

GEMÜ 650 BioStar

Pneumatically operated diaphragm valve



Features

- Compact design (ideal when space is at a premium)
- CIP/SIP capable
- Autoclave capability, depending on version
- Controlled exhaust air duct available as an option
- Wide range of adaptation options for add-on components and accessories
- Version according to ATEX on request

Description

The GEMÜ 650 BioStar 2/2-way diaphragm valve has a stainless steel piston actuator and is pneumatically operated. The valve is designed for use in a sterile environment. All actuator parts are made from stainless steel (except seals). The compression springs of diaphragm sizes 80 and 100 are made of epoxy-coated spring steel. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available. An integrated optical position indicator is standard.

Technical specifications

- **Media temperature:** -30 to 130 °C
- **Sterilization temperature:** max. 150 °C
- **Ambient temperature:** -20 to 60 °C
- **Operating pressure:** 0 to 10 bar
- **Nominal sizes:** DN 4 to 150
- **Body configurations:** 2/2-way body | i-body | Multi-port body | Tank valve body | T-body | Welding configuration
- **Connection types:** Clamp | Flange | Spigot | Threaded connection
- **Connection standards:** ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
- **Body materials:** 1.4408, investment casting material | 1.4408, investment casting material, PFA lined | 1.4435 (316L), block material | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material
- **Diaphragm materials:** EPDM | PTFE/EPDM | PTFE/PVDF/EPDM

Technical data depends on the respective configuration

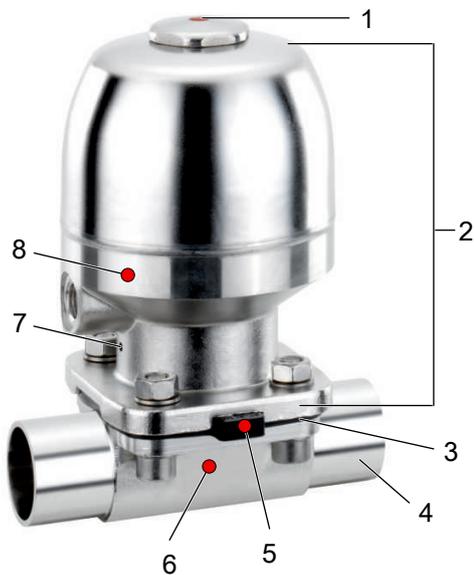


further information
webcode: GW-650



Product description

Construction



Item	Name	Materials
1	Optical position indicator	PP red stainless steel (from diaphragm size 80 in control function 2 and 3)
2	Piston actuator	Stainless steel
3	Diaphragm	EPDM PTFE/EPDM (one-piece, two-piece) PTFE/PVDF/EPDM (three-piece)
4	Valve body	1.4408, investment casting 1.4408, PFA lined 1.4435, investment casting 1.4435 (F316L), forged body 1.4435 (F316L), block material 1.4435 (BN2), forged body, $\Delta Fe < 0.5\%$ 1.4435 (BN2), block material, $\Delta Fe < 0.5\%$ 1.4539, forged body 1.4539, block material
5	CONEXO diaphragm RFID chip (see Conexo information)	
6	CONEXO body RFID chip (see Conexo information)	
7	Leak detection hole	
8	CONEXO actuator RFID chip (see Conexo information)	

GEMÜ CONEXO

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



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

For further information on GEMÜ CONEXO please visit:

www.gemu-group.com/conexo

Ordering

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

Availabilities

Combinations that are not listed in the range overviews can be tested via the configurator in the GEMÜ online shop.

Availability of grades of surface finish

Internal surface finishes for forged and block material bodies¹⁾

Process contact surfaces	Mechanically polished ²⁾		Electropolished	
	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 ³⁾	H5	1527	HE5	1516

Media wetted internal surface finishes in accordance with ASME BPE 2016 ⁴⁾	Mechanically polished ²⁾		Electropolished	
	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

Internal surface finishes for investment cast bodies

Process contact surfaces	Mechanically polished ²⁾	
	Hygiene class DIN 11866	Code
Ra ≤ 6.30 µm	-	1500
Ra ≤ 0.80 µm	H3	1502
Ra ≤ 0.60 µm ⁵⁾	-	1507

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) The smallest possible Ra finish for pipe connections with an internal pipe diameter < 6 mm is 0.38 µm.
- 4) 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 40, 41, F4, 44)) and use connections (e.g. GEMÜ connection codes 59, 80, 88) according to ASME BPE.
- 5) Not possible for GEMÜ connection code 59, DN 8 and GEMÜ connection code 0, DN 4.

Availability of valve bodies

Spigot

MG	DN	Connection type code ¹⁾																					
		0		16		17				18		35				36			37				55
		Material code ²⁾																					
		C3	40, 42, F4	40, 42, F4	C3	40, 42	F4	44	40, 42, F4	40, 42	F4	44	40, 42	F4	44	C3	40, 42	F4	44	40, 42, F4			
8	4	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	6	-	-	-	X	X	X	-	-	-	-	-	X	X	-	-	-	-	-	-			
	8	-	-	-	X	X	X	-	-	-	-	-	X	X	-	-	-	-	-	X			
	10	-	-	X	X	X	X	-	X	-	-	-	-	-	-	-	-	-	-	X			
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X			
10	10	-	-	X	X	X	X	-	X	-	-	-	X	X	-	-	-	-	-	X			
	15	-	X	X	X	X	X	-	X	-	-	-	X	X	-	-	-	-	-	X			
	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X			
25	15	-	X	X	X	X	X	-	X	-	-	-	X	X	-	-	-	-	-	-			
	20	-	X	X	X	X	X	-	X	-	-	-	X	X	-	-	-	-	-	X			
	25	-	X	X	X	X	X	-	X	X	X	-	X	X	-	X	X	X	-	-			
40	32	-	X	X	X	X	X	-	X	X	X	-	X	X	-	-	X	X	-	-			
	40	-	X	X	X	X	X	-	X	X	X	-	X	X	-	X	X	X	-	-			
50	50	-	X	X	X	X	X	-	X	X	X	-	X	X	-	X	X	X	-	-			
	65	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	X	X	-	-			
80	65	-	-	-	-	X	-	X	-	X	-	X	X	-	X	-	X	-	X	-			
	80	-	-	-	-	X	-	X	-	X	-	X	X	-	X	-	X	-	X	-			
100	100	-	-	-	-	X	-	X	-	X	-	X	X	-	X	-	X	-	X	-			

MG = diaphragm size

X = Standard

1) Connection type

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 35: Spigot JIS-G 3447

Code 36: Spigot JIS-G 3459 schedule 10s

Code 37: Spigot SMS 3008

Code 55: Spigot BS 4825, Part 1

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code 44: 1.4539/UNS N08904, block material

Code C3: 1.4435, investment casting

Code F4: 1.4539, forged body

Availabilities

MG	DN	Connection type code ¹⁾																	
		59					60				63			64			65		
		Material code ²⁾																	
		C3	40, 42	F4	44	41, 43	C3	40, 42	F4	44	40, 42	F4	44	40, 42, F4	F4	44	40, 42, F4	F4	44
8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	X	X	-	X	X	-	-	-	-	X	X	-
	8	X	X	X	-	-	X	X	X	-	X	X	-	-	-	-	X	X	-
	10	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	10	-	X	X	-	-	X	X	X	-	X	X	-	-	-	-	X	X	-
	15	-	X	X	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-
	20	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	15	-	-	-	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-
	20	X	X	X	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-
	25	X	X	X	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-
40	32	-	-	-	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-
	40	X	X	X	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-
50	50	X	X	X	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-
	65	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	65	-	X	-	X	-	-	X	-	X	X	-	X	X	-	X	X	-	X
	80	-	X	-	X	-	-	X	-	X	X	-	X	X	-	X	X	-	X
100	100	-	X	-	X	-	-	X	-	X	X	-	X	X	-	X	X	-	X
150	150	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-

MG = diaphragm size

X = Standard

1) Connection type

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

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

Code 64: Spigot ANSI/ASME B36.19M schedule 5s

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

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 41: 1.4435 (316L), block material

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code 43: 1.4435 (BN2), block material, Δ Fe < 0.5%

Code 44: 1.4539/UNS N08904, block material

Code C3: 1.4435, investment casting

Code F4: 1.4539, forged body

Threaded connection

MG	DN	Connection type code ¹⁾	
		1	6, 6K
		Material code ²⁾	
		37	40, 42
8	8	X	-
	10	-	W
10	10	-	W
	12	X	-
	15	X	W
25	15	X	W
	20	X	W
	25	X	W
40	32	X	W
	40	X	W
50	50	X	W
80	65	-	W
	80	-	W

MG = diaphragm size

X = Standard

W = welded assembly

1) **Connection type**

Code 1: Threaded socket DIN ISO 228

Code 6: Threaded spigot DIN 11851

Code 6K: Cone spigot and union nut DIN 11851

2) **Valve body material**

Code 37: 1.4408, investment casting

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Flange

MG	DN	Connection type code ¹⁾							
		8			34	38	39		
		Material code ²⁾							
		C3	39	40, 42	39	39	C3	39	40, 42
25	15	W	X	W	X	-	W	X	W
	20	W	X	W	X	X	W	X	W
	25	W	X	W	X	X	W	X	W
40	32	W	X	W	X	-	W	X	W
	40	W	X	W	X	X	W	X	W
50	50	W	X	W	X	X	W	X	W
	65	-	X	-	-	X	-	X	-
80	65	-	-	W	-	-	-	-	W
	80	-	X	W	-	X	-	X	W
100	100	-	X	W	-	X	-	X	W

MG = diaphragm size
 X = Standard
 W = welded assembly

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, length only for body configuration D

Code 34: Flange JIS B2220, 10K, RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

Code 38: Flange ANSI Class 150 RF, face-to-face dimension FTF MSS SP-88, length only for body configuration D

Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

2) **Valve body material**

Code 39: 1.4408, PFA lined

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code C3: 1.4435, investment casting

Clamp

MG	DN	Connection type code ¹⁾																							
		80			82			88			8A			8E			8P			8T					
		Material code ²⁾																							
		40, 42	F4	44	40, 42	F4	44	40, 42	F4	41, 43	44	40, 42	F4	44	41, 43										
8	6	-	-	-	K	K	-	-	-	-	-	K	K	-	-	-	-	-	-	-	-	-	-	-	
	8	K	K	-	K	K	-	-	-	-	-	K	K	-	-	-	-	K	K	-	-	-	-	-	
	10	K	K	-	-	-	-	-	-	-	-	W	W	-	-	-	-	K	K	-	-	-	-	-	
	15	K	K	-	-	-	-	W	W	-	-	-	-	-	-	-	-	K	K	-	W	W	-	-	
10	10	-	-	-	K	K	-	-	-	-	-	K	K	-	-	-	-	-	-	-	-	-	-	-	
	15	K	K	-	W	W	-	K	K	-	-	K	K	-	-	-	-	K	K	-	K	K	-	-	
	20	K	K	-	-	-	-	K	K	-	-	-	-	-	-	-	-	K	K	-	K	K	-	-	
25	15	-	-	-	W	W	-	-	-	-	-	K	K	-	-	-	-	-	-	-	-	-	-	-	
	20	K	K	-	K	K	-	K	K	-	-	K	K	-	-	-	-	K	K	-	K	K	-	-	
	25	K	K	-	K	K	-	K	K	-	-	K	K	-	K	K	-	K	K	-	K	K	-	-	
40	32	-	-	-	W	W	-	-	-	-	-	K	K	-	K	K	-	-	-	-	-	-	-	-	
	40	K	K	-	W	W	-	K	K	-	-	K	K	-	K	K	-	K	K	-	K	K	-	-	
50	50	K	K	-	W	W	-	K	K	-	-	K	K	-	K	K	-	K	K	-	K	K	-	-	
	65	W	W	-	-	-	-	W	W	-	-	-	-	-	W	W	-	W	W	-	W	W	-	-	
80	65	K	-	K	K	-	K	K	-	-	K	K	-	K	K	-	K	K	-	K	K	-	K	-	
	80	K	-	K	W	-	W	K	-	-	K	W	-	W	K	-	K	K	-	K	K	-	K	-	
100	100	W	-	W	W	-	W	W	-	-	W	W	-	W	W	-	W	W	-	W	W	-	W	-	
150	150	-	-	-	-	-	-	-	-	W	-	-	-	-	-	-	-	-	-	-	-	-	-	W	

MG = diaphragm size

K = connections completely machined (not welded)

W = welded assembly

1) **Connection type**

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE, length only for body configuration D

Code 82: Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 8A: Clamp DIN 32676 series A, face-to-face dimension FTF acc. to EN 558 series 7, length only for body configuration D

Code 8E: Clamp ISO 2852 for pipe ISO 2037, clamps SMS 3017 for pipe SMS 3008, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 8P: Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configuration D

Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) **Valve body material**

Code 40: 1.4435 (F316L), forged body

Code 41: 1.4435 (316L), block material

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code 43: 1.4435 (BN2), block material, Δ Fe < 0.5%

