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

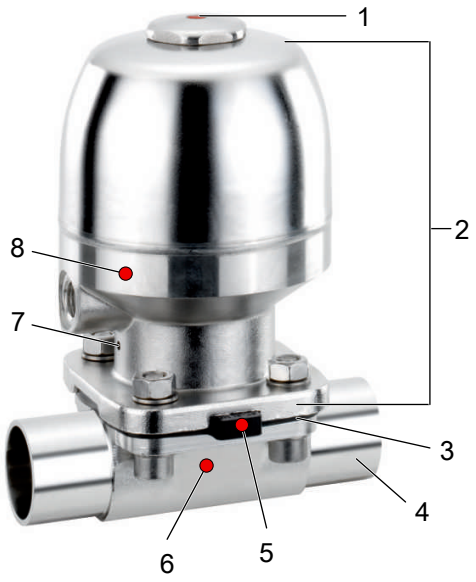
- **Media temperature :** -30 to 130 °C
- **Sterilization temperature:** max. 150 °C
- **Ambient temperature:** -20 to 60 °C
- **Operating pressure :** 0 to 10 bar
- **Nominal sizes:** DN 4 to 150
- **Body configurations:** i-body I Multi-port body I Straight through body I T body I Tank valve body I Welding configuration
- **Connection types:** Clamp I Flange I Spigot I thread
- **Connection standards :** ANSI I ASME I BS I DIN I EN I ISO I JIS I SMS
- **Body materials:** (316L), forging material I 1.4408, investment casting material I 1.4408, investment casting material, PFA lined I 1.4435 (316L), block material I 1.4435 (BN2), forged material I 1.4435, investment casting material I 1.4539 (904L), forged material I 3.7035, titanium, block material
- **Diaphragm materials:** EPDM I FKM I PTFE/EPDM I PTFE/PVDF/EPDM
- **Conformities:** 3A I ATEX I BSE/TSE I CRN I EAC I EHEDG I FDA I FMEDA I Oxygen I Reg. (EU) No. 10/2011 I Regulation (EC) No. 1935/2004 I Regulation (EC) No. 2023/2006 I SIL I TA Luft (German Clean Air Act) I USP

Technical data depends on the respective configuration

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, Δ Fe < 0.5% 1.4435 (BN2), block material, Δ Fe < 0.5% 1.4539, forged body 1.4539, block material 2.4602, Alloy 22 block material 3.7035, titanium
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)	

* The leak detection hole is always in-line with flow direction.
Note: The distance piece has a leak detection hole to provide a visible indication of medium escaping in the event of a diaphragm leakage or break. The leak detection hole drains leaking medium to the outside. The leak detection hole is in-line with flow direction.

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 bodies [1)]

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 [3)] ≤ 0.25 µm	H5	1527	HE5	1516

Process contact surfaces 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	SF3	SF3	-	-
Ra Max. = 0.64 µm	SF2	SF2	SF6	SF6
Ra Max. = 0.51 µm	SF1	SF1	SF5	SF5
Ra Max. = 0.38 µm	-	-	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 [5)] ≤ 0.60 µm	-	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 value for pipe inside 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	Body configuration D																	
		Connection type code [1]																	
		0		16	17				18	35			36			37			55
		Material code [2]																	
		C3	40, 42, F4, A1, A3	40, 42, F4, A1, A3	C3	40, 42, A1, A3	F4	44	40, 42, F4, A1, A3	40, 42, A1, A3	F4	44	40, 42, A1, A3	F4	44	C3	40, 42, A1, A3	F4	44	40, 42, F4, A1, A3
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: DIN spigot
Code 16: Spigots 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: SMS 3008 spigot
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 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

MG	DN	Body configuration D																	
		Connection type code [1]																	
		59					60				63			64			65		
		Material code [2]																	
		C3	40, 42, A1, A3	F4	44	41, 43	C3	40, 42, A1, A3	F4	44	40, 42, A1, A3	F4	44	40, 42, A1, A3	F4	44	40, 42, A1, A3	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 edition)/DIN 11866 series C
Code 60: Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B
Code 63: Spigot ANSI/ASME B36.19M Schedule 10s
Code 64: Spigot ANSI/ASME B36.19M Schedule 5s
Code 65: ANSI/ASME B36.19M Schedule 40s spigot

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 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

MG	DN	Body configuration F
		Connection type code [1] 59
		Material code [2] 40
80	65	X
	80	X
100	100	X

MG = diaphragm size
X = Standard

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

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

Threaded connection

MG	DN	Body configuration D		
		Connection type code [1]		
		1	1L	6, 6K
		Material code [2]		
		37		40, 42, A3
8	8	X	-	-
	10	-	-	W
10	10	-	-	W
	12	X	-	-
	15	X	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
100	100	-	-	W

