

## GEMÜ P600M stainless steel

## M-block stainless steel diaphragm valve



#### **Features**

- · Space savings thanks to compact design
- · Individual, customized and flexible design
- · Reduced deadleg
- · Fewer connection points and weld seams
- Huge variety of functions combined in the smallest of spaces
- Wide range of adaptation options from measurement and control systems, in addition to accessories
- · Optimized draining design

### Description

The GEMÜ P600M stainless steel M-block diaphragm valve comprises one or more diaphragm valve seats. It is possible to choose between manual, pneumatic and motorized actuator versions. The downstream media is isolated using a diaphragm.

### **Technical specifications**

Media temperature: -10 to 100 °C
 Sterilization temperature: 150 °C
 Ambient temperature: 0 to 60 °C
 Operating pressure: 0 to 10 bar
 Nominal sizes: DN 4 to 150

· Body configurations: Multi-port body

Connection types: Clamp | Flange | Spigot | Threaded connection
 Connection standards: ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS

• Body materials: 1.4435 (316L), block material I 1.4435 (BN2), block material I 1.4539 (904L), block material

• Diaphragm materials: EPDM | PTFE/EPDM

· Conformities: 3A | BSE/TSE | CRN | EAC | FDA | Regulation (EC) No. 1935/2004 | USP

Technical data depends on the respective configuration





Manual product line



**Note:** The detailed technical data can be found in the product types' datasheets in conjunction with the technical drawing of the valve block.

### Manual product line



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## Pneumatic product line



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## Pneumatic product line



**Note:** The detailed technical data can be found in the product types' datasheets in conjunction with the technical drawing of the valve block.

## **Motorized product line**



**Note:** The detailed technical data can be found in the product types' datasheets in conjunction with the technical drawing of the valve block.

## **Product description**

## Design



Item	Name
Α	Actuators (documentation available separately)
1	Body
2	Diaphragms
3	Stud bolt

## Range overview

### Range overview of surface finishes

Internal surface finishes for block material body 1)

Media wetted internal	Mechanica	lly polished <sup>2)</sup>	Electropolished		
surface finishes	Hygiene class DIN 11866	Code	Hygiene class DIN 11866	Code	
Ra ≤ 0.80 µm	H3	1502	HE3	1503	
Ra ≤ 0.60 µm	-	1507	-	1508	
Ra ≤ 0.40 µm	H4	1536	HE4	1537	
Ra ≤ 0.25 µm	H5	1527	HE5	1516	

Media wetted	Mechanical	ly polished <sup>2)</sup>	Electropolished		
internal surface finishes in accordance with ASME BPE 2019 3)	ASME BPE surface designation	Code	ASME BPE surface designation	Code	
Ra max. = 0.76 μm (30 μinch)	SF3	SF3	-	-	
Ra max. = 0.64 μm (25 μinch)	SF2	SF2	SF6	SF6	
Ra max. = 0.51 μm (20 μinch)	SF1	SF1	SF5	SF5	
Ra max. = 0.38 μm (15 μinch)	-	-	SF4	SF4	

Ra acc. to DIN EN ISO 4288 and ASME B46.1

- 1) Surface finishes of customized valve bodies may be limited in special cases.
- 2) Or any other finishing method that meets the Ra value (acc. to ASME BPE).
- 3) When using these surfaces, the bodies are marked according to the specifications of ASME BPE.

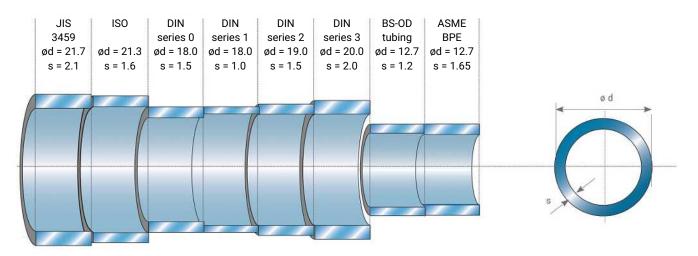
  The surfaces are only available for valve bodies which are made of materials (e.g. GEMÜ material codes 41, 44) and use connections (e.g. GEMÜ connection codes 59, 80, 88) according to ASME BPE.

## Range overview of add-on components for diaphragm valves

GEMÜ type	605	625	650	651	653	654	658	687
Measurement and control technology								
Electrical position indicator								
GEMÜ 1205 (see "Description", page 43)			Х				Х	Х
GEMÜ 1201/1211/1214 (see "Description", page 43)			Х				Х	Х
GEMÜ 1215 (see "Description", page 43)	Х	Х	Х					Х
GEMÜ 1230/1231/1232 (see "Description", page 43)	Х	X	Х				X	X
GEMÜ 1234 (see "Description", page 43)	Χ	Х	Х					Х
GEMÜ 1235/1236 (see "Description", page 43)	Х	Х	Х				Х	Х
GEMÜ 1242 (see "Description", page 44)	Χ	Х	Х				Х	Х
Combi switchbox								
GEMÜ 4241		Х	Х					Х
GEMÜ 4242	Χ	Х	X					Х
Pilot valve								
GEMÜ 0324	Χ	X	X	Χ			X	Х
Control systems								
Positioner								
GEMÜ 1434 μPos	Χ	X	X					Х
GEMÜ 1435 ePos	Χ	X	X				X	Х
Positioner and process controller								
GEMÜ 1436 cPos	Χ	X	X				X	Х
GEMÜ 1441 cPos-X (see "Description", page 44)	Χ	X	X				Х	X
Accessories								
Connection accessories	Χ	X	X	X			X	Х
Clamping devices (see "Description", page 45)			Х					
Manual override (see "Description", page 45)			Х					Х
Stroke limiters (see "Description", page 45)	Х	Х	Х				Х	Х
Sensor accessories (see "Description", page 46)	Х	Х	Х		Х	Х	Х	Х
Position indicators (see "Description", page 47)	Х	Х	Х				Х	Х

## The difference between pipe specifications (example of DN 15)

Connection type 1)



#### 1) Connection type, spigot 1

Code 0: Spigot DIN

Code 16: Spigot DIN EN 10357 series B (2014 edition; formerly DIN 11850 series 1)

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

Code 18: Spigot DIN 11850 series 3

Code 36: Spigot JIS-G 3459 schedule 10s

Code 55: Spigot BS 4825, Part 1

Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C

Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B

### Order data

The order data provides an overview of standard configurations.

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

The specification sheet (see page 48) must be used to order a multi-port valve block.

#### **Order codes**

1 Type	Code
Valve assembly	P600
Diaphragm valve body	K600
2 Body configuration	Code
M-block	M
3 Number of spigots	Code
2 spigots	02
3 spigots	03
4 spigots	04
5 spigots	05
6 spigots	06
7 spigots	07
8 spigots	08
Other connections on request	

4 Number of valve seats	Code
1 valve seat	01
2 valve seats	02
3 valve seats	03
4 valve seats	04
5 valve seats	05
6 valve seats	06
Other valve seats on request	

5 Valve body material	Code
1.4435 (316L), block material	41
1.4435 (BN2), block material, Δ Fe < 0.5%	43
1.4539, block material	44
Other materials on request	

6 Diaphragm size	Code
Diaphragm size 8	8
Diaphragm size 10	10
Diaphragm size 25	25
Diaphragm size 40	40
Diaphragm size 50	50
Diaphragm size 80	80
Diaphragm size 100	100
Diaphragm size 150	150

7 Valve seat type	Code
Diaphragm valve, manually operated, plastic handwheel, stainless steel distance piece, seal adjuster, optical position indicator	601

7 Valve seat type	Code
Diaphragm valve, manually operated, stainless steel handwheel, optical position indicator	602
Diaphragm valve, pneumatically operated, plastic piston actuator, stainless steel distance piece, optical position indicator	605
Diaphragm valve, manually operated, plastic handwheel, stainless steel distance piece, seal adjuster, optical position indicator	612
Diaphragm valve, pneumatically operated, plastic piston actuator, stainless steel distance piece, optical position indicator	625
Plastic diaphragm valve, electrically operated	629
Diaphragm valve, electrically operated, eSyStep	639
Diaphragm valve, electrically operated, electro-mechanical hollow shaft actuator, eSyDrive	649
Diaphragm valve, pneumatically operated, stainless steel piston actuator electropolished, optical position indicator	650
Diaphragm valve, manually operated, stainless steel piston actuator, electropolished, optical position indicator	650TL
Diaphragm valve with integrated automation module	651
Diaphragm valve, manually operated, plastic handwheel, stainless steel distance piece, electropolished, optical position indicator	653
Diaphragm valve, manually operated, stainless steel handwheel electropolished, optical position indicator	654
Diaphragm valve, pneumatically operated, stainless steel two-stage actuator	658
Diaphragm valve, pneumatically operated, stainless steel piston actuator, stroke limiter and seal adjuster	660
Diaphragm valve, manually operated, plastic handwheel, metal distance piece, seal adjuster, optical position indicator	673
Diaphragm valve, manually operated, metal handwheel, metal distance piece, optical position indicator	675-7H
Diaphragm valve, pneumatically operated, plastic actuator, stainless steel distance piece	687

