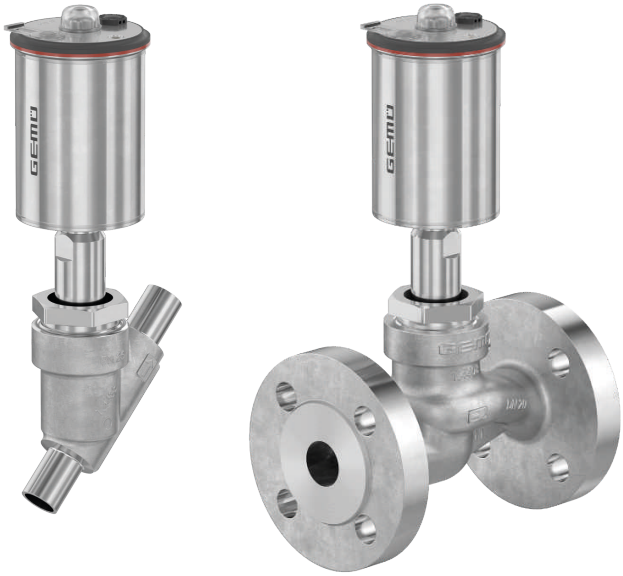
GEMÜ S40

Pneumatically operated globe valve



Features

- Suitable for shut-off and control functions for gaseous, liquid and viscous media
- For contact with food in accordance with Regulation (EC) No. 1935/2004 and FDA-compliant
- All sealing components can be replaced
- Top-mounted control connections with position indicator and sight glass
- Robust stainless steel actuator resistant to corrosive ambient conditions
- Suitable for vacuum up to 10 mbar (a) as standard
- Optionally available with USP Class VI, oxygen approval and ATEX

Description

The pneumatically actuated GEMÜ S40 globe valve is designed for use in industrial applications and has body shapes such as angled and straight seat bodies. The valve spindle is sealed by a self-adjusting sealing element; this ensures low-maintenance and reliable sealing even after long periods of operation. Normally Closed, Normally Open and Double Acting control functions are available.

Technical specifications

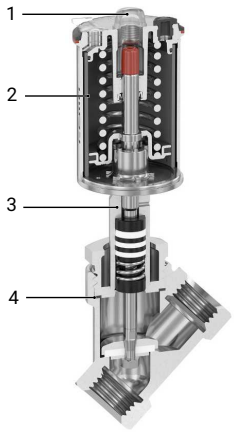
- **Media temperature :** -40 to 185 °C
- **Ambient temperature:** -20 to 80 °C
- **Operating pressure :** 0 to 40 bar
- **Nominal sizes:** DN 6 to 80
- **Body configurations:** Angle seat body I Straight seat body
- **Connection types:** Clamp I Flange I Spigot I thread
- **Connection standards :** ANSI I ASME I BS I DIN I EN I ISO I JIS I NPT I SMS
- **Body materials:** 1.4408, investment casting material I 1.4435, investment casting material I EN-GJS-400-18-LT, SG iron material
- **Seat seal materials:** PTFE
- **Conformities:** ATEX I FDA I Oxygen I Reg. (EU) No. 10/2011 I Regulation (EC) No. 1935/2004 I Regulation (EC) No. 2023/2006 I RoHS I USP

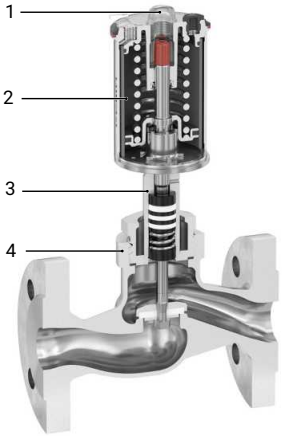
Technical data depends on the respective configuration

further information
webcode: GW-S40

Product description

Construction





Position	Name	Materials
1	Transparent cap	PC
2	Actuator	1.4308 / 1.4301 / PVDF / FKM
3	Distance piece with leak detection hole	1.4404 / 1.4408
4	Valve body	1.4408, investment casting 1.4435, investment casting EN-GJS-400-18-LT, SG iron
-	Optional accessories available: For example GEMÜ 44A0, etc.	-

GEMÜ Conexo

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

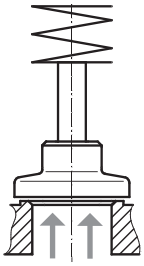
Thanks to serialization, every valve and every relevant valve component such as the body, actuator, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation 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 them 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.

You can find further information on GEMÜ CONEXO at:
www.gemu-group.com/conexo

Ordering

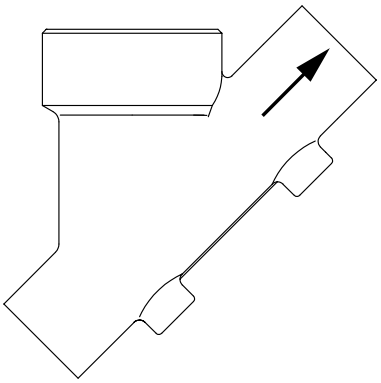
GEMÜ CONEXO must be ordered separately with the "CONEXO" ordering option.

Flow direction



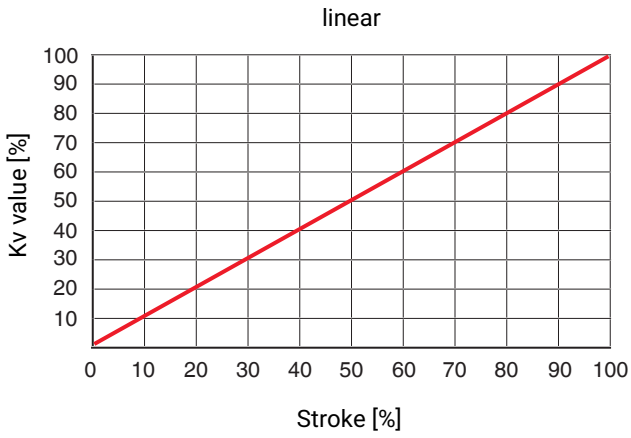
Flow under the seat

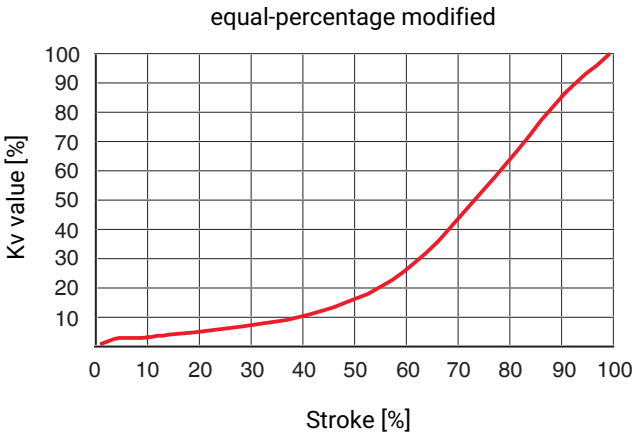
The flow direction is indicated by an arrow on the valve body.



Flow direction
under the seat

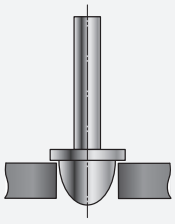
Kv value diagram





The diagram shows the approximative curve of the Kv value characteristic. The characteristic may deviate depending on valve body, nominal size, regulating cone and valve stroke.

