GEMÜ 550

Pneumatically operated angle seat globe valve



Features

- Suitable for shut-off and control functions for gaseous, liquid and viscous media
- Wide range of adaptation options for add-on components and accessories
- For contact with food in accordance with Regulation (EC) No. 1935/2004 and FDA-compliant
- Suitable for vacuum up to 20 mbar (a)
- Robust stainless steel actuator resistant to corrosive ambient conditions
- Particularly compact design, actuator size 0G1/0M1
- Optionally available with USP Class VI, oxygen approval and ATEX

Description

The 2/2-way angle seat globe valve GEMÜ 550 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 also protects the seal against contamination and damage.

Technical specifications

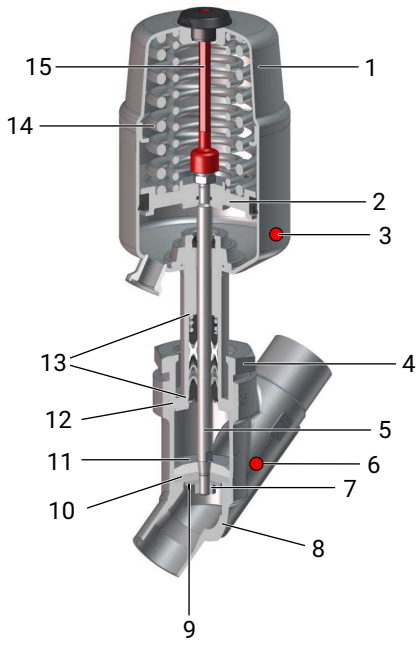
- **Media temperature :** -40 to 210 °C
- **Ambient temperature:** -20 to 60 °C
- **Operating pressure :** 0 to 25 bar
- **Nominal sizes:** DN 6 to 80
- **Body configurations:** Angle valve body I Straight through body
- **Connection types:** Clamp I Flange I Spigot I thread
- **Connection standards :** ANSI I ASME I BS I DIN I EN I ISO I NPT I SMS
- **Body materials:** 1.4408, investment casting material I 1.4435, investment casting material
- **Seat seal materials:** 1.4404 I PTFE I PTFE, reinforced
- **Conformities:** ATEX I CRN I EAC I FDA I FMEDA I Oxygen I Reg. (EU) No. 10/2011 I Regulation (EC) No. 1935/2004 I Regulation (EC) No. 2023/2006 I RoHS I TA Luft (German Clean Air Act) I USP

Technical data depends on the respective configuration

further information
webcode: GW-550

Product description

Construction

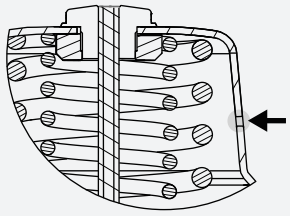
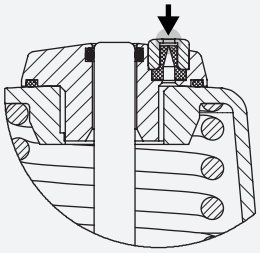


Position	Name	Materials
1	Actuator*	Stainless steel
2	Piston	
3	CONEXO actuator RFID chip (see Conexo information)	
4	Union nut	Stainless steel
5	Spindle	Stainless steel
6	CONEXO body RFID chip (see Conexo information)	
7	Nut	Stainless steel
8	Valve body*	1.4408 investment casting 1.4435 investment casting 1.4435 (F316L), forged body
9	Retaining washer	Stainless steel
10	Seat seal*	PTFE, 1.4404
11	Valve plug	Stainless steel
12	Sealing washer*	PTFE, PTFE glass fibre reinforced
13	Gland packing	PTFE - PTFE
14	Compression spring(s)	
15	Optical position indicator	Plastic

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

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

GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

For further information on GEMÜ CONEXO please visit:
www.gemu-group.com/conexo

Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

Availabilities

Availability of actuators

For connection type code 10

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

For all connection types, except connection type code 10

	Actuator version					
DN	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
80	-	-	-	-	-	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	-	X
10	-	X	X	X	-
15	-	-	-	X	-

X = Standard

1) **Connection type**
Code 0: Spigot DIN
Code 16: Spigot DIN EN 10357 series B (2014 issue; formerly DIN 11850 series 1)
Code 17: Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2
Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/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		
	Material code [2]												
	34	34	34	37	C2	34	37	34	37	C2	34	37	C2
8	-	-	-	-	-	-	-	-	-	-	-	-	X
10	-	X	X	-	X	-	-	-	-	-	X	-	X
15	X	X	X	X	X	-	-	X	-	X	X	X	X
20	X	X	X	X	X	-	-	X	-	X	X	X	X
25	X	X	X	X	X	X	-	X	-	X	X	X	X
32	-	X	X	X	X	-	-	-	-	-	X	X	X
40	X	X	X	X	X	X	-	X	-	X	X	X	X
50	X	X	X	X	X	X	-	X	-	X	X	X	X
65	-	-	-	X	X	-	X	-	X	X	-	X	X
80	-	-	-	X	X	-	X	-	X	X	-	X	X

X = Standard

1) **Connection type**
Code 0: Spigot DIN
Code 16: Spigot DIN EN 10357 series B (2014 issue; formerly DIN 11850 series 1)
Code 17: Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2
Code 37: Spigot SMS 3008
Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/DIN 11866 series B

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	3C	3D	9	
	Material code [2]				
	37	37	37	37	40
6	-	-	-	-	X
8	X	-	X	X	-
10	X	X	X	X	-
15	X	-	X	X	-

X = Standard

1) **Connection type**
Code 1: Threaded socket DIN ISO 228
Code 3C: Threaded socket Rc ISO 7-1, EN 10226-2, 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
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	3D
	Material code 37 [2]	
	Body configuration code E [3]	
10	-	-
15	X	X
20	X	X
25	X	X
32	X	X
40	X	X
50	X	X

X = Standard

1) **Connection type**
Code 1: Threaded socket DIN ISO 228
Code 3C: Threaded socket Rc ISO 7-1, EN 10226-2, 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) **Housing 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