8 Actuator control function	Code
Manually operated	0
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3

Double acting (DA)	3
9 Design	Code
With seal adjuster, black handwheel	0TS
For GEMÜ 9602 actuator (GEMÜ 602 valve type)	
With seal adjuster, metal handwheel	ОТМ
For GEMÜ 9605 actuator (GEMÜ 605 valve type)	
Actuator size 0/N	0/N
control air connector 90° offset to flow direction	
With seal adjuster, black handwheel	1TS
For GEMÜ 9625 actuator (GEMÜ 625 valve type)	
Actuator size 1/N	1/N
control air connector 90° offset to flow direction	
For GEMÜ 9629 actuator (GEMÜ 629 valve type)	
Actuator size 1	B1
diaphragm size 8	
with distance piece	
Actuator size 1,	1C
diaphragm size 10	
Actuator size 1, diaphragm size 25	1F
· ·	3H
Actuator size 3, diaphragm size 40	ЗП
For GEMÜ 9639 actuator (GEMÜ 639 valve type)	
Actuator size 0	OB
diaphragm size 8	OB
For GEMÜ 9649 actuator (GEMÜ 649 valve type)	
Actuator size 0	0A
Actuator size 1	1A
Actuator size 2	2A
For GEMÜ 9650 actuator (GEMÜ 650 valve type)	ZA
Actuator size 0R1	0R1
control air connector 90° offset to flow direction	OKI
Actuator size 0RA	0RA
control air connector 90° offset to flow direction	
for higher operating pressures	
Actuator size 0T1	0T1
control air connector in-line with flow direction	
Actuator size 0TA	0TA
control air connector in-line with flow direction for higher operating pressures	
Actuator size 1R1	101
control air connector 90° offset to flow direction	1R1
Actuator size 1T1	1T1
control air connector in-line with flow direction	
Actuator size 2R1	2R1
control air connector 90° offset to flow direction	
Actuator size 2T1	2T1
control air connector in-line with flow direction	
Actuator size 3R1	3R1

9 Design	Code
Actuator size 3RA	3RA
control air connector 90° offset to flow direction	
for higher operating pressures	
Actuator size 3T1	3T1
control air connector in-line with flow direction	
Actuator size 3TA	3TA
control air connector in-line with flow direction for higher operating pressures	
Actuator size 4R1	4R1
control air connector 90° offset to flow direction	71(1
Actuator size 4T1	4T1
control air connector in-line with flow direction	
Actuator size 5R1	5R1
control air connector 90° offset to flow direction	
Actuator size 5RA	5RA
control air connector 90° offset to flow direction	
for higher operating pressures	
Actuator size 5T1 control air connector in-line with flow direction	5T1
	ET A
Actuator size 5TA control air connector in-line with flow direction	5TA
for higher operating pressures	
Actuator size 6R1	6R1
diaphragm size 100	
control air connector 90° offset to flow direction	
Actuator size 6RA	6RA
control air connector 90° offset to flow direction	
for higher operating pressures	
Actuator size 6T1 control air connector in-line with flow direction	6T1
Actuator size 6TA	6TA
control air connector in-line with flow direction	OIA
for higher operating pressures	
Actuator size 8TA	8TA
control air connector in-line with flow direction	
For GEMÜ 9650TL actuator (GEMÜ 650TL valve type)	
Actuator size 0	0
Actuator size 1	1
Actuator size 2	2
For GEMÜ 9653 and GEMÜ 9654 actuators	
(GEMÜ 653 and GEMÜ 654 valve types)	
With seal adjuster and stroke limiter	0TH
Without seal adjuster and stroke limiter	0TN
With seal adjuster, black handwheel	0TS
Actuator size 0TA	0TA
control air connector in-line with flow direction	
for higher operating pressures	OTD
Actuator size 0TB	0TB
With seal adjuster and stroke limiter	0XA
mounting for proximity switches M8 x 1	OVP
With seal adjuster and stroke limiter, locking device (both directions),	0XB
mounting for proximity switches M8 x 1,	
correct setting of the seal adjuster absolutely essential	
With seal adjuster and stroke limiter,	0XF
locking device to prevent closing,	
mounting for proximity switches M8 x 1	

9 Design	Code
With seal adjuster and stroke limiter,	0XK
locking device to prevent opening, mounting for proximity switches M8 x 1	
Actuator size 1DH,	1DH
for 2/2-way bodies,	IDII
with seal adjuster and stroke limiter	
Actuator size 1DN, for 2/2-way bodies	1DN
With seal adjuster and stroke limiter, mounting for proximity switches M8 x 1	1XA
With seal adjuster and stroke limiter, locking device (both directions), mounting for proximity switches M8 x 1	1XB
With seal adjuster and stroke limiter, locking device to prevent closing, mounting for proximity switches M8 x 1	1XF
With seal adjuster and stroke limiter, locking device to prevent opening, mounting for proximity switches M8 x 1	1XK
Actuator size 2DH, for 2/2-way bodies, with seal adjuster and stroke limiter	2DH
Actuator size 2DN, for 2/2-way bodies	2DN
With seal adjuster and stroke limiter	2TH
Without seal adjuster and stroke limiter	2TN
With seal adjuster, black handwheel	2TS
With seal adjuster and stroke limiter, mounting for proximity switches M8 x 1	2XA
With seal adjuster and stroke limiter, locking device (both directions), mounting for proximity switches M8 x 1	2XB
With seal adjuster and stroke limiter, locking device to prevent closing, mounting for proximity switches M8 x 1	2XF
With seal adjuster and stroke limiter, locking device to prevent opening, mounting for proximity switches M8 x 1	2XK
Actuator size 3DH, for 2/2-way bodies, with seal adjuster and stroke limiter	3DH
Actuator size 3DN, for 2/2-way bodies	3DN
With seal adjuster and stroke limiter	3ТН
Without seal adjuster and stroke limiter	3TN
With seal adjuster, black handwheel	3TS
With seal adjuster and stroke limiter, mounting for proximity switches M8 x 1	3XA
With seal adjuster and stroke limiter, locking device (both directions), mounting for proximity switches M8 x 1	3XB
With seal adjuster and stroke limiter, locking device to prevent closing, mounting for proximity switches M8 x 1	3XF
With seal adjuster and stroke limiter, locking device to prevent opening, mounting for proximity switches M8 x 1	3XK

9 Design	Code
Actuator size 4DH, for 2/2-way bodies,	4DH
with seal adjuster and stroke limiter	
Actuator size 4DN, for 2/2-way bodies	4DN
With seal adjuster and stroke limiter	4TH
Without seal adjuster and stroke limiter	4TN
With seal adjuster, black handwheel	4TS
With seal adjuster and stroke limiter,	4XA
mounting for proximity switches M8 x 1	
With seal adjuster and stroke limiter, locking device (both directions), mounting for proximity switches M8 x 1	4XB
With seal adjuster and stroke limiter, safety gland packing	4XE
With seal adjuster and stroke limiter, locking device to prevent closing, mounting for proximity switches M8 x 1	4XF
With seal adjuster and stroke limiter, locking device to prevent opening, mounting for proximity switches M8 x 1	4XK
With seal adjuster and stroke limiter	5TH
Without seal adjuster and stroke limiter	5TN
With seal adjuster	5TS
With seal adjuster, mounting for proximity switches M12 x 1	5XA
With seal adjuster, locking device (both directions), mounting for proximity switches M12 x 1	5XB
With seal adjuster, safety gland packing	5XE
With seal adjuster, locking device to prevent opening, mounting for proximity switches M12 x 1	5XK
Actuator size 6TH, with seal adjuster and stroke limiter	6TH
Without seal adjuster and stroke limiter	6TN
With seal adjuster	6TS
With seal adjuster, mounting for proximity switches M12 x 1	6XA
With seal adjuster, locking device (both directions), mounting for proximity switches M12 x 1	6XB
With seal adjuster, safety gland packing	6XE
With seal adjuster, locking device to prevent opening, mounting for proximity switches M12 x 1	6XK
For GEMÜ 9658 actuator (GEMÜ 658 valve type)	
Actuator size 3TA control air connector in-line with flow direction for higher operating pressures	ЗТА
Actuator size 4T1 control air connector in-line with flow direction	4T1
For GEMÜ 9660 actuator (GEMÜ 660 valve type)	
For GEMÜ 9673 actuator (GEMÜ 673 valve type)	2TC
With seal adjuster, black handwheel	2TS

9 Design	Code
With seal adjuster, black handwheel	3TS
With seal adjuster, black handwheel	4TS
For GEMÜ 9675-7H actuator (675-7H valve type)	
Actuator size 7H with expanded handwheel and reinforced spindle for higher operating pressures	7H
For GEMÜ 9687 actuator (687 valve type)	
Actuator size B/N, control air connector 90° offset to flow direction	B/N
Actuator size F/M, control air connector 90° offset to flow direction, adapted control and operating pressure	F/M
Actuator size F/N, control air connector 90° offset to flow direction	F/N
Actuator size H/M, control air connector 90° offset to flow direction, adapted control and operating pressure	H/M
Actuator size H/N, control air connector 90° offset to flow direction	H/N
Actuator size J/M, control air connector 90° offset to flow direction, adapted control and operating pressure	J/M
Actuator size J/N, control air connector 90° offset to flow direction	J/N
Actuator size 4/N, control air connector 90° offset to flow direction	4/N
Actuator size 4RN, control air connector in-line with flow direction	4RN
Actuator size 5/N, control air connector 90° offset to flow direction	5/N
Actuator size 5RN, control air connector in-line with flow direction	5RN
Actuator size 6A, control air connector 90° offset to flow direction, adapted control and operating pressure	6A
Actuator size 6A2, control air connector 90° offset to flow direction, adapted control and operating pressure	6A2
Actuator size 7A, control air connector 90° offset to flow direction, adapted control and operating pressure	7A
Actuator size 7A3 control air connector 90° offset to flow direction, adapted control and operating pressure	7A3

10 Diaphragm material	Code
EPDM	3A
EPDM ethylene propylene without fabric	13
EPDM	17
EPDM	19
PTFE/EPDM one-piece	54
PTFE/EPDM two-piece	5M
PTFE/EPDM two-piece	5Q