MG = diaphragm size
X = Standard
W = welded assembly

1) **Connection type**
Code 1: Threaded socket DIN ISO 228
Code 1L: Threaded socket DIN ISO 228 body length (FTF): 75 mm
Code 6: Threaded spigot DIN 11851
Code 6K: Tapered connector 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%
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

Flange

MG	DN	Body configuration D							
		Connection type code [1]							
		8			34	38	39		
		Material code [2]							
		C3	39	40, 42, A1, A3	39	39	C3	39	40, 42, A1, A3
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, Overall length FTF EN 558 Series 1, ISO 5752, basic series 1, Overall length only for housing form 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 lining
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 A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

Clamp

Body configuration D

MG	DN	Body configuration D													
		Connection type code [1]													
		80			82			84		86		88			
		Material code [2]													
		40, 42, A1, A3	F4	44	40, 42, A1, A3	F4	44	40, 42	F4	40, 42, A1, A3	F4	40, 42, A1, A3	F4	41, 43	44
8	**6**	-	-	-	K	K	-	-	-	-	-	-	-	-	-
	8	K	K	-	K	K	-	-	-	-	-	-	-	-	-
	10	K	K	-	-	-	-	-	-	W	W	-	-	-	-
	15	K	K	-	-	-	-	W	W	-	-	W	W	-	-
10	**10**	K	W	-	K	W	-	-	-	W	W	-	-	-	-
	15	K	W	-	W	W	-	K	W	W	W	K	W	-	-
	20	K	W	-	-	-	-	K	W	-	-	K	W	-	-
25	**15**	-	-	-	W	W	-	K	K	W	W	-	-	-	-
	20	K	K	-	K	W	-	K	K	W	W	K	K	-	-
	25	K	W	-	K	W	-	-	-	W	W	K	W	-	-
40	**32**	-	-	-	W	W	-	-	-	W	W	-	-	-	-
	40	K	K	-	W	W	-	-	-	W	W	K	K	-	-
50	**50**	K	K	-	W	W	-	-	-	W	W	K	K	-	-
	65	W	W	-	-	-	-	-	-	-	-	W	W	-	-
80	**65**	K	-	K	K	-	K	-	-	K	-	K	-	-	K
	80	K	-	K	W	-	W	-	-	W	-	K	-	-	K
100	**100**	W	-	W	W	-	W	-	-	W	-	W	-	-	W
150	**150**	-	-	-	-	-	-	-	-	-	-	-	-	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 configurations D & F
Code 82: Clamp DIN 32676 Series B, Overall length FTF EN 558 Series 7, Overall length only for housing type D
Code 84: Clamp for tube BS 4825 Part 1, DN 15 and DN 20, clamp OD 25.0 mm, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
Code 86: Clamp DIN 32676 series A
Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F

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 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

MG	DN	Body configuration D																
		Connection type code [1]																
		8A			8E			8F		8H		8P			8T			
		Material code [2]																
		40, 42	F4	44	40, 42, A1, A3	F4	44	40, 42, A1, A3	F4	40, 42	F4	40, 42, A1, A3	F4	44	40, 42, A1, A3	F4	44	41, 43
8	6	K	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	K	K	-	-	-	-	-	-	W	W	K	K	-	-	-	-	-
	10	W	W	-	-	-	-	-	-	-	-	K	K	-	-	-	-	-
	15	-	-	-	-	-	-	-	-	-	-	K	K	-	W	W	-	-
10	10	K	W	-	-	-	-	-	-	K	W	K	W	-	-	-	-	-
	15	K	W	-	-	-	-	-	-	K	W	K	W	-	K	W	-	-
	20	-	-	-	-	-	-	-	-	-	-	K	W	-	K	W	-	-
25	15	K	K	-	-	-	-	-	-	K	W	-	-	-	-	-	-	-
	20	K	K	-	-	-	-	-	-	-	-	K	K	-	K	K	-	-
	25	K	W	-	K	W	-	K	W	-	-	K	W	-	K	W	-	-
40	32	K	K	-	K	K	-	K	K	-	-	-	-	-	-	-	-	-
	40	K	K	-	K	K	-	K	K	-	-	K	K	-	K	K	-	-
50	50	K	K	-	K	K	-	K	K	-	-	K	K	-	K	K	-	-
	65	-	-	-	W	W	-	W	W	-	-	W	W	-	W	W	-	-
80	65	K	-	K	K	-	K	K	-	-	-	K	-	K	K	-	K	-
	80	W	-	W	K	-	K	K	-	-	-	K	-	K	K	-	K	-
100	100	W	-	W	W	-	W	W	-	-	-	W	-	W	W	-	W	-
150	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	W