X = Standard

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]					
	82		86		88	
	Material code [2]					
	34	C2	34	C2	34	C2
8	-	X	-	-	-	-
10	-	X	-	X	-	-
15	X	X	X	X	X	X
20	X	X	X	X	X	X
25	X	X	X	X	X	X
32	X	X	X	X	-	-
40	X	X	X	X	X	X
50	X	X	X	X	X	X
65	-	X	-	X	-	X
80	-	X	-	X	-	X

X = Standard

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, for pipe 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

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

Availabilities for food-related applications

Seat seal code [1]	Valve body material code [2]			
	34	37	40	C2
5	X	X	X	X
5G	X	X	X	X
5P	X	X	X	X

1) **Seat seal**
Code 5: PTFE
Code 5G: PTFE, glass fibre reinforced
Code 5P: PTFE USP Class VI

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

Design

Design	
Grade of surface finish (code 1903, 1904, 1909, 1953, 1954 and 1959) as per order data	Valve body material (code C2)
Media temperature -10 to 210 °C (code 2023)	Seat seal (code 5G, 10)
For contact with foodstuffs, the product must be ordered with the following ordering options	Seat seal (code 5, 5G, 5P, 10) Valve body material (code 34, 37, 40, C2)

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 Housing configuration	Code
2/2-way body	D
Angle valve body	E

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

4 Connection type	Code
Clamp DIN 32676 series A, face-to-face dimension FTF EN 558 series 1	86
Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 1	88

5 Valve body material	Code
Investment casting material	
1.4435, investment casting	34
1.4408, investment casting	37
1.4435, investment casting	C2
Forged material	
1.4435 (F316L), forged body	40
Note: A surface finish from the order code table "Type of design"" must be specified for valve body material C2.	

6 Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G
PTFE USP Class VI	5P
1.4404	10
Note: For FDA conformity, select K number 2013.	

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 Regulating cone	Code
Please find the number of the optional regulating cone (R-No.) for the linear or equal-percentage modified regulating cone in the Kv value table.	R....

10 Type of design	Code
Standard	
For higher operating temperatures	2023

10 Type of design	Code
Special bleed system integrated in actuator	6996
Ra ≤ 0.6 µm (25 µinch) for media wetted surfaces, in accordance with ASME BPE SF2 and 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
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

11 Special version	Code
Standard	
Certified to DIN EN 161, class A	G
Special version for oxygen, (max. temperature 60 °C; max. operating pressure 10 bar), media wetted seal materials and auxiliary materials with BAM testing	S

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

Order example

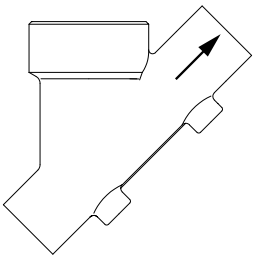
Ordering option	Code	Description
1 Type	550	Angle seat globe valve, pneumatically operated, stainless steel piston actuator
2 DN	15	DN 15
3 Housing configuration	D	2/2-way body
4 Connection type	1	Threaded socket DIN ISO 228
5 Valve body material	37	1.4408, investment casting
6 Seat seal	5	PTFE
7 Control function	1	Normally closed (NC)
8 Actuator version	1G1	Actuator size 1G1
9 Regulating cone	R....	Please find the number of the optional regulating cone (R-No.) for the linear or equal-percentage modified regulating cone in the Kv value table.
10 Type of design		Standard
11 Special version		Standard
12 CONEXO		Without

Technical data

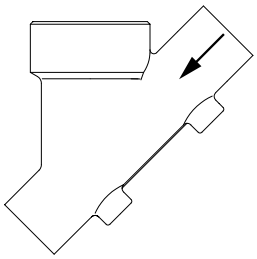
General

Flow direction

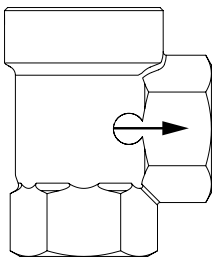
The flow direction is indicated by an arrow on the valve body.



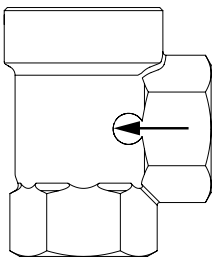
2/2-way body
under the seat



2/2-way body
over the seat

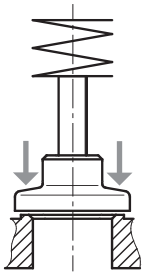


Angle valve body
under the seat

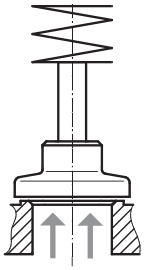


Angle valve body
over the seat

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)

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:
-40 — 210 °C
-10 — 210 °C only with design ordering option (code 2023)
-10 — 60 °C only with special function ordering option (code G)
-10–60 °C only with special function ordering option (code S)
For material code 37 (and 34 only with 3.2. certificate) + K-no. 2013: -40 to 180 °C

Ambient temperature:
-20 — 60 °C
For material code 37 (and 34 only with 3.2. certificate): -20 to 60 °C

Control medium temperature:
0 — 60 °C

Storage temperature:
-30 — 60 °C

Pressure/temperature

Pressure/temperature correlation:

Connection type code	Material code	Max. allowable operating pressures in bar at temperature in °C					
		RT	100	150	200	250	300
1, 9, 17, 37, 60, 3C, 3D	**37**	25.0	23.8	21.4	18.9	17.5	16.1
0, 16, 17, 37, 59, 60	**34**	25.0	24.5	22.4	20.3	18.2	16.1
13 (DN 15 - 50)	**34**	25.0	23.6	21.5	19.8	18.6	17.2
88 (DN 15 – DN 40)	**34**	25.0	21.2	19.3*	-	-	-
88 (DN 15 – DN 80)	**34**	16.0	16.0	16.0*	-	-	-
82 (DN 15 - 32)	**34**	25.0	21.2	19.3*	-	-	-
82 (DN 40 - 65)	**34**	16.0	16.0	16.0*	-	-	-
86 (DN 15 - 40)	**34**	25.0	21.2	19.3*	-	-	-
86 (DN 50 - 65)	**34**	16.0	16.0	16.0*	-	-	-
10 (DN 15 - 50)	**37**	25.0	25.0	22.7	21.0	19.8	18.5
47 (DN 15 - 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