11 DN	Code
DN 4	4
DN 6	6
DN 8	8

11 DN	Code
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
DN 100	100
DN 150	150

12 Connection type	Code
Spigot	
Spigot DIN	0
Spigot DIN EN 10357 series B (2014 edition; formerly DIN 11850 series 1)	16
Spigot EN 10357 series A/DIN 11866 series A formerly DIN 11850 series 2	17
Spigot DIN 11850 series 3	18
Spigot JIS-G 3447	35
Spigot JIS-G 3459 schedule 10s	36
Spigot SMS 3008	37
Spigot BS 4825, Part 1	55
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
Spigot ANSI/ASME B36.19M schedule 10s	63
Spigot ANSI/ASME B36.19M schedule 10s	64
Spigot ANSI/ASME B36.19M schedule 40s	65
Flange	
Aseptic flange DIN 11864-NF, for pipe DIN 11866 series A and EN 10357 series A	A1
Aseptic flange DIN 11864-BF, for pipe DIN 11866 series A and EN 10357 series A	A2
Aseptic flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127	A4
Aseptic flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127	A5
Aseptic flange DIN 11864-NF, for pipe DIN 11866 series C and ASME BPE	A7
Aseptic flange DIN 11864-BF, for pipe DIN 11866 series C and ASME BPE	A8
Aseptic union DIN 11864-GS, for pipe DIN 11866 series A and EN 10357 series A	C1
Aseptic union DIN 11864-BS, for pipe DIN 11866 series A and EN 10357 series A	C2
Aseptic union DIN 11864-GS, for pipe DIN 11866 series B and EN ISO 1127	C4
Aseptic union DIN 11864-BS, for pipe DIN 11866 series B and EN ISO 1127	C5
Aseptic pipe union DIN 11864-GS for pipe DIN 11866 series C and ASME BPE	C7

12 Connection type	Code
Aseptic union DIN 11864-BS for pipe DIN 11866 series C and ASME BPE	C8
Clamp	
Clamp ASME BPE	80
Clamp DIN 32676 series B, for pipe EN ISO 1127	82
Clamp DIN 32676 for pipe ISO 1127/DIN EN 10357 series C (2014 issue), DN 8-DN 15, clamp OD 34.0 mm, DN 32, clamp OD 50.5 mm	83
Clamp DIN 32676 series A	86
Clamp ISO 2852 for pipe ISO 2037, clamps SMS 3017 for pipe SMS 3008	87
Clamp ASME BPE, for pipe ASME BPE	88
Clamp DIN 32676 series A	8A
Clamp DIN 32676 series C	8P
Clamp DIN 32676 series C	8T
Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series A and EN 10357 series A	E1
Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A	E2
Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127	E4
Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127	E5
Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series C/ASME BPE	E7
Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series C/ASME BPE	E8

13 Special version	Code
Special version for 3A	М
Special version for oxygen,	S
maximum medium temperature: 60 °C	

## Order example\_General information

Ordering option	Code	Description
1 Type	P600	Valve assembly
2 Body configuration	M	M-block
3 Number of spigots	03	3 spigots
4 Number of valve seats	02	2 valve seats
5 Version	S	Body version
6 Design	R	Body design
7 Valve body material	41	1.4435 (316L), block material
8 Surface	1537	Ra ≤ 0.4 μm (15 μin.) for media wetted surfaces, in accordance with DIN 11866 HE4, electropolished internal/external
9 Special version	M	Special version for 3A

### Order example\_Actuator information

Ordering option	Code	Description
1 Seat 1 type	650	Diaphragm valve, pneumatically operated, stainless steel piston actuator electropolished, optical position indicator
2 Seat 1 actuator control function	1	Normally closed (NC)
3 Actuator version, seat 1	2T1	Actuator size 2T1
4 Seat 2 type	601	Diaphragm valve, manually operated, plastic handwheel, stainless steel distance piece, seal adjuster, optical position indicator
5 Seat 2 actuator control function	0	Manually operated
6 Actuator version, seat 2	0TS	With seal adjuster, black handwheel

## Order example\_Spigot and connection type

Ordering option	Code	Description
1 DN spigot 1	25	DN 25
2 Connection type, spigot 1	59	Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C
3 DN spigot 2	25	DN 25
4 Connection type, spigot 2	59	Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C
5 DN spigot 3	15	DN 15
6 Connection type, spigot 3	88	Clamp ASME BPE, for pipe ASME BPE

## Order example\_Diaphragm size and diaphragm material

Ordering option	Code	Description
1 Seat 1 diaphragm size	25	Diaphragm size 25
2 Diaphragm material	5M	PTFE/EPDM two-piece
3 Seat 2 diaphragm size	8	Diaphragm size 8
4 Diaphragm material	54	PTFE/EPDM one-piece

#### Technical data

**Note:** The detailed technical data can be found in the product types' datasheets in conjunction with the technical drawing of the valve block. The technical data of the actuators (designs) can be found in the respective operating instructions.

#### Medium

Working medium: Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and

chemical properties of the body and diaphragm material.

#### **Temperature**

Media temperature: -10 - 100 °C

**Ambient temperature:** 0 - 60 °C

Sterilization temperature: EPDM (code 3A/13) max. 150 °C, max. 60 min per cycle

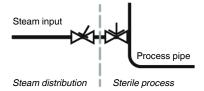
EPDM (code 17) max. 150 °C, max. 180 min per cycle EPDM (code 19) max. 150 °C, max. 180 min per cycle

PTFE/EPDM (code 54) max. 150 °C, constant temperature per cycle PTFE/EPDM (code 5M) max. 150 °C, constant temperature per cycle PTFE/EPDM (code 5Q) max. 150 °C, constant temperature per cycle

The sterilization temperature is only valid for steam (saturated steam) or superheated water.

If the sterilization temperatures listed above are applied to the EPDM diaphragms for longer periods of time, the service life of the diaphragms will be reduced. In these cases, maintenance cycles must be adapted accordingly.

PTFE diaphragms can also be used as steam barriers; however, this will reduce their service life. This also applies to PTFE diaphragms exposed to high temperature fluctuations. The maintenance cycles must be adapted accordingly. GEMÜ 555 and 505 globe valves are particularly suitable for use in the area of steam generation and distribution. The following valve arrangement for interfaces between steam pipes and process pipes has proven itself over time: A globe valve for shutting off steam pipes and a diaphragm valve as an interface to the process pipes.



#### **Pressure**

#### **Operating pressure:**

#### GEMÜ 605 design operating pressure

MG	DN	Control function	Actuator version	EPDM	PTFE/EPDM
8	4 - 15	1	0/N	0-8	0-6
		2+3	0/N	0-8	0-6

#### MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values

Information on operating pressures applied on both sides and for high purity media on request.

#### GEMÜ 625 design operating pressure

MG	DN	Control function	Actuator version	EPDM	PTFE/EPDM
10	10 10 - 20	1	1/N	0-6	0-6
		2	1/N	0-6	0-6
		3	1/N	0-6	0-6

#### MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

#### **Operating pressure:**

GEMÜ 650 BioStar design operating pressure

MG	DN	Control function	Actuator version	EPDM	PTFE/EPDM
8	4 - 15	1	0T1, 0R1	0-8	0-6
			0TA, 0RA	0-10	0-10
		2+3	0T1, 0R1, 0TA, 0RA	0-10	0-10
10	10 - 20	1	1T1, 1R1	0-10	0-10
		2 + 3	1T1, 1R1	0-10	0-10
25	15 - 25	1	2T1, 2R1	0-10	0-10
		2 + 3	2T1, 2R1	0-10	0-10
40	32 - 40	1	3T1, 3R1	0-10	0-6
			3TA, 3RA	-	0-10
		2 + 3	3T1, 3R1	0-10	0-10
50	50 - 65	1	4T1, 4R1	0-10	0-10
		2 + 3	4T1, 4R1	0-10	0-10
80	65 - 80	1	5T1, 5R1	0-8	0-5
			5TA, 5RA	-	0-10
			5TB, 5RB	0-10	-
		2 + 3	5T1, 5R1	0-10	0-10
100	100	1	6T1, 6R1	0-6	0-4
			6TA, 6RA	0-10	0-10
		2 + 3	6T1, 6R1	0-10	0-10
150	150	1	8TA, 8RA	-	0-10

#### MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

Information on operating pressures applied on both sides and for high purity media on request.

**GEMÜ 651 design operating pressure** 

MG	DN	Actuator version	Diaphragm material	
		code	EPDM	PTFE
8	4 - 15	0	0 - 10	0 - 6
10	10 - 15	1	0 - 10	0 - 6
25	15 - 25	2	0 - 10	0 - 6

#### MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

#### **Operating pressure:**

#### GEMÜ 658 design operating pressure

MG	DN	Control function	Actuator version	EPDM	PTFE (code 5M)	PTFE (code 54)
10	10 - 20	1	1T1	0-10	0-10	0-8
25	15 - 25	1	2T1	0-10	0-10	0-8
40	32 - 40	1	3TA	0-10	0-10	0-8
50	50 - 65	1	4T1	0-10	0-10	0-8

#### MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

Information on operating pressures applied on both sides and for high purity media on request.

#### GEMÜ 660 design operating pressure

MG	DN	Control function	Actuator version	EPDM	PTFE/EPDM
8	4 - 15	1	0T1, 0R1	0-5	0-5
		2 + 3	0T1, 0R1	0-5	0-5
10	10 10 - 20	1	1T1, 1R1	0-5	0-5
		2 + 3	1T1, 1R1	0-5	0-5
25	15 - 25	1	2T1, 2R1	0-5	0-5
		2 + 3	2T1, 2R1	0-5	0-5

#### MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

#### **Operating pressure:**

GEMÜ 687 design operating pressure

MG	DN	Control function	Actuator version	EPDM	PTFE/EPDM
10	10 - 20	1	B/N	0-10	0-6
		2	B/N	0-6	0-6
		3	B/N	0-6	0-6
25	15 - 25	1	F/M, FRM	0-6	0-6
			F/N, FRN	0-10	0-10
		2	F/M, FRM	-	-
			F/N, FRN	0-10	0-10
		3	F/M, FRM	-	-
			F/N, FRN	0-10	0-10
40	32 - 40	1	H/M, HRM	0-6	0-6
			H/N, HRN	0-10	0-10
		2	H/M, HRM	-	-
			H/N, HRN	0-10	0-10
		3	H/M, HRM	-	-
			H/N, HRN	0-10	0-10
50	50 - 65	1	J/M, JRM	0-6	0-6
			J/N, JRN	0-10	0-10
	_	2	J/M, JRM	-	-
			J/N, JRN	0-10	0-10
		3	J/M, JRM	-	-
			J/N, JRN	0-10	0-10
80	65 - 80	1	4/N, 4RN	0-8	0-5
			6A	-	-
			6A2	-	0-10
		2	4/N, 4RN	0-8	0-6
			6A	-	0-10
			6A2	-	-
		3	4/N, 4RN	0-8	0-6
			6A	-	0-10
			6A2	-	-
100	100	1	5/N	0-6	0-4
			7A	-	-
			7A3	-	0-10
		2	5/N, 5RN	0-6	0-4
			7A	-	0-10
			7A3	-	-
		3	5/N, 5RN	0-6	0-4
			7A	-	0-10
			7A3	-	-

MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

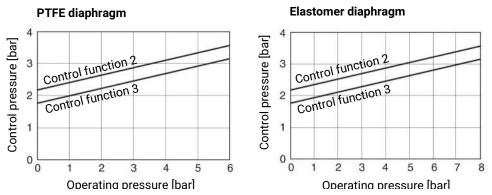
#### GEMÜ 605 design control pressure

MG	DN	Control function	Actuator version	Control pressure
8	4 - 15	1	0/N	4.0-7.0
		2+3	0/N	Max. 4.0

MG = diaphragm size

All pressures are gauge pressures.