MG = diaphragm size
K = connections completely machined (not welded)
W = welded assembly

1) **Connection type**
Code 8A: Clamp DIN 32676 Series A, Overall length FTF according to EN 558 Series 7, Overall length only for housing type D
Code 8E: Clamp ISO 2852 for pipe ISO 2037, Clamp SMS 3017 for pipe SMS 3008 Overall length FTF EN 558 Series 7, Overall length only for housing type D
Code 8F: Clamp IDF/ISO for tube JIS-G 3447, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
Code 8H: Clamp IDF/ISO for tube JIS-G 3459, 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 configurations D & F
Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F

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 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

Availabilities

MG	DN	Body configuration F	
		Connection type code [1]	
		80, 8P	88, 8T
		Material code [2]	
		40	40
80	65	W	W
	80	W	W
100	100	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 configurations D & F
Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F
Code 8P: Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configurations D & F
Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F

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

Aseptic connections

MG	DN	Body configuration D								
		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 [2] 40, 42, 44, F4, A3								
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	X

MG = diaphragm size
X = Standard

1) **Connection type**
Code A1: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 Series A and EN 10357 Series A, overall length FTF EN 558 Series 1, overall length only for housing form D
Code A2: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 Series A and EN 10357 Series A, overall length FTF EN 558 Series 1, overall length only for housing form D
Code A4: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 1, overall length only for housing form D
Code A5: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127 Overall length FTF EN 558 series 1, Overall length only for housing form 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 configurations D & F
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 configurations D & F
Code C1: Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 Series A and EN 10357 Series A
Code C2: Aseptic union nipple with groove cap 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 nipple with groove cap 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 nipple with groove cap 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, overall length FTF EN 558 series 7, overall length only for housing form D
Code E2: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A, overall length FTF EN 558 series 7, overall length only for housing form D
Code E4: Grooved clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form D
Code E5: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form 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 configurations D & F
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 configurations D & F

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

Availabilities

MG	DN	Body configuration D								
		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 [2] 40, 42, 44, F4, A3								
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
X = Standard

1) **Connection type**
Code A1: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 Series A and EN 10357 Series A, overall length FTF EN 558 Series 1, overall length only for housing form D
Code A2: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 Series A and EN 10357 Series A, overall length FTF EN 558 Series 1, overall length only for housing form D
Code A4: Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 1, overall length only for housing form D
Code A5: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127 Overall length FTF EN 558 series 1, Overall length only for housing form 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 configurations D & F
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 configurations D & F
Code C1: Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 Series A and EN 10357 Series A
Code C2: Aseptic union nipple with groove cap 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 nipple with groove cap 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 nipple with groove cap 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, overall length FTF EN 558 series 7, overall length only for housing form D
Code E2: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A, overall length FTF EN 558 series 7, overall length only for housing form D
Code E4: Grooved clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form D
Code E5: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form 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 configurations D & F
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 configurations D & F

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

MG	DN	Body configuration F		
		Connection type code [1]		
		Flange	Threaded connection	Clamp
		A7, A8	C7, C8	E7, E8
		Material code [2] 40		
80	65	W	W	W
	80	W	W	W
100	100	W	W	W

MG = diaphragm size
W = welded assembly

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 configurations D & F
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 configurations D & F
Code C7: Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 series C and ASME BPE
Code C8: Aseptic union nipple with groove cap nut DIN 11864-BS, for pipe DIN 11866 series C and ASME BPE
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 configurations D & F
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 configurations D & F

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

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 [1)]	PTFE [1)]
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

1) **Diaphragm material**
Code 13: EPDM
Code 17: EPDM
Code 19: EPDM
Code 3A: EPDM
Code 4: FKM
Code 4A: FKM
Code 54: PTFE/EPDM one-piece
Code 5M: PTFE/EPDM two-piece
Code 5Q: PTFE/EPDM two-piece
Code 5Y: PTFE/EPDM two-piece for lining bodies
Code 71: PTFE/PVDF/EPDM three-piece

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
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
Floor drain	B
Body configuration code B: Dimensions and designs on request	
2/2-way body	D
2/2-way body, optimized flow and weight	F
T-body	T
Body configuration code T: Dimensions on request	

4 Connection type	Code
Spigot	
DIN spigot	0
Spigots 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 3459 schedule 5s	32
Spigot JIS-G 3447	35
Spigot JIS-G 3459 Schedule 10s	36
SMS 3008 spigot	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