Regulating cone

Regulating cone

Regulating cone DN 15–50

Availabilities

Availability of actuators

Availability of actuators – standard

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

Availability of actuators – connection type code 80, material code C2

DN	Actuator size					
	1	2	3	4	5	6
15	X	X	X	-	-	-
20	X	X	X	-	-	-
25	X	X	X	-	-	-
40	-	X	X	X	X	-
50	-	-	X	X	X	X
65	-	-	X	X	X	X

Availability of valve bodies

Availability of angle seat bodies, spigot – actuator size 0

DN	Connection type code [1]		
	17	59	60
	Material code [2]		
	40		
8 *	X	X	X
10 *	X	X	-
15 *	-	X	-

* Unavailable as a control valve
X = Standard

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 40: 1.4435 (F316L), forged body

Availability of angle seat bodies, spigot – actuator size 1, 2, 3, 4, 5, 6

DN	Connection type code [1]					
	17		59		60	
	Material code [2]					
	37	C2	37	C2	37	C2
8 *	-	-	-	-	-	X
10 *	-	X	-	-	-	X
15	X	X	-	X	X	X
20	X	X	-	X	X	X
25	X	X	-	X	X	X
32	X	X	-	-	X	X
40	X	X	-	X	X	X
50	X	X	-	X	X	X
65 *	X	X	X	X	X	X
80 *	X	X	X	X	X	X

* Unavailable as a control valve
X = Standard

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) **Material**
Code 37: 1.4408, investment casting
Code C2: 1.4435, investment casting

Availability of angle seat bodies, threaded connection – actuator size 0

DN	Connection type code [1]			
	1	3C	3D	9
	Material code 37 [2]			
6 *	-	-	-	X
8 *	X	-	X	X
10 *	X	X	X	X
15 *	X	-	X	X

* Unavailable as a control valve
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

Availability of angle seat bodies, threaded connection – actuator size 1, 2, 3, 4, 5, 6

DN	Connection type code [1]			
	1	3C	3D	9
	Material code 37 [2]			
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

* Unavailable as a control valve
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

Availability of angle seat bodies, flange – actuator size 1, 2, 3, 4, 5, 6

DN	Connection type code [1]					
	10					
	Material code [2]					
	37					
	Actuator size					
	1	2	3	4	5	6
15	X	X	-	-	-	-
20	X	X	-	-	-	-
25	X	X	-	X	X	-
32	-	-	-	X	X	X
40	-	-	X	X	X	X
50	-	-	X	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

2) **Valve body material**
Code 37: 1.4408, investment casting

Availability of angle seat bodies, clamp – actuator size 1, 2, 3, 4, 5, 6

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

* Unavailable as a control valve
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 C2: 1.4435, investment casting

Availability of globe valve bodies, flange – actuator size 1, 2, 3, 4, 5, 6

DN	Connection type code [1]					
	8		11	39		48
	Material code [2]					
	37	90	37	37	90	37
15	-	X	X	X	X	X
20	-	X	X	X	X	X
25	-	X	X	X	X	X
32	-	X	X	X	X	-
40	-	X	X	X	X	X
50	X	X	-	X	X	X

X = Standard

1) **Connection type**
Code 8: Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 11: Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 48: Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K

2) **Valve body material**
Code 37: 1.4408, investment casting
Code 90: EN-GJS-400-18-LT (GGG 40.3)

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
Globe valve, pneumatically operated, stainless steel piston actuator	S40

2 DN, connection 1	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
Globe valve body	G
Angle seat body	S

4 Valve body connection type, connection 1	Code
Spigot	
Spigot EN 10357 series A/DIN 11866 series A	17
Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C	59
Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/ 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 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	8
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 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	11
Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	39

4 Valve body connection type, connection 1	Code
Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K	48
Clamp	
Clamp ASME BPE, face-to-face dimension FTF ASME BPE	80
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, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 1	88

5 Valve body material	Code
Note: A surface finish from the order code table "Type of design"" must be specified for valve body material C2.	
1.4408, investment casting	37
1.4435, investment casting	C2
EN-GJS-400-18-LT (GGG 40.3), SG iron	90
1.4435 (F316L), forged body	40

6 Seat seal	Code
PTFE	5
PTFE USP Class VI	5P

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

8 Actuator spring set	Code
Standard spring set	1

9 Working medium flow direction	Code
Flow under the seat	G

10 Actuator size	Code
Actuator size 0	0
Actuator size 1	1
Actuator size 2	2
Actuator size 3	3
Actuator size 4	4
Actuator size 5	5
Actuator size 6	6

11 Regulating cone	Code
Without	

11 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....

12 Type of design	Code
Standard	
Ra ≤ 0.6 µm (25 µinch) for media-wetted surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1903
Ra ≤ 0.4 µm (15 µinch) for media-wetted surfaces, in accordance with DIN 11866 H4, mechanically polished internal	1909
Ra ≤ 0.6 µm for media-wetted surfaces, in accordance with ASME BPE SF6, electropolished internal/external	1953

12 Type of design	Code
Ra ≤ 0.4 µm for media-wetted surfaces, in accordance with DIN 11866 HE4/ASME BPE SF5, electropolished internal/external	1959

13 Special version	Code
Standard	
Special version for oxygen, (max. temperature 60 °C; max. operating pressure 10 bar), media wetted seal materials and auxiliary materials with BAM testing	S
Explosion protection	X

14 CONEXO	Code
Without	

Order example

Ordering option	Code	Description
1 Type	S40	Globe valve, pneumatically operated, stainless steel piston actuator
2 DN, connection 1	25	DN 25
3 Housing configuration	S	Angle seat body
4 Valve body connection type, connection 1	17	Spigot EN 10357 series A/DIN 11866 series A
5 Valve body material	37	1.4408, investment casting
6 Seat seal	5	PTFE
7 Control function	1	Normally closed (NC)
8 Actuator spring set	1	Standard spring set
9 Working medium flow direction	G	Flow under the seat
10 Actuator size	2	Actuator size 2
11 Regulating cone		Without
12 Type of design		Standard
13 Special version		Standard
14 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

Temperature

Media temperature: -10 to 185 °C only with body material ordering option (code 90)
-40 to 185 °C only with body material ordering option (code 37)
-10 to 185 °C only with body material ordering option (code C2)
-10 to 60 °C only with special function ordering option (code S)

Ambient temperature: -20 — 80 °C
For special function S: -40 to 60 °C

Control medium temperature: 0 — 60 °C

Storage temperature: -40 — 60 °C

Pressure

Operating pressure of body configuration S:

Control function 1 (NC) – flow direction G (under the seat) – spring set 1 (standard spring set)

DN	Actuator version (code)						
	1G0	1G1	1G2	1G3	1G4	1G5	1G6
8	24.0	10.0	17.0	25.0	-	-	-
10	24.0	10.0	17.0	25.0	-	-	-
15	24.0	10.0	17.0	25.0	-	-	-
20	-	5.8	9.0	17.0	-	-	-
25	-	3.8	5.8	9.5	19.0	25.0	-
32	-	-	3.8	6.0	12.0	21.0	25.0
40	-	-	-	4.0	7.0	12.5	20.0
50	-	-	-	2.5	4.8	8.0	12.5
65	-	-	-	-	-	5.2	8.5
80	-	-	-	-	-	-	5.8

All pressures are gauge pressures. For max. operating pressures, the pressure/temperature correlation must be observed.
Also observe the pressure rating of the selected body configuration.

Operating pressure of body configuration S:

Control function 1 (NC) – flow direction G (under the seat) – spring set 1 (standard spring set) for connection type 80 with material C2

DN	Actuator version (code)					
	1G1	1G2	1G3	1G4	1G5	1G6
15	10.0	17.0	19.0	-	-	-
20	10.0	17.0	19.0	-	-	-
25	5.8	9.0	17.0	-	-	-
40	-	3.8	6.0	12.0	19.0	-
50	-	-	4.0	7.0	12.5	19.0
65	-	-	2.5	4.8	8.0	12.5

All pressures are gauge pressures. For max. operating pressures, the pressure/temperature correlation must be observed.
Also observe the pressure rating of the selected body configuration.