GEMÜ 605: Control pressure – operating pressure – diagram – control function 2 and 3



The control pressure depending on the prevailing operating pressure, as shown in the diagram, is intended as a guide for operating the system with low wear on the diaphragm.

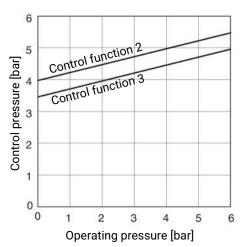
GEMÜ 625 design control pressure

MG	DN	Control function	Actuator version	Control pressure
10	10 - 20	1	1/N	5.0-7.0
		2	1/N	Max. 6.0
		3	1/N	Max. 5.0

MG = diaphragm size

All pressures are gauge pressures.

GEMÜ 625: Control pressure – operating pressure – diagram – control function 2 and 3



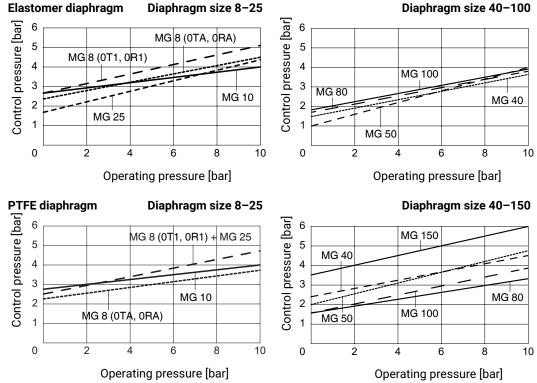
The control pressure depending on the prevailing operating pressure, as shown in the diagram, is intended as a guide for operating the system with low wear on the diaphragm.

GEMÜ 650 BioStar design control pressure

MG	DN	Control	Actuator	Control pressure
		function	version	
8	4 - 15	1	0T1, 0R1	5.0-7.0
			0TA, 0RA	3.5-7.0
		2 + 3	0T1, 0R1,	Max. 5.5
			0TA, 0RA	Max. 4.5
10	10 - 20	1	1T1, 1R1	4.5-7.0
		2 + 3	1T1, 1R1	Max. 4.5
25	15 - 25	1	2T1, 2R1	5.0-7.0
		2 + 3	2T1, 2R1	Max. 4.5
40	32 - 40	1	3T1, 3R1	4.5-7.0
			3TA, 3RA	3.5-7.0
		2 + 3	3T1, 3R1	Max. 4.5
50	50 - 65	1	4T1, 4R1	4.5-7.0
		2 + 3	4T1, 4R1	Max. 4.5
80	65 - 80	<b>65 - 80</b> 1	5T1, 5R1	3.5-7.0
			5TA, 5RA	4.5-7.0
			5TB, 5RB	4.0-7.0
		2 + 3	5T1, 5R1	Max. 4.0
100	100	1	6T1, 6R1	3.5-7.0
			6TA, 6RA	5.0-7.0
		2+3	6T1, 6R1	Max. 4.0
150	150	1	8TA, 8RA	7.0-8.0

MG = diaphragm size All pressures are gauge pressures.

GEMÜ 650 design: Control pressure - operating pressure - diagram - control function 2 and 3



The control pressure depending on the prevailing operating pressure, as shown in the diagram, is intended as a guide for operating the system with low wear on the diaphragm.

GEMÜ 651 design control pressure

MG	DN	Actuator version code	Control function 1	Control function 2
8	4 - 15	0	3.5 - 7.0	max. 4.5
10	10 - 15	1	4.5 - 7.0	max. 4.5
25	15 - 25	2	5.0 - 7.0	max. 4.5

MG = diaphragm size

All pressures are gauge pressures.

#### GEMÜ 658 design control pressure

MG	DN	Control function	Actuator version	Control pressure
10	10 - 20	1	1T1	4.5-6.0
25	15 - 25	1	2T1	5.5-7.0
40	32 - 40	1	3TA	3.5-7.0
50	50 - 65	1	4T1	5.5-7.0

MG = diaphragm size

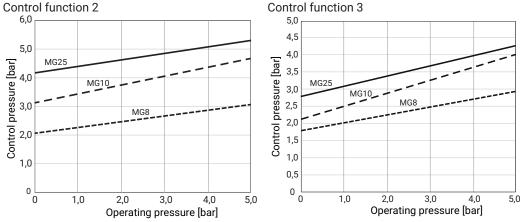
All pressures are gauge pressures.

#### GEMÜ 660 design control pressure

MG	DN	Control function	Actuator version	Control pressure
8	4 - 15	1	0T1, 0R1	5.0-7.0
		2 + 3	0T1, 0R1	Max. 5.5
10	10 - 20	1	1T1, 1R1	5.0-7.0
		2 + 3	1T1, 1R1	Max. 7.0
25	15 - 25	1	2T1, 2R1	4.0-7.0
		2+3	2T1, 2R1	Max. 7.0

MG = diaphragm size All pressures are gauge pressures.

GEMÜ 660: Control pressure/operating pressure diagram - Control function 2 and 3



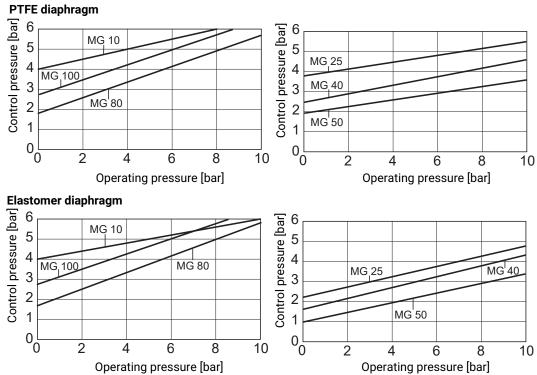
The control pressure depending on the prevailing operating pressure, as shown in the diagram, is intended as a guide for operating the system with low wear on the diaphragm.

#### GEMÜ 687 design control pressure

MG	DN	Control	Actuator	Control pressure
		function	version	
10	10 - 20	1	B/N	3.5-7.0
		2	B/N	Max. 6.0
		3	B/N	Max. 5.0
25	15 - 25	1	F/M, FRM	3.8-6.0
			F/N, FRN	5.5-7.0
		2	F/M, FRM	-
			F/N, FRN	Max. 5.5
		3	F/M, FRM	-
			F/N, FRN	Max. 5.5
40	32 - 40	1	H/M, HRM	3.8-6.0
			H/N, HRN	5.5-7.0
		2	H/M, HRM	-
			H/N, HRN	Max. 5.5
		3	H/M, HRM	-
			H/N, HRN	Max. 5.5
50	50 - 65	1	J/M, JRM	3.8-6.0
			J/N, JRN	5.5-7.0
		2	J/M, JRM	-
			J/N, JRN	Max. 5.0
		3	J/M, JRM	-
			J/N, JRN	Max. 5.0
80	65 - 80	1	4/N, 4RN	5.5-7.0
			6A	-
			6A2	4.0-7.0
		2	4/N, 4RN	Max. 5.0
			6A	Max. 3.0
			6A2	-
		3	4/N, 4RN	Max. 4.5
			6A	Max. 3.0
			6A2	-
100	100	1	5/N, 5RN	5.5-7.0
			7A	-
			7A3	4.5-7.0
		2	5/N, 5RN	Max. 5.0
			7A	Max. 3.5
			7A3	-
		3	5/N, 5RN	Max. 4.5
			7A	Max. 3.5
			7A3	-

MG = diaphragm size All pressures are gauge pressures.

GEMÜ 687 design: Control pressure - operating pressure - diagram - control function 2 and 3



The control pressure depending on the prevailing operating pressure, as shown in the diagram, is intended as a guide for operating the system with low wear on the diaphragm.

### **Product conformity**

**Pressure Equipment Dir-**

2014/68/EU

ective:

Machinery Directive: 2006/42/EC

**BSE/TSE**: The product conforms to EMA/410/01 revision 3 and is free of animal substances

**EAC:** TR CU 010/2011

Food: FDA

3A CRN

USP Class VI

Regulation (EC) No. 1935/2004 Regulation (EC) No. 2023/2006 Regulation (EC) No. 10/2011

The product conformities of the actuators (designs) and their respective declarations of conformity can be found in the operating instructions of the respective actuator types.

#### Mechanical data

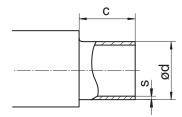
The mechanical data can be found in the product types' datasheets in conjunction with the technical drawing of the valve block.

#### **Dimensions**

Note: The detailed dimensions can be found in the product types' datasheets in conjunction with the technical drawing of the valve block.