Code 44: 1.4539/UNS N08904, block material

Code F4: 1.4539, forged body

Aseptic connections

MG	DN	Connection type code ¹⁾								
		Flange			Threaded connection			Clamp		
		A1, A2	A4, A5	A7, A8	C1, C2	C4, C5	C7, C8	E1, E2	E4, E5	E7, E8
		Material code 40, 42 ²⁾								
8	8	-	X	-	-	X	-		X	-
	10	X	-	-	X	-	-	X	-	-
	15	-	-	X	-	-	X	-	-	X
10	10	X	X	-	X	X	-	X	X	-
	15	X	X	X	X	X	X	X	X	X
	20	-	-	X	-	-	X	-	-	X
25	15	X	X	X	X	X	X	X	X	X
	20	X	X	X	X	X	X	X	X	X
	25	X	X	X	X	-	X	X	X	X
40	32	X	X		X	X	-	X	X	-
	40	X	X	X	X	X	X	X	X	X
50	50	X	X	X	X	X	X	X	X	X
	65	-	-	X	-	-	X	-	-	X
80	65	X	X	X	X	X	X	X	X	X
	80	X	X	X	X	X	X	X	X	X
100	100	X	X	X	X	-	X	X	-	X

MG = diaphragm size

1) **Connection type**

- Code A1: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 1, length only for body configuration D
- Code A2: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 1, length only for body configuration D
- Code A4: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 1, length only for body configuration D
- Code A5: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 1, length only for body configuration D
- Code A7: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series C and ASME BPE, face-to-face dimension FTF EN 558 series 1, length only for body configuration D
- Code A8: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series C and ASME BPE, face-to-face dimension FTF EN 558 series 1, length only for body configuration D
- Code C1: Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 series A and EN 10357 series A
- Code C2: Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series A and EN 10357 series A
- Code C4: Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 series B and EN ISO 1127
- Code C5: Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series B and EN ISO 1127
- Code C7: Aseptic threaded spigot DIN 11864-GS for pipe DIN 11866 series C and ASME BPE
- Code C8: Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series C and ASME BPE
- Code E1: Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
- Code E2: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
- Code E4: Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
- Code E5: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
- Code E7: Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series C/ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
- Code E8: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series C/ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) **Valve body material**

- Code 40: 1.4435 (F316L), forged body
- Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Availability of product conformity

Foodstuffs	Diaphragm material Code ¹⁾
3A	54, 5M, 5Q

- 1) **Diaphragm material**
 Code 54: PTFE/EPDM one-piece
 Code 5M: PTFE/EPDM two-piece
 Code 5Q: PTFE/EPDM two-piece

Availability of diaphragm materials

MG	Elastomer	PTFE
8	3A, 4A, 17, 19	54
10	4, 13, 17, 19	54, 5M
25		54, 5M, 5Y, 71
40		54, 5M, 71
50		54, 5M, 71
80		54, 5M, 71
100		54, 5M, 71
150	-	5Q

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
Diaphragm valve, pneumatically operated, stainless steel piston actuator electropolished, optical position indicator	650

2 DN	Code
DN 4	4
DN 6	6
DN 8	8
DN 10	10
DN 12	12
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

3 Body configuration	Code
Tank bottom valve body	B
Body configuration code B: Dimensions and designs on request	
2/2-way body	D
T body	T
Body configuration code T: Dimensions on request	

4 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 issue) / DIN 11866 series C	59
Spigot ISO 1127/DIN EN 10357 series C (2014 issue) / DIN 11866 series B	60
Spigot ANSI/ASME B36.19M schedule 10s	63
Spigot ANSI/ASME B36.19M schedule 5s	64
Spigot ANSI/ASME B36.19M schedule 40s	65

4 Connection type	Code
Threaded connection	
Threaded socket DIN ISO 228	1
Threaded spigot DIN 11851	6
Cone spigot and union nut DIN 11851	6K
Flange	
Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D	8
Flange JIS B2220, 10K, RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D	34
Flange ANSI Class 150 RF, face-to-face dimension FTF MSS SP-88, length only for body configuration D	38
Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D	39
Note: Connection code 8, 34, 38, 39 only possible in conjunction with actuator version control air connector 90° offset to flow direction (e.g. 2B1/1R1)	
Clamp	
Clamp ASME BPE, face-to-face dimension FTF ASME BPE, length only for body configuration D	80
Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	82
Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	88
Clamp DIN 32676 series A, face-to-face dimension FTF acc. to EN 558 series 7, length only for body configuration D	8A
Clamp ISO 2852 for pipe ISO 2037, clamps SMS 3017 for pipe SMS 3008, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	8E
Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configuration D	8P
Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	8T

4 Connection type	Code
Aseptic connections	
Flange	
Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 1, length only for body configuration D	A1
Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 1, length only for body configuration D	A2
Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 1, length only for body configuration D	A4
Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 1, length only for body configuration D	A5
Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series C and ASME BPE, face-to-face dimension FTF EN 558 series 1, length only for body configuration D	A7
Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series C and ASME BPE, face-to-face dimension FTF EN 558 series 1, length only for body configuration D	A8
Threaded connection	
Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 series A and EN 10357 series A	C1
Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series A and EN 10357 series A	C2
Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 series B and EN ISO 1127	C4
Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series B and EN ISO 1127	C5
Aseptic threaded spigot DIN 11864-GS for pipe DIN 11866 series C and ASME BPE	C7
Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series C and ASME BPE	C8
Clamp	
Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	E1
Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	E2
Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	E4
Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	E5
Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series C/ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	E7

4 Connection type	Code
Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series C/ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	E8

5 Valve body material	Code
Investment casting material	
1.4408, investment casting	37
1.4408, PFA lined	39
1.4435, investment casting	C3
Forged material	
1.4435 (F316L), forged body	40
1.4435 (BN2), forged body, $\Delta Fe < 0.5\%$	42
1.4539, forged body	F4
Block material	
1.4435 (316L), block material	41
1.4435 (BN2), block material, $\Delta Fe < 0.5\%$	43
1.4539/UNS N08904, block material	44

6 Diaphragm material	Code
Elastomer	
EPDM	3A
EPDM	13
EPDM	17
EPDM	19
Note: The EPDM diaphragm (code 3A) is only available in diaphragm size 8.	
PTFE	
PTFE/EPDM one-piece	54
PTFE/EPDM two-piece	5M
PTFE/EPDM two-piece	5Q
PTFE/EPDM two-piece for lining bodies	5Y
PTFE/PVDF/EPDM three-piece	71
Note: The PTFE/EPDM diaphragm (code 5M) is available from diaphragm size 10.	
Note: The PTFE/EPDM diaphragm (code 5Q) is available for diaphragm size 150.	
Note: The PTFE/EPDM diaphragm (code 5Y) is available for diaphragm size 25 and can only be combined with PFA-lined valve bodies.	
Note: The PTFE/PVDF/EPDM diaphragm (code 71) can only be combined with PFA lined valve bodies.	

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

8 Actuator version	Code
DN 4 - 15, diaphragm size 8	
Actuator size OT1 control air connector in-line with flow direction	OT1
Actuator size OR1 control air connector 90° offset to flow direction	OR1

Order data

8 Actuator version	Code
Actuator size 0TA control air connector in-line with flow direction for higher operating pressures	0TA
Actuator size 0RA control air connector 90° offset to flow direction for higher operating pressures	0RA
DN 10–20, diaphragm size 10	
Actuator size 1T1 control air connector in-line with flow direction	1T1
Actuator size 1R1 control air connector 90° offset to flow direction	1R1
Actuator size 1D1 control air connector in-line with flow direction	1D1
Actuator size 1B1 control air connector 90° offset to flow direction	1B1
DN 15 - 25, diaphragm size 25	
Actuator size 2T1 control air connector in-line with flow direction	2T1
Actuator size 2R1 control air connector 90° offset to flow direction	2R1
Actuator size 2D1 control air connector in-line with flow direction	2D1
Actuator size 2B1 control air connector 90° offset to flow direction	2B1
DN 32 - 40, diaphragm size 40	
Actuator size 3T1 control air connector in-line with flow direction	3T1
Actuator size 3R1 control air connector 90° offset to flow direction	3R1
Actuator size 3TA control air connector in-line with flow direction for higher operating pressures	3TA
Actuator size 3RA control air connector 90° offset to flow direction for higher operating pressures	3RA
Actuator size 3D1 control air connector in-line with flow direction	3D1
Actuator size 3B1 control air connector 90° offset to flow direction	3B1
DN 50–65, diaphragm size 50	
Actuator size 4T1 control air connector in-line with flow direction	4T1
Actuator size 4R1 control air connector 90° offset to flow direction	4R1
Actuator size 4D1 control air connector in-line with flow direction	4D1
Actuator size 4B1 control air connector 90° offset to flow direction	4B1
DN 65–80, diaphragm size 80	
Actuator size 5T1 control air connector in-line with flow direction	5T1
Actuator size 5R1 control air connector 90° offset to flow direction	5R1
Actuator size 5TA control air connector in-line with flow direction for higher operating pressures	5TA

8 Actuator version	Code
Actuator size 5RA control air connector 90° offset to flow direction for higher operating pressures	5RA
Actuator size 5TB control air connector in-line with flow direction for higher operating pressures	5TB
Actuator size 5RB control air connector 90° offset to flow direction for higher operating pressures	5RB
DN 100, diaphragm size 100	
Actuator size 6T1 control air connector in-line with flow direction	6T1
Actuator size 6R1 diaphragm size 100 control air connector 90° offset to flow direction	6R1
Actuator size 6TA control air connector in-line with flow direction for higher operating pressures	6TA
Actuator size 6RA control air connector 90° offset to flow direction for higher operating pressures	6RA
DN 150, diaphragm size 150	
Actuator size 8TA control air connector in-line with flow direction	8TA

9 Surface	Code
Ra ≤ 6.3 µm for media wetted surfaces, mechanically polished internal	1500
Ra ≤ 0.8 µm for media wetted surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1502
Ra ≤ 0.8 µm for media wetted surfaces, in accordance with DIN 11866 HE3, electropolished internal/external	1503
Ra ≤ 0.6 µm for media wetted surfaces, mechanically polished internal	1507
Ra ≤ 0.6 µm for media wetted surfaces, electropolished internal/external	1508
Ra ≤ 0.4 µm for media wetted surfaces, in accordance with DIN 11866 H4, mechanically polished internal	1536
Ra ≤ 0.4 µm for media wetted surfaces, in accordance with DIN 11866 HE4, electropolished internal/external	1537
Ra ≤ 0.25 µm for media wetted surfaces *), in accordance with DIN 11866 H5, mechanically polished internal, *) for inner pipe diameter < 6 mm, in spigots Ra ≤ 0.38 µm	1527
Ra ≤ 0.25 µm for media wetted surfaces *), in accordance with DIN 11866 HE5, electropolished internal/external, *) for inner pipe diameter ≤ 6 mm, in spigot Ra ≤ 0.38 µm	1516
Ra max. 0.51 µm for media wetted surfaces, in accordance with ASME BPE SF1, mechanically polished internal	SF1
Ra max. 0.64 µm for media wetted surfaces, in accordance with ASME BPE SF2, mechanically polished internal	SF2

9 Surface	Code
Ra max. 0.76 µm for media wetted surfaces, in accordance with ASME BPE SF3, mechanically polished internal	SF3
Ra max. 0.38 µm for media wetted surfaces, in accordance with ASME BPE SF4, electropolished internal/external	SF4
Ra max. 0.51 µm for media wetted surfaces, in accordance with ASME BPE SF5, electropolished internal/external	SF5
Ra max. 0.64 µm for media wetted surfaces, in accordance with ASME BPE SF6, electropolished internal/external	SF6

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

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

Order example

Ordering option	Code	Description
1 Type	650	Diaphragm valve, pneumatically operated, stainless steel piston actuator electropolished, optical position indicator
2 DN	50	DN 50
3 Body configuration	D	2/2-way body
4 Connection type	60	Spigot ISO 1127/DIN EN 10357 series C (2014 issue) / DIN 11866 series B
5 Valve body material	40	1.4435 (F316L), forged body
6 Diaphragm material	5M	PTFE/EPDM two-piece
7 Control function	1	Normally closed (NC)
8 Actuator version	4T1	Actuator size 4T1 control air connector in-line with flow direction
9 Surface	1503	Ra ≤ 0.8 µm for media wetted surfaces, in accordance with DIN 11866 HE3, electropolished internal/external
10 Special version	M	Special version for 3A
11 CONEXO		Without

Technical data

Medium

Working medium: Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and diaphragm material.
 The valve will seal in both flow directions up to full operating pressure (gauge pressure).
 For special oxygen version (code S): only gaseous oxygen

Control medium: Inert gases

Temperature

Media temperature:

MG	Diaphragm material	Valve body material	Standard	Special version oxygen
8, 10, 25, 40, 50, 80, 100	EPDM (code 3A/13)	1.4408, investment casting (code 37) 1.4435, investment casting (code C3) 1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43) 1.4539, forged body (code F4) 1.4539, block material (code 44)	-10 to 100 °C	0 to 60 °C
8, 10, 25, 40, 50, 80, 100	EPDM (code 17)	1.4408, investment casting (code 37) 1.4435, investment casting (code C3) 1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43) 1.4539, forged body (code F4) 1.4539, block material (code 44)	-10 to 100 °C	0 to 60 °C
8, 10, 25, 40, 50, 80, 100	EPDM (code 19)	1.4435, investment casting (code C3) 1.4539, forged body (code F4) 1.4539, block material (code 44)	-10 to 100 °C	0 to 60 °C
8, 10, 25, 40, 50, 80, 100	EPDM (code 19)	1.4408, investment casting (code 37) 1.4435 forged body (code 40, 42) 1.4435, block material (code 41, 43)	-20 to 130 °C	0 to 60 °C
25, 40, 50, 80, 100	EPDM (code 19)	1.4408, PFA lined (code 39)	-20 to 100 °C	-
8, 10, 25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4435, investment casting (code C3) 1.4539, forged body (code F4) 1.4539, block material (code 44)	-10 to 100 °C	0 to 60 °C
8, 10, 25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4408, investment casting (code 37)	-20 to 130 °C	0 to 60 °C
		1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43)	-30 to 130 °C	0 to 60 °C
25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4408, PFA lined (code 39)	-20 to 100 °C	-
25, 40, 50, 80, 100	PTFE/PVDF/EPDM (code 71)	1.4408, PFA lined (code 39)	-10 to 100 °C	-
10, 25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4435, investment casting (code C3) 1.4539, forged body (code F4) 1.4539, block material (code 44)	-10 to 100 °C	0 to 60 °C
10, 25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4408, investment casting (code 37)	-20 to 130 °C	-
		1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43)	-30 to 130 °C	-
25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4408, PFA lined (code 39)	-20 to 100 °C	-

MG	Diaphragm material	Valve body material	Standard	Special version oxygen
25	PTFE/EPDM (code 5Y)	1.4408, PFA lined (code 39)	-10 to 100 °C	-
150	PTFE/EPDM (code 5Q)	1.4435, block material (code 41, 43) 1.4539, block material (code 44)	-10 to 100 °C	0 to 60 °C

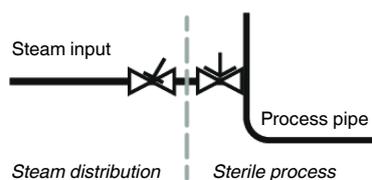
MG = diaphragm size

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/PVDF/EPDM (code 71)	not applicable
	PTFE/EPDM (code 5M)	max. 150 °C, constant temperature per cycle
	PTFE/EPDM (code 5Q)	max. 150 °C, constant temperature per cycle
	PTFE/EPDM (Code 5Y)	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.



Technical data

Ambient temperature:

MG	Diaphragm material	Valve body material	Standard	Special version oxygen
8, 10, 25, 40, 50, 80, 100	EPDM (code 3A/13)	1.4408, investment casting (code 37) 1.4435, investment casting (code C3) 1.4435, forged body (code 40, 42) 1.4539, forged body (code F4) 1.4435, block material (code 41, 43) 1.4539, block material (code 44)	-10 to 60 °C	max. 60 °C
8, 10, 25, 40, 50, 80, 100	EPDM (code 17)	1.4408, investment casting (code 37) 1.4435, investment casting (code C3) 1.4435, forged body (code 40, 42) 1.4539, forged body (code F4) 1.4435, block material (code 41, 43) 1.4539, block material (code 44)	-10 to 60 °C	max. 60 °C
8, 10, 25, 40, 50, 80, 100	EPDM (code 19)	1.4435, investment casting (code C3) 1.4539, block material (code 44) 1.4539, forged body (code F4)	-10 to 60 °C	max. 60 °C
8, 10, 25, 40, 50, 80, 100	EPDM (code 19)	1.4408, investment casting (code 37) 1.4435 forged body (code 40, 42) 1.4435, block material (code 41, 43)	-20 to 60 °C	max. 60 °C
25, 40, 50, 80, 100	EPDM (code 19)	1.4408, PFA lined (code 39)	-20 to 60 °C	-
8, 10, 25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4435, investment casting (code C3) 1.4539, block material (code 44) 1.4539, forged body (code F4)	-10 to 60 °C	max. 60 °C
8, 10, 25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4408, investment casting (code 37) 1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43)	-20 to 60 °C	max. 60 °C
25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4408, PFA lined (code 39)	-20 to 60 °C	-
25, 40, 50, 80, 100	PTFE/PVDF/EPDM (code 71)	1.4408, PFA lined (code 39)	-20 to 60 °C	-
10, 25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4435, investment casting (code C3) 1.4539, block material (code 44) 1.4539, forged body (code F4)	-10 to 60 °C	max. 60 °C
10, 25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4408, investment casting (code 37) 1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43)	-20 to 60 °C	max. 60 °C
25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4408, PFA lined (code 39)	-20 to 60 °C	-
25	PTFE/EPDM (code 5Y)	1.4408, PFA lined (code 39)	-20 to 60 °C	-
150	PTFE/EPDM (code 5Q)	1.4435, block material (code 41, 43) 1.4539, block material (code 44)	0 to 60 °C	max. 60 °C

MG = diaphragm size

Control medium temperature: 0 – 70 °C
for designs with special function S max. 60 °C

Storage temperature: 0 – 40 °C

Autoclavability:

Actuator version	Autoclavability
0T1, 0TA, 0R1, 0RA 1T1, 1B1, 1D1, 1R1 2T1, 2B1, 2D1, 2R1	autoclavable
3T1, 3TA, 3B1, 3D1, 3R1, 3RA 4T1, 4B1, 4D1, 4R1	with special version
5T1, 5TA, 5TB, 5R1, 5RA, 5RB 6T1, 6TA, 6R1, 6RA 8TA	not possible

Pressure

Operating pressure: Elastomer diaphragms

MG	DN	Control function	Actuator size	Elastomer	
				Diaphragm material	all valve body materials
8	4 - 15	1	0T1, 0R1	3A, 17, 19	0-8
			0TA, 0RA		0-10
		2 + 3	0T1, 0TA, 0R1, 0RA		0-10
10	10 - 20	1	1T1, 1R1	13, 17, 19	0-10
			1D1, 1B1		0-10
		2 + 3	1T1, 1R1		0-10
			1D1, 1B1		0-10
25	15 - 25	1	2T1, 2R1	13, 17, 19	0-10
			2D1, 2B1		0-10
		2 + 3	2T1, 2R1		0-10
			2D1, 2B1		0-10
40	32 - 40	1	3T1, 3B1, 3D1, 3R1	13, 17, 19	0-10
			3T1, 3R1		0-10
		2 + 3	3D1, 3B1		0-10
50	50 - 65	1	4T1, 4R1	13, 17, 19	0-10
			4D1, 4B1		0-10
		2 + 3	4T1, 4R1		0-10
			4D1, 4B1		0-10
80	65 - 80	1	5T1, 5R1	13, 17, 19	0-8
			5TB, 5RB		0-10
		2 + 3	5T1, 5R1		0-10
100	100	1	6T1, 6R1	13, 17, 19	0-6
			6TA, 6RA		0-10
		2 + 3	6T1, 6R1		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.

Operating pressure:

PTFE diaphragms

MG	DN	Control function	Actuator size	PTFE			
				Diaphragm material	Forged body	Investment cast body	Block material
8	4 - 15	1	0R1, 0T1	54	0-6	0-6	-
			0RA, 0TA		0-10	0-6	-
		2 + 3	0R1, 0RA, 0T1, 0TA		0-10	0-6	-
10	10 - 20	1	1R1, 1T1	54, 5M	0-10	0-6	-
			1D1, 1B1		0-6	0-6	-
		2 + 3	1R1, 1T1		0-10	0-6	-
			1D1, 1B1		0-6	0-6	-
25	15 - 25	1	2R1, 2T1	54, 5M, 5Y	0-10	0-6	-
			2D1, 2B1		0-6	0-6	-
		2 + 3	2R1, 2T1		0-10	0-6	-
			2D1, 2B1		0-6	0-6	-
40	32 - 40	1	3B1, 3D1, 3R1, 3T1	54, 5M	0-6	0-6	-
			3RA, 3TA		0-10	0-6	-
		2 + 3	3R1, 3T1		0-10	0-6	-
			3D1, 3B1		0-6	0-6	-
50	50 - 65	1	4R1, 4T1	54, 5M	0-10	0-6	-
			4D1, 4B1		0-6	0-6	-
		2 + 3	4R1, 4T1		0-10	0-6	-
			4D1, 4B1		0-6	0-6	-
80	65 - 80	1	5R1, 5T1	54, 5M	0-5	-	-
			5RA, 5TA		0-10	-	-
		2 + 3	5R1, 5T1		0-10	-	-
100	100	1	6R1, 6T1	54, 5M	0-4	-	-
			6RA, 6TA		0-10	-	-
		2 + 3	6R1, 6T1		0-10	-	-
150	150	1 + 2 + 3	8TA	5Q	-	-	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.

Technical data

High vacuum: 0.05 mbar (absolute)*
 * The service life of the diaphragms is reduced in a high vacuum. The maintenance cycles must be carried out in shorter time intervals accordingly.

Available under the following conditions:

- Control function 1
- Diaphragm codes 54, 5M, 17 and 19
- Diaphragm sizes 8–100
- Valve body material codes 40, 42, F4, 41, 43, 44

Pressure rating: PN 16

Leakage rate: Leakage rate A to P11/P12 EN 12266-1

Control pressure:

MG	DN	Control function	Actuator size	Control pressure
8	4 - 15	1	0R1, 0T1	5.0–7.0
			0RA, 0TA	3.5–7.0
		2 + 3	0R1, 0T1	max. 5.5*
			0RA, 0TA	max. 4.5*
10	10 - 20	1	1B1, 1D1, 1R1, 1T1	4.5–7.0
		2 + 3		max. 4.5*
25	15 - 25	1	2B1, 2D1, 2R1, 2T1	5.0–7.0
		2 + 3		max. 4.5*
40	32 - 40	1	3B1, 3D1, 3R1, 3T1	4.5–7.0
			3RA, 3TA	3.5–7.0
		2 + 3	3B1, 3D1, 3R1, 3T1	max. 4.5*
50	50 - 65	1	4B1, 4D1, 4R1, 4T1	4.5–7.0
		2 + 3		max. 4.5*
80	65 - 80	1	5R1, 5T1	3.5–7.0
			5RA, 5TA	4.5–7.0
			5RB, 5TB	4.0–7.0
		2 + 3	5R1, 5T1	max. 4.0*
100	100	1	6R1, 6T1	3.5–7.0
			6RA, 6TA	5.0–7.0
		2 + 3	6R1, 6T1	max. 4.0*
150	150	1	8TA	7.0–8.0
		2 + 3		3.5–6.0*

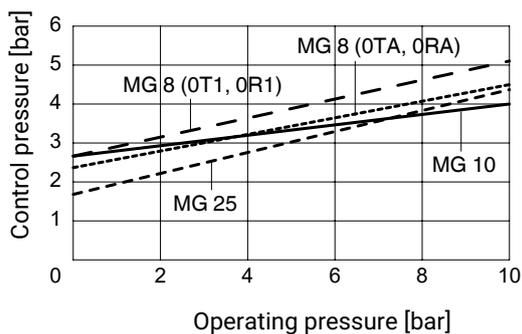
All pressures are gauge pressures.

* As a guide for operating the system with low wear on the diaphragm, refer to the control pressure – operating pressure diagrams below.

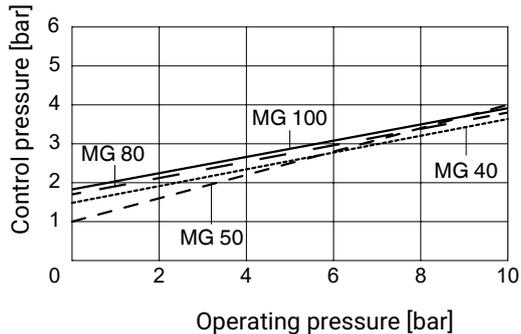
Control pressure:

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

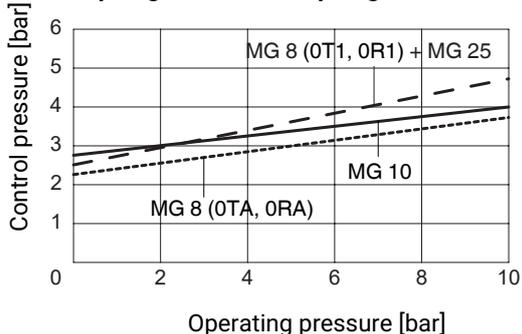
Elastomer diaphragm Diaphragm size 8–25



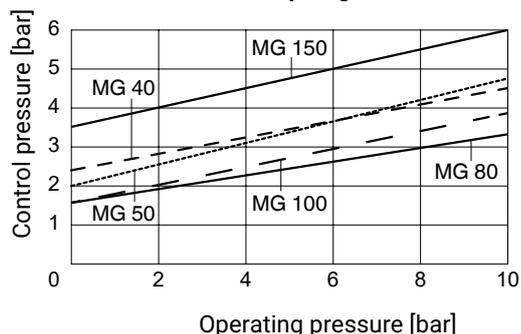
Diaphragm size 40–100



PTFE diaphragm Diaphragm size 8–25



Diaphragm size 40–150



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.