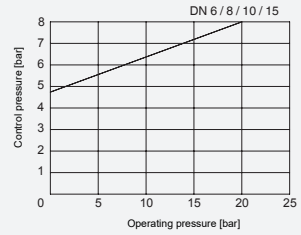
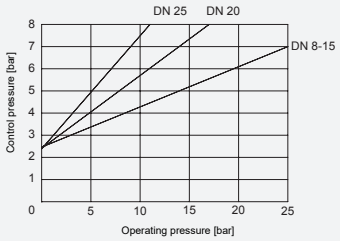
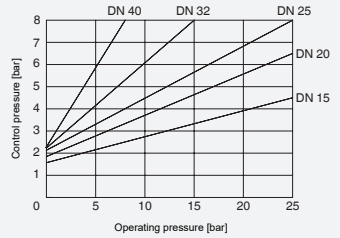
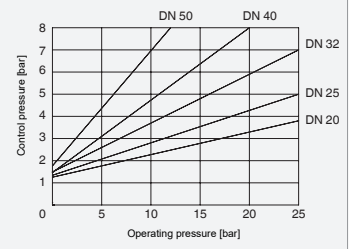
* max. temperature 140 °C
RT = room temperature
All pressures are gauge pressures.
The valves are suitable for temperatures as low as -10 °C

Pressure rating:
PN 25

Control pressure

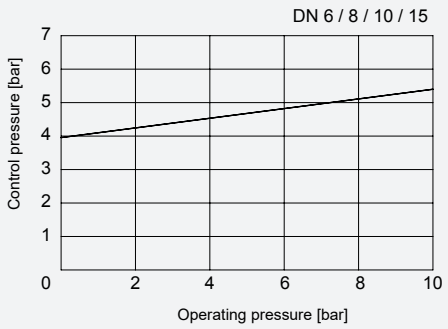
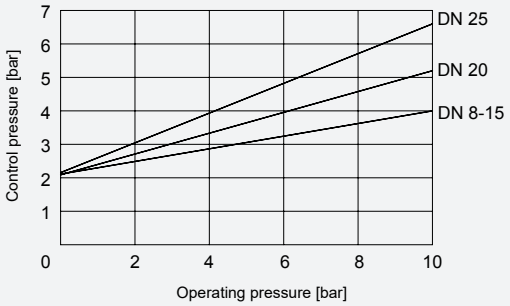
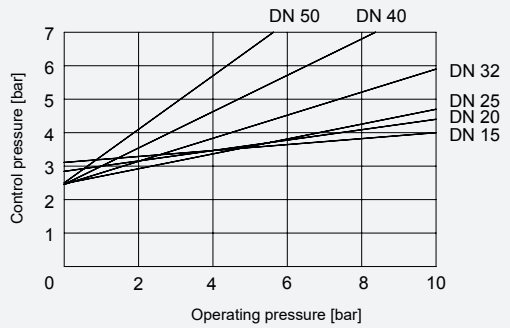
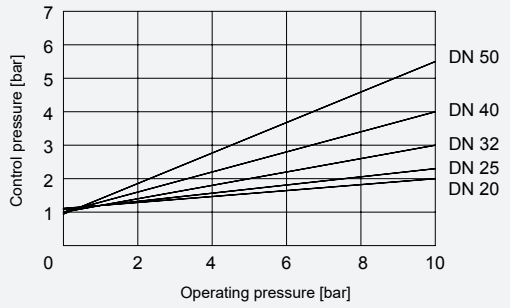
Control pressure:

Flow direction: Under the seat

Actuator version code	Normally closed (NC) (code 1)	Normally open (NO) (code 2)/ double acting (DA) (code 3)/ double acting and normally open (DA+NO) (code 8)
0G1	4.0 - 8.0 bar	
1G1	4.0 - 8.0 bar	
2G1	4.0 - 8.0 bar	
3G1	4.0 - 8.0 bar	
4G1	4.0 - 8.0 bar	-
5G1	5.0 - 8.0 bar	-

Control pressure:

Flow direction: over the seat

Actuator version code	Control function 1 normally closed (NC)
0M1	5.0 - 8.0 bar 
1M1	5.0 - 8.0 bar 
2M1	5.0 - 8.0 bar 
3M1	5.0 - 8.0 bar 

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 identification:	Valve group: 2 Valve class: A
Explosion protection:	ATEX (2014/34/EU) on request
FMEDA:	**Product description:** GEMÜ 550 angle seat globe valve **Device type:** A **Fail safe function:** Due to the fail safe function, the straight seat or angle seat globe valve is placed in the closed position (with control function 1) or open position (with control function 2), or it seals tightly (with control function 1). **HFT (Hardware Fault Tolerance):** 0 There is no proof of systematic suitability in accordance with IEC 61508.

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 type code				
	0, 16, 17, 37, 59, 60	1, 3C, 3D	9	10, 13, 47	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

Open/Close valves

Operating 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.

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.

Kv values

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 DIN EN 60534. The Kv value specifications refer to control function 1 (NC) and the largest actuator for the respective nominal size.
The Kv values for other product configurations (e.g. other connections or body materials) may differ.
Kv values AG0 on request.

Leakage rate

Leakage rate:

Seat seal	Standard	Test procedure	Leakage rate	Test medium
Metal	DIN EN 12266-1	P12	F	Air
PTFE	DIN EN 12266-1	P12	A	Air

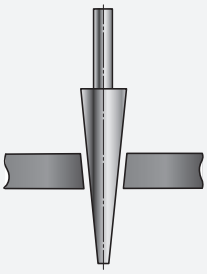
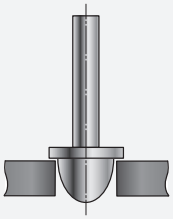
Filling volume

Filling volume:

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

Filling volume in dm³
Dimensions in mm

Control valves

Regulating needle	Regulating cone
	
Regulating needle: RAxxx – RCxxx (reduced valve seat)	Regulating cone: DN 15 - 50

The control valves shown are only possible with control function – normally closed (NC) and flow direction under the seat.