#### **Body dimensions**

Spigot DIN/EN/ISO (code 0, 16, 17, 18, 60)



Connection type spigot DIN/EN/ISO (code 0, 16, 17, 18, 60) 1), block material (code 41, 43, 44) 2)

	type -	pigot Dii	1, =11, 100	(code 4, 16, 17, 16, 66) , block material (code 41, 45, 44)										
Dia-	DN	NPS	c (min)			ød								
phragm					Col	nnection t	уре			Cor	nection	type		
size				0	16	17	18	60	0	16	17	18	60	
8	4	-	10.0	6.0	-	-	-	-	1.0	-	-	-	-	
	6	-	20.0	-	-	8.0	-	10.2	-	-	1.0	-	1.6	
	8	1/4"	20.0	-	-	10.0	-	13.5	-	-	1.0	-	1.6	
	10	3/8"	20.0	-	12.0	13.0	14.0	-	-	1.0	1.5	2.0	-	
10	10	3/8"	20.0	-	12.0	13.0	14.0	17.2	-	1.0	1.5	2.0	1.6	
	15	1/2"	20.0	18.0	18.0	19.0	20.0	21.3	1.5	1.0	1.5	2.0	1.6	
25	15	1/2"	20.0	18.0	18.0	19.0	20.0	21.3	1.5	1.0	1.5	2.0	1.6	
	20	3/4"	25.0	22.0	22.0	23.0	24.0	26.9	1.5	1.0	1.5	2.0	1.6	
	25	1"	25.0	28.0	28.0	29.0	30.0	33.7	1.5	1.0	1.5	2.0	2.0	
40	32	1¼"	25.0	34.0	34.0	35.0	36.0	42.4	1.5	1.0	1.5	2.0	2.0	
	40	1½"	25,0	40.0	40.0	41.0	42.0	48.3	1.5	1.0	1.5	2.0	2.0	
50	50	2"	30.0	52.0	52.0	53.0	54.0	60.3	1.5	1.0	1.5	2.0	2.0	
80	65	2½"	30.0	-	-	70.0	-	76.1	-	-	2.0	-	2.0	
	80	3"	30.0	-	-	85.0	-	88.9	-	-	2.0	-	2.3	
100	100	4"	30.0	-	-	104.0	-	114.3	-	-	2.0	-	2.3	

Dimensions in mm

MG = diaphragm size

#### 1) Connection type, spigot 1

Code 0: Spigot DIN

Code 16: Spigot DIN EN 10357 series B (2014 edition; formerly DIN 11850 series 1)

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

Code 18: Spigot DIN 11850 series 3

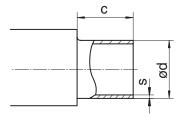
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B

#### 2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

### Spigot ASME/BS (code 55, 59, 63, 64, 65)



Connection type spigot ASME/BS (code 55, 59, 63, 64, 65) 1), block material (code 41, 43, 44) 2)

Dia-	DN	NPS	c (min)			ød					s		
phragm					Cor	nection	type			Cor	nection	type	
size				55	59	63	64	65	55	59	63	64	65
8	6	-	20.0	-	-	10.3	-	10.3	-	-	1.24	-	1.73
	8	1/4"	20.0	6.35	6.35	13.7	-	13.7	1.2	0.89	1.65	-	2.24
	10	3/8"	20.0	9.53	9.53	-	-	-	1.2	0.89	-	-	-
	15	1/2"	20.0	12.70	12.70	-	-	-	1.2	1.65	-	-	-
10	10	3/8"	20.0	9.53	9.53	17.1	-	17.1	1.2	0.89	1.65	-	2.31
	15	1/2"	20.0	12.70	12.70	21.3	21.3	21.3	1.2	1.65	2.11	1.65	2.77
	20	3/4"	25.0	19.05	19.05	-	-	-	1.2	1.65	-	-	-
25	15	1/2"	20.0	-	-	21.3	21.3	21.3	-	-	2.11	1.65	2.77
	20	3/4"	25.0	19.05	19.05	26.7	26.7	26.7	1.2	1.65	2.11	1.65	2.87
	25	1"	25.0	-	25.40	33.4	33.4	33.4	-	1.65	2.77	1.65	3.38
40	32	11/4"	25.0	-	-	42.2	42.2	42.2	-	-	2.77	1.65	3.56
	40	1½"	25,0	-	38.10	48.3	48.3	48.3	-	1.65	2.77	1.65	3.68
50	50	2"	30.0	-	50.80	60.3	60.3	60.3	-	1.65	2.77	1.65	3.91
	65	21/2"	30.0	-	63.50	-	-	-	-	1.65	-	-	-
80	65	21/2"	30.0	-	63.50	73.0	73.0	73.0	-	1.65	3.05	2.11	5.16
	80	3"	30.0	-	76.20	88.9	88.9	88.9	-	1.65	3.05	2.11	5.49
100	100	4"	30.0	-	101.60	114.3	114.3	114.3	-	2.11	3.05	2.11	6.02
150	150	6"	30.0	-	152.40	-	-	-	-	2.77	-	-	-

#### Dimensions in mm

MG = diaphragm size

#### 1) Connection type, spigot 1

Code 55: Spigot BS 4825, Part 1

Code 59: Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C

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

Code 64: Spigot ANSI/ASME B36.19M schedule 10s

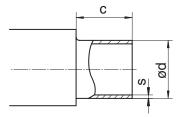
Code 65: Spigot ANSI/ASME B36.19M schedule 40s

#### 2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

### **Spigot JIS/SMS (code 35, 36, 37)**



Connection type spigot JIS/SMS (code 35, 36, 37) 1), block material (code 41, 43, 44) 2)

Dia-	DN	NPS	c (min)		ød	, , ,		s	
phragm				С	onnection typ		С	onnection typ	
size				35	36	37	35	36	37
8	6	-	20.0	-	10.5	-	-	1.20	-
	8	1/4"	20.0	-	13.8	-	-	1.65	-
10	10	3/8"	20.0	-	17.3	-	-	1.65	-
	15	1/2"	20.0	-	21.7	-	-	2.10	-
25	15	1/2"	20.0	-	21.7	-	-	2.10	-
	20	3/4"	25.0	-	27.2	-	-	2.10	-
	25	1"	25.0	25.4	34.0	25.0	1.2	2.80	1.2
40	32	1¼"	25.0	31.8	42.7	33.7	1.2	2.80	1.2
	40	1½"	25,0	38.1	48.6	38.0	1.2	2.80	1.2
50	50	2"	30.0	50.8	60.5	51.0	1.5	2.80	1.2
	65	2½"	30.0	63.5	-	63.5	2.0	-	1.6
80	65	2½"	30.0	63.5	76.3	63.5	2.0	3.00	1.6
	80	3"	30.0	76.3	89.1	76.1	2.0	3.00	1.6
100	100	4"	30.0	101.6	114.3	101.6	2.0	3.00	2.0

Dimensions in mm

MG = diaphragm size

#### 1) Connection type, spigot 1

Code 35: Spigot JIS-G 3447

Code 36: Spigot JIS-G 3459 schedule 10s

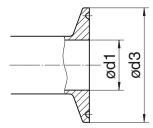
Code 37: Spigot SMS 3008

#### 2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

#### Clamp DIN/ASME (code 80, 88, 8P, 8T)



Connection type clamp DIN/ASME (code 80, 88, 8P, 8T) 1), block material (code 41, 43, 44) 2)

Diaphragm size	DN	NPS		d1		d3		
			Connec	tion type	Connection type			
			80, 8P	88, 8T	80, 8P	88, 8T		
8	8	1/4"	4.57	-	25.0	-		
	10	3/8"	7.75	-	25.0	-		
	15	1/2"	9.40	9.40	25.0	25.0		
10	15	1/2"	9.40	9.40	25.0	25.0		
	20	3/4"	15.75	15.75	25.0	25.0		
25	20	3/4"	15.75	15.75	25.0	25.0		
	25	1"	22.10	22.10	50.5	50.5		
40	40	1½"	34.80	34.80	50.5	50.5		
50	50	2"	47.50	47.50	64.0	64.0		
	65	2½"	60.20	60.20	77.5	77.5		
80	65	2½"	60.20	60.20	77.5	77.5		
	80	3"	72.90	72.90	91.0	91.0		
100	100	4"	97.83	97.38	119.0	119.0		
150	150	6"	-	146.86	-	167.0		

Dimensions in mm MG = diaphragm size

#### 1) Connection type, spigot 1

Code 80: Clamp ASME BPE

Code 88: Clamp ASME BPE, for pipe ASME BPE

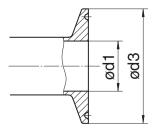
Code 8P: Clamp DIN 32676 series C Code 8T: Clamp DIN 32676 series C

#### 2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

#### Clamp DIN/ISO (code 82, 83, 86, 87, 8A)



Connection type clamp DIN/ISO (code 82, 83, 86, 87, 8A) 1), block material (code 41, 43, 44) 2)

500 mice and type dramp 5114/100 (code 02, 00, 07, 04) , block material (code 41, 40, 44)													
Dia-	DN	NPS			ød1					ød3			
phragm				Со	nnection t	уре		Connection type					
size			82	83	86	87	8A	82	83	86	87	8A	
8	6	1/8"	7.0	-	-	-	6.0	25.0	-	-	-	25.0	
	8	1/4"	10.3	10.3	-	-	8.0	25.0	34.0	-	-	25.0	
	10	3/8"	-	-	10.0	-	10.0	-	-	34.0	-	34.0	
10	10	3/8"	14.0	14.0	10.0	-	10.0	25.0	34.0	34.0	-	34.0	
	15	1/2"	18.1	18.1	16.0	-	16.0	50.5	34.0	34.0	-	34.0	
25	15	1/2"	18.1	18.1	16.0	-	16.0	50.5	34.0	34.0	-	34.0	
	20	3/4"	23.7	-	20.0	-	20.0	50.5	-	34.0	-	34.0	
	25	1"	29.7	-	26.0	22.6	26.0	50.5	-	50.5	50.5	50.5	
40	32	1¼"	38.4	-	32.0	31.3	32.0	64.0	-	50.5	31.3	50.5	
	40	1½"	44.3	-	38.0	35.6	38.0	64.0	-	50.5	50.5	50.5	
50	50	2"	56.3	-	50.0	48.6	50.0	77.5	-	64.0	64.0	64.0	
80	65	21/2"	72.1	-	66.0	60.3	66.0	91.0	-	910	77.5	91.0	
	80	3"	84.3	-	81.0	72.9	81.0	106.0	-	106.0	91.0	106.0	
100	100	4"	109.7	-	100.0	97.6	100.0	130.0	-	119.0	119.0	119.0	