Filling volume:

Diaphragm size	DN	Actuator size	Actuator version	Spring set	Control function 1	Control function 2
8	4–15	0	T/R	1	0.01	0.01
			T/R	A	0.02	0.01
10	10–20	1	T/R/D/B	1	0.03	0.07
25	15–25	2	T/R/D/B	1	0.13	0.22
40	32–40	3	T/R/D/B	1	0.23	0.50
			T/R	A	0.50	-
50	50–65	4	T/R/D/B	1	0.50	1.20
80	65–80	5	T/R	1	2.68	3.20
			T/R	A/B	2.13	-
100	100	6	T/R	1	2.78	3.40
			T/R	A	2.15	-
150	150	8	T	A	5.30	6.0

Filling volume in dm³

MG = diaphragm size

C.f. 3 = for filling volume in open position see c.f. 1, for filling volume in closed position see c.f. 2

Kv values:

MG	DN	Connection type code								
		0	16	17	18	37	59	60	1	31
8	4	0.5	-	-	-	-	-	-	-	-
	6	-	-	1.1	-	-	-	1.2	-	-
	8	-	-	1.3	-	-	0.6	2.2	1.4	-
	10	-	2.1	2.1	2.1	-	1.3	-	-	-
	15	-	-	-	-	-	2.0	-	-	-
10	10	-	2.4	2.4	2.4	-	2.2	3.3	-	-
	12	-	-	-	-	-	-	-	3.2	-
	15	3.3	3.8	3.8	3.8	-	2.2	4.0	3.4	-
	20	-	-	-	-	-	3.8	-	-	-
25	15	4.1	4.7	4.7	4.7	-	-	7.4	6.5	6.5
	20	6.3	7.0	7.0	7.0	-	4.4	13.2	10.0	10.0
	25	13.9	15.0	15.0	15.0	12.6	12.2	16.2	14.0	14.0
40	32	25.3	27.0	27.0	27.0	26.2	-	30.0	26.0	26.0
	40	29.3	30.9	30.9	30.9	30.2	29.5	32.8	33.0	33.0
50	50	46.5	48.4	48.4	48.4	51.7	50.6	55.2	60.0	60.0
	65	-	-	-	-	62.2	61.8	-	-	-
80	65	-	-	77.0	-	68.5	68.5	96.0	-	-
	80	-	-	111.0	-	80.0	87.0	111.0	-	-
100	100	-	-	194.0	-	173.0	188.0	214.0	-	-
150	150	-	-	-	-	-	570.0	-	-	-

MG = diaphragm size, Kv values in m³/h

Kv values determined in accordance with DIN EN 60534 standard, inlet pressure 5 bar, Δp 1 bar, stainless steel valve body and soft elastomer diaphragm. The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.

The Kv value curve (Kv value dependent on valve stroke) can vary depending on the diaphragm material and term of use.

Kv values for plastic lining

MG	DN	Material code 39
25	15	5.0
	20	9.0
	25	13.0
40	32	23.0
	40	26.0
50	50	47.0
	65	47.0
80	80	110
100	100	177

MG = diaphragm size, Kv values in m³/h

Kv values determined in accordance with DIN EN 60534, inlet pressure 5 bar, Δp 1 bar, with connection flange EN 1092 length EN 558 series 1 (or threaded socket DIN ISO 228 for body material GGG40.3) and soft elastomer diaphragm. The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.

The Kv value curve (Kv value dependent on valve stroke) can vary depending on the diaphragm material and term of use.

Product compliance

Pressure Equipment Directive:	2014/68/EU	
Machinery Directive:	2006/42/EC	
Food:	FDA Regulation (EC) No. 1935/2004 (only for material code C3, 40, 42, 41, 43) Regulation (EC) No. 10/2011 USP Class VI 3A (special version code M)	
Oxygen:	Testing of the seal material based on DIN EN 1797 and ISO 21010:2017 – Cryogenic vessels – Gas/material compatibility (special version code S)	
TA Luft (German Clean Air Act):	The product meets the following requirements under the max. permissible operating conditions: -Tightness or compliance with the specific leak rate within the sense of TA-Luft as well as VDI 2440 and VDI 2290 -Compliance with the requirements in accordance with DIN EN ISO 15848-1, Table C.2, Class BH	
SIL:	Product description: Architectonic limitation type: Fail safe function:	GEMÜ diaphragm valve 650 A Due to the fail safe function, the 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). For further information, see the associated safety manual and SIL certificate "SIL Certificate_GEMÜ 650_Exida GEM 2404104 C001_2024-10".
EAC:	The product is declared in accordance with EAC.	
EHEDG:	Certification for pneumatically operated diaphragm valves with forged bodies (code 40) and PTFE/EPDM diaphragms (code 5M) in sizes DN10 to DN100	

Mechanical data



Actuator version "T"



Actuator version "D"

Weight:

Actuator

MG	Actuator version	Version D	Version T
8	0T1, 0R1	-	0.5
	0TA, 0RA	-	0.5
10	1T1, 1B1, 1D1, 1R1	1.1	0.9
25	2T1, 2B1, 2D1, 2R1	2.5	1.9
40	3T1, 3B1, 3D1, 3R1	5.0	3.0
	3TA, 3RA	-	7.3
50	4T1, 4B1, 4D1, 4R1	9.5	7.7
80	5T1, 5R1	-	18.5
	5TA, 5TB, 5RA, 5RB	-	23.7
100	6T1, 6R1	-	20.0
	6TA, 6RA	-	28.0
150	8TA	-	95.0

Weights in kg
MG = diaphragm size

Weight:

Body

MG	DN	Spigot	Threaded socket	Threaded spigot, cone spigot	Flange	Clamp
		Connection type code				
		0, 16, 17, 18, 35, 36, 37, 55, 59, 60, 63, 64, 65	1	6, 6K	8, 34, 38, 39	80, 82, 88, 8A, 8E, 8P, 8T
8	4	0.09	-	-	-	-
	6	0.09	-	-	-	-
	8	0.09	0.09	-	-	0.15
	10	0.09	-	0.21	-	0.18
	15	0.09	-	-	-	0.18
10	10	0.30	-	0.33	-	0.30
	12	-	0.17	-	-	-
	15	0.30	0.26	0.35	-	0.43
	20	-	-	-	-	0.43
25	15	0.62	0.32	0.71	1.50	0.75
	20	0.58	0.34	0.78	2.20	0.71
	25	0.55	0.39	0.79	2.80	0.63
40	32	1.45	0.88	1.66	3.40	1.62
	40	1.32	0.93	1.62	4.50	1.50
50	50	2.25	1.56	2.70	6.30	2.50
	65	2.20	-	-	10.30	2.30
80	65	8.60	-	9.22	10.20	8.90
	80	8.00	-	9.20	13.80	8.50
100	100	24.10	-	-	20.80	24.80
150	150	42.00	-	-	-	43.10

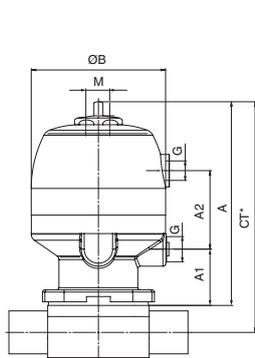
Weights in kg
 MG = diaphragm size

Installation position:

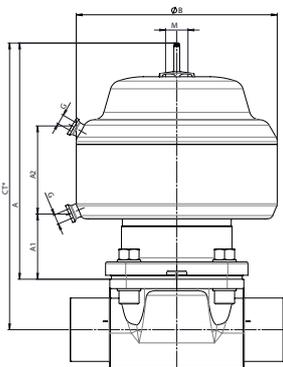
Optional
 Observe the angle of rotation to achieve an installation for optimized draining

Dimensions

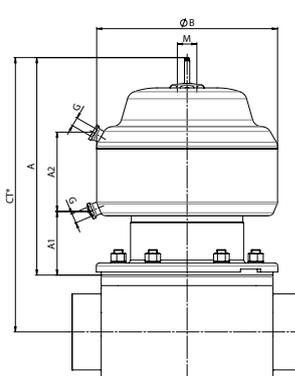
Actuator dimensions



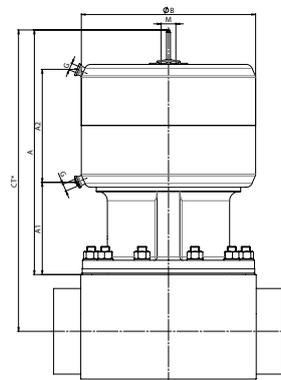
MG 8-50



MG 80



MG 100



MG 150

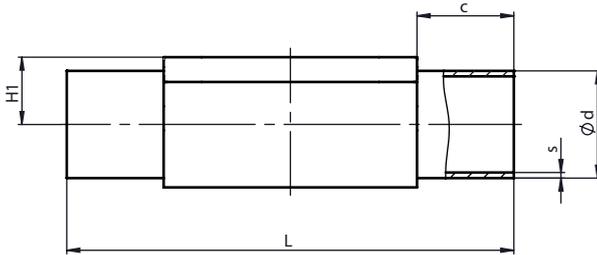
MG	DN	Actuator version	A	A1	A2	ø B	G	M
8	4 - 15	0T1, 0R1	80.5	28.0	37.8	42.0	G 1/8	M12x1
		0TA, 0RA	89.5	28.0	39.1	47.0	G 1/8	M12x1
10	10 - 20	1T1, 1R1, 1D1, 1B1	116.0	37.0	42.5	61.0	G 1/4	M16x1
25	15 - 25	2T1, 2R1, 2D1, 2B1	137.5	38.0	53.0	90.0	G 1/4	M16x1
40	32, 40	3T1, 3R1, 3D1, 3B1	173.0	53.0	56.5	114.0	G 1/4	M16x1
		3TA, 3RA	223.0	52.0	-	144.0	G 1/4	M16x1
50	50, 65	4T1, 4R1, 4D1, 4B1	223.0	52.0	70.5	144.0	G 1/4	M16x1
80	65, 80	5T1, 5R1	283.0	78.0	106.0	240.0	G 1/4	M26x1.5
		5TA, 5TB, 5RA, 5RB	297.0	80.0	-	240.0	G 1/4	M26x1.5
100	100	6T1, 6R1	298.0	87.0	106.0	240.0	G 1/4	M26x1.5
		6TA, 6RA	355.0	133.0	-	240.0	G 1/4	M26x1.5
150	150	8TA	513.0 436.0 (C.f.2)	166.0	201.0	308.0	G 1/4	M26x1.5

Dimensions in mm, MG = diaphragm size, C.f. = control function

* CT = A + H1 (see body dimensions)

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⁾, forged material (code 40, 42, F4)²⁾

MG	DN	NPS	c (min)	Ød					H1	L	s				
				Connection type							Connection type				
				0	16	17	18	60			0	16	17	18	60
8	4	-	20.0	6.0	-	-	-	-	8.5	72.0	1.0	-	-	-	-
	6	-	20.0	-	-	8.0	-	10.2	8.5	72.0	-	-	1.0	-	1.6
	8	1/4"	20.0	-	-	10.0	-	13.5	8.5	72.0	-	-	1.0	-	1.6
	10	3/8"	20.0	-	12.0	13.0	14.0	-	8.5	72.0	-	1.0	1.5	2.0	-
10	10	3/8"	25.0	-	12.0	13.0	14.0	17.2	12.5	108.0	-	1.0	1.5	2.0	1.6
	15	1/2"	25.0	18.0	18.0	19.0	20.0	21.3	12.5	108.0	1.5	1.0	1.5	2.0	1.6
25	15	1/2"	25.0	18.0	18.0	19.0	20.0	21.3	19.0	120.0	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	19.0	120.0	1.5	1.0	1.5	2.0	1.6
	25	1"	25.0	28.0	28.0	29.0	30.0	33.7	19.0	120.0	1.5	1.0	1.5	2.0	2.0
40	32	1 1/4"	25.0	34.0	34.0	35.0	36.0	42.4	26.0	153.0	1.5	1.0	1.5	2.0	2.0
	40	1 1/2"	30.5	40.0	40.0	41.0	42.0	48.3	26.0	153.0	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	32.0	173.0	1.5	1.0	1.5	2.0	2.0
80	65	2 1/2"	30.0	-	-	70.0	-	76.1	62.0	216.0	-	-	2.0	-	2.0
	80	3"	30.0	-	-	85.0	-	88.9	62.0	254.0	-	-	2.0	-	2.3
100	100	4"	30.0	-	-	104.0	-	114.3	76.0	305.0	-	-	2.0	-	2.3

Dimensions in mm

MG = diaphragm size

1) Connection type

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 issue) / DIN 11866 series B

2) Valve body material

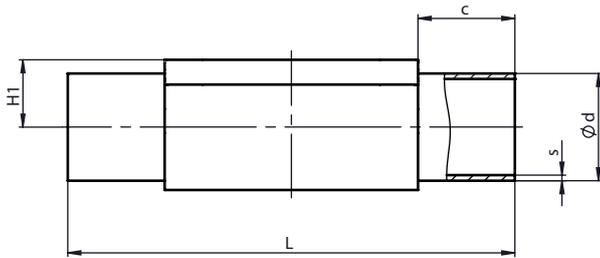
Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code F4: 1.4539, forged body

Material code F4 only up to MG 50, from MG 80 material code 44.