4 Connection type	Code
Spigot ANSI/ASME B36.19M Schedule 5s	64
ANSI/ASME B36.19M Schedule 40s spigot	65
Threaded connection	
Threaded socket DIN ISO 228	1
Threaded socket DIN ISO 228 body length (FTF): 75 mm	1L
Threaded spigot DIN 11851	6
Tapered connector 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, Overall length FTF EN 558 Series 1, ISO 5752, basic series 1, Overall length only for housing form 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 configurations D & F	80
Clamp DIN 32676 Series B, Overall length FTF EN 558 Series 7, Overall length only for housing type D	82
Clamp for tube BS 4825 Part 1, DN 15 and DN 20, clamp OD 25.0 mm, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	84
Clamp DIN 32676 series A	86
Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F	88
Clamp DIN 32676 Series A, Overall length FTF according to EN 558 Series 7, Overall length only for housing type D	8A
Clamp ISO 2852 for pipe ISO 2037, Clamp SMS 3017 for pipe SMS 3008 Overall length FTF EN 558 Series 7, Overall length only for housing type D	8E

4 Connection type	Code
Clamp IDF/ISO for tube JIS-G 3447, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	8F
Clamp IDF/ISO for tube JIS-G 3459, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	8H
Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configurations D & F	8P
Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F	8T
Aseptic connections	
Flange	
Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 Series A and EN 10357 Series A, overall length FTF EN 558 Series 1, overall length only for housing form D	A1
Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 Series A and EN 10357 Series A, overall length FTF EN 558 Series 1, overall length only for housing form D	A2
Aseptic grooved flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 1, overall length only for housing form D	A4
Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127 Overall length FTF EN 558 series 1, Overall length only for housing form 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 configurations D & F	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 configurations D & F	A8
Threaded connection	
Aseptic threaded spigot DIN 11864-GS, for pipe DIN 11866 Series A and EN 10357 Series A	C1
Aseptic union nipple with groove cap 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 nipple with groove cap 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 nipple with groove cap 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, overall length FTF EN 558 series 7, overall length only for housing form D	E1

4 Connection type	Code
Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A, overall length FTF EN 558 series 7, overall length only for housing form D	E2
Grooved clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form D	E4
Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form 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 configurations D & F	E7
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 configurations D & F	E8

5 Valve body material	Code
Investment casting material	
1.4408, investment casting	37
1.4408, PFA lining	39
1.4435, investment casting	C3
Forged material	
1.4435 (F316L), forged body	40
1.4435 (BN2), forged body, Δ Fe < 0.5%	42
1.4539 / UNS N08904, forged body	F4
Block material	
1.4435 (316L), block material	41
1.4435 (BN2), block material, Δ Fe < 0.5%	43
1.4539 / UNS N08904, block material	44
3.7035, titanium	A1
2.4602, block material Alloy 22, (NiCr21Mo14W)	A3

6 Diaphragm material	Code
Elastomer	
EPDM	3A
FKM	4
FKM	4A
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

6 Diaphragm material	Code
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 0T1 control air connector in-line with flow direction	0T1
Actuator size 0R1 control air connector 90° offset to flow direction	0R1
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

8 Actuator version	Code
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
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 surfaces in contact with media, mechanically polished on the inside	1500
Ra ≤ 0.8 µm for surfaces in contact with media, in accordance with DIN 11866 H3 mechanically polished on the inside	1502
Ra ≤ 0.8 µm for surfaces in contact with media, in accordance with DIN 11866 HE3, electropolished inside/outside	1503
Ra ≤ 0.6 µm for surfaces in contact with media, mechanically polished on the inside	1507
Ra ≤ 0.6 µm for surfaces in contact with media, electropolished inside/outside	1508

9 Surface	Code
Ra ≤ 0.4 µm for surfaces in contact with media, in accordance with DIN 11866 H4, mechanically polished on the inside	1536
Ra ≤ 0.4 µm for surfaces in contact with media, in accordance with DIN 11866 HE4, electropolished inside/outside	1537
Ra ≤ 0.25 µm for surfaces in contact with media *), in accordance with DIN 11866 H5, mechanically polished on the inside, *) for pipe inner Ø < 6 mm, Ra ≤ 0.38 µm in the spigot	1527
Ra ≤ 0.25 µm for surfaces in contact with media *), in accordance with DIN 11866 HE5, electropolished inside/outside, *) for pipe inner diameter < 6 mm, Ra ≤ 0.38 µm in the spigot	1516
Ra max. 0.51 µm (20 µin.) for surfaces in contact with media, in accordance with ASME BPE SF1, internally mechanically polished	SF1
Ra max. 0.64 µm (25 µin.) for surfaces in contact with media, in accordance with ASME BPE SF2, internally mechanically polished	SF2
Ra max. 0.76 µm (30 µin.) for surfaces in contact with media, in accordance with ASME BPE SF3, mechanically polished interior	SF3