Dimensions in mm

MG = diaphragm size

#### 1) Connection type, spigot 1

Code 82: Clamp DIN 32676 series B, for pipe EN ISO 1127

 $\hbox{Code 83: Clamp DIN 32676 for pipe ISO 1127/DIN EN 10357 series C (2014 issue), DN 8-DN 15, clamp OD 34.0 mm, DN 32, clamp OD 50.5 mm } \\$ 

Code 86: Clamp DIN 32676 series A

Code 87: Clamp ISO 2852 for pipe ISO 2037, clamps SMS 3017 for pipe SMS 3008  $\,$ 

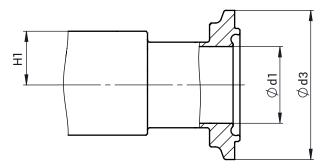
Code 8A: Clamp DIN 32676 series A

#### 2) Valve body material

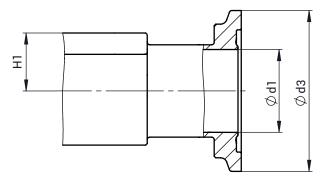
Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

#### Aseptic clamp connector (code E1, E2, E4, E5, E7, E8)



Connection code E1, E4, E7 - grooved clamp



Connection code E2, E5, E8 - notched clamp

Aseptic clamp connector DIN 11864-3 (code E1, E2, E4, E5, E7, E8) 1), block material (code 41, 43, 44) 2)

Pipe con	nection for a	septic clamp	connector	EN 1035	7 series A	ISO 1127	/EN 10357	ASME BPE/ DIN 11866				
					DIN 11850		DIN 11866	ser	ies C			
					DIN 11866	ser	ies B					
					ies A							
	Pipe conn	ection code			17 60 59							
	Aseptic cla	mp connector				DIN 1	1864-3					
	Connec	tion code		E1	, E2	E4	, E5	E7	, E8			
MG	DN         NPS         H1         ød1         ød3         ød1         ød3							ød1	ød3			
8	8	1/4"	8.5	-	-	10.3	34.0	-	-			
	10	3/8"	8.5	10.0	34.0	-	-	-	-			
	15	1/2"	8.5	-	-	-	-	9.4	34.0			
10	10	3/8"	12.5	10.0	34.0	14.0	34.0	-	-			
	15	1/2"	12.5	16.0	34.0	18.1	34.0	9.4	34.0			
	20	3/4"	12.5	-	-	-	-	15.75	34.0			
25	15	1/2"	19.0	16.0	34.0	18.1	34.0	-	-			
	20	3/4"	19.0	20.0	50.5	23.7	50.5	15.75	34.0			
	25	1"	19.0	26.0	50.5	29.7	50.5	22.1	50.5			
40	32	1 1/4"	26.0	32.0	50.5	38.4	64.0	-	-			
	40	1 1/2"	26.0	38.0	64.0	44.3	64.0	34.8	64.0			
50	50	2"	32.0	50.0	77.5	56.3	91.0	47.5	77.5			
	65	2 1/2"	32.0	-	-	-	-	60.2	91.0			
80	65	2 1/2"	50.0	66.0	91.0	72.1	106.0	60.2	91.0			
	80	3"	50.0	81.0	106.0	84.3	119.0	72.9	106.0			
100	100	4"	70.0	100.0	130.0	-	-	97.38	130.0			

Dimensions in mm

MG = diaphragm size

#### 1) Connection type, spigot 1

Code E1: Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series A and EN 10357 series A

Code E2: Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A

Code E4: Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127

Code E5: Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127

Code E7: Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series C/ASME BPE

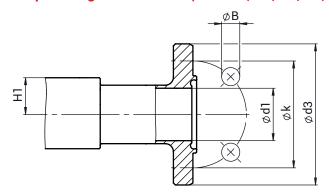
Code E8: Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series C/ASME BPE

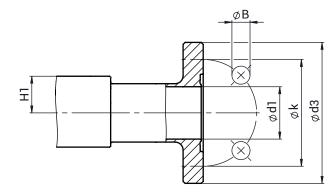
#### 2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

#### Aseptic flanged connection (code A1, A2, A4, A5, A7, A8)





Connection code A1, A4, A7 – grooved flange

Connection code A2, A5, A8 - loose flange

Connection type aseptic flange connection DIN 11864-2 (code A1, A2, A4, A5, A7, A8)<sup>1)</sup>, block material (code 41, 43, 44)<sup>2)</sup>

								de Ai,								·	
Pipe c	connect	ion for a	aseptic	Tlange			ies A (fo				10357		ASI		/ DIN 11	866	
							series 2		C/ I	DIN 118	66 serie	es B		series C			
						11866	series A										
	Pipe co	onnectio	on code			17 60					5	9					
As	eptic fl	anged c	onnecti	ion						DIN 1	1864-2						
	Con	nection	code		A1, A2					A4	, A5			A7	, A8		
MG	DN	NPS	H1		ød1	øD	øk	øL	ød1	øD	øk	øL	ød1	øD	øk	øL	
8	8	1/4"	8.5	4	-	-	-	-	10.3	54.0	37.0	9.0	-	-	-	-	
	10	3/8"	8.5	4	10.0	54.0	37.0	9.0	-			-	-	-	-	-	
	15	1/2"	8.5	4	-	-	-	-	-	-	-	-	9.4	54.0	37.0	9.0	
10	10	3/8"	12.5	4	10.0	54.0	37.0	9.0	14.0	59.0	42.0	9.0	-	-	-	-	
	15	1/2"	12.5	4	16.0	59.0	42.0	9.0	18.1	62.0	45.0	9.0	9.4	54.0	37.0	9.0	
	20	3/4"	12.5	4	-	-	-	-	-	-	-	-	15.75	59.0	42.0	9.0	
25	15	1/2"	19.0	4	16.0	59.0	42.0	9.0	18.1	62.0	45.0	9.0	-	-	-	-	
	20	3/4"	19.0	4	20.0	64.0	47.0	9.0	23.7	69.0	52.0	9.0	15.75	59.0	42.0	9.0	
	25	1"	19.0	4	26.0	70.0	53.0	9.0	29.7	74.0	57.0	9.0	22.1	66.0	49.0	9.0	
40	32	1 1/4"	26.0	4	32.0	76.0	59.0	9.0	38.4	82.0	65.0	9.0	-	-	-	-	
	40	1 1/2"	26.0	4	38.0	82.0	65.0	9.0	44.3	88.0	71.0	9.0	34.8	79.0	62.0	9.0	
50	50	2"	32.0	4	50.0	94.0	77.0	9.0	56.3	103.0	85.0	9.0	47.5	92.0	75.0	9.0	
	65	2 1/2"	32.0	-	-	-	-	-	-	-	-	-	60.2	107.0	89.0	9.0	
80	65	2 1/2"	50.0	8	66.0	113.0	95.0	9.0	72.1	137.0	104.0	11.0	60.2	107.0	89.0	9.0	
	80	3"	50.0	8	81.0	133.0	112.0	11.0	84.3	137.0	116.0	11.0	72.9	125.0	104.0	11.0	
100	100	4"	70.0	8	100.0	159.0	137.0	11.0	109.7	168.0	146.0	11.0	97.38	157.0	135.0	11.0	

Dimensions in mm

MG = diaphragm size

n = number of bolts

#### 1) Connection type, spigot 1

Code A1: Aseptic flange DIN 11864-NF, for pipe DIN 11866 series A and EN 10357 series A

Code A2: Aseptic flange DIN 11864-BF, for pipe DIN 11866 series A and EN 10357 series A

Code A4: Aseptic flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127  $\,$ 

Code A5: Aseptic flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127

Code A7: Aseptic flange DIN 11864-NF, for pipe DIN 11866 series C and ASME BPE

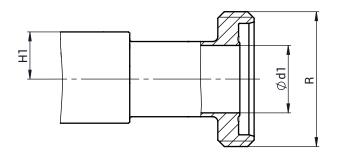
Code A8: Aseptic flange DIN 11864-BF, for pipe DIN 11866 series C and ASME BPE

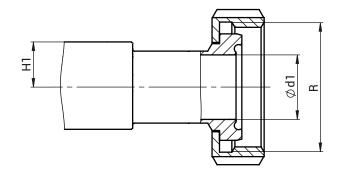
#### 2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

#### Aseptic pipe union (code C1, C2, C4, C5, C7, C8)





Connection code C1, C4, C7 - threaded spigot

Connection code C2, C5, C8 - female union

Connection type aseptic pipe union DIN 11864-1 (code C1, C2, C4, C5, C7, C8)<sup>1)</sup>, block material (code 41, 43, 44)<sup>2)</sup>

bonneedon type doeptio pipe dinon birt				1 1 1004 1 (code 01, 02, 04, 00, 07, 00) , block material (code 41, 40, 44)								
Pipe con	nection fo	r aseptic pi	pe union		57 series A		N 10357 series	ASME BP	E/ DIN 11866			
					IN 11850 series	C/ DIN 1	1866 series B	se	ries C			
				2)/DIN 11	1866 series A							
	Pipe conn	ection code			17		60		59			
	Aseptic	oipe union				DIN	11864-1					
	Connec	tion code		С	1, C2	C	C4, C5	C7, C8				
MG	DN	NPS	H1	ød1	R	ød1	R	ød1 R				
8	8	1/4"	8.5	-	-	10.3	Rd 28 × 1/8	-	-			
	10	3/8"	8.5	10.0	Rd 28 × 1/8	-	-	-	-			
	15	1/2"	8.5	-	-	-	-	9.4	Rd 28 × 1/8			
10	10	3/8"	12.5	10.0	Rd 28 × 1/8	10.3	Rd 28 × 1/8	-	-			
	15	1/2"	12.5	16.0	Rd 34 × 1/8	14.0	Rd 34 × 1/8	9.4	Rd 28 × 1/8			
	20	3/4"	12.5	-	-	-	-	15.75	Rd 34 × 1/8			
25	15	1/2"	19.0	16.0	Rd 34 × 1/8	14.0	Rd 34 × 1/8	-	-			
	20	3/4"	19.0	20.0	Rd 44 × 1/6	18.1	Rd 44 × 1/6	15.75	Rd 34 × 1/8			
	25	1"	19.0	26.0	Rd 52 × 1/6	23.7	Rd 52 × 1/6	22.1	Rd 52 × 1/6			
40	32	1 1/4"	26.0	32.0	Rd 58 × 1/6	29.7	Rd 58 × 1/6	-	-			
	40	1 1/2"	26.0	38.0	Rd 65 × 1/6	38.4	Rd 65 × 1/6	34.8	Rd 65 × 1/6			
50	50	2"	32.0	50.0	Rd 78 × 1/6	44.3	Rd 78 × 1/6	47.5	Rd 78 × 1/6			
	65	2 1/2"	32.0	-	-	-	-	60.2	Rd 95 × 1/6			
80	65	2 1/2"	50.0	66.0	Rd 95 × 1/6	56.3	Rd 95 × 1/6	60.2	Rd 95 × 1/6			
	80	3"	50.0	81.0	Rd 110 × 1/4	72.1	Rd 110 × 1/4	72.9	Rd 110 × 1/4			
100	100	4"	70.0	100.0	Rd 130 × 1/4	84.3	Rd 130 × 1/4	97.38	Rd 130 × 1/4			