Dimensions



Connection type spigot DIN/EN/ISO (code 0, 17, 60)¹⁾, investment casting material (code C3)²⁾

MG	DN	NPS	c (min)	ød			H1	L	s		
				Connection type					Connection type		
				0	17	60			0	17	60
8	4	-	20.0	6.0	-	-	8.5	72.0	1.0	-	-
	6	-	20.0	-	8.0	-	8.5	72.0	-	1.0	-
	8	1/4"	20.0	-	10.0	13.5	8.5	72.0	-	1.0	1.6
	10	3/8"	20.0	-	13.0	-	8.5	72.0	-	1.5	-
10	10	3/8"	25.0	-	13.0	17.2	12.5	108.0	-	1.5	1.6
	15	1/2"	25.0	-	19.0	21.3	12.5	108.0	-	1.5	1.6
25	15	1/2"	25.0	-	19.0	21.3	13.0	120.0	-	1.5	1.6
	20	3/4"	25.0	-	23.0	26.9	16.0	120.0	-	1.5	1.6
	25	1"	25.0	-	29.0	33.7	19.0	120.0	-	1.5	2.0
40	32	1 1/4"	25.0	-	35.0	42.4	24.0	153.0	-	1.5	2.0
	40	1 1/2"	30.5	-	41.0	48.3	26.0	153.0	-	1.5	2.0
50	50	2"	30.0	-	53.0	60.3	32.0	173.0	-	1.5	2.0

Dimensions in mm

MG = diaphragm size

1) Connection type

Code 0: Spigot DIN

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

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

2) Valve body material

Code C3: 1.4435, investment casting

Connection type spigot DIN/EN/ISO (code 17, 60)¹⁾, block material (code 44)²⁾

MG	DN	NPS	c (min)	ød		H1	L	s	
				Connection type				Connection type	
				17	60			17	60
80	65	2 1/2"	30.0	70.0	76.1	62.0	216.0	2.0	2.0
	80	3"	30.0	85.0	88.9	62.0	254.0	2.0	2.3
100	100	4"	30.0	104.0	114.3	76.0	305.0	2.0	2.3

Dimensions in mm

MG = diaphragm size

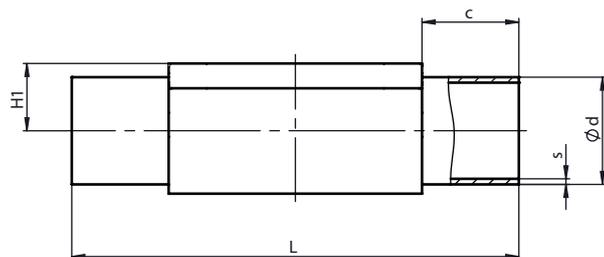
1) Connection type

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

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

2) Valve body material

Code 44: 1.4539/UNS N08904, block material

Spigot ASME/BS (code 55, 59, 63, 64, 65)**Connection type spigot ASME/BS (code 55, 59, 63, 64, 65)¹⁾, forged material (code 40, 42, F4)²⁾**

MG	DN	NPS	c (min)	Ød					H1	L	s				
				Connection type							Connection type				
				55	59	63	64	65			55	59	63	64	65
8	6	-	20.0	-	-	10.3	-	10.3	8.5	72.0	-	-	1.24	-	1.73
	8	1/4"	20.0	6.35	6.35	13.7	-	13.7	8.5	72.0	1.2	0.89	1.65	-	2.24
	10	3/8"	20.0	9.53	9.53	-	-	-	8.5	72.0	1.2	0.89	-	-	-
	15	1/2"	20.0	12.70	12.70	-	-	-	8.5	72.0	1.2	1.65	-	-	-
10	10	3/8"	25.0	9.53	9.53	17.1	-	17.1	12.5	108.0	1.2	0.89	1.65	-	2.31
	15	1/2"	25.0	12.70	12.70	21.3	21.3	21.3	12.5	108.0	1.2	1.65	2.11	1.65	2.77
	20	3/4"	25.0	19.05	19.05	-	-	-	12.5	108.0	1.2	1.65	-	-	-
25	15	1/2"	25.0	-	-	21.3	21.3	21.3	19.0	120.0	-	-	2.11	1.65	2.77
	20	3/4"	25.0	19.05	19.05	26.7	26.7	26.7	19.0	120.0	1.2	1.65	2.11	1.65	2.87
	25	1"	25.0	-	25.40	33.4	33.4	33.4	19.0	120.0	-	1.65	2.77	1.65	3.38
40	32	1 1/4"	25.0	-	-	42.2	42.2	42.2	26.0	153.0	-	-	2.77	1.65	3.56
	40	1 1/2"	30.5	-	38.10	48.3	48.3	48.3	26.0	153.0	-	1.65	2.77	1.65	3.68
50	50	2"	30.0	-	50.80	60.3	60.3	60.3	32.0	173.0	-	1.65	2.77	1.65	3.91
	65	2 1/2"	30.0	-	63.50	-	-	-	34.0	173.0	-	1.65	-	-	-
80	65	2 1/2"	30.0	-	63.50	73.0	73.0	73.0	62.0	216.0	-	1.65	3.05	2.11	5.16
	80	3"	30.0	-	76.20	88.9	88.9	88.9	62.0	254.0	-	1.65	3.05	2.11	5.49
100	100	4"	30.0	-	101.60	114.3	114.3	114.3	76.0	305.0	-	2.11	3.05	2.11	6.02

Dimensions in mm

MG = diaphragm size

1) Connection type

Code 55: Spigot BS 4825, Part 1

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

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

Code 64: Spigot ANSI/ASME B36.19M schedule 5s

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

2) Valve body material

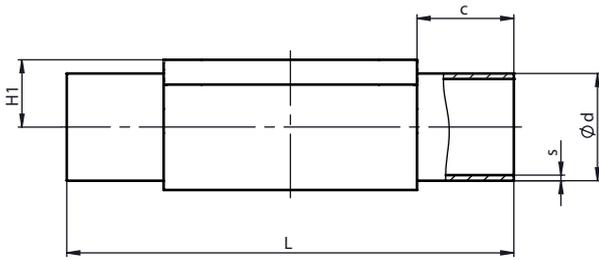
Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code F4: 1.4539, forged body

Material code F4 only up to MG 50, from MG 80 material code 44.

Dimensions



Connection type spigot ASME BPE (code 59)¹⁾, investment casting material (code C3)²⁾

MG	DN	NPS	c (min)	ød	H1	L	s
8	8	1/4"	20.0	6.35	8.5	72.0	0.89
	10	3/8"	20.0	9.53	8.5	72.0	0.89
	15	1/2"	20.0	12.70	8.5	72.0	1.65
10	20	3/4"	25.0	19.05	12.5	108.0	1.65
25	20	3/4"	25.0	19.05	16.0	120.0	1.65
	25	1"	25.0	25.40	19.0	120.0	1.65
40	40	1 1/2"	30.5	38.10	26.0	153.0	1.65
50	50	2"	30.0	50.80	32.0	173.0	1.65

Dimensions in mm

MG = diaphragm size

1) Connection type

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

2) Valve body material

Code C3: 1.4435, investment casting

Connection type spigot ASME BPE (code 59)¹⁾, block material (code 41, 43)²⁾

MG	DN	NPS	c (min)	ød	H1	L	s
150	150	6"	48.0	152.40	101.0	406.0	2.77

Dimensions in mm

MG = diaphragm size

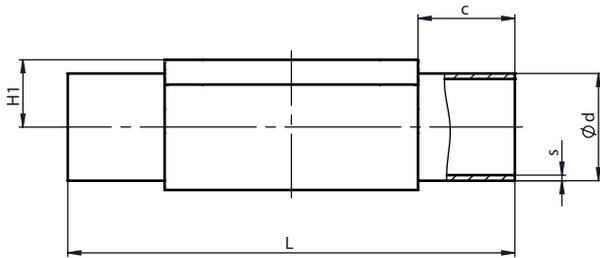
1) Connection type

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

2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material, Δ Fe < 0.5%



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

MG	DN	NPS	c (min)	Ød		H1	L	s			
				Connection type				Connection type			
				59	63, 64, 65			59	63	64	65
80	65	2½"	30.0	63.50	73.0	62.0	216.0	1.65	3.05	2.11	5.16
	80	3"	30.0	76.20	88.9	62.0	254.0	1.65	3.05	2.11	5.49
100	100	4"	30.0	101.60	114.3	76.0	305.0	2.11	3.05	2.11	6.02
150	150	6"	48.0	152.40	-	101.0	406.0	2.77	-	-	-

Dimensions in mm

MG = diaphragm size

1) **Connection type**

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

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

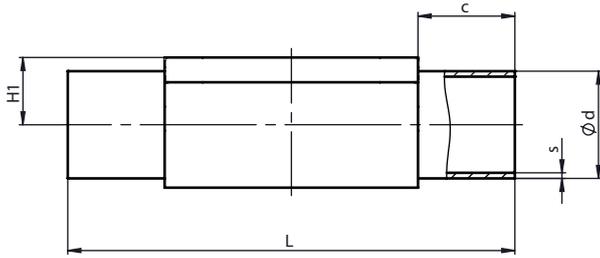
Code 64: Spigot ANSI/ASME B36.19M schedule 5s

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

2) **Valve body material**

Code 44: 1.4539/UNS N08904, block material

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



Connection type spigot JIS/SMS (code 35, 36, 37)¹⁾, forged material (code 40, 42, F4)²⁾

MG	DN	NPS	c (min)	Ød			H1	L	s		
				Connection type					Connection type		
				35	36	37			35	36	37
8	6	-	20.0	-	10.5	-	8.5	72.0	-	1.20	-
	8	1/4"	20.0	-	13.8	-	8.5	72.0	-	1.65	-
10	10	3/8"	25.0	-	17.3	-	12.5	108.0	-	1.65	-
	15	1/2"	25.0	-	21.7	-	12.5	108.0	-	2.10	-
25	15	1/2"	25.0	-	21.7	-	19.0	120.0	-	2.10	-
	20	3/4"	25.0	-	27.2	-	19.0	120.0	-	2.10	-
	25	1"	25.0	25.4	34.0	25.0	19.0	120.0	1.2	2.80	1.2
40	32	1 1/4"	25.0	31.8	42.7	33.7	26.0	153.0	1.2	2.80	1.2
	40	1 1/2"	30.5	38.1	48.6	38.0	26.0	153.0	1.2	2.80	1.2
50	50	2"	30.0	50.8	60.5	51.0	32.0	173.0	1.5	2.80	1.2
	65	2 1/2"	30.0	63.5	-	63.5	34.0	173.0	2.0	-	1.6
80	65	2 1/2"	30.0	63.5	76.3	63.5	62.0	216.0	2.0	3.00	1.6
	80	3"	30.0	76.3	89.1	76.1	62.0	254.0	2.0	3.00	1.6
100	100	4"	30.0	101.6	114.3	101.6	76.0	305.0	2.0	3.00	2.0

Connection type spigot SMS (code 37)¹⁾, investment casting material (code C3)²⁾

MG	DN	NPS	c (min)	Ød	H1	L	s
25	25	1"	25.0	25.0	19.0	120.0	1.2
40	40	1 1/2"	30.5	38.0	26.0	153.0	1.2
50	50	2"	30.0	51.0	32.0	173.0	1.2

Dimensions in mm

MG = diaphragm size

1) Connection type

Code 35: Spigot JIS-G 3447

Code 36: Spigot JIS-G 3459 schedule 10s

Code 37: Spigot SMS 3008

2) Valve body material

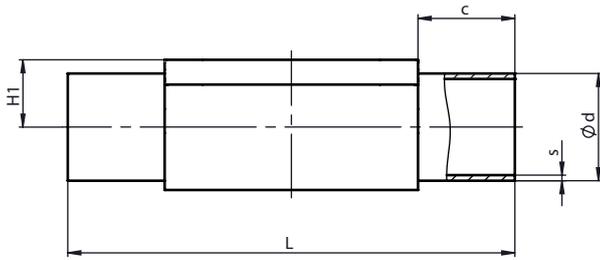
Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code C3: 1.4435, investment casting

Code F4: 1.4539, forged body

Material code F4 only up to MG 50, from MG 80 material code 44.