9 Surface	Code
Ra max. 0.38 µm (15 µin.) for surfaces in contact with media, in accordance with ASME BPE SF4, electropolished inside/outside	SF4
Ra max. 0.51 µm (20 µin.) for surfaces in contact with media, in accordance with ASME BPE SF5, electropolished inside/outside	SF5
Ra max. 0.64 µm (25 µin.) for surfaces in contact with media, in accordance with ASME BPE SF6, electropolished inside/outside	SF6

10 Special version	Code
Special version for 3A	M
Special version for oxygen applications. Operating temperature restricted according to product label. Media wetted materials cleaned. Seals and oxygen grease used tested according to DIN EN 1797 / ISO 21010	S
ATEX marking following testing by IBExU	Y

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 edition)/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 surfaces in contact with media, in accordance with DIN 11866 HE3, electropolished inside/outside
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 for 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) 3.7035, titanium (code A1) 2.4602, Alloy 22 block material (code A3)	-10 — 100 °C	0 — 60 °C
10, 25, 40, 50, 80, 100	FKM (code 4A/4)	1.4408, investment casting (code 37) 1.4408, PFA lined (code 39) 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 — 90 °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) 3.7035, titanium (code A1) 2.4602, Alloy 22 block material (code A3)	-20 — 100 °C	0 — 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 — 100 °C	0 — 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) 2.4602, Alloy 22 block material (code A3)	-20 — 130 °C*	0 — 60 °C
		3.7035, titanium (code A1)	-10 — 130 °C*	
25, 40, 50, 80, 100	EPDM (code 19)	1.4408, PFA lined (code 39)	-20 — 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 — 130 °C*	0 — 60 °C
8, 10, 25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4408, investment casting (code 37)	-30 — 130 °C*	0 — 60 °C
		1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43) 2.4602, Alloy 22 block material (code A3)	-30 — 130 °C*	0 — 60 °C
		3.7035, titanium (code A1)	-10 — 130 °C*	
25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4408, PFA lined (code 39)	-20 — 100 °C*	-
25, 40, 50, 80, 100	PTFE/PVDF/EPDM (code 71)	1.4408, PFA lined (code 39)	-10 — 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 — 130 °C*	0 — 60 °C

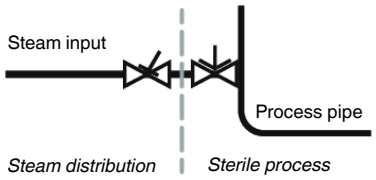
MG	Diaphragm material	Valve body material	Standard	Special version for oxygen
10, 25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4408, investment casting (code 37)	-20 — 130 °C*	-
		1.4435, forged body (code 40, 42) 1.4435, block material (code 41, 43) 2.4602, Alloy 22 block material (code A3)	-30 — 130 °C*	-
		3.7035, titanium (code A1)	-10 — 130 °C*	
25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4408, PFA lined (code 39)	-20 — 100 °C*	-
25	PTFE/EPDM (code 5Y)	1.4408, PFA lined (code 39)	-10 — 100 °C	-
150	PTFE/EPDM (code 5Q)	1.4435, block material (code 41, 43) 1.4539, block material (code 44)	-10 — 100 °C	0 — 60 °C

MG = diaphragm size
* The service life of the diaphragms is reduced at temperatures below -10 °C and above +100 °C. The maintenance cycles must be carried out in shorter time intervals accordingly.

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.



Ambient temperature:

MG	Diaphragm material	Valve body material	Standard	Special version for 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) 3.7035, titanium (code A1) 2.4602, Alloy 22 block material (code A3)	-10 — 60 °C	Max. 60 °C
10, 25, 40, 50, 80, 100	EPDM (code 4A/4)	1.4408, investment casting (code 37) 1.4408, PFA lined (code 39) 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) 2.4602, Alloy 22 block material (code A3)	0 — 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) 3.7035, titanium (code A1) 2.4602, Alloy 22 block material (code A3)	-10 — 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) 3.7035, titanium (code A1) 2.4602, Alloy 22 block material (code A3)	-10 — 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) 2.4602, Alloy 22 block material (code A3)	-20 — 60 °C	Max. 60 °C
25, 40, 50, 80, 100	EPDM (code 19)	1.4408, PFA lined (code 39) 2.4602, Alloy 22 block material (code A3)	-20 — 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) 3.7035, titanium (code A1) 2.4602, Alloy 22 block material (code A3)	-10 — 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) 2.4602, Alloy 22 block material (code A3)	-20 — 60 °C	Max. 60 °C
25, 40, 50, 80, 100	PTFE/EPDM (code 54)	1.4408, PFA lined (code 39) 2.4602, Alloy 22 block material (code A3)	-20 — 60 °C	-
25, 40, 50, 80, 100	PTFE/PVDF/EPDM (code 71)	1.4408, PFA lined (code 39) 2.4602, Alloy 22 block material (code A3)	-20 — 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) 3.7035, titanium (code A1) 2.4602, Alloy 22 block material (code A3)	-10 — 60 °C	Max. 60 °C