Dimensions in mm

MG = diaphragm size

#### 1) Connection type, spigot 1

Code C1: Aseptic union DIN 11864-GS, for pipe DIN 11866 series A and EN 10357 series A

Code C2: Aseptic union DIN 11864-BS, for pipe DIN 11866 series A and EN 10357 series A

Code C4: Aseptic union DIN 11864-GS, for pipe DIN 11866 series B and EN ISO 1127

Code C7: Aseptic pipe union DIN 11864-GS for pipe DIN 11866 series C and ASME BPE

Code C8: Aseptic union DIN 11864-BS for pipe DIN 11866 series C and ASME BPE

#### 2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material,  $\Delta$  Fe < 0.5%

# M600 Selection table

Name	Flow diagram	3D view	Sectional view
M600 03-01.A	S1/H S2/H V1 S3/H	S1 S2 V1	S3 V1
M600 03-01.ER	S3/ V S1/ H V1 S2/ H	S1 S2 V1	S1
M600 03-01.FR	S1/ H S2/ H S3/ V	S1 S2 V1 S3	S1
M600 03-01.GR	S1/ H S2/ H	S1 S3 S2	S1
M600 03-01.T3	S1/ V S3/ H V1 S2/ V	S1 S3 S2	\$1 \$3 V1
M600 03-02.A	S1/ H V2 V1 S3/ H S2/ H	V2 S1 V1 S2 S2	V2 S1 V1 S2 S2
	S1/V VI	V2 S1 S2 S2 V1	V2 S3 V1

# M600 Selection table

Name	Flow diagram	3D view	Sectional view
M600 03-02.B	S1/V V1 V2 S2/H S3/H	V1 S1 V2 S3	V1 S1 V2 S3 S2
	S3/ H V2 V1 S1/ H	V1 S3 S3 V2	V1 S3 S1 V2
M600 03-02.C	S1/ V V1 V2 S2/ V S3/ V	V1 S1 V2 S3	V1 V2 S3
	S3/ H S2/ H V1	S2 V1 S1	V2 S3 V2 S1 S1
M600 03-02.E1	\$1/V V1 V2 \$2/V	V1 S3	V1 V2 V3 S3
	\$3/V \$1/V, V1 \$2/H	S3 S2 V1	S3 V2 S1 V1
M600 03-02.SR	\$2/V \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	S2 S3 V1	S2 V2 S1 V1
	\$1/H \$\frac{1}{\text{V1}} \frac{\text{S2/H}}{\text{S3/V}}	S1 S2 V1	S1 V2 S2

# M600 Selection table

Name	Flow diagram	3D view	Sectional view
M600 03-02.TO	S1/ H V1 S2/ H	S1 S2 S2	S1 S2 V2
	S3/ H V1 S1/ V	S2 V1 S1	S2 V2 S3 V1 S1
M600 03-02.TU	S1/ H V1 V2 S2/ H	V1 S1 S2	V1 S1 S2 V2
	V2 V1 S1/V	V1 S2 S3 S1	V1 S2 V2 S3 S1
M600 03-02.WL	S3/H V2 V1 S1/H S2/H	S3 S2 V2 V1	V2 S1 V1
	S3/H V1 V1 S2/V	V2 S1 V1 S2 V1	V2 S1 V1 S2 V1
M600 03-02.WR	S3/H V2 V2 S2/H S1/H	S2	\$2 V1 S1 V2
	S1/V V2 V1 S3/H	V1 S2 S3	V1 S2 S3

Name	Flow diagram	3D view	Sectional view
M600 03-03.N1	S1/H V1 V2 S2/H	S1 V2 S2 S3	V2 V1 V3 S3
M600 03-03.N2	S1/H V1 V2 S2/H	S1 V2 S2 V1 S3	S1 V2 S2 V1 V3 S3
M600 03-03.N3	S1/ H V1 V2 S2/ H	V1 S2 V2 V3	V1 S2 V2 V3
M600 03-03.N4	S1/ H V1 V2 S2/ H	S1 S2 V1 V2 S2	S1
	S2/ V V2 V3 S3/ H V1	S2 S3 V3	S2 V2 V1 S1 V3
M600 04-01.A	S1/H S2/H S3/V	S1 S2 V1 S3	S1 S2 V1 S3
M600 04-01.B	S4/H S1/H V1 V1 S3/V	S1 \$4 \$2 V1 \$3	S1 S4 V1 S3

Name	Flow diagram	3D view	Sectional view
M600 04-02.OC	S1/H V2 V1 S2/H V3/V	S1 V2 S3 S2	S4 V1 V2 S3
	S3/V V1 V2 S4/V S3/H S1/H	S2 S1 V2 S4	V1 S1 V2 S4
	S4/H S1/V	S4 S3 S3 S1	S3 V1 S4 V2 S1
M600 04-02.P3	S1/ H	S1 S2 S2 V1 V2 S3	S1 S2 S4 S4 V2
M600 04-02.T	S1/V S3/H V1 V2 S2/V	S3 S1 S4 V1 S2	S3 S1 S4 V2
	\$3/ V V1 \$1/ H \$2/ H V2 \$4/ V	S1 S2 S2 V2	V1 S3 S2 V2 S4
M600 04-02.U5	\$1/H \$2/H V1 V2 \$3/V \$4/V	S1 S2 S4 S4	S1 V2 S2 V1 S4 S4
	S3/H V1 S2/V S2/V	S1 V1 S3 V1	V2 S4 S3 V1

Name	Flow diagram	3D view	Sectional view
M600 04-03.C	\$1/V V1 V3 V2 V2 V3 S2/V S4/V	V1 V2 V2 S3	S1 V3 V2 S3 V2
M600 04-03.E	S1/H $V2$ $V1$ $V3$ $V3$ $V3$ $V3$ $V4$ $V4$ $V5$ $V4$ $V5$ $V7$ $V7$ $V7$ $V7$ $V7$ $V7$ $V7$ $V7$	S1 S4 S2 V1	V2 S3 S4 V3 S2 V1
	S4/ H V2 S3/ H S1/ V	S4 S2 V1 S3 S1	V3 S2 V1 V1 S3 V2
M600 04-03.F	S1/H $V1$ $S2/H$ $S3/V$ $S4/V$	V1 S1 S3 S4	V1 S1 V2 V3 S3 S4
	\$2/V V3 \$4/H V1 V2 \$3/H \$1/V	V1 S2 S4 S3	V1 V3 V3 S4 V2 S3 S1
M600 04-03.JR	\$1/H \$2/H \$2/H \$2/H \$3/V \$4/V	V1 S1 S3 S4 S4	V1 S1 V2 S3 S4 V3
	\$2/V S4/H V3 S3/H V1 S1/V	V1 S3	V1 S3 V2 S1

Name	Flow diagram	3D view	Sectional view
M600 04-03.K6	\$3/ V \$1/ H \rightarrow V2 \rightarrow \$2/ H \$3/ V \$2/ H	V1	V1
	S1/V V1 V3 V3 V3 V3 V3 V3 V3 V3 V3 V3	S1 V3 V2 S2	V1 S1 V3 V2 S2
M600 04-03.KR	S1/ H V1 V2 S2/ H V3 S4/ V	V1 S3 S2 S4 S4	V1 S3 V2 S2 S4 V3
	S2/V V2 V3 S3/H V1 S1/V	S2 S4 V1 S3	V2 V3 V1 S1
M600 04-03.M1	S3/ V V1 V2 V3 V3 S4/ V	S3 S2 V2 V1 S4 V3	S3 S2 V2 V3
M600 04-03.M2	S1/ H V2 S2/ H S4/ V	V1 S3 S2 S2 V2	V3 S2 V2 V2
M600 04-03.M3	S1/ H V2 S2/ H	S1 S2 V2 V2	S3 S1 V1 S4

Name	Flow diagram	3D view	Sectional view
M600 04-03.M4	S1/ H V2 S2/ H	S1 S2 S2 V2 V2	S3 V3 S4 V2
M600 04-04.N1	\$3/V \$1/H V3 V2 \$2/H \$4/V \$2/V \$2/V \$3/H \$3/H \$4/H V1 \$1/V	S3 S2 V2 V1	S3 V4 V3 S2 V2 V2 S4
M600 04-04.N2	S3/V S1/H V1 V3 V2 S2/H V4 S4/V S2/V V2 V3 S3/H V1 V3 S3/H V1 V3 S3/H	S3 V3 S2 V2 V1 S4 V4	S3 V3 S2 V2 V4
M600 04-05.R	S1/H V3 V3 V3 V2 V2 V2 V2 V3 V4 V4 V5 V1 V4 V4 V5 V3	S1 V5 V5 V5 V1 S2 V2 S3 V2 V5	V1 S1 V2 S3 V2 V5

Name	Flow diagram	3D view	Sectional view
M600 05-03.PA	S1/ H	V1 S1 S2 S2 V2 S5 S4 S3 S4 S4	V1 S1 V3 V3 V2 S5
M600 05-04.C	\$1/V V1 V2 V3 V4 \$2/V \$3/V \$4/V \$5/V	V1 V2 S1 V3 S3 S4	V1 V3 S2 S5 S4
M600 06-04.T	S6/ V S5/ V S1/ H V4 V3 S2/ H V1 V2 V2 S3/ V S4/ V	S6 S5 S2 V2 S3 S4 V2	S1 S2 S2 V2 S3 S4 V2
	S1/V V4 V1 S3/H S5/H V3 V2 S4/H S2/V	V4 S1 S3 S3 V3 S5 S4 S2	S6 S3 S3 S4 S2

# **Electrical position indicators**



#### **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 1201 / 1211 / 1214

### **Electrical position indicators**

GEMÜ 1201/1211/1214 electrical position indicators are suitable for mounting on pneumatically operated linear valves. The position of the valve spindle is reliably detected and reported to the plant control system via microswitches or inductive proximity switches, using play-free and non-positive mounting. The product has been designed specially for valves with a stroke of 2 to 70 mm.