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

MG	DN	NPS	c (min)	Ød			H1	L	s		
				Connection type					Connection type		
				35	36	37			35	36	37
80	65	2½"	30.0	63.5	76.3	63.5	62.0	216.0	2.0	3.0	1.6
	80	3"	30.0	76.3	89.1	76.1	62.0	254.0	2.0	3.0	1.6
100	100	4"	30.0	101.6	114.3	101.6	76.0	305.0	2.0	3.0	2.0

Dimensions in mm

MG = diaphragm size

1) **Connection type**

Code 35: Spigot JIS-G 3447

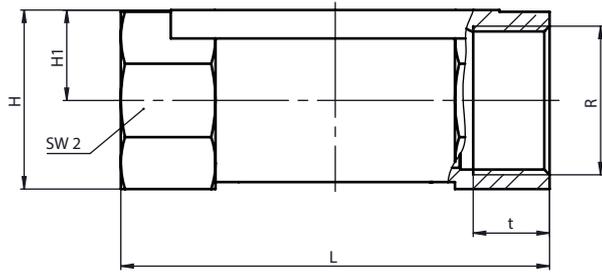
Code 36: Spigot JIS-G 3459 schedule 10s

Code 37: Spigot SMS 3008

2) **Valve body material**

Code 44: 1.4539/UNS N08904, block material

Threaded socket DIN ISO 228 (code 1)



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

MG	DN	NPS	H	H1	L	n	R	SW 2	t
8	8	1/4"	19.0	9.0	72.0	6	G 1/4	18.0	11.0
10	12	3/8"	25.0	13.0	55.0	2	G 3/8	22.0	12.0
	15	1/2"	30.0	15.0	68.0	2	G 1/2	27.0	15.0
25	15	1/2"	28.3	14.8	85.0	6	G 1/2	27.0	15.0
	20	3/4"	33.3	17.3	85.0	6	G 3/4	32.0	16.0
	25	1"	42.3	21.8	110.0	6	G 1	41.0	13.0
40	32	1 1/4"	51.3	26.3	120.0	8	G 1 1/4	50.0	20.0
	40	1 1/2"	56.3	28.8	140.0	8	G 1 1/2	55.0	18.0
50	50	2"	71.3	36.0	165.0	8	G 2	70.0	26.0

Dimensions in mm

MG = diaphragm size

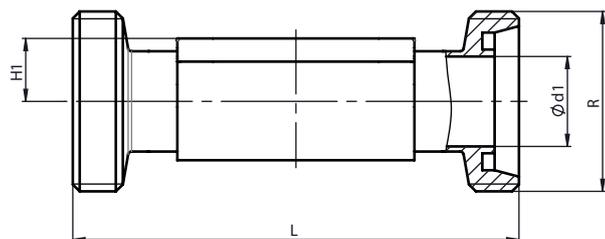
n = number of flats

1) Connection type

Code 1: Threaded socket DIN ISO 228

2) Valve body material

Code 37: 1.4408, investment casting

Threaded spigot DIN 11851 (code 6)**Connection type threaded spigot DIN (code 6)¹⁾, forged material (code 40, 42)²⁾**

MG	DN	NPS	Ød1	H1	L	R
8	10	3/8"	10.0	8.5	92.0	Rd 28 x 1/8
10	10	3/8"	10.0	12.5	118.0	Rd 28 x 1/8
	15	1/2"	16.0	12.5	118.0	Rd 34 x 1/8
25	15	1/2"	16.0	19.0	118.0	Rd 34 x 1/8
	20	3/4"	20.0	19.0	118.0	Rd 44 x 1/6
	25	1"	26.0	19.0	128.0	Rd 52 x 1/6
40	32	1 1/4"	32.0	26.0	147.0	Rd 58 x 1/6
	40	1 1/2"	38.0	26.0	160.0	Rd 65 x 1/6
50	50	2"	50.0	32.0	191.0	Rd 78 x 1/6
80	65	2 1/2"	66.0	62.0	246.0	Rd 95 x 1/6
	80	3"	81.0	62.0	256.0	Rd 110 x 1/4

Dimensions in mm

MG = diaphragm size

1) Connection type

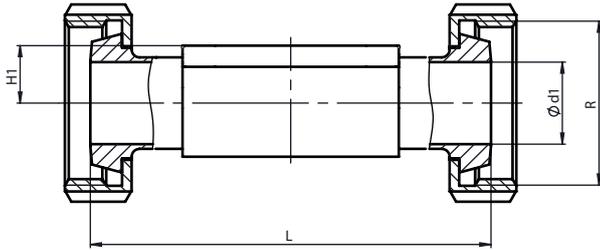
Code 6: Threaded spigot DIN 11851

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Cone spigot DIN 11851 (code 6K)



Connection type cone spigot DIN (code 6K)¹⁾, forged material (code 40, 42)²⁾

MG	DN	NPS	Ød1	H1	L	R
8	10	3/8"	10.0	8.5	90.0	Rd 28 x 1/8
10	10	3/8"	10.0	12.5	116.0	Rd 28 x 1/8
	15	1/2"	16.0	12.5	116.0	Rd 34 x 1/8
25	15	1/2"	16.0	19.0	116.0	Rd 34 x 1/8
	20	3/4"	20.0	19.0	114.0	Rd 44 x 1/6
	25	1"	26.0	19.0	127.0	Rd 52 x 1/6
40	32	1¼"	32.0	26.0	147.0	Rd 58 x 1/6
	40	1½"	38.0	26.0	160.0	Rd 65 x 1/6
50	50	2"	50.0	32.0	191.0	Rd 78 x 1/6
80	65	2½"	66.0	62.0	246.0	Rd 95 x 1/6
	80	3"	81.0	62.0	256.0	Rd 110 x 1/4

Dimensions in mm

MG = diaphragm size

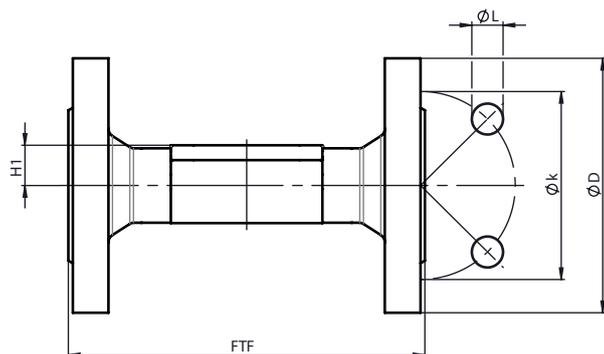
1) Connection type

Code 6K: Cone spigot and union nut DIN 11851

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Flange EN 1092 (code 8)**Connection type flange, length EN 558 (code 8)¹⁾, investment casting material (code 39, C3), forged material (code 40, 42)²⁾**

MG	DN	NPS	øD	FTF			H1			øk	øL	n
				Material			Material					
				39	C3	40, 42	39	C3	40, 42			
25	15	1/2"	95.0	130.0	150.0	150.0	18.0	13.0	19.0	65.0	14.0	4
	20	3/4"	105.0	150.0	150.0	150.0	20.5	16.0	19.0	75.0	14.0	4
	25	1"	115.0	160.0	160.0	160.0	23.0	19.0	19.0	85.0	14.0	4
40	32	1¼"	140.0	180.0	180.0	180.0	28.7	24.0	26.0	100.0	19.0	4
	40	1½"	150.0	200.0	200.0	200.0	33.0	26.0	26.0	110.0	19.0	4
50	50	2"	165.0	230.0	230.0	230.0	39.0	32.0	32.0	125.0	19.0	4
	65	2½"	185.0	290.0	-	-	51.0	-	-	145.0	19.0	4
80	65	2½"	185.0	-	-	290.0	-	-	62.0	145.0	19.0	4
	80	3"	200.0	310.0	-	310.0	59.5	-	62.0	160.0	19.0	8
100	100	4"	220.0	350.0	-	350.0	73.0	-	76.0	180.0	19.0	8

Dimensions in mm

MG = diaphragm size

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, length only for body configuration D

2) Valve body material

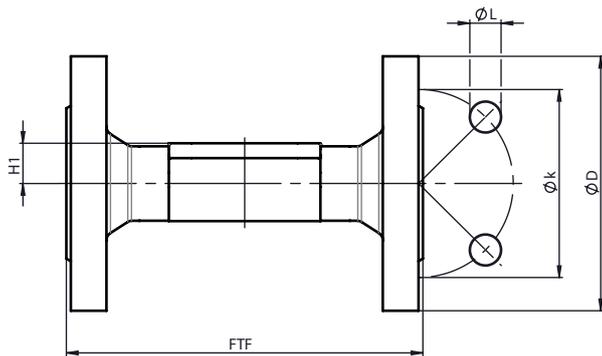
Code 39: 1.4408, PFA lined

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code C3: 1.4435, investment casting

Flange JIS B2220 (code 34)



Connection type flange, length 558 (code 34)¹⁾, investment casting material (code 39)²⁾

MG	DN	NPS	øD	øk	øL	n	H1	FTF
25	15	1/2"	95.0	70.0	15.0	4	18.0	130.0
	20	3/4"	100.0	75.0	15.0	4	20.5	150.0
	25	1"	125.0	90.0	19.0	4	23.0	160.0
40	32	1¼"	135.0	100.0	19.0	4	28.7	180.0
	40	1½"	140.0	105.0	19.0	4	33.0	200.0
50	50	2"	155.0	120.0	19.0	4	39.0	230.0

Dimensions in mm

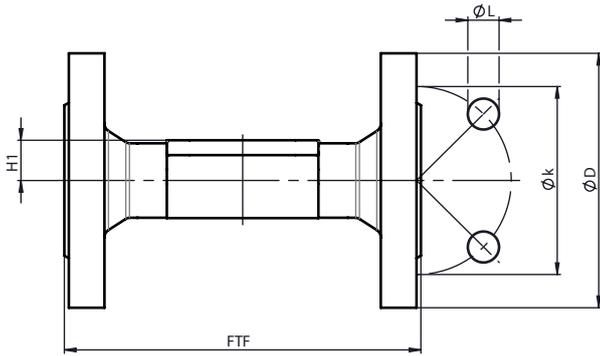
MG = diaphragm size

1) Connection type

Code 34: Flange JIS B2220, 10K, RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

2) Valve body material

Code 39: 1.4408, PFA lined

Flange ANSI Class 150 RF (code 38, 39)**Connection type flange, length MSS SP-88 (code 38)¹⁾, investment casting material (code 39)²⁾**

MG	DN	NPS	øD	FTF	H1	øk	øL	n
25	20	3/4"	100.0	146.0	20.5	69.9	15.9	4
	25	1"	110.0	146.0	23.0	79.4	15.9	4
40	40	1½"	125.0	175.0	33.0	98.4	15.9	4
50	50	2"	150.0	200.0	39.0	120.7	19.0	4
	65	2½"	180.0	226.0	51.0	139.7	19.0	4
80	80	3"	190.0	260.0	59.5	152.4	19.0	4
100	100	4"	230.0	327.0	73.0	190.5	19.0	8

Dimensions in mm

MG = diaphragm size

n = number of bolts

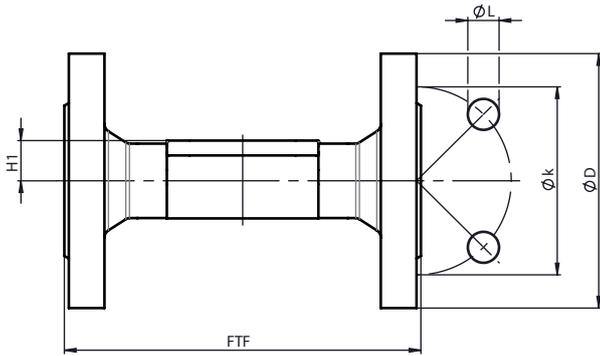
1) Connection type

Code 38: Flange ANSI Class 150 RF, face-to-face dimension FTF MSS SP-88, length only for body configuration D

2) Valve body material

Code 39: 1.4408, PFA lined

Dimensions



Connection type flange, length EN 558 (code 39)¹⁾, investment casting material (code 39, C3), forged material (code 40, 42)²⁾

MG	DN	NPS	øD	FTF			H1			øk	øL	n
				Material			Material					
				39	C3	40, 42	39	C3	40, 42			
25	15	1/2"	90.0	130.0	150.0	150.0	-	13.0	19.0	60.3	15.9	4
	20	3/4"	100.0	150.0	150.0	150.0	20.5	16.0	19.0	69.9	15.9	4
	25	1"	110.0	160.0	160.0	160.0	23.0	19.0	19.0	79.4	15.9	4
40	32	1¼"	115.0	180.0	180.0	180.0	28.7	24.0	26.0	88.9	15.9	4
	40	1½"	125.0	200.0	200.0	200.0	33.0	26.0	26.0	98.4	15.9	4
50	50	2"	150.0	230.0	230.0	230.0	39.0	32.0	32.0	120.7	19.0	4
	65	2½"	180.0	290.0	-	-	51.0	-	-	139.7	19.0	4
80	65	2½"	180.0	-	-	290.0	-	-	62.0	139.7	19.0	4
	80	3"	190.0	310.0	-	310.0	59.5	-	62.0	152.4	19.0	4
100	100	4"	230.0	350.0	-	350.0	73.0	-	76.0	190.5	19.0	8

Dimensions in mm

MG = diaphragm size

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, length only for body configuration D

2) Valve body material

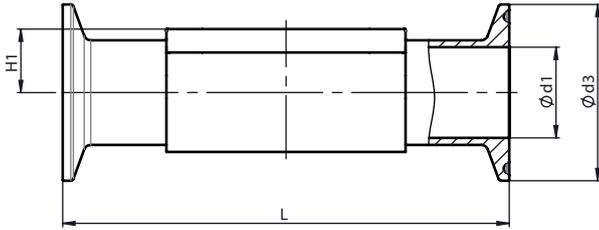
Code 39: 1.4408, PFA lined

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code C3: 1.4435, investment casting