Operating pressure/Kv values

Control valve:

All connection types
Valve body material 1.4435 (code 34, C2), 1.4408 (code 37)

DN	Kv value [m³/h]	Operating pressure [bar]	Actuator size	Regulating cone number	
				Linear	Equal-percentage (mod.)
15	0.1*	25.0	**2G1**	**RA202**	**RA403**
	0.16*	25.0	**2G1**	**RB204**	**RA404**
	0.25*	25.0	**2G1**	**RB205**	**RB403**
	0.4*	25.0	**2G1**	**RB206**	**RB404**
	0.63*	25.0	**2G1**	**RC203**	**RC403**
	1.0*	25.0	**2G1**	**RC204**	**RC404**
	1.6	25.0	**2G1**	**RD203**	**RD403**
	2.5**	25.0	**2G1**	**RE204**	**RE404**
20	1.6	25.0	**2G1**	**RD204**	**RD404**
	2.5	25.0	**2G1**	**RE205**	**RE405**
	4.0	25.0	**2G1**	**RF204**	**RF404**
	6.3**	21.0	**2G1**	**RG205**	**RG405**
25	2.5	25.0	**2G1**	**RE206**	**RE406**
	4.0	25.0	**2G1**	**RF205**	**RF405**
	6.3	18.0	**2G1**	**RG206**	**RG406**
	10.0**	10.0	**2G1**	**RH205**	**RH405**
32	4.0	25.0	**2G1**	**RF206**	**RF406**
	6.3	18.0	**2G1**	**RG207**	**RG407**
	10.0	10.0	**2G1**	**RH206**	**RH406**
	16.0	16.0	**3G1**	**RJ204**	**RJ404**
40	6.3	25.0	**3G1**	**RG208**	**RG408**
	10.0	24.0	**3G1**	**RH207**	**RH407**
	16.0	15.0	**3G1**	**RJ205**	**RJ405**
	25.0	18.0	**4G1**	**RK203**	**RK403**
50	10.0	18.0	**3G1**	**RH208**	**RH408**
	16.0	12.0	**3G1**	**RJ206**	**RJ406**
	25.0	16.0	**4G1**	**RK204**	**RK404**
	40.0	10.0	**4G1**	**RM202**	**RM402**

Note: Angle seat valve bodies with valve body material code C2 and reduced seat have a surface area of Ra ≤ 1.2 µm due to the reduction in the seat area.

*Metallic sealing

**Not for connection code 37, 59, 88

Control valve:

Connection types connection code 37, 59, 88
Valve body material 1.4435 (code 34, C2)

DN	Kv value [m³/h]	Operatingpressure [bar]	Actuator size	Regulating cone number	
				Linear	Equal-percentage (mod.)
15	2.7	10.0	**1G1**	**RS151**	**RS141**
15	2.7	22.0	**2G1**	**RS150**	**RS140**
20	6.3	12.0	**2G1**	**RS152**	**RS142**
25	13.3	7.0	**2G1**	**RS153**	**RS143**
40	35.6	6.0	**3G1**	**RS155**	**RS145**
50	58.0	7.0	**4G1**	**RS156**	**RS146**

All connection types except connection code 37, 59, 88
Valve body material 1.4435 (code 34, C2), 1.4408 (code 37)

DN	Kv value [m³/h]	Operating pressure [bar]	Actuator size	Regulating cone number	
				Linear	Equal-percentage (mod.)
15	5.0	10.0	**1G1**	**RS101**	**RS111**
	5.0	22.0	**2G1**	**RS100**	**RS110**
20	10.0	12.0	**2G1**	**RS102**	**RS112**
25	15.0	7.0	**2G1**	**RS103**	**RS113**
32	24.0	10.0	**3G1**	**RS104**	**RS114**
40	38.0	6.0	**3G1**	**RS105**	**RS115**
50	60.0	7.0	**4G1**	**RS106**	**RS116**

Pressure/temperature correlation:

Connection type code	Material code	Permissible operating pressures in bar at temperature in °C					
		RT	100	150	200	250	300
1, 9, 17, 37, 60, 3C, 3D	**37**	25.0	23.8	21.4	18.9	17.5	16.1
0, 16, 17, 37, 59, 60	**34**	25.0	24.5	22.4	20.3	18.2	16.1
13 (DN 15 - 50)	**34**	25.0	23.6	21.5	19.8	18.6	17.2
88 (DN 15 – DN 40)	**34**	25.0	21.2	19.3*	-	-	-
88 (DN 50 – DN 80)	**34**	16.0	16.0	16.0*	-	-	-
82 (DN 15 - 32)	**34**	25.0	21.2	19.3*	-	-	-
82 (DN 40 - 65)	**34**	16.0	16.0	16.0*	-	-	-
86 (DN 15 - 40)	**34**	25.0	21.2	19.3*	-	-	-
86 (DN 50 - 65)	**34**	16.0	16.0	16.0*	-	-	-
10 (DN 15 - 50)	**37**	25.0	25.0	22.7	21.0	19.8	18.5
47 (DN 15 - 50)	**34**	15.9	13.3	12.0	11.1	10.2	9.7
17, 59, 60	**C2**	25.0	21.2	19.3	17.9	16.8	15.9

* max. temperature 140 °C
RT = room temperature
All pressures are gauge pressures.
The valves are suitable for temperatures as low as -10 °C

Leakage rate

Leakage rate:

Control valve

Seat seal	Standard	Test procedure	Leakage rate	Test medium
Metal	DIN EN 60534-4	1	IV	Air
PTFE	DIN EN 60534-4	1	VI	Air

Filling volume

Filling volume:

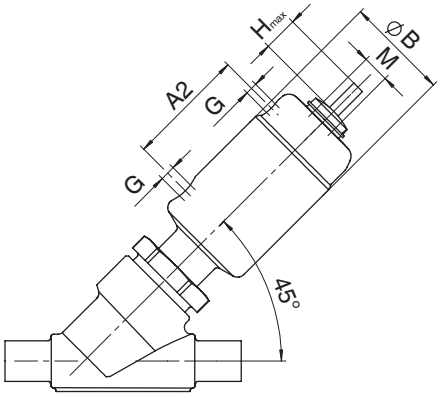
Actuator version code	Filling volume	Piston diameter
1G1	0.025 dm³	42 mm
2G1	0.084 dm³	60 mm
3G1	0.245 dm³	80 mm
4G1	0.437 dm³	100 mm