#### **GEMÜ 1215**

### **Electrical position indicator**

The GEMÜ 1215 electrical position indicator is suitable for mounting to pneumatically operated linear actuators. The position (end position open) of the valve spindle is reliably detected and fed back electronically by the operating bush with a microswitch.



#### GEMÜ 1230 / 1231 / 1232

### **Electrical position indicators**

The GEMÜ 1230/1231/1232 electrical position indicators are suitable for mounting on pneumatically operated linear valves. The position of the valve spindle is reliably detected and reported to the plant control system via microswitches or inductive proximity switches, using play-free and non-positive mounting. The product has been designed specially for valves with a stroke of 2 to 20 mm.



# **GEMÜ 1234**

#### **Electrical position indicator**

The GEMÜ 1234 electrical position indicator for linear actuators has a microprocessor controlled intelligent position sensor with an integrated analogue travel sensor system. Optical position indication is made by LEDs.



# GEMÜ 1235/1236

#### **Electrical position indicator**

GEMÜ 1235 / 1236 electrical position indicators are suitable for mounting on pneumatically operated actuators. The position of the valve spindle is reliably electronically detected and evaluated using play-free and non-positive mounting. Intelligent microprocessor controlled functions facilitate commissioning and support during operation. The current position of the valve is displayed via high-visibility LEDs and fed back via electrical signals.



#### **Electrical position indicator**

The GEMÜ 1242 electrical position indicator is suitable for installation on pneumatically operated linear actuators. The position of the valve spindle is reliably electronically detected and evaluated using play-free and non-positive mounting. Intelligent microprocessor-controlled functions facilitate commissioning and support during operation. The current position of the valve is displayed via high-visibility LEDs and fed back via electrical signals. The GEMÜ 1242 has been specially designed for valves with a stroke of 2 to 46 mm.

# Positioner and process controller



### GEMÜ 1436 cPos

### Intelligent positioner and integrated process controller

The GEMÜ 1436 cPos digital electro-pneumatic positioner has an optional integrated process controller to control pneumatically operated process valves with single acting or double acting linear or quarter turn actuators. When using the optional process controller, the signals from the sensors (e.g. flow, level, pressure, temperature) are detected and the media adjusted according to the specified set value. GEMÜ 1436 cPos has a robust aluminium housing with protected operating keys and an LCD display which allows the product to be individually adapted to complex control tasks. With additional equipment, the positioner can be used directly in fieldbus environments.



#### GEMÜ 1441 cPos-X

# Intelligent electro-pneumatic positioner

The GEMÜ 1441 cPos-X is an intelligent, digital electro-pneumatic positioner in 2-wire technology used to control pneumatically operated process valves. It can be combined with single acting or double acting linear actuators or quarter turn actuators. This means that it can be used, among other things, for diaphragm, globe and diaphragm globe valves as well as for ball valves and butterfly valves, for instance. The positioner has a robust housing with a covered LCD display for status information. The positioner can be operated remotely using a mobile device in order to configure settings and to view detailed information.

# **Accessories**

#### **GEMÜ 2023**



#### **Pneumatic fitting**

We offer various pneumatic fittings under the GEMÜ 2023 type. Various connection sizes are available with female thread, male thread, connector, plug-in nipple or quick connectors.



#### **GEMÜ 2022**

#### Throttle valve

The GEMÜ 2022 throttle valves are available as throttle valve, throttle check valve and dual throttle check valve. In pneumatic actuators they are used to regulate the compressed air depending on the function for the supply or exhaust air and can be set independently of each other in the case of dual throttle check valves.



#### Tool to keep actuator open

The GEMÜ 1107 tool to keep the actuator open holds pneumatically operated diaphragm valves in the open position even if no control medium is applied to them. You can choose to secure it using a padlock. The GEMÜ 1107 tool to keep the actuator open can, for example, be used for autoclaving.



# **GEMÜ 1109**

#### Tool to keep actuator closed

The GEMÜ 1109 tool to keep the actuator closed holds diaphragm valves in the closed position, even if a control medium is applied to them. You can choose to secure this using a padlock.



#### **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 1450**

# NAMUR mounting bracket

GEMÜ 1450 is a NAMUR mounting bracket for pneumatically operated diaphragm valves and globe valves. An integrated optical position indicator is standard. The product is available either with or without handwheel as a manual override. It has height adjustable trip cams. The mounting parts are included.



#### GEMÜ 1460/1461

### **NAMUR** mounting bracket

GEMÜ 1460 / 1461 is a NAMUR mounting bracket for pneumatically operated diaphragm valves and globe valves. The product is available either with or without handwheel as a manual override. It has height adjustable trip cams. The mounting parts are included.



#### GEMÜ 1101 / 1104 / 1110 / 1114 / 1151 / 1152 / 1161

#### 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.



#### **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 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 1118**

#### Seal adjuster

The GEMÜ 1118 seal adjuster is a closing stroke limiter that can only be adjusted within the lower stroke range. In these cases, it reduces the compression of the diaphragm on the sealing weir, thereby increasing the diaphragm service life.



#### **GEMÜ 1116**

#### Opening stroke limiter with seal adjuster

The GEMÜ 1116 model combines an opening stroke limiter with a diaphragm protection function. This allows the opening stroke to be set as required. The closing stroke can only be adjusted within the lower stroke range.



#### **GEMÜ 1200**

#### **Proximity switch**

The GEMÜ 1200 proximity switch is a sensor that detects the valve position contactlessly and displays it via an electrical signal.



# **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.



#### Mounting bracket for proximity switches

GEMÜ 1216 is a proximity switch mounting bracket with a protective enclosure (finger protection) for two M8 x 1 proximity switches for pneumatically operated linear actuators. The enclosure will prevent operators from touching the movable spindle and will therefore protect users.

The proximity switch mounting bracket has two adjustable trip cams and can be optionally ordered with or without a stroke limiter. The switching interval is dependent on the proximity switches used. The basic version does not include any proximity switches.



#### **GEMÜ 1300**

### Optical position indicator with transparent cap

GEMÜ 1300 is a plastic optical position indicator with transparent cap for pneumatically operated globe and diaphragm valves.



#### **GEMÜ 1310**

# Optical position indicator with transparent cap

GEMÜ 1310 is a plastic optical position indicator with transparent cap for pneumatically operated globe and diaphragm valves. It has an indicator spindle with metal core. There is also the option to connect two mounting brackets for proximity switches.



#### **GEMÜ 4232**

# Travel sensor for linear actuators

The GEMÜ 4232 travel sensor is intended for the attachment to valves with linear actuators and is used to determine the valve position. It is used as a travel sensor for the GEMÜ 1434  $\mu$ Pos, GEMÜ 1435 ePos, GEMÜ 1436 cPos and GEMÜ 1441 cPos-X intelligent positioners, which can be connected using either the open cable ends or an M12 cable connector (depending on the design and/or selection of the positioner).



If "yes", please click here

# Specification | GEMÜ P600M M-block stainless steel diaphragm valve

	bar				
Operating pressure:		Example:	Please draw fur	nctional diagram.	
Medium temperature:		Siv .	Important: Plea	Important: Please ensure that the table and	
Valve block material: 1.4435		S8/V V3 V2	Please specify t	functional diagram correspond.  Please specify the design (e.g. M600 06-04.P1) if possible:	
1.4435 BN 2 (ΔFe < 0.5%)		SS/V S3/H S4/V	(c.g. 141000 00 c		
1.4539					
Other					
Shut-off diaphragm material: EPDM Code PTFE Code Other					
Surface finish of valve block:					
1502 (Ra) ≤ 0.8 μm					
1503 (Ra) ≤ 0.8 µm electropolished					
1507 (Ra) ≤ 0.6 μm					
1508 (Ra) ≤ 0.6 µm electropolished					
1536 (Ra) ≤ 0.4 μm					
1537 (Ra) ≤ 0.4 µm electropolished					
1527 (Ra) ≤ 0.25 μm		Spigot/Valve seat:	S1, S2, etc./V1, V2, etc.	Flow direction (medium): →	
1516 (Ra) $\leq 0.25 \mu\text{m}$ electropolished			pos.: Horizontal/Vertical		
Other			promise and the second	Valve seat:	

Quantity:

Is it repeat business for a certain item?

Spigot		Pipe co	onnection				Actuator		Other
Spigot no.	DN	Code	ød(a)[mm]	s [mm]	Ac	tuator type	Control function	Actuator size	Comment/accessories
S1					V1				
S2					V2				
S3					V3				
S4					V4				
S5					V5				
S6					V6				
S7					V7				
S8					V8				
S9					V9				
S10					V10				
S11					V11				
S12					V12				

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

Contact (GEMÜ):		Please do not write here!
Customer:		K-No.:
Department:		P600:
Address:		M600:
		MOUU.
Phone:	E-mail:	X:





