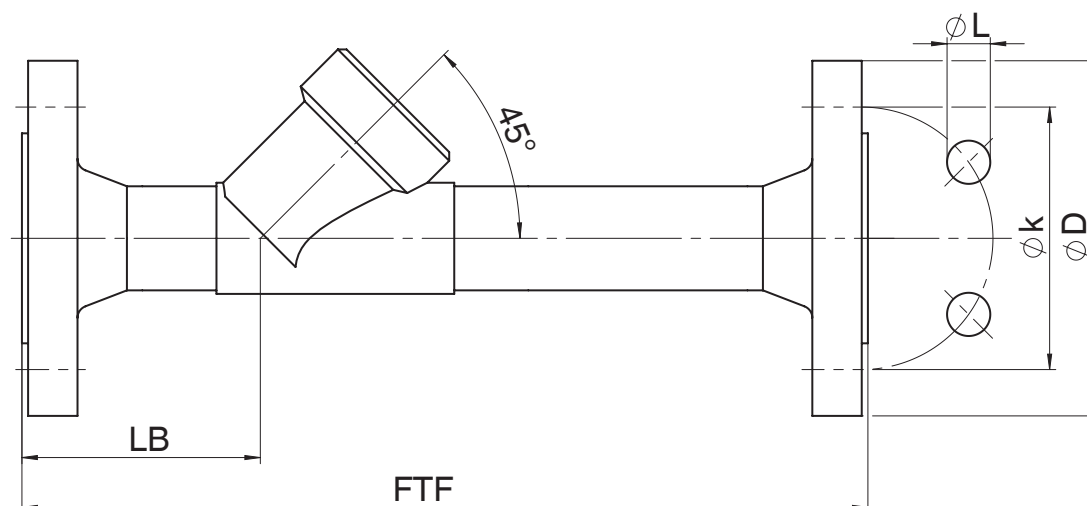
1) Connection type

Code 10: Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

2) Valve body material

Code 37: 1.4408, investment casting

Flange special length EN/ANSI (code 13, 47), actuator size 1, 2, 3, 4, 5



Connection type flange, special length EN/ANSI (code 13, 47)¹⁾, investment casting material (code 34)²⁾

DN	NPS	ØD		FTF	øk		ØL		LB	n
		Connection type			Connection type		Connection type			
		13	47		13	47	13	47		
15	1/2"	95.0	89.0	210.0	65.0	60.5	14.0	15.7	72.0	4
20	3/4"	105.0	98.6	280.0	75.0	69.8	14.0	15.7	78.0	4
25	1"	115.0	108.0	280.0	85.0	79.2	14.0	15.7	77.0	4
32	1¼"	140.0	117.3	310.0	100.0	88.9	18.0	15.7	89.0	4
40	1½"	150.0	127.0	320.0	110.0	98.6	18.0	15.7	91.0	4
50	2"	165.0	152.4	330.0	125.0	120.7	18.0	19.1	95.0	4

Dimensions in mm

n = number of bolts

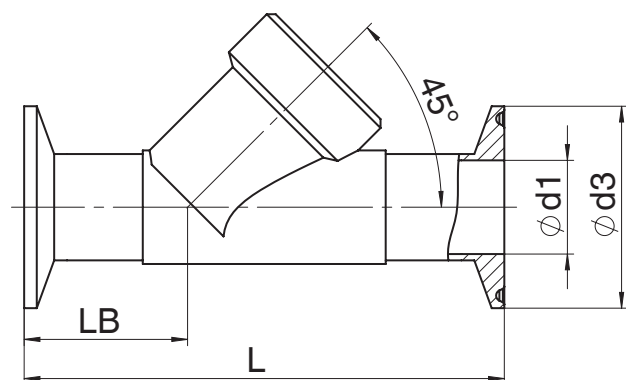
1) Connection type

Code 13: Flange EN 1092, PN 25, form B

Code 47: Flange ANSI Class 150 RF

2) Valve body material

Code 34: 1.4435, investment casting

Clamp DIN/ASME (code 80, 82, 86, 88), actuator size 1, 2, 3, 4, 5**Connection type clamp DIN/ASME (code 80, 82, 86, 88)¹⁾, investment casting material (code 34)²⁾**

DN	NPS	ød1				ød3				L				LB			
		Connection type				Connection type				Connection type				Connection type			
		80	82	86	88	80	82	86	88	80	82	86	88	80	82	86	88
15	1/2"	9.40	ø d1	16.0	9.40	25.0	50.5	34.0	25.0	101.6	130.0	130.0	130.0	33.5	47.5	47.5	47.5
20	3/4"	15.75	18.1	20.0	15.75	25.0	50.5	34.0	25.0	101.6	150.0	150.0	150.0	30.0	54.0	54.0	54.0
25	1"	22.10	23.7	26.0	22.10	50.5	50.5	50.5	50.5	114.3	160.0	160.0	160.0	33.0	56.0	56.0	56.0
32	1 1/4"	-	29.7	32.0	-	-	64.0	50.5	-	-	180.0	180.0	-	-	62.0	62.0	-
40	1 1/2"	34.80	38.4	38.0	34.80	50.5	64.0	50.5	50.5	139.7	200.0	200.0	200.0	37.0	67.0	67.0	67.0
50	2"	47.50	44.3	50.0	47.50	64.0	77.5	64.0	64.0	158.8	230.0	230.0	230.0	36.5	73.0	73.0	73.0

Dimensions in mm

1) Connection type

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

Code 82: Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 1

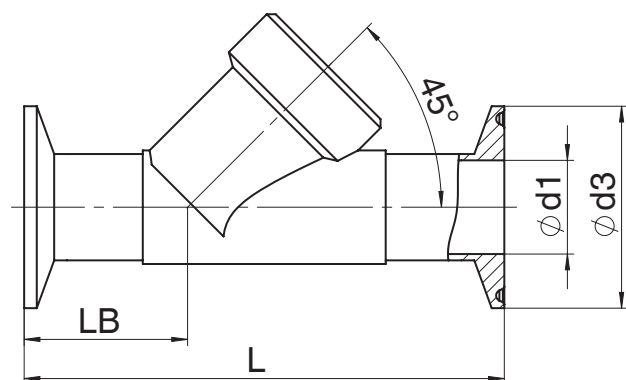
Code 86: Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 1

Code 88: Clamp ASME BPE, face-to-face dimension FTF EN 558 series 1

2) Valve body material

Code 34: 1.4435, investment casting

Clamp DIN/ASME (code 82, 86, 88), actuator size 1, 2, 3, 4, 5



Connection type clamp DIN/ASME (code 82, 86, 88)¹⁾, investment casting material (code C2)²⁾

DN	NPS	ød1			ød3			L	LB
		Connection type			Connection type				
		82	86	88	82	86	88		
8	1/4"	10.3	-	-	25.0	-	-	130.0	47.5
10	3/8"	14.0	10.0	-	25.0	34.0	-	130.0	47.5
15	1/2"	18.1	16.0	9.40	50.5	34.0	25.0	130.0	47.5
20	3/4"	23.7	20.0	15.75	50.5	34.0	25.0	150.0	54.0
25	1"	29.7	26.0	22.10	50.5	50.5	50.5	160.0	56.0
32	1¼"	38.4	32.0	-	64.0	505	-	180.0	62.0
40	1½"	44.3	38.0	34.80	64.0	50.5	50.5	200.0	67.0
50	2"	56.3	50.0	47.50	77.5	64.0	64.0	230.0	73.0
65	2½"	72.1	66.0	60.20	91.0	91.0	77.5	290.0	120.0
80	3"	84.3	81.0	72.90	106.0	106.0	91.0	310.0	119.0

Dimensions in mm

1) Connection type

Code 82: Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 1

Code 86: Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 1

Code 88: Clamp ASME BPE, face-to-face dimension FTF EN 558 series 1

2) Valve body material

Code C2: 1.4435, investment casting

Add-on components



GEMÜ 1201

Electrical position indicator

The GEMÜ 1201 electrical position indicator has either one or two mechanical microswitches. They are individually continuously adjustable via a threaded spindle.



GEMÜ 1205

Electrical position indicator ATEX

The GEMÜ 1205 electrical position indicator has electro-mechanical microswitches in a flameproof enclosure. Two valve positions, open and/or closed can be remotely indicated.



GEMÜ 1210

Mounting bracket for proximity switches

The GEMÜ 1210 is an enclosed proximity switch mount in stainless steel for two proximity switches M8 x 1 or M12 x 1 (only suitable for GEMÜ 550 and GEMÜ 650). An integral optical position indicator is standard. The basic version does not contain any proximity switches.



GEMÜ 8500

Electrically operated pilot solenoid valve

The GEMÜ 8500 servo assisted 3/2 or 5/2-way pilot solenoid valve is indirectly controlled. The body is made of aluminium. The plastic encapsulated coil is detachable. The piston valve has a soft elastomer seal.

Ordering information for special function G

When used for gas applications (order code Special function G), the actuating time for closing the process valve must be less than 1 s.

Recommendation: 8500 32 7M G2 14 2 1 C1

Accessories



GEMÜ 1002

Handwheel

GEMÜ 1002 is a manual override for pneumatic linear actuators for diaphragm, globe and control valves. An integral optical position indicator is standard. The manual override cannot be used as a closing stroke limiter.



GEMÜ 1101

Stroke limiter

Pneumatic linear actuators of GEMÜ butterfly valves, ball valves, diaphragm valves and globe valves are not fully opened by opening stroke limiters. This limits the maximum flow through a valve. The opening stroke limiter is available either with handwheel, transparent cap, position indicator or manual override.



GEMÜ 1104

Stroke limiter with handwheel

GEMÜ 1104 is a mechanical stroke limiter with handwheel for pneumatically operated linear actuators.



GEMÜ 1106

Opening stroke and closing stroke limiter

The GEMÜ 1106 stroke limiter limits both the opening and closing of a valve, thereby setting a minimum and maximum flow. It is available with or without a stainless steel or plastic protective cap.



GEMÜ 1108

Closing stroke limiter

GEMÜ 1108 is a mechanical closing stroke limiter with integrated optical position indicator and transparent cap for pneumatically operated linear actuators. It is used when open/close valves should not be closed fully and a minimal flow should be ensured.



GEMÜ 1110

Stroke limiter

GEMÜ 1110 is a mechanical stroke limiter with transparent cap for pneumatically operated linear actuators.



GEMÜ 1151

Stroke limiter

GEMÜ 1151 is a mechanical stroke limiter for pneumatically operated linear actuators. An integral optical position indicator is standard.



GEMÜ 1152

Stroke limiter

GEMÜ 1152 is a mechanical stroke limiter for pneumatically operated linear actuators. An integral optical position indicator is standard.



GEMÜ 1161

Stroke limiter

GEMÜ 1161 is a mechanical stroke limiter with transparent cap for pneumatically operated linear actuators. An integral optical position indicator is standard.



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