Operating pressure of body configuration G:

Control function 1 (NC) – flow direction G (under the seat) – spring set 1 (standard spring set)

DN	Actuator version (code)					
	1G1	1G2	1G3	1G4	1G5	1G6
15	10.0	17.0	29.0	-	-	-
20	5.8	9.0	17.0	-	-	-
25	3.8	5.8	9.5	19.0	32.0	40.0
32	-	3.8	6.0	12.0	21.0	33.0
40	-	-	4.0	7.0	12.5	20.0
50	-	-	2.5	4.8	8.0	12.5

All pressures are gauge pressures. For max. operating pressures, the pressure/temperature correlation must be observed.
Also observe the pressure rating of the selected body configuration.

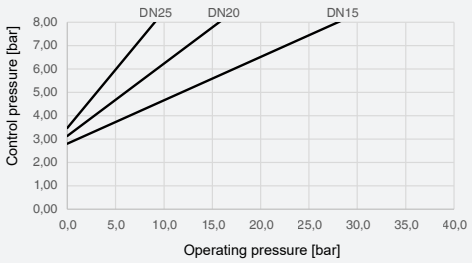
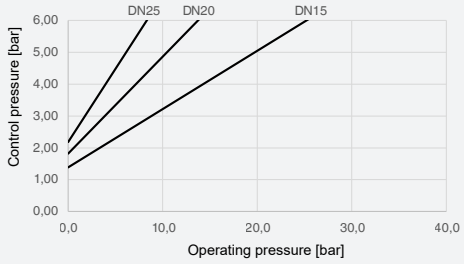
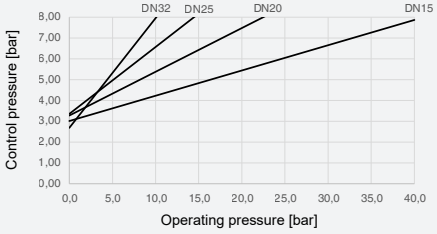
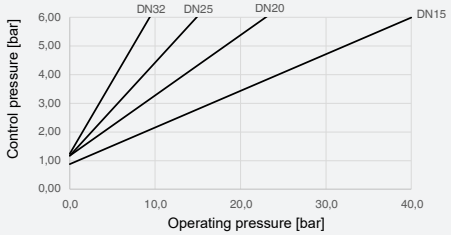
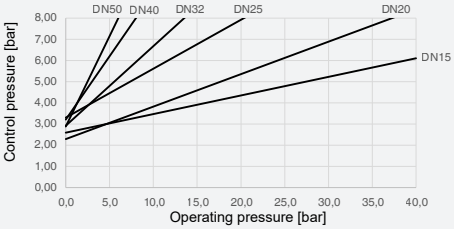
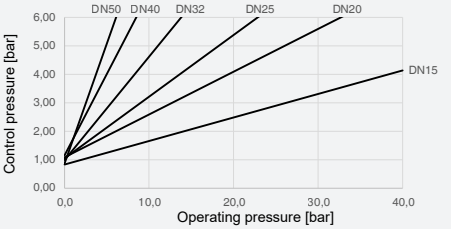
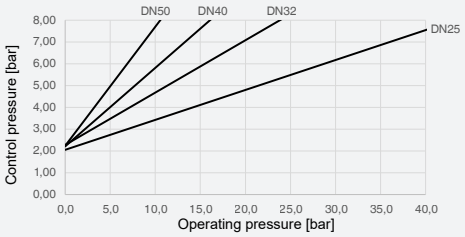
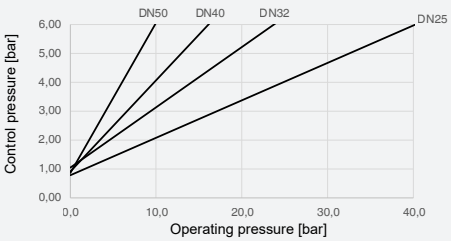
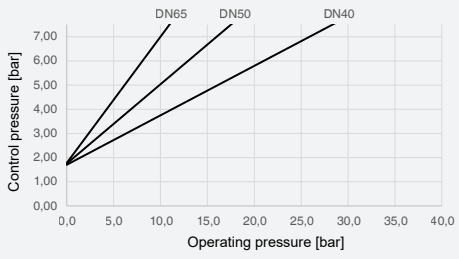
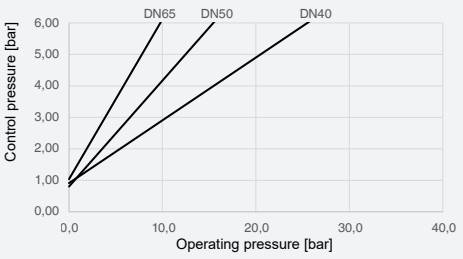
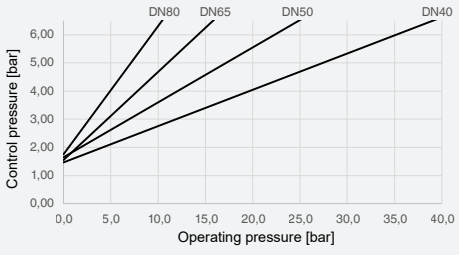
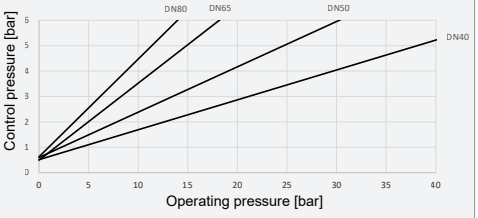
Pressure rating:

Body configuration (code)	Material (code)	Connection	Pressure rating
S	**37**		PN25
	C2		PN25
	C2	**80**	CL150
	40		PN25
G	**37**		PN40
	90		PN16
G	**37**	**39**	CL150
	90	**39**	CL150

Control pressure:

Flow direction: under the seat

Control function 1, normally closed (NC): 4–8 bar

Actu-ator size	Control function 2 normally open (NO)	Control function 3 double acting (DA)
1		
2		
3		
4		
5		
6		

Filling volume:

Actuator size	Filling volume [dm³]
0	0.001
1	0.035
2	0.064
3	0.094
4	0.181
5	0.385
6	0.622

Filling volume when open

Leakage rate:

Open/Close valve

Leakage rate A to P11/P12 EN 12266-1

Control valve

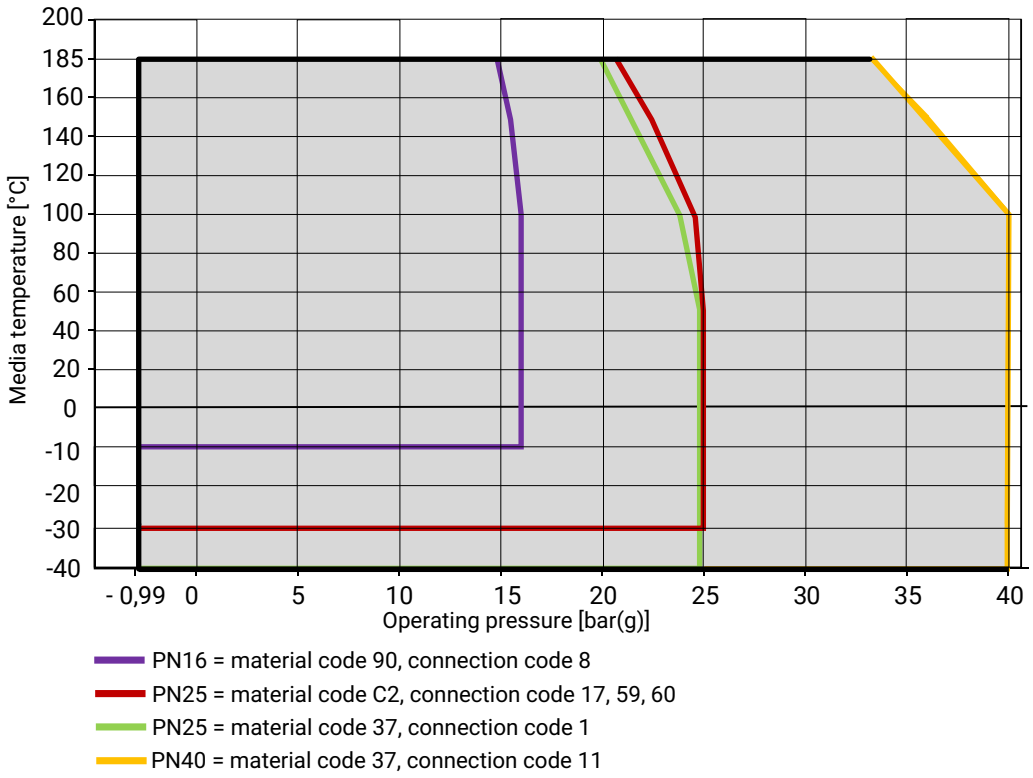
Seat seal	Standard	Test procedure	Leakage rate	Test medium
Metal	DIN EN 60534-4	1	IV	Air
PTFE	DIN EN 60534-4	1	VI	Air

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
8	**37**	16.0	16.0	14.5	13.4	12.7	11.8
11	**37**	40.0	40.0	36.3	33.7	31.8	29.7
39	**37**	19.0	16.0	14.8	13.6	12.0	10.2
8	**90**	16.0	16.0	15.5	14.7	13.9	11.2
39	**90**	17.0	16.0	14.8	13.9	12.1	10.2
10 (DN 15 - 50)	**37**	25.0	25.0	22.7	21.0	19.8	18.5
17, 59, 60	**C2**	25.0	21.2	19.3	17.9	16.8	15.9
17, 59, 60	**40**	25.0	20.6	18.7	17.1	15.8	14.8
80 (DN 15–40)	**C2**	25.0	21.2	19.3	17.9	-	-
80 (DN 50–65)	**C2**	16.0	16.0	16.0	16.0	-	-

* max. temperature 140 °C
RT = room temperature
All pressures are gauge pressures.

Pressure/temperature diagram:



Kv values for Open/Close valves:

Angle seat body (code S)

DN	Connection type (code)	Actuator version						
		1G0	1G1	1G2	1G3	1G4	1G5	1G6
8	1	1.8	-	-	-	-	-	-
	17	1.8	-	-	-	-	-	-
	60	1.8	3.5	4.5	-	-	-	-
10	1	1.8	-	-	-	-	-	-
	17	1.8	-	-	-	-	-	-
	60	1.8	3.5	4.5	-	-	-	-
15	1	1.8	5.4	5.4	5.4	-	-	-
	17	1.8	5.5	5.5	5.5	-	-	-
	60	1.8	5.5	5.5	5.5	-	-	-
20	1	-	8.5	8.6	8.6	-	-	-
	17	-	9.6	10.2	10.2	-	-	-
	60	-	10.4	11.3	11.3	-	-	-
25	1	-	13.1	14.2	15.2	15.2	15.2	15.2
	17	-	14.5	14.6	17.9	17.9	17.9	17.9
	60	-	14.6	15.8	20.5	20.5	20.5	20.5
32	1	-	-	20.9	23.0	23.0	23.0	23.0
	17	-	-	26.2	28.5	28.5	28.5	28.5
	60	-	-	26.5	29.0	29.0	29.0	29.0
40	1	-	-	-	35.9	43.0	43.0	43.0
	17	-	-	-	36.0	41.2	41.2	41.2
	60	-	-	-	42.6	46.5	46.5	46.5
50	1	-	-	-	56.0	58.0	63.5	63.5
	17	-	-	-	52.0	58.0	63.5	63.5
	60	-	-	-	53.2	61.0	66.0	66.0
65	1	-	-	-	-	-	105.0	105.0
	17	-	-	-	-	-	100.0	100.0
	60	-	-	-	-	-	95.0	95.0
80	1	-	-	-	-	-	-	148.0
	17	-	-	-	-	-	-	90.0
	60	-	-	-	-	-	-	88.0

Angle seat body (code S) for connection type code 80, material code C2

DN	Connection type (code)	Actuator version					
		1G1	1G2	1G3	1G4	1G5	1G6
15	C2	2.1	2.1	2.1	-	-	-
20		4.4	4.4	4.4	-	-	-
25		9.3	9.7	9.7	-	-	-
40		-	20.0	23.0	23.0	23.0	-
50		-	-	35.0	39.5	44.0	37.0
65		-	-	34.5	41.0	48.0	48.0

Kv values for Open/Close valves:

Straight seat body (code G)

DN	Connection type (code)	Actuator version					
		1G1	1G2	1G3	1G4	1G5	1G6
15	8, 11, 39, 48	4.6	4.6	4.6	-	-	-
20	8, 11, 39, 48	8.0	8.0	8.0	-	-	-
25	8, 11, 39, 48	13.0	13.0	13.0	13.0	13.0	13.0
32	8, 11, 39, 48	-	22.0	22.0	22.0	22.0	22.0
40	8, 11, 39, 48	-	35.0	35.0	35.0	35.0	35.0
50	8, 11, 39, 48	-	50.0	50.0	50.0	50.0	50.0

Kv values in m³/h
Kv values determined in accordance with DIN EN 60534. The Kv value specifications refer to control function 1 (NC). For angle seat body (code S) body material 37, for straight seat body (code G) body material 37 and 90. Kv values for other product configurations (e.g. other connection types or body materials) may differ.

Operating pressure/Kv values of body configuration S, control valve:

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

DN	Kv values	Operating pressure	Actuator version	Linear	Equal percentage
15	2.7	10.0	1	RS520	RS521
		17.0	2	RS526	RS527
		25.0	3	RS532	RS533
20	6.3	5.8	1	RS538	RS539
		9.0	2	RS544	RS545
		17.0	3	RS550	RS551
25	13.3	5.8	2	RS556	RS557
		9.5	3	RS562	RS563
		19.0	4	RS568	RS569
		25.0	5	RS574	RS575
40	35.6	7.0	4	RS684	RS685
		12.5	5	RS690	RS691
		20.0	6	RS696	RS697
50	47.0	8.0	5	RS740	RS741
		12.5	6	RS746	RS747

Kv values in m³/h
All pressures are gauge pressures. For max. operating pressures, the pressure/temperature correlation must be observed.
Also observe the pressure rating of the selected body configuration.

Operating pressure/Kv values of body configuration S, control valve:

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

DN	Kv values	Operating pressure	Actuator version	Linear	Equal percentage
15	5.0	10.0	1	RS518	RS519
		17.0	2	RS524	RS525
		25.0	3	RS530	RS531
20	10.0	5.8	1	RS536	RS537
		9.0	2	RS542	RS543
		17.0	3	RS548	RS549
25	15.0	5.8	2	RS554	RS555
		9.5	3	RS560	RS561
		19.0	4	RS566	RS567
		25.0	5	RS572	RS573
32	24.0	6.0	3	RS578	RS579
		12.0	4	RS582	RS583
		21.0	5	RS586	RS587
		25.0	6	RS590	RS591
40	38.0	7.0	4	RS682	RS683
		12.5	5	RS688	RS689
		20.0	6	RS694	RS695
50	60.0	8.0	5	RS738	RS739
		12.5	6	RS744	RS745

Kv values in m^3/h
All pressures are gauge pressures. For max. operating pressures, the pressure/temperature correlation must be observed.
Also observe the pressure rating of the selected body configuration.

Operating pressure/Kv values of body configuration G, control valve:

All connection types, valve body material 1.4408 (code 37), EN-GJS-400-18-LT (code 90)

DN	Kv values	Operating pressure	Actuator version	Linear	Equal percentage
15	4.0	10.0	1	RS522	RS523
		17.0	2	RS528	RS529
		25.0	3	RS534	RS535
20	6.3	5.8	1	RS540	RS541
		9.0	2	RS546	RS547
		17.0	3	RS552	RS553
25	10.0	5.8	2	RS558	RS559
		9.5	3	RS564	RS565
		19.0	4	RS570	RS571
		32.0	5	RS576	RS577
32	16.0	6.0	3	RS580	RS581
		12.0	4	RS584	RS585
		21.0	5	RS588	RS589
		33.0	6	RS592	RS593
40	25.0	7.0	4	RS686	RS687
		12.5	5	RS692	RS693
		20.0	6	RS698	RS699
50	40.0	8.0	5	RS742	RS743
		12.5	6	RS748	RS749

Kv values in m^3/h
All pressures are gauge pressures. For max. operating pressures, the pressure/temperature correlation must be observed.
Also observe the pressure rating of the selected body configuration.

Product conformity

Food:
Regulation (EC) No. 1935/2004
Regulation (EC) No. 10/2011
FDA

Pressure Equipment Directive: 2014/68/EU

Machinery Directive: 2006/42/EC

Explosion protection: ATEX (2014/34/EU), order code Special version X

ATEX marking (only special function X):
Gas: II 2 G Ex h IIC T6 ... T3 Gb X
Dust: II -/2 D Ex h -/IIIC T185 °C -/Db X

FMEDA:

Product description:	GEMÜ globe valve S40
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
MTTR (mean time to restoration):	24 hours

Mechanical data

Weight:

Actuator

DN	Actuator size						
	0	1	2	3	4	5	6
6	0.35						
8	0.35	0.74	1.11	1.46	-	-	-
10	0.35	0.74	1.11	1.46	-	-	-
15	0.35	0.74	1.11	1.46	-	-	-
20		0.78	1.15	1.49	-	-	-
25		0.84	1.21	1.55	3.39	5.44	7.76
32		-	1.37	1.71	3.56	5.61	7.92
40		-	-	1.81	3.66	5.71	8.03
50		-	-	1.99	3.87	5.92	8.22
65		-	-	-	-	6.57	8.88
80		-	-	-	-	-	9.43

Weights in kg

Weight:

Angle seat body

DN	Spigot	Threaded socket	Threaded spigot	Flange	Clamp
	Connection type code				
	17, 59, 60	1, 3C, 3D	9	8, 11	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	-	-
8	0.12	0.25	-	-	-
10	0.12	0.25	-	-	-
15	0.16	0.25	0.31	-	0.37
10	0.25	0.25	0.50	-	0.63
15	0.24	0.35	0.65	1.80	0.63
20	0.50	0.35	1.00	2.50	1.08
25	0.50	0.35	1.30	3.10	1.28
32	0.90	0.75	1.80	4.60	2.07
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

Angle seat body, connection type 80, material C2

DN	Weight
15	0.35
20	0.30
25	0.50
32	1.00
40	1.40
50	2.40

Weights in kg

Globe valve body

DN	Weight
15	2.2
20	3.0
25	3.7
32	5.3
40	6.3
50	11.5

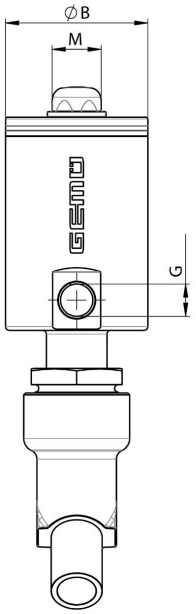
Weights in kg

Technical data - Positioners

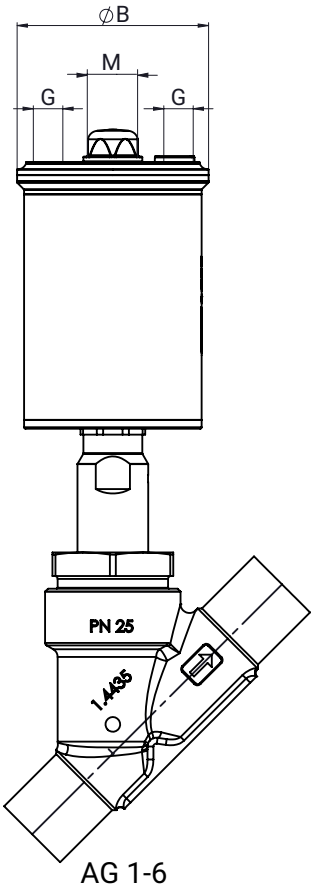
For technical data and order data for the controller, please refer to the GEMÜ 44A0 datasheet.

Dimensions

Actuator dimensions



AG 0

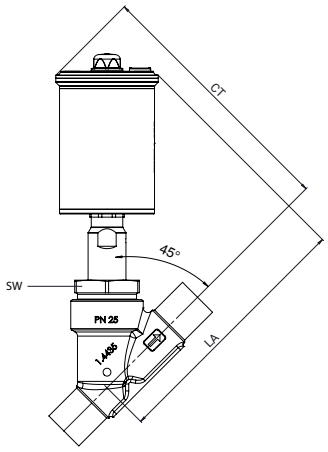


AG 1-6

Actuator size	øB	M	G
0	36.7 mm	M 12 x 1	G 1/8
1	50.8 mm	M 12 x 1	G 1/8
2	65 mm	M 16 x 1	G 1/8
3	70 mm	M 16 x 1	G 1/8
4	90.0 mm	M 26 x 1.5	G 1/4
5	115.0 mm	M 26 x 1.5	G 1/4
6	140.0 mm	M 26 x 1.5	G 1/4

Installation dimensions

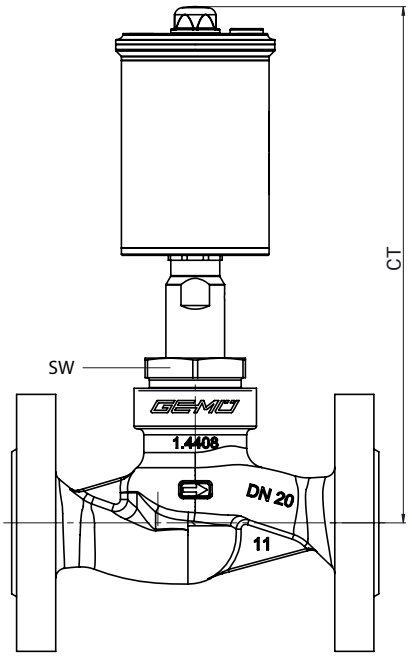
Valve with angle seat body



DN	WAF	Actuator size 0	Actuator size 1	Actuator size 2	Actuator size 3	Actuator size 4	Actuator size 5	Actuator size 6
		CT/LA	CT/LA	CT/LA	CT/LA	CT/LA	CT/LA	CT/LA
6	24	88.9	-	-	-	-	-	-
8	24	88.9	-	-	-	-	-	-
10	24	88.9	-	-	-	-	-	-
15	24	88.9	-	-	-	-	-	-
8	36	-	-	-	-	-	-	-
10	36	-	138.0	155.0	160.5	-	-	-
15	36	-	142.0	158.5	163.6	-	-	-
20	41	-	146.5	164.0	196.5	-	-	-
25	46	-	151.3	168.2	173.3	221.1	243.3	-
32	55	-	-	175.7	180.7	228.5	250.7	264.8
40	60	-	-	-	186.4	234.2	256.4	270.5
50	55	-	-	-	194.7	241.8	264.0	278.0
65	75	-	-	-	-	-	278.8	292.9
80	75	-	-	-	-	-	-	307.7

Dimensions in mm

Valve with straight seat body

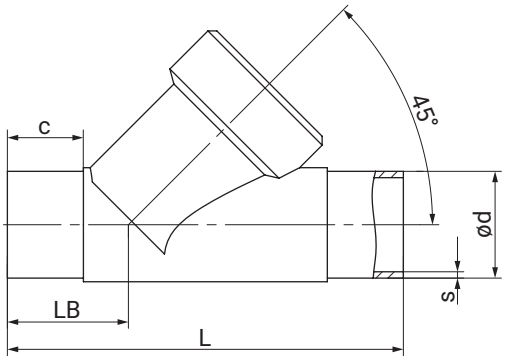


DN	WAF	Actuator size 1	Actuator size 2	Actuator size 3	Actuator size 4	Actuator size 5	Actuator size 6
		CT/LA	CT/LA	CT/LA	CT/LA	CT/LA	CT/LA
15	36	178.5	197.8	203.3			
20	41	185.9	205.0	210.6			
25	46	196.5	215.6	221.0	285.3	304.3	311.8
32	55	-	220.0	225.6	289.8	308.8	316.3
40		-	-	237.1	301.3	320.3	327.8
50		-	-	245.1	328.0	328.0	335.5

Dimensions in mm

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), forged material (code 40) [1)]

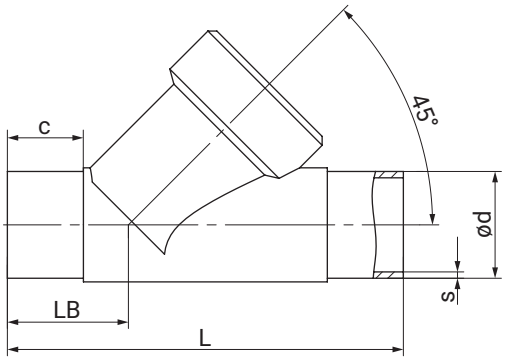
DN	NPS	c (min)			ød			L	LB	s		
		Connection type [2)]								Connection type [2)]		
		17	59	60	17	59	60			17	59	60
8	**1/4"**	20.0	10.0	20.0	10.0	6.35	13.5	80.0	26.5	1.0	0.98	1.6
10	**3/8"**	20.0	20.0	-	13.0	9.53	-	80.0	26.5	1.5	0.89	-
15	**1/2"**	-	20.0	-	-	12.70	-	80.0	26.5	-	1.65	-

Dimensions in mm

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

2) **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 EN/ISO/ANSI/ASME/SMS (code 17, 60)



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]

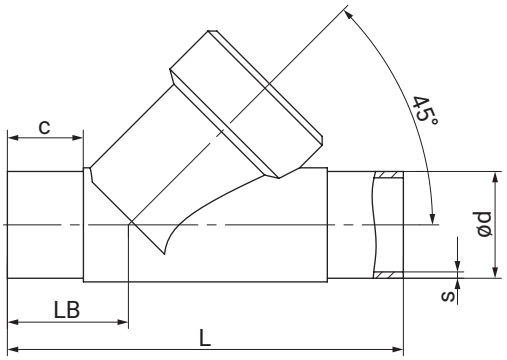
DN	NPS	c (min)		dia. d		L	LB	s	
		Connection type						Connection type	
		37	59	37	59			37	59
65	**2½"**	58	58	63.5	63.5	290.0	96.0	1.6	1.65
80	**3"**	58	58	76.1	76.0	310.0	95.0	1.6	1.65

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)



Connection type spigot EN/ISO/ASME (code 17, 59, 60) [1], investment casting material (code C2) [2]

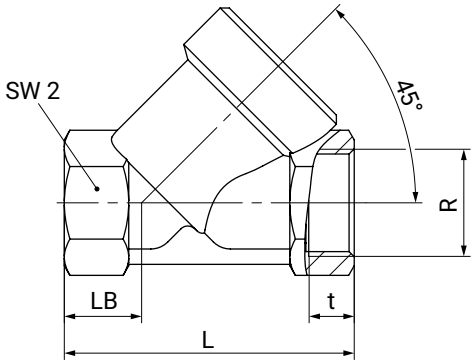
DN	NPS	c (min)			dia. d			L	LB	s		
		Connection type								Connection type		
		17	59	60	17	59	60			17	59	60
8	**1/4"**	-	-	20	-	-	13.5	80.0	35.5	-	-	1.6
10	**3/8"**	20	-	20	13.0	-	17.2	100.0	35.5	1.5	-	1.6
15	**1/2"**	20	15	20	19.0	12.70	21.3	105.0	35.5	1.5	1.65	1.6
20	**3/4"**	25	25	25	23.0	19.05	26.9	120.0	39.0	1.5	1.65	1.6
25	**1"**	24	24	24	29.0	25.40	33.7	125.0	39.5	1.5	1.65	2.0
32	**1¼"**	27	-	26.1	35.0	-	42.4	155.0	48.0	1.5	-	2.0
40	**1½"**	24	23	28.9	41.0	38.10	48.3	160.0	47.0	1.5	1.65	2.0
50	**2"**	28.23	28.23	48	53.0	50.80	60.3	180.0	48.0	1.5	1.65	2.0
65	**2½"**	52.5	58	52.5	70.0	63.50	76.1	290.0	96.0	2.0	1.65	2.0
80	**3"**	50.2	58	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]

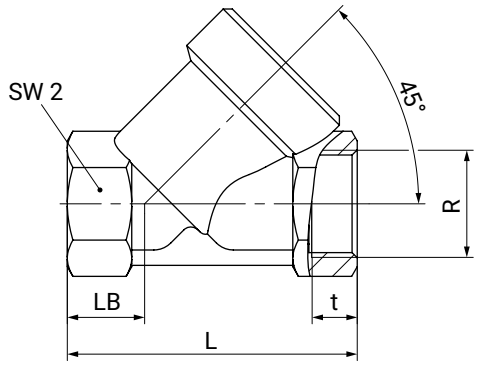
DN	NPS	L	LB			R			SW2	t		
			Connection type			Connection type				Connection type		
			1	3C	3D	1	3C	3D		1	3C	3D
8	**1/4"**	65.0	19.0	-	19.0	G 1/4	-	1/4" NPT	17	12.0	-	10.1
10	**3/8"**	65.0	19.0	27.0	27.0	G 3/8	G 3/8	3/8" NPT	24	12.0	11.4	10.4
15	**1/2"**	65.0	19.0	-	27.0	G 1/2	-	1/2" NPT	24	11.4	-	13.6

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 S (code 1, 3C, 3D)



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]

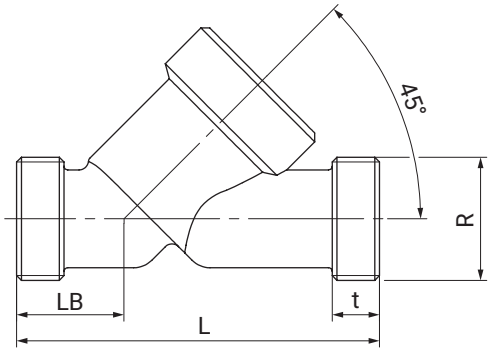
DN	NPS	L	LB	R		SW2	t	
				Connection type			Connection type	
				3C	3D		3C	3D
15	**1/2"**	65.0	16.5	Rc 1/2	1/2" NPT	27	15.0	13.6
20	**3/4"**	75.0	17.5	Rc 3/4	3/4" NPT	32	16.3	14.1
25	**1"**	90.0	24.0	Rc 1	1" NPT	41	19.1	17.0
32	**1¼"**	110.0	33.0	Rc 1¼	1¼" NPT	50	21.4	17.5
40	**1½"**	120.0	30.0	Rc 1½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

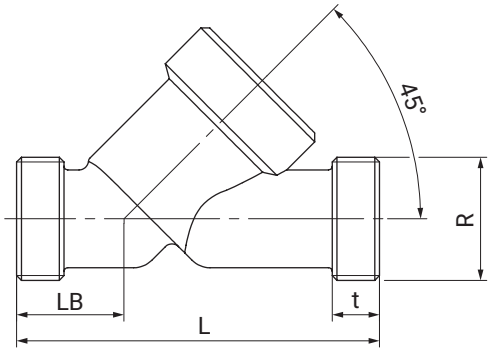
DN	L	LB	R	t
8	65.0	19.0	G 3/8	12.0
10	65.0	19.0	G 1/2	12.0
15	65.0	19.0	G 3/4	12.0

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)



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

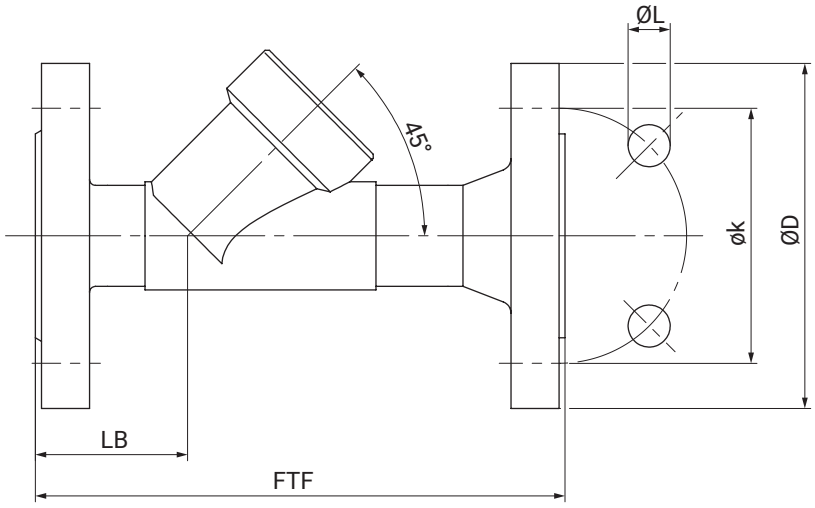
DN	L	LB	R	t
15	90.0	25.0	G 3/4	12.0
20	110.0	30.0	G 1	15.0
25	118.0	30.0	G 1¼	15.0
32	130.0	38.0	G 1½	13.0
40	140.0	35.0	G 1¾	13.0
50	175.0	50.0	G 2⅜	15.0

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)



Connection type flange EN (code 10) [1], investment casting material (code 37) [2]

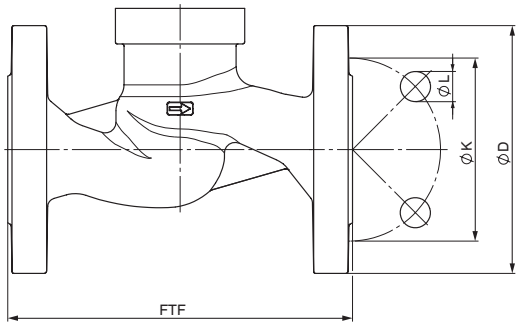
DN	NPS	ø D	FTF	ø k	ø L	LB	n
15	**1/2"**	95.0	130.0	65.0	14.0	33.0	4
20	**3/4"**	105.0	150.0	75.0	14.0	45.0	4
25	**1"**	115.0	160.0	85.0	14.0	44.0	4
32	**1¼"**	140.0	180.0	100.0	18.0	51.0	4
40	**1½"**	150.0	200.0	110.0	18.0	52.0	4
50	**2"**	165.0	230.0	125.0	18.0	50.0	4

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 EN (code 8)



Connection type flange, length EN 558 (code 8) [1], investment casting material (code 37) [2]

DN	NPS	ø D	FTF	ø k	ø L	n
50	**2"**	165.0	230.0	125.0	18.0	4

Connection type flange, length EN 558 (code 8) [1], SG iron material (code 90) [2]

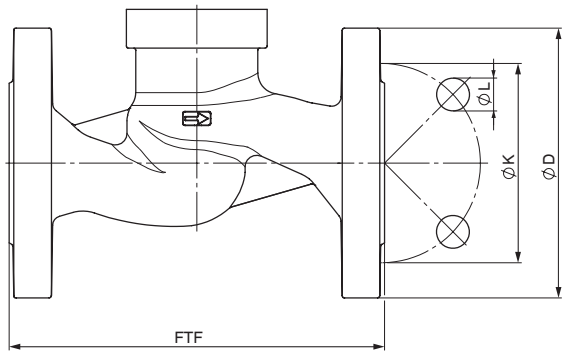
DN	NPS	ø D	FTF	ø k	ø L	n
15	**1/2"**	95.0	130.0	65.0	14.0	4
20	**3/4"**	105.0	150.0	75.0	14.0	4
25	**1"**	115.0	160.0	85.0	14.0	4
32	**1¼"**	140.0	180.0	100.0	18.0	4
40	**1½"**	150.0	200.0	110.0	18.0	4
50	**2"**	165.0	230.0	125.0	18.0	4

Dimensions in mm
n = number of bolts

1) **Connection type**
Code 8: Flange EN 1092, PN 16, 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
Code 90: EN-GJS-400-18-LT (GGG 40.3)

Flange EN (code 11, 48)



DN 15–50 (code 48)
DN 40, 50 (code 11)

Connection type flange, length EN 558 (code 11), [1] investment casting material (code 37) [2]

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

Connection type flange, length EN 558 (code 48) [1], investment casting material (code 37) [2]

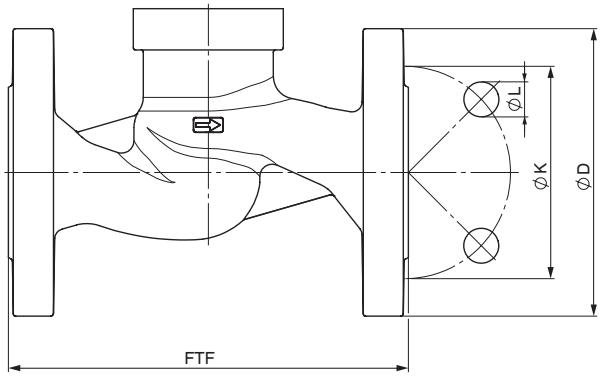
DN	NPS	ø D	FTF	ø k	ø L	n
15	**1/2"**	95.0	108.0	70.0	15.0	4
20	**3/4"**	100.0	117.0	75.0	15.0	4
25	**1"**	125.0	127.0	90.0	19.0	4
40	**1½"**	140.0	165.0	105.0	19.0	4
50	**2"**	155.0	203.0	120.0	19.0	4

Dimensions in mm
n = number of bolts

1) **Connection type**
Code 11: Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 48: Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K

2) **Valve body material**
Code 37: 1.4408, investment casting

Flange ANSI Class (code 39)



DN 15 - 50

Connection type flange, length EN 558 (code 39) [1], investment casting material (code 37), SG iron material (code 90) [2]

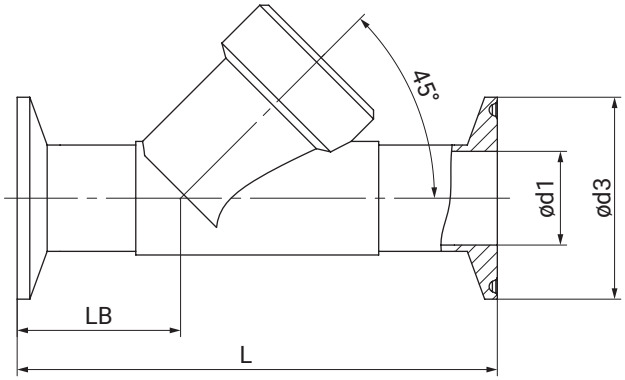
DN	NPS	ø D	FTF	ø k	ø L	n
15	**1/2"**	90.0	130.0	60.3	15.9	4
20	**3/4"**	100.0	150.0	69.9	15.9	4
25	**1"**	110.0	160.0	79.4	15.9	4
32	**1¼"**	115.0	180.0	88.9	15.9	4
40	**1½"**	125.0	200.0	98.4	15.9	4
50	**2"**	150.0	230.0	120.7	19.0	4

Dimensions in mm
n = number of bolts

1) **Connection type**
Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

2) **Valve body material**
Code 37: 1.4408, investment casting
Code 90: EN-GJS-400-18-LT (GGG 40.3)

Clamp DIN/ASME (code 82, 86, 88), actuator size 1, 2, 3, 4, 5, 6



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

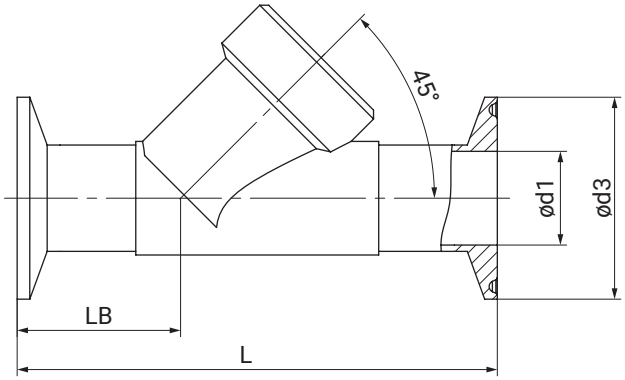
DN	NPS	ød1			ød3			L	LB
		Connection type			Connection type				
		82	86	88	82	86	88		
8	**1/4"**	10.3	-	-	25.0	-	-	130.0	47.5
10	**3/8"**	14.0	10.0	-	25.0	34.0	-	130.0	47.5
15	**1/2"**	18.1	16.0	9.40	50.5	34.0	25.0	130.0	47.5
20	**3/4"**	23.7	20.0	15.75	50.5	34.0	25.0	150.0	54.0
25	**1"**	29.7	26.0	22.10	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

Clamp ASME (code 80)



Connection type clamp ASME (code 80) [1], investment casting material (code C2) [2]

DN	NPS	LB	L	ø d1	ø d3
15	**1/2“**	28.5	88.9	9.4	25.0
20	**3/4“**	35.0	101.6	15.75	25.0
25	**1“**	33.0	114.3	22.10	50.5
40	**1 1/2“**	40.0	139.7	34.80	50.5
50	**2“**	44.0	158.8	47.50	64.0
65	**2 1/2“**	54.3	193.8	60.20	77.5

Dimensions in mm

1) **Connection type**
Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

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

Specification sheet

send an E-Mail

Reference no.

Specification | GEMÜ regulating cones for globe valves

Customer/Project _____ Contact person _____

Date _____ Phone _____

Contact person (GEMÜ) _____ E-mail _____

Technical requirements

Medium [1]

Requirement characteristic	1st operating point maximum flow	2nd operating point medium flow	3rd operating point minimum flow
Media temperature [4]	°C	°C	°C
Inlet pressure	bar(g)	bar(g)	bar(g)
Outlet pressure	bar(g)	bar(g)	bar(g)
Flow rate [2, 3]			
in [m³/h] for liquids	m³/h	m³/h	m³/h
for gases [6]	Nm³/h	Nm³/h	Nm³/h
in [kg/h] for steam	kg/h	kg/h	kg/h

Operation	Manual ○					
	Pneumatic ○	Control function	○ NC (normally closed)	○ NO (normally open)	○ DA (double acting)	○ Double acting (normally open)
	Motorized ○	Voltage	○ 24 V DC	○ Other		
		Set value information	○ 0-10 V	○ 0/4–20 mA		
Control fitting	Feature		○ linear	○ modified equal-percentage		

Valve body	Type		
	Required valve DN		
	Max. operating pressure (bar)		
	Ambient temperature [4]		
	Max. media temperature		
	Connection type		
	Body material		
	Seat seal [7]	○ PTFE	○ Other
	Control pressure	min	max

1) Liquid or gas?
For media other than water or air, it is useful to give data for the density and viscosity of the medium (with unit of measurement). Otherwise we will assume data for standard conditions.

2) For steam especially, the minimum or maximum flow rate should be assigned to the appropriate inlet or outlet pressure. The temperature of the medium should also be taken into account.

3) GEMÜ recommends a positioning ratio of 1 : 10 (e.g. minimal flow rate is 10 m³/h and the maximum flow rate is 100 m³/h). Please note that the valve only controls reliably from a flow of about 10% of the max. Kv value on account of the valve opening behaviour. Other positioning ratios are possible on request or in the selection of standard regulating cones.

4) The media temperature range must be specified for steam applications. T = 20 °C is assumed unless specified otherwise.

5) This data is not absolutely necessary. A room temperature of 20 °C is assumed unless specified otherwise.

6) Basis: standard conditions 0 °C, 1013.25 mbar.
If conditions differ, please specify them.

7) The seat seal is made of PTFE as standard.
For regulating needles with a Kv value between 0.1 and 1.0 m³/h, only a metal seal is possible.
Other materials possible on request.

The technical details of each enquiry must be checked by GEMÜ.

Comment:

GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG · Fritz-Müller-Str. 6-8 · D-74653 Ingelfingen-Criesbach · Phone +49(0)7940/123-0 · Fax +49(0)7940/123-224
info@gemue.de · www.gemu-group.com

Accessories

GEMÜ 12A0

Intelligent electrical position indicator

The GEMÜ 12A0 position indicator is compatible with all pneumatically actuated process valves of the new platform generation as well as with quarter turn valves. The position sensor determines the valve position precisely, reliably and wear-free. The current valve position is indicated by far-sighted LEDs and signalled back via electrical signals. The innovative position indicator is characterised by modern communication interfaces, integrated sensors and the option of operation via the GEMÜ app.

GEMÜ 44A0

Multi-functional valve actuation

Independent of the actuator size, the GEMÜ 44A0 multi-functional valve actuation, as an automation module, is compatible with all pneumatically operated process valves with single acting linear actuator of the new valve generation. Depending on the order variant and the set device functions, the connected process valves can be controlled conventionally open/closed (combi switchbox) or the valve position can be precisely controlled (positioner). Contactless position detection determines the valve position precisely, reliably and without being subject to wear. The current valve position is displayed via high visibility LEDs, and fed back via electrical signals. In addition to this, there is an integrated mechanical position indicator. Modern communication interfaces, an integrated sensor system and the GEMÜ app operating option are all features that characterize this innovative product.

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Subject to alteration | 12.2025 | 88912780