Clamp DIN 32676 series C/ASME BPE (code 80, 82, 88, 8A, 8E, 8P, 8T)



Connection type clamp DIN/ASME (code 80, 88, 8P, 8T)¹⁾, forged material (code 40, 42, F4)²⁾

MG	DN	NPS	ød1		ød3		H1	L	
			Connection type		Connection type			Connection type	
			80, 8P	88, 8T	80, 8P	88, 8T		80, 8P	88, 8T
8	8	1/4"	4.57	-	25.0	-	8.5	63.5	-
	10	3/8"	7.75	-	25.0	-	8.5	63.5	-
	15	1/2"	9.40	9.40	25.0	25.0	8.5	63.5	108.0
10	15	1/2"	9.40	9.40	25.0	25.0	12.5	88.9	108.0
	20	3/4"	15.75	15.75	25.0	25.0	12.5	101.6	117.0
25	20	3/4"	15.75	15.75	25.0	25.0	19.0	101.6	117.0
	25	1"	22.10	22.10	50.5	50.5	19.0	114.3	127.0
40	40	1½"	34.80	34.80	50.5	50.5	26.0	139.7	159.0
50	50	2"	47.50	47.50	64.0	64.0	32.0	158.8	190.0
	65	2½"	60.20	60.20	77.5	77.5	34.0	193.8	216.0
80	65	2½"	60.20	60.20	77.5	77.5	62.0	193.8	216.0
	80	3"	72.90	72.90	91.0	91.0	62.0	222.3	254.0
100	100	4"	97.38	97.38	119.0	119.0	76.0	292.1	305.0

Dimensions in mm

MG = diaphragm size

1) Connection type

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE, length only for body configuration D

Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 8P: Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configuration D

Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) Valve body material

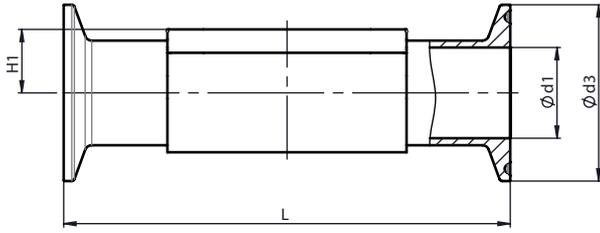
Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Code F4: 1.4539, forged body

Material code F4 only up to MG 50, from MG 80 material code 44.

Dimensions



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

MG	DN	NPS	ød1	ød3	H1	L
150	150	6"	146.86	167.0	101.0	406.0

Dimensions in mm

MG = diaphragm size

1) Connection type

Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) Valve body material

Code 41: 1.4435 (316L), block material

Code 43: 1.4435 (BN2), block material, Δ Fe < 0.5%

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

MG	DN	NPS	ød1	ød3	H1	L	
						Connection type	
						80, 8P	88, 8T
80	65	2½"	60.20	77.5	62.0	193.8	216.0
	80	3"	72.90	91.0	62.0	222.3	254.0
100	100	4"	97.38	119.0	76.0	292.1	305.0

Dimensions in mm

MG = diaphragm size

1) Connection type

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE, length only for body configuration D

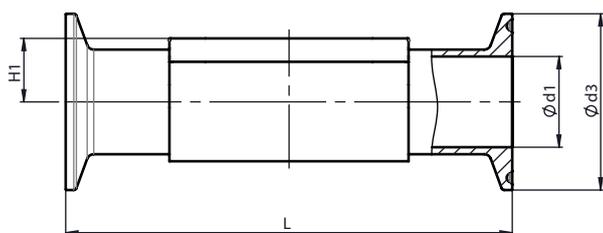
Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 8P: Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configuration D

Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) Valve body material

Code 44: 1.4539/UNS N08904, block material



Connection type clamp DIN/ISO (code 82, 8A, 8E)¹⁾, forged material (code 40, 42, F4)²⁾

MG	DN	NPS	ød1			ød3			H1	L		
			Connection type			Connection type				Connection type		
			82	8A	8E	82	8A	8E		82	8A	8E
8	6	1/8"	7.0	6.0	-	25.0	25.0	-	8.5	63.5	63.5	-
	8	1/4"	10.3	8.0	-	25.0	25.0	-	8.5	63.5	63.5	-
	10	3/8"	-	10.0	-	-	34.0	-	8.5	-	88.9	-
10	10	3/8"	14.0	10.0	-	25.0	34.0	-	12.5	108.0	108.0	-
	15	1/2"	18.1	16.0	-	50.5	34.0	-	12.5	108.0	108.0	-
25	15	1/2"	18.1	16.0	-	50.5	34.0	-	19.0	108.0	108.0	-
	20	3/4"	23.7	20.0	-	50.5	34.0	-	19.0	117.0	117.0	-
	25	1"	29.7	26.0	22.6	50.5	50.5	50.5	19.0	127.0	127.0	127.0
40	32	1 1/4"	38.4	32.0	31.3	64.0	50.5	50.5	26.0	146.0	146.0	146.0
	40	1 1/2"	44.3	38.0	35.6	64.0	50.5	50.5	26.0	159.0	159.0	159.0
50	50	2"	56.3	50.0	48.6	77.5	64.0	64.0	32.0	190.0	190.0	190.0
	65	2 1/2"	-	-	60.3	-	-	77.5	34.0	-	-	216.0
80	65	2 1/2"	72.1	66.0	60.3	91.0	91.0	77.5	62.0	216.0	216.0	216.0
	80	3"	84.3	81.0	72.9	106.0	106.0	91.0	62.0	254.0	254.0	254.0
100	100	4"	109.7	100.0	97.6	130.0	119.0	119.0	76.0	305.0	305.0	305.0

Dimensions in mm

MG = diaphragm size

1) **Connection type**

Code 82: Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 8A: Clamp DIN 32676 series A, face-to-face dimension FTF acc. to EN 558 series 7, length only for body configuration D

Code 8E: Clamp ISO 2852 for pipe ISO 2037, clamps SMS 3017 for pipe SMS 3008, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) **Valve body material**

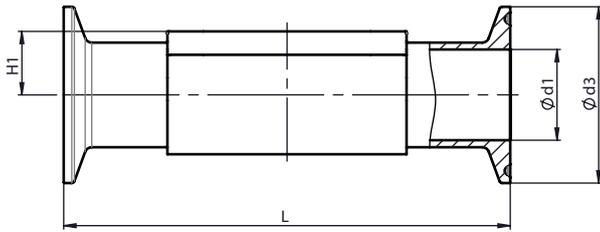
Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, $\Delta Fe < 0.5\%$

Code F4: 1.4539, forged body

Material code F4 only up to MG 50, from MG 80 material code 44.

Dimensions



Connection type clamp DIN/ISO (code 82, 8A, 8E)¹⁾, block material (code 44)²⁾

MG	DN	NPS	Ød1			Ød3			H1	L
			Connection type			Connection type				
			82	8A	8E	82	8A	8E		
80	65	2½"	72.1	66.0	60.3	91.0	91.0	77.5	62.0	216.0
	80	3"	84.3	81.0	72.9	106.0	106.0	91.0	62.0	254.0
100	100	4"	109.7	100.0	97.6	130.0	119.0	119.0	76.0	305.0

Dimensions in mm

MG = diaphragm size

1) Connection type

Code 82: Clamp DIN 32676 series B, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code 8A: Clamp DIN 32676 series A, face-to-face dimension FTF acc. to EN 558 series 7, length only for body configuration D

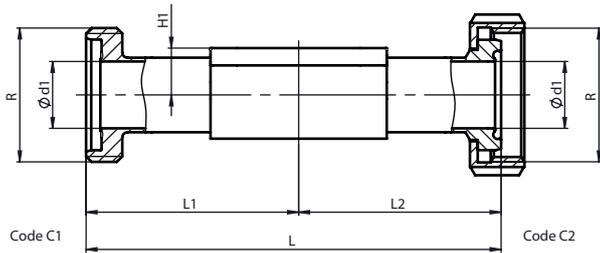
Code 8E: Clamp ISO 2852 for pipe ISO 2037, clamps SMS 3017 for pipe SMS 3008, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) Valve body material

Code 44: 1.4539/UNS N08904, block material

Aseptic connections

Aseptic union DIN



Aseptic union DIN, series A (code C1, C2)¹⁾, forged material (code 40, 42)²⁾

MG	DN	H1	Ød1	Thread	Connection type (code)			
					C1		C2	
					R	L	L1, L2	L
8	10	8.5	10.0	RD 28 x 1/8	88.0	44.0	84.0	42.0
10	10	12.5	10.0	RD 28 x 1/8	120.0	60.0	116.0	58.0
	15	12.5	16.0	RD 34 x 1/8	120.0	60.0	116.0	58.0
25	15	19.0	16.0	RD 34 x 1/8	120.0	60.0	116.0	58.0
	20	19.0	20.0	RD 44 x 1/6	144.0	72.0	138.0	69.0
	25	19.0	26.0	RD 52 x 1/6	164.0	82.0	156.0	78.0
40	32	26.0	32.0	RD 58 x 1/6	192.0	96.0	182.0	91.0
	40	26.0	38.0	RD 65 x 1/6	214.0	107.0	204.0	102.0
50	50	32.0	50.0	RD 78 x 1/6	244.0	122.0	242.0	121.0
80	65	62.0	66.0	RD 95 x 1/6	314.0	157.0	310.0	155.0
	80	62.0	81.0	RD 110 x 1/4	342.0	171.0	334.0	167.0
100	100	76.0	100.0	RD 130 x 1/4	398.0	199.0	390.0	195.0

MG = diaphragm size

Dimensions in mm

1) Connection type

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

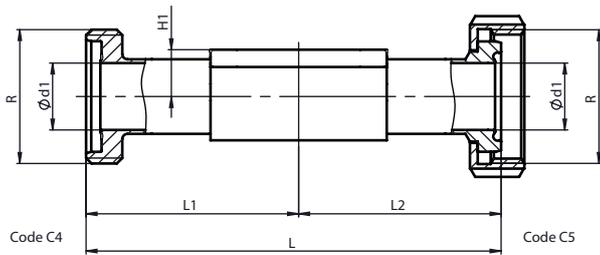
Code C2: Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series A and EN 10357 series A

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Dimensions



Aseptic union DIN, series B (code C4, C5)¹⁾, forged body (code 40, 42)²⁾

MG	DN	H1	Ød1	Thread	Connection type (code)			
					C4		C5	
					R	L	L1, L2	L
8	8	8.5	10.3	RD 28 x 1/8	88.0	44.0	84.0	42.0
10	10	12.5	14.0	RD 34 x 1/8	120.0	60.0	116.0	58.0
	15	12.5	18.1	RD 44 x 1/6	120.0	60.0	116.0	58.0
25	15	19.0	18.1	RD 44 x 1/6	120.0	60.0	116.0	58.0
	20	19.0	23.7	RD 52 x 1/6	144.0	72.0	138.0	69.0
	25	19.0	29.7	RD 58 x 1/6	164.0	82.0	156.0	78.0
40	32	26.0	38.4	RD 65 x 1/6	192.0	96.0	182.0	91.0
	40	26.0	44.3	RD 78 x 1/6	214.0	107.0	204.0	102.0
50	50	32.0	56.3	RD 95 x 1/6	244.0	122.0	242.0	121.0
80	65	62.0	72.1	RD 110 x 1/4	314.0	157.0	310.0	155.0
	80	62.0	84.3	RD 130 x 1/4	342.0	171.0	334.0	167.0

MG = diaphragm size

Dimensions in mm

1) Connection type

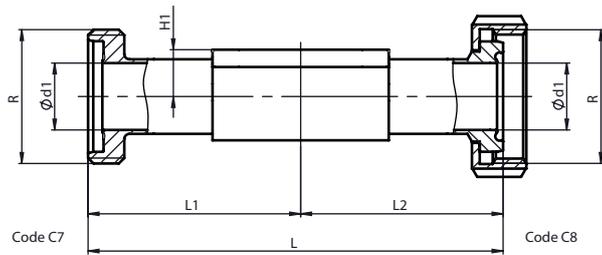
Code C4: Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 series B and EN ISO 1127

Code C5: Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series B and EN ISO 1127

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%


Aseptic union DIN, series C (code C7, C8) ¹⁾, forged body (code 40, 42) ²⁾

MG	DN	H1	Ød1	Thread	Connection type (code)			
					C7		C8	
					R	L	L1, L2	L
8	15	8.5	9.4	RD 28 x 1/8	88.0	44.0	84.0	42.0
10	15	12.5	9.4	RD 28 x 1/8	120.0	60.0	116.0	58.0
	20	12.5	15.75	RD 34 x 1/8	144.0	72.0	138.0	69.0
25	15	19.0	9.4	RD 28 x 1/8	120.0	60.0	116.0	60.0
	20	19.0	15.75	RD 34 x 1/8	144.0	72.0	138.0	69.0
	25	19.0	22.1	RD 52 x 1/6	164.0	82.0	156.0	78.0
40	40	26.0	34.8	RD 65 x 1/6	214.0	107.0	204.0	102.0
50	50	32.0	47.5	RD 78 x 1/6	244.0	122.0	242.0	121.0
	65	32.0	60.2	RD 95 x 1/6	314.0	157.0	310.0	155.0
80	65	62.0	60.2	RD 95 x 1/6	314.0	157.0	310.0	155.0
	80	62.0	72.9	RD 110 x 1/4	342.0	171.0	334.0	167.0
100	100	76.0	97.38	RD 130 x 1/4	398.0	199.0	390.0	195.0