MG	Diaphragm material	Valve body material	Standard	Special version for oxygen
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) 2.4602, Alloy 22 block material (code A3)	-20 — 60 °C	Max. 60 °C
25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	1.4408, PFA lined (code 39) 2.4602, Alloy 22 block material (code A3)	-20 — 60 °C	-
25	PTFE/EPDM (code 5Y)	1.4408, PFA lined (code 39) 2.4602, Alloy 22 block material (code A3)	-20 — 60 °C	-
150	PTFE/EPDM (code 5Q)	1.4435, block material (code 41, 43) 1.4539, block material (code 44) 2.4602, Alloy 22 block material (code A3)	0 — 60 °C	Max. 60 °C

MG = diaphragm size

For ATEX versions, the ambient temperature specifications in the “Supplement acc. to ATEX” and the specifications on the ATEX marking on the product apply.

Control medium temperature: 0 — 70 °C

For versions 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, 4, 4A, 17, 19	0 - 8
			0TA, 0RA		0 - 10
		2 + 3	0T1, 0TA, 0R1, 0RA		0 - 10
10	**10 - 20**	1	1T1, 1R1	4, 4A, 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	4, 4A, 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	4, 4A, 13, 17, 19	0 - 10
		2 + 3	3T1, 3R1		0 - 10
			3D1, 3B1		0 - 10
50	**50 - 65**	1	4T1, 4R1	4, 4A, 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	4, 4A, 13, 17, 19	0 - 8
			5TB, 5RB		0 - 10
		2 + 3	5T1, 5R1		0 - 10
100	**100**	1	6T1, 6R1	4, 4A, 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	0 - 6
			0RA, 0TA		0 - 10	0 - 6	0 - 10
		2 + 3	0R1, 0RA, 0T1, 0TA		0 - 10	0 - 6	0 - 10
10	**10 - 20**	1	1R1, 1T1	54, 5M	0 - 10	0 - 6	0 - 10
			1D1, 1B1		0 - 6	0 - 6	0 - 6
		2 + 3	1R1, 1T1		0 - 10	0 - 6	0 - 10
			1D1, 1B1		0 - 6	0 - 6	0 - 6
25	**15 - 25**	1	2R1, 2T1	54, 5M, 5Y	0 - 10	0 - 6	0 - 10
			2D1, 2B1		0 - 6	0 - 6	0 - 6
		2 + 3	2R1, 2T1		0 - 10	0 - 6	0 - 10
			2D1, 2B1		0 - 6	0 - 6	0 - 6
40	**32 - 40**	1	3B1, 3D1, 3R1, 3T1	54, 5M	0 - 6	0 - 6	0 - 6
			3RA, 3TA		0 - 10	0 - 6	0 - 10
		2 + 3	3R1, 3T1		0 - 10	0 - 6	0 - 10
			3D1, 3B1		0 - 6	0 - 6	0 - 6
50	**50 - 65**	1	4R1, 4T1	54, 5M	0 - 10	0 - 6	0 - 10
			4D1, 4B1		0 - 6	0 - 6	0 - 6
		2 + 3	4R1, 4T1		0 - 10	0 - 6	0 - 10
			4D1, 4B1		0 - 6	0 - 6	0 - 6
80	**65 - 80**	1	5R1, 5T1	54, 5M	0 - 5	-	0 - 5
			5RA, 5TA		0 - 10	-	0 - 10
		2 + 3	5R1, 5T1		0 - 10	-	0 - 10
100	**100**	1	6R1, 6T1	54, 5M	0 - 4	-	0 - 4
			6RA, 6TA		0 - 10	-	0 - 10
		2 + 3	6R1, 6T1		0 - 10	-	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.

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 MG 8 to MG 150
- Control function 2 MG 8 to MG 80
- Diaphragm codes 54, 5M/ 5Q, 17 and 19
- Diaphragm sizes 8–150
- 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:

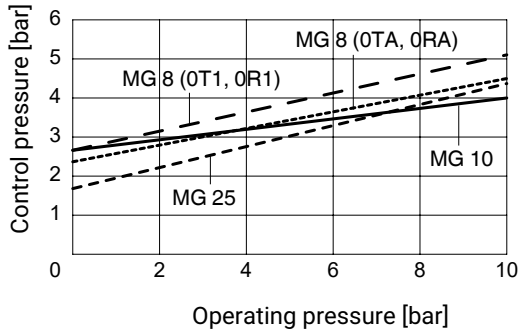
MG	DN	Control function	Actuator size	Control pressure
8	**4 - 15**	1	0R1, 0T1	5.0 - 7.0
			0RA, 0TA	3.5 - 7.0
		2 + 3	0R1, 0T1	max. 5.5*
			0RA, 0TA	max. 4.5*
10	**10 - 20**	1	1B1, 1D1, 1R1, 1T1	4.5 - 7.0
		2 + 3		max. 4.5*
25	**15 - 25**	1	2B1, 2D1, 2R1, 2T1	5.0 - 7.0
		2 + 3		max. 4.5*
40	**32 - 40**	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.