Control pressure

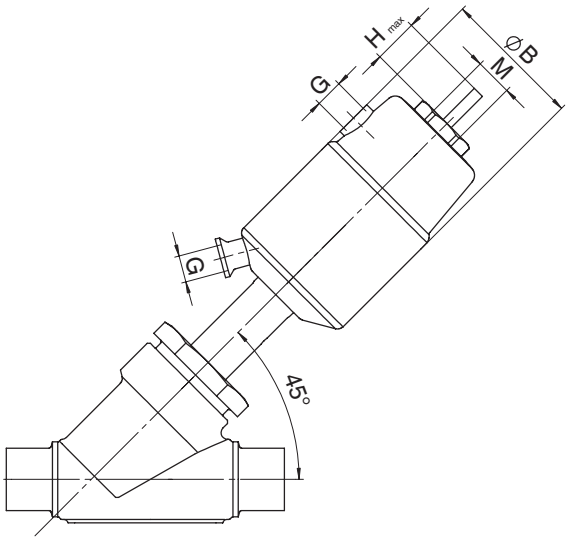
Control pressure: max. 8.0 bar

Dimensions

Actuator dimensions



Actuator size 0, 1



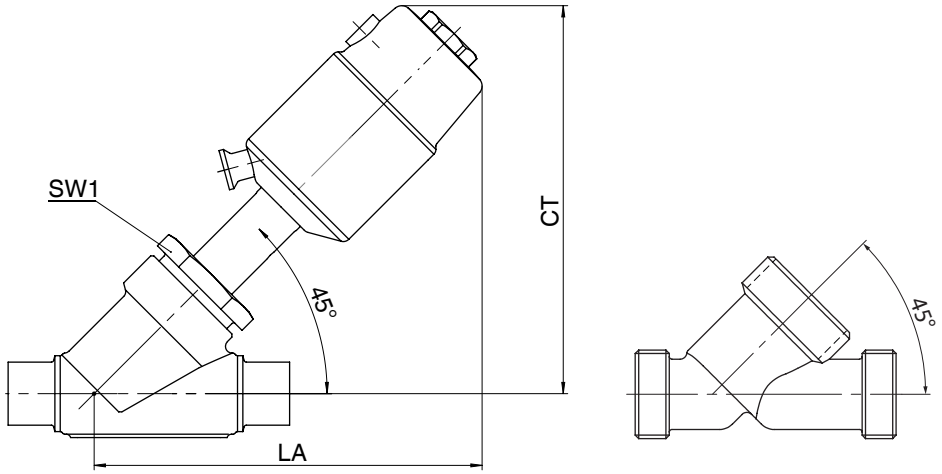
Actuator size 2–5

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*: Depends on the nominal size

Installation dimensions

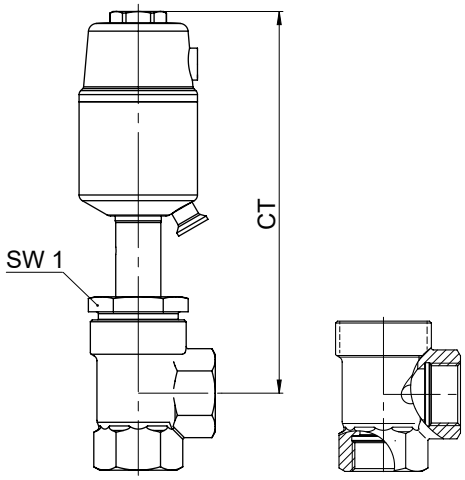
Valve with 2/2-way body



Actuator size		0	1	2	3	4	5
DN	SW	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**	-	137.0	174.0	-	-	-
20	**41**	-	143.0	180.0	198.0	-	-
25	**46**	-	-	184.0	202.0	235.0	-
32	**55**	-	-	192.0	210.0	243.0	269.0
40	**60**	-	-	187.0	215.0	248.0	274.0
50	**55**	-	-	-	223.0	256.0	282.0
65	**75**	-	-	-	-	-	295.0
80	**75**	-	-	-	-	-	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

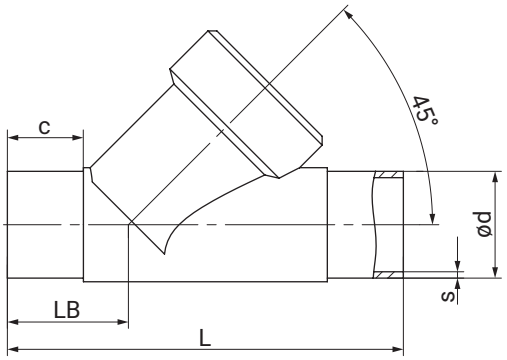


Actuator size		1	2	3	4	5
DN	SW	CT/LA	CT/LA	CT/LA	CT/LA	CT/LA
15	**36**	149.0	195.0	-	-	-
20	**41**	152.0	198.0	214.0	-	-
25	**46**	-	202.0	218.0	256.0	-
32	**55**	-	205.0	221.0	259.0	286.0
40	**60**	-	-	226.0	264.0	291.0
50	**55**	-	-	233.0	271.0	298.0

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 17, 59, 60), actuator size 0



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

DN	NPS	c (min)			ød			L	LB	s		
		Connection type[3]			Connection type[3]					Connection type[3]		
		17	59	60	17	59	60			17	59	60
8	**1/4"**	20.0	10.0	20.0	10.0	6.35	13.5	80.0	26.5	1.0	0.98	1.6
10	**3/8"**	20.0	20.0	-	13.0	9.53	-	80.0	26.5	1.5	0.89	-
15	**1/2"**	-	20.0	-	-	12.70	-	80.0	26.5	-	1.65	-

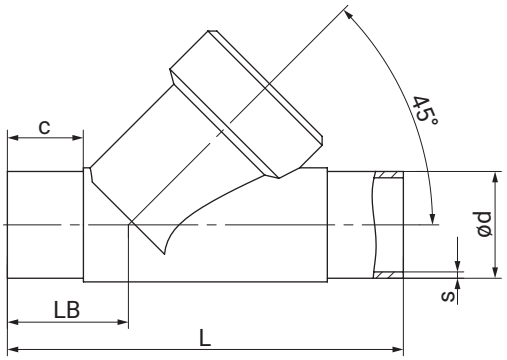
Dimensions in mm

1) **Connection type**
Code 0: Spigot DIN
Code 16: Spigot DIN EN 10357 series B (2014 issue; formerly DIN 11850 series 1)
Code 17: Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2
Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/DIN 11866 series B

2) **Valve body material**
Code 40: 1.4435 (F316L), forged body

3) **Connection type**
Code 17: Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2
Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/DIN 11866 series B

Spigot DIN/EN/ISO/ANSI/ASME/SMS (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	c (min)				ød				L	LB	s			
		Connection type										Connection type			
		0	16	17	60	0	16	17	60			0	16	17	60
10	**3/8"**	-	20.0	20.0	20.0	-	12.0	13.0	17.2	105.0	35.5	-	1.0	1.5	1.6
15	**1/2"**	20.0	20.0	20.0	20.0	18.0	18.0	19.0	21.3	105.0	35.5	1.5	1.0	1.5	1.6
20	**3/4"**	25.0	25.0	25.0	25.0	22.0	22.0	23.0	26.9	120.0	39.0	1.5	1.0	1.5	1.6
25	**1"**	24.5	24.5	24.5	24.5	28.0	28.0	29.0	33.7	125.0	38.5	1.5	1.0	1.5	2.0
32	**1¼"**	-	26.0	27.0	29.0	-	34.0	35.0	42.4	155.0	48.0	-	1.0	1.5	2.0
40	**1½"**	24.0	24.0	24.0	43.7	40.0	40.0	41.0	48.3	160.0	47.0	1.5	1.0	1.5	2.0
50	**2"**	29.0	29.0	29.0	29.0	52.0	52.0	53.0	60.3	180.0	48.0	1.5	1.0	1.5	2.0

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

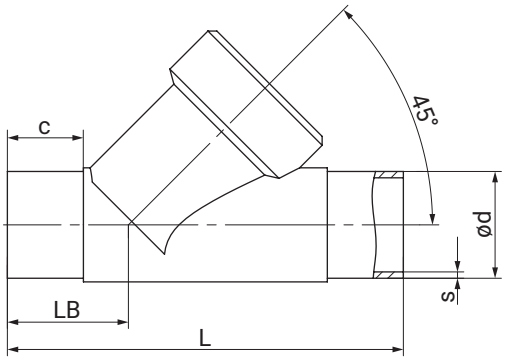
DN	NPS	c (min)		ød		L	LB	s	
		Connection type						Connection type	
		37	59	37	59			37	59
15	**1/2"**	-	20.0	-	12.70	105.0	35.5	-	1.65
20	**3/4"**	-	25.0	-	19.05	120.0	39.0	-	1.65
25	**1"**	24.5	24.5	25.0	25.40	125.0	38.5	1.2	1.65
32	**1¼"**	-	-	-	-	155.0	48.0	-	-
40	**1½"**	24.0	24.0	38.0	38.10	160.0	47.0	1.2	1.65
50	**2"**	29.0	29.0	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 DIN EN 10357 series B (2014 issue; formerly DIN 11850 series 1)
Code 17: Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2
Code 37: Spigot SMS 3008
Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/DIN 11866 series B

2) **Valve body material**
Code 34: 1.4435, investment casting

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



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

DN	NPS	c (min)		ød		L	LB	s	
		Connection type						Connection type	
		17	60	17	60			17	60
15	**1/2"**	18.0	18.0	19.0	21.3	100.0	33.0	1.5	1.6
20	**3/4"**	18.0	18.0	23.0	26.9	108.0	33.0	1.5	1.6
25	**1"**	18.0	18.0	29.0	33.7	112.0	32.0	1.5	2.0
32	**1¼"**	18.0	18.0	35.0	42.4	137.0	39.0	1.5	2.0
40	**1½"**	19.0	18.0	41.0	48.3	146.0	40.0	1.5	2.0
50	**2"**	20.0	20.0	53.0	60.3	160.0	38.0	1.5	2.0
65	**2½"**	52.5	47.0	70.0	76.1	290.0	96.0	2.0	2.0
80	**3"**	50.0	46.5	85.0	88.9	310.0	95.0	2.0	2.3

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

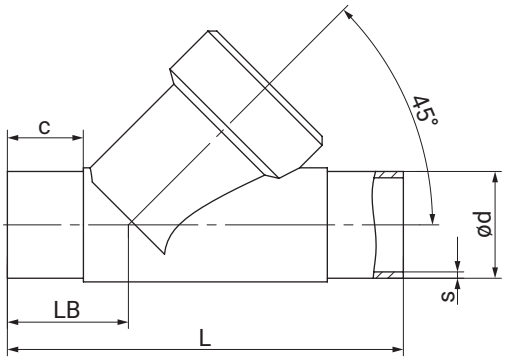
DN	NPS	c (min)		ød		L	LB	s	
		Connection type						Connection type	
		37	59	37	59			37	59
65	**2½"**	58.0	58.0	63.5	63.5	290.0	96.0	1.6	1.65
80	**3"**	58.0	58.0	76.1	76.0	310.0	95.0	1.6	1.65

Dimensions in mm

1) **Connection type**
Code 17: Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2
Code 37: Spigot SMS 3008
Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/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]

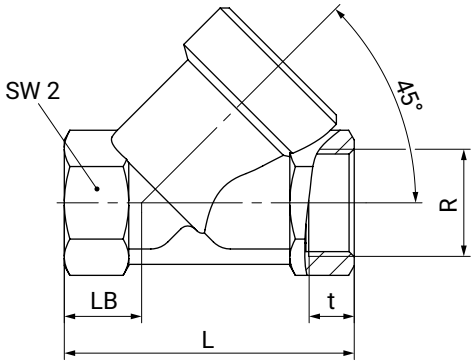
DN	NPS	c (min)			ød			L	LB	s		
		Connection type								Connection type		
		17	59	60	17	59	60			17	59	60
8	**1/4"**	-	-	20.0	-	-	13.5	80.0	35.5	-	-	1.6
10	**3/8"**	20.0	-	20.0	13.0	-	17.2	100.0	35.5	1.5	-	1.6
15	**1/2"**	20.0	15.0	20.0	19.0	12.70	21.3	105.0	35.5	1.5	1.65	1.6
20	**3/4"**	25.0	25.0	25.0	23.0	19.05	26.9	120.0	39.0	1.5	1.65	1.6
25	**1"**	24.0	24.0	24.0	29.0	25.40	33.7	125.0	39.5	1.5	1.65	2.0
32	**1¼"**	27.0	-	26.1	35.0	-	42.4	155.0	48.0	1.5	-	2.0
40	**1½"**	24.0	23.0	28.9	41.0	38.10	48.3	160.0	47.0	1.5	1.65	2.0
50	**2"**	28.23	28.23	29.0	53.0	50.80	60.3	180.0	48.0	1.5	1.65	2.0
65	**2½"**	52.5	58.0	52.5	70.0	63.50	76.1	290.0	96.0	2.0	1.65	2.0
80	**3"**	50.2	58.0	46.82	85.0	76.20	88.9	310.0	95.0	2.0	1.65	2.3

Dimensions in mm

1) **Connection type**
Code 17: Spigot EN 10357 series A/DIN 11866 series A, formerly DIN 11850 series 2
Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 issue)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 issue)/DIN 11866 series B

2) **Valve body material**
Code C2: 1.4435, investment casting

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



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

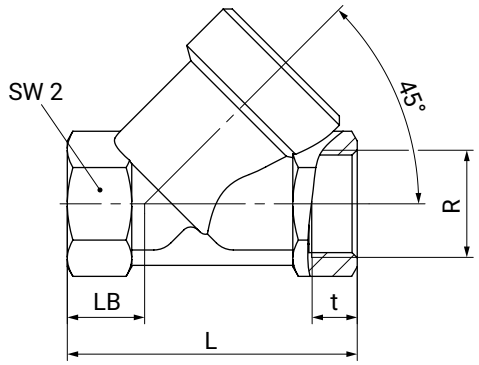
DN	NPS	L	LB			R			SW2	t		
			Connection type			Connection type				Connection type		
			1	3C	3D	1	3C	3D		1	3C	3D
8	**1/4"**	65.0	19.0	-	19.0	G 1/4	-	1/4" NPT	17	12.0	-	10.1
10	**3/8"**	65.0	19.0	27.0	27.0	G 3/8	G 3/8	3/8" NPT	24	12.0	11.4	10.4
15	**1/2"**	65.0	19.0	-	27.0	G 1/2	-	1/2" NPT	24	11.4	-	13.6

Dimensions in mm

1) **Connection type**
Code 1: Threaded socket DIN ISO 228
Code 3C: Threaded socket Rc ISO 7-1, EN 10226-2, 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/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]

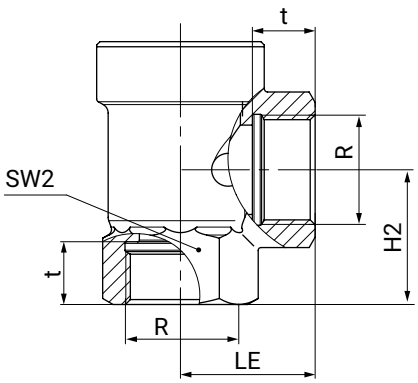
DN	NPS	L	LB	R		SW2	t	
				Connection type			Connection type	
				3C	3D		3C	3D
15	**1/2"**	65.0	16.5	Rc 1/2	1/2" NPT	27	15.0	13.6
20	**3/4"**	75.0	17.5	Rc 3/4	3/4" NPT	32	16.3	14.1
25	**1"**	90.0	24.0	Rc 1	1" NPT	41	19.1	17.0
32	**1¼"**	110.0	33.0	Rc 1¼	1¼" NPT	50	21.4	17.5
40	**1½"**	120.0	30.0	Rc 1½	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 10226-2, 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]

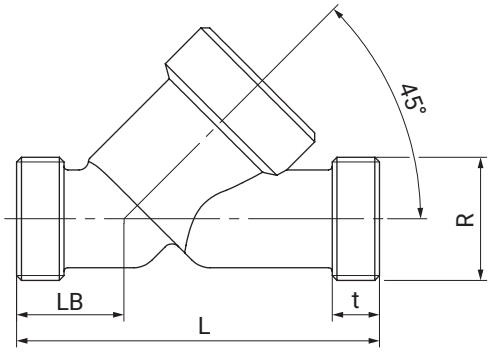
DN	NPS	H2	LE	SW2	R		t	
					Connection type		Connection type	
					1	3D	1	3D
15	**1/2"**	30.0	30.0	27	G 1/2	1/2" NPT	15.0	13.6
20	**3/4"**	37.5	35.0	32	G 3/4	3/4 " NPT	16.3	14.1
25	**1"**	41.0	41.0	41	G 1	1" NPT	19.1	17.0
32	**1¼"**	48.0	50.0	50	G 1¼	1¼" NPT	21.4	17.5
40	**1½"**	55.0	50.0	55	G 1½	1½" 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	L	LB	R	t
6	65.0	19.0	G 1/4	12.0

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

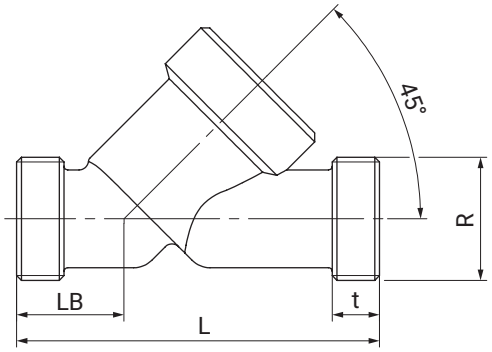
DN	L	LB	R	t
8	65.0	19.0	G 3/8	12.0
10	65.0	19.0	G 1/2	12.0
15	65.0	19.0	G 3/4	12.0