MG = diaphragm size

Dimensions in mm

1) Connection type

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

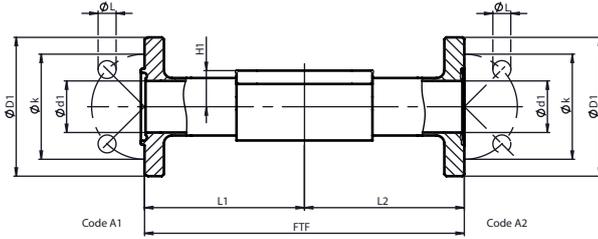
Code C8: Aseptic union nut with grooved union nut DIN 11864-BS, for pipe DIN 11866 series C and ASME BPE

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Aseptic flange DIN



Aseptic flange DIN, series A (code A1, A2)¹⁾, forged material (code 40, 42)²⁾

MG	DN	H1	Ød1	ØD1	Øk	ØL	Connection type (code)			
							A1		A2	
							FTF	L1, L2	FTF	L1, L2
8	10	8.5	10.0	54.0	37.0	4 x 9	100.0	50.0	100.0	50.0
10	10	12.5	10.0	54.0	37.0	4 x 9	130.0	65.0	130.0	65.0
	15	12.5	16.0	59.0	42.0	4 x 9	130.0	65.0	130.0	65.0
25	15	19.0	16.0	59.0	42.0	4 x 9	130.0	65.0	130.0	65.0
	20	19.0	20.0	64.0	47.0	4 x 9	150.0	75.0	150.0	75.0
	25	19.0	26.0	70.0	53.0	4 x 9	160.0	80.0	160.0	80.0
40	32	26.0	32.0	76.0	59.0	4 x 9	180.0	90.0	180.0	90.0
	40	26.0	38.0	82.0	65.0	4 x 9	200.0	100.0	200.0	100.0
50	50	32.0	50.0	94.0	77.0	4 x 9	230.0	115.0	230.0	115.0
80	65	62.0	66.0	113.0	95.0	8 x 9	290.0	145.0	290.0	145.0
	80	62.0	81.0	133.0	112.0	8 x 11	310.0	155.0	310.0	155.0
100	100	76.0	100.0	159.0	137.0	8 x 11	350.0	175.0	350.0	175.0

MG = diaphragm size
Dimensions in mm

1) **Connection type**

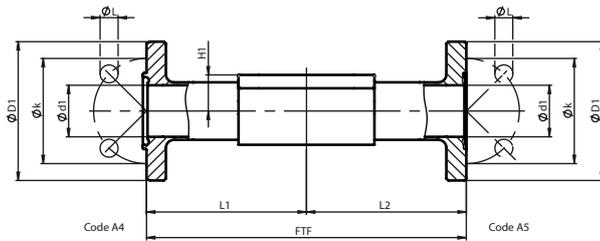
Code A1: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 1, length only for body configuration D

Code A2: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 1, length only for body configuration D

2) **Valve body material**

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%



Aseptic flange DIN, series B (code A4, A5)¹⁾, forged material (code 40, 42)²⁾

MG	DN	H1	$\varnothing d_1$	$\varnothing D_1$	$\varnothing k$	$\varnothing L$	Connection type (code)			
							A4		A5	
							FTF	L1, L2	FTF	L1, L2
8	8	8.5	10.3	54.0	37.0	4 x 9.0	100.0	50.0	100.0	50.0
10	10	12.5	14.0	59.0	42.0	4 x 9.0	130.0	65.0	130.0	65.0
	15	12.5	18.1	62.0	45.0	4 x 9.0	130.0	65.0	130.0	65.0
25	15	19.0	18.1	62.0	45.0	4 x 9.0	130.0	65.0	130.0	65.0
	20	19.0	23.7	69.0	52.0	4 x 9.0	150.0	75.0	150.0	75.0
	25	19.0	29.7	74.0	57.0	4 x 9.0	160.0	80.0	160.0	80.0
40	32	26.0	38.4	82.0	65.0	4 x 9.0	180.0	90.0	180.0	90.0
	40	26.0	44.3	88.0	71.0	4 x 9.0	200.0	100.0	200.0	100.0
50	50	32.0	56.3	103.0	85.0	4 x 9.0	230.0	115.0	230.0	115.0
80	65	62.0	72.1	125.0	104.0	8 X 11.0	290.0	145.0	290.0	145.0
	80	62.0	84.3	137.0	116.0	8 X 11.0	310.0	155.0	310.0	155.0
100	100	76.0	109.7	168.0	146.0	8 X 11.0	350.0	175.0	350.0	175.0

MG = diaphragm size

Dimensions in mm

1) Connection type

Code A4: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 1, length only for body configuration D

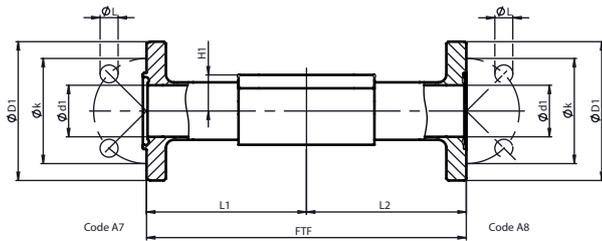
Code A5: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 1, length only for body configuration D

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, $\Delta Fe < 0.5\%$

Dimensions



Aseptic flange DIN, series C (code A7, A8)¹⁾, forged material (code 40, 42)²⁾

MG	DN	H1	Ød1	ØD1	Øk	ØL	Connection type (code)			
							A7		A8	
							FTF	L1, L2	FTF	L1, L2
8	15	8.5	9.40	54.0	37.0	4 x 9.0	100.0	50.0	100.0	50.0
10	15	12.5	9.40	54.0	37.0	4 x 9.0	130.0	65.0	130.0	65.0
	20	12.5	15.75	59.0	42.0	4 x 9.0	150.0	75.0	150.0	75.0
25	15	19.0	9.40	54.0	37.0	4 x 9.0	130.0	65.0	130.0	65.0
	20	19.0	15.75	59.0	42.0	4 x 9.0	150.0	75.0	150.0	75.0
	25	19.0	22.10	66.0	49.0	4 x 9.0	160.0	80.0	160.0	80.0
40	40	26.0	34.80	79.0	62.0	4 x 9.0	200.0	100.0	200.0	100.0
50	50	32.0	47.50	92.0	75.0	4 x 9.0	230.0	115.0	230.0	115.0
	65	32.0	60.20	107.0	89.0	8 x 9.0	290.0	145.0	290.0	145.0
80	65	62.0	60.20	107.0	89.0	8 x 9.0	290.0	145.0	290.0	145.0
	80	62.0	72.90	125.0	104.0	8 x 11.0	310.0	155.0	310.0	155.0
100	100	76.0	97.38	157.0	135.0	8 x 11.0	350.0	175.0	350.0	175.0

MG = diaphragm size

Dimensions in mm

1) Connection type

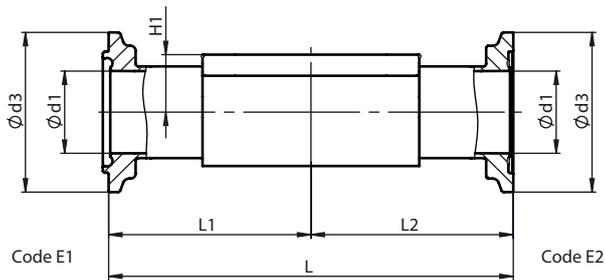
Code A7: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series C and ASME BPE, face-to-face dimension FTF EN 558 series 1, length only for body configuration D

Code A8: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series C and ASME BPE, face-to-face dimension FTF EN 558 series 1, length only for body configuration D

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, Δ Fe < 0.5%

Aseptic clamp DIN**Aseptic clamp DIN, series A (code E1, E2)¹⁾, forged material (code 40, 42)²⁾**

MG	DN	H1	$\varnothing d1$	$\varnothing d3$	Connection type (code)			
					E1		E2	
					L	L1, L2	L	L1, L2
8	10	8.5	10.0	34.0	88.9	44.45	88.9	44.45
10	10	12.5	10.0	34.0	108.0	54.0	108.0	54.0
	15	12.5	16.0	34.0	108.0	54.0	108.0	54.0
25	15	19	16.0	34.0	108.0	54.0	108.0	54.0
	20	19	20.0	50.5	117.0	58.5	117.0	58.5
	25	19	26.0	50.5	127.0	63.5	127.0	63.5
40	32	26	32.0	50.5	146.0	73.0	146.0	73.0
	40	26	38.0	64.0	159.0	79.5	159.0	79.5
50	50	32	50.0	77.5	190.0	95.0	190.0	95.0
80	65	62	66.0	91.0	216.0	108.0	216.0	108.0
	80	62	81.0	106.0	254.0	127.0	254.0	127.0
100	100	76	100.0	130.0	305.0	152.5	305.0	152.5

MG = diaphragm size

Dimensions in mm

1) Connection type

Code E1: Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

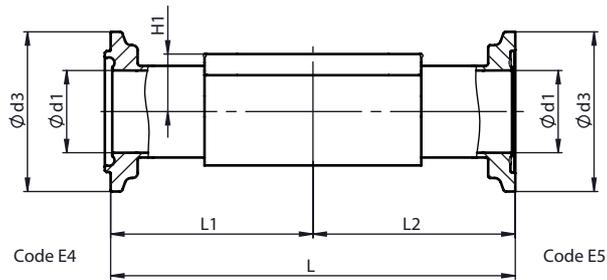
Code E2: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, $\Delta Fe < 0.5\%$

Dimensions



Aseptic clamp DIN, series B (code E4, E5)¹⁾, forged body (code 40, 42)²⁾

MG	DN	H1	Ød1	Ød3	Connection type (code)			
					E4		E5	
					L	L1, L2	L	L1, L2
8	8	8.5	10.3	34.0	88.9	44.45	88.9	44.45
10	10	12.5	14.0	34.0	108.0	54.0	108.0	54.0
	15	12.5	18.1	34.0	108.0	54.0	108.0	54.0
25	15	19.0	18.1	34.0	108.0	54.0	108.0	54.0
	20	19.0	23.7	50.5	117.0	58.5	117.0	58.5
	25	19.0	29.7	50.5	127.0	63.5	127.0	63.5
40	32	26.0	38.4	64.0	146.0	73.0	146.0	73.0
	40	26.0	44.3	64.0	159.0	79.5	159.0	79.5
50	50	32.0	56.3	91.0	190.0	95.0	190.0	95.0
80	65	62.0	72.1	106.0	216.0	108.0	216.0	108.0
	80	62.0	84.3	130.0	254.0	127.0	254.0	127.0

MG = diaphragm size

Dimensions in mm

1) Connection type

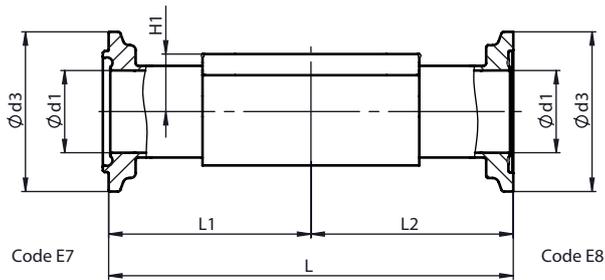
Code E4: Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code E5: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, $\Delta Fe < 0.5\%$


Aseptic clamp DIN, series C (code E7, E8)¹⁾, forged body (code 40, 42)²⁾

MG	DN	H1	Ød1	Ød3	Connection type (code)			
					E7		E8	
					L	L1, L2	L	L1, L2
8	15	8.5	9.4	34.0	88.9	44.45	88.9	44.45
10	15	12.5	9.4	34.0	108.0	54.0	108.0	54.0
	20	12.5	15.75	34.0	108.0	54.0	108.0	54.0
25	15	19.0	9.4	34.0	108.0	54.0	108.0	54.0
	20	19.0	15.75	34.0	117.0	58.5	117.0	58.5
	25	19.0	22.1	50.5	127.0	63.5	127.0	63.5
40	40	26.0	34.8	64.0	159.0	79.5	159.0	79.5
50	50	32.0	47.5	77.5	190.0	95.0	190.0	95.0
	65	32.0	60.2	91.0	216.0	108.0	216.0	108.0
80	65	62.0	60.2	91.0	216.0	108.0	216.0	108.0
	80	62.0	72.9	106.0	254.0	127.0	254.0	127.0
100	100	76.0	97.38	130.0	305.0	152.5	305.0	152.5

MG = diaphragm size

Dimensions in mm

1) Connection type

Code E7: Aseptic grooved clamp DIN 11864-NKS, for pipe DIN 11866 series C/ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

Code E8: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series C/ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D

2) Valve body material

Code 40: 1.4435 (F316L), forged body

Code 42: 1.4435 (BN2), forged body, $\Delta Fe < 0.5\%$



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