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]

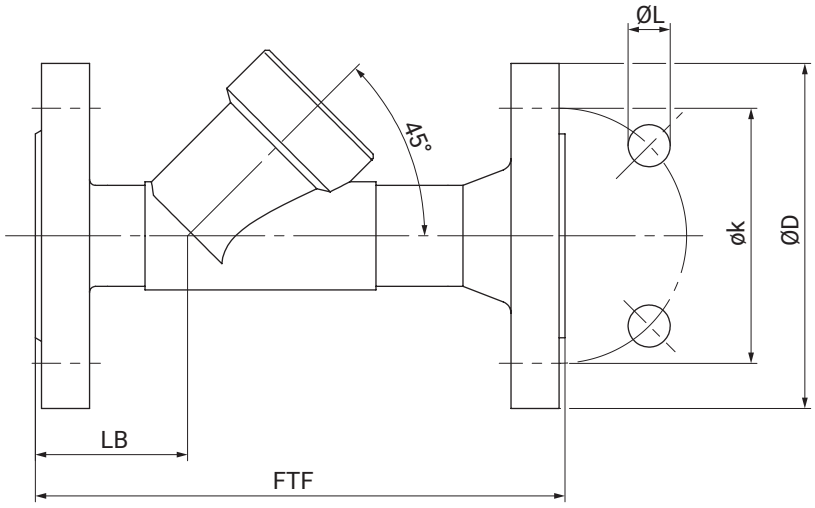
DN	L	LB	R	t
15	90.0	25.0	G 3/4	12.0
20	110.0	30.0	G 1	15.0
25	118.0	30.0	G 1¼	15.0
32	130.0	38.0	G 1½	13.0
40	140.0	35.0	G 1¾	13.0
50	175.0	50.0	G 2⅜	15.0
65	216.0	52.0	G 3	15.0
80	254.0	64.0	G 3½	18.0

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]

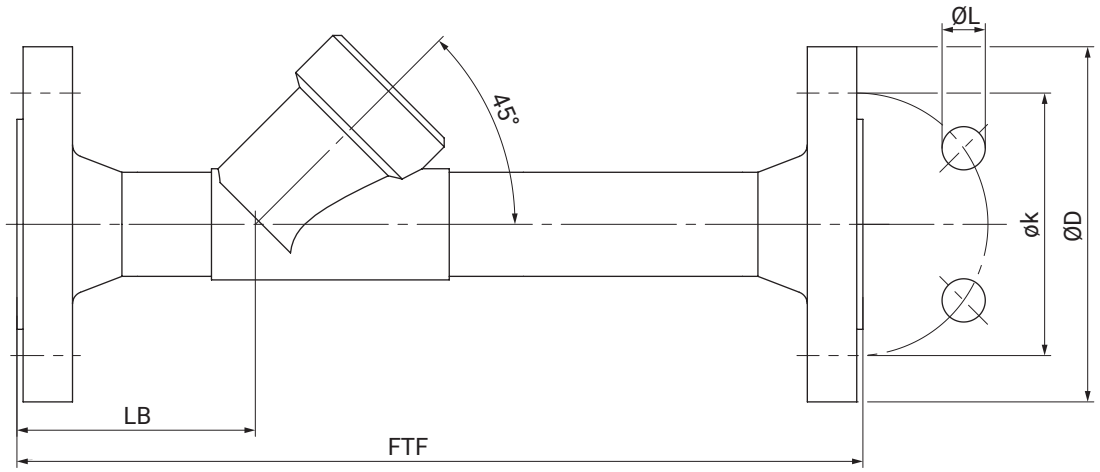
DN	NPS	ø D	FTF	ø k	ø L	LB	n
15	**1/2"**	95.0	130.0	65.0	14.0	33.0	4
20	**3/4"**	105.0	150.0	75.0	14.0	45.0	4
25	**1"**	115.0	160.0	85.0	14.0	44.0	4
32	**1¼"**	140.0	180.0	100.0	18.0	51.0	4
40	**1½"**	150.0	200.0	110.0	18.0	52.0	4
50	**2"**	165.0	230.0	125.0	18.0	50.0	4

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]

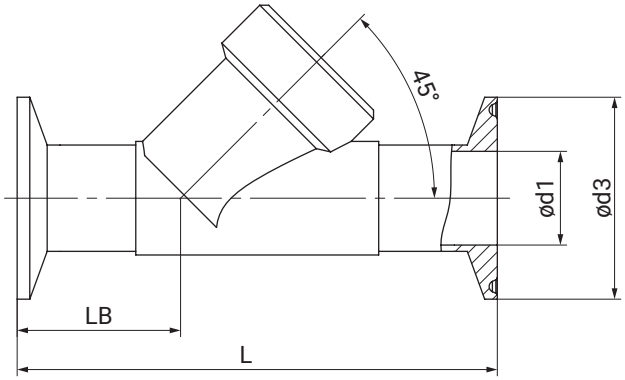
DN	NPS	ØD		FTF	øk		ØL		LB	n
		Connection type			Connection type		Connection type			
		13	47		13	47	13	47		
15	**1/2"**	95.0	89.0	210.0	65.0	60.5	14.0	15.7	72.0	4
20	**3/4"**	105.0	98.6	280.0	75.0	69.8	14.0	15.7	78.0	4
25	**1"**	115.0	108.0	280.0	85.0	79.2	14.0	15.7	77.0	4
32	**1¼"**	140.0	117.3	310.0	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 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	50.5	-	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, for pipe 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

Mount 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 solenoid actuator is detachable. The piston valve has a soft elastomer seal.

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

Opening 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 opening stroke and closing stroke limiter limits both the opening and closing of a valve, thereby specifying a minimum and maximum flow rate. 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

Opening stroke limiter

GEMÜ 1151 is a mechanical opening stroke limiter for pneumatically operated linear actuators. An integrated 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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GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG
Gert-Müller-Platz 1, 74635 Kupferzell, Germany
Phone +49 (0) 7940 1230 · info@gemue.de
www.gemu-group.com