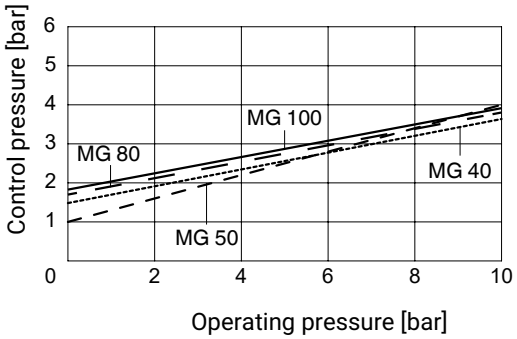
Control pressure:

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

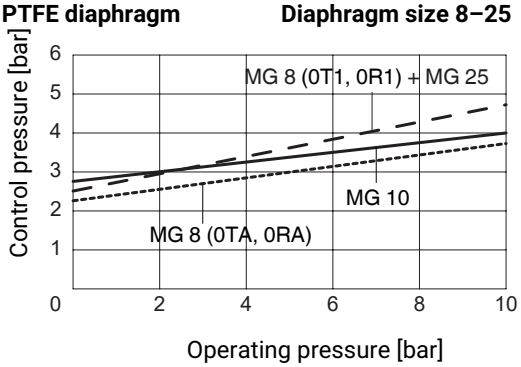
Elastomer diaphragm **Diaphragm size 8–25**



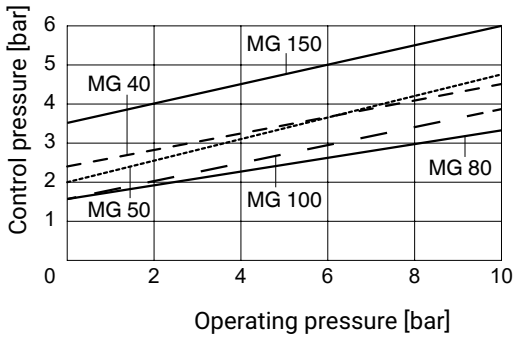
Diaphragm size 40–100



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	6.00

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	Body configuration D									
		Connection type code									
		0	16	17	18	37	59	60	1, 1L	31	32
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	9.0
	20	6.3	7.0	7.0	7.0	-	4.4	13.2	10.0	10.0	12.7
	25	13.9	15.0	15.0	15.0	12.6	12.2	16.2	14.0	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	26.6
50	**50**	46.5	48.4	48.4	48.4	51.7	50.6	55.2	60.0	60.0	48.1
	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.

MG	DN	Body configuration Code F
		Connection type Code 59
80	**65**	119.0
80	**80**	147.0
100	**100**	244.0

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.

Kv values:

MG	DN	Plastic lining
		Material code 17, 18, 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**	110.0
100	**100**	177.0

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, A1)
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 maximum permissible operating conditions:
- Tightness or compliance with the specific leak rate as defined in TA Luft (German Clean Air Act) and 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:	Diaphragm valve GEMÜ 650
Architectonic limitation type:	A
Fail safe function:	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 granted for pneumatically operated diaphragm valves with forged bodies (code 40) and PTFE/EPDM diaphragms (code 5M) in sizes DN10 to DN100

Explosion protection:
ATEX (2014/34/EU), order code special version Y
The product’s ATEX marking is dependent on the respective product configuration with valve body and actuator. This can be found in the document entitled “GEMÜ Operating conditions and explosion protection markings for the Type 650 diaphragm valve with special function Y” and the ATEX marking on the product.
EU type examination certificate for special function Y: IBExU26ATEX1O11 X

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

MG = diaphragm size
Weights in kg

Weight:

Body

MG	DN	Body configuration D				
		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, 1L	6, 6K	8, 34, 38, 39	80, 82, 84, 86, 88, 8A , 8E, 8F, 8H, 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
Solid material body on request

MG	DN	Body configuration F	
		Spigot	Clamp
		Connection type code	
		59	80, 88, 8P, 8T
80	65	4.25	4.55
	80	3.65	9.15
100	100	8.10	8.80

Weights in kg
MG = diaphragm size

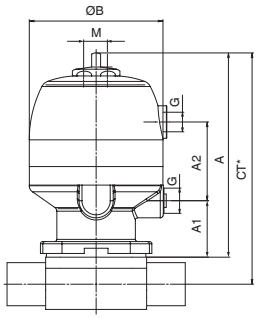
Installation position:

Optional

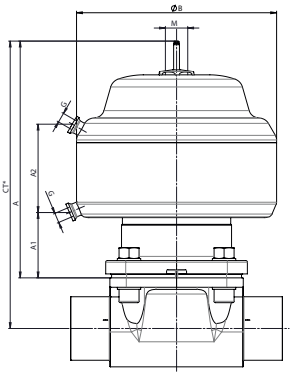
Observe the angle of rotation to achieve an installation for optimized draining

Dimensions

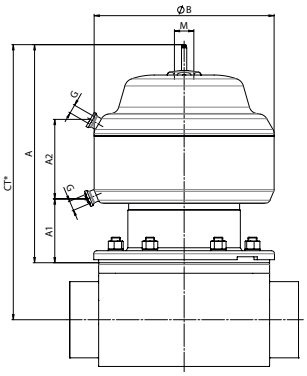
Actuator dimensions



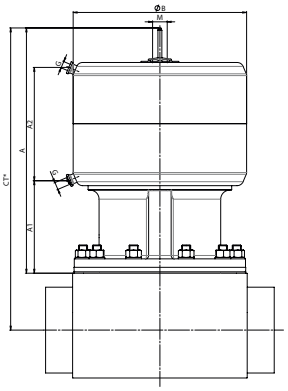
MG 8-50



MG 80



MG 100



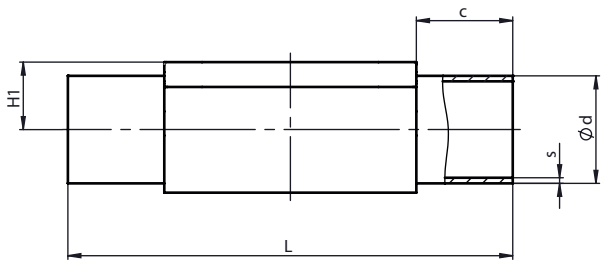
MG 150

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)
The upper control air connector is only available for control functions 2 and 3.

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), block material (code 44, A1, A3) [2], body configuration D

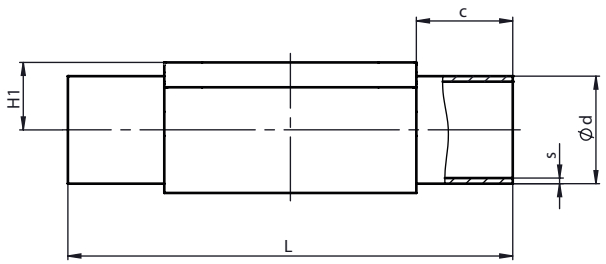
MG	DN	NPS	c (min)	ød					H1	L	s				
				Connection type							Connection type				
				0	16	17	18	60			0	16	17	18	60
8	4	-	20.0	6.0	-	-	-	-	8.5	72.0	1.0	-	-	-	-
	6	-	20.0	-	-	8.0	-	10.2	8.5	72.0	-	-	1.0	-	1.6
	8	1/4"	20.0	-	-	10.0	-	13.5	8.5	72.0	-	-	1.0	-	1.6
	10	3/8"	20.0	-	12.0	13.0	14.0	-	8.5	72.0	-	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	1¼"	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	1½"	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	2½"	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: DIN spigot
Code 16: Spigots 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 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 F4: 1.4539 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Connection type: Spigot DIN/EN/ISO (code 0, 17, 60) [1], investment casting material (code C3) [2], body configuration D

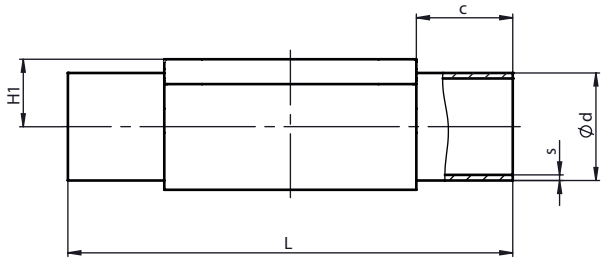
MG	DN	NPS	c (min)	ød			H1	L	s		
				Connection type					Connection type		
				0	17	60			0	17	60
8	**4**	**-**	20.0	6.0	-	-	8.5	72.0	1.0	-	-
	6	**-**	20.0	-	8.0	-	8.5	72.0	-	1.0	-
	8	**1/4"**	20.0	-	10.0	13.5	8.5	72.0	-	1.0	1.6
	10	**3/8"**	20.0	-	13.0	-	8.5	72.0	-	1.5	-
10	**10**	**3/8"**	25.0	-	13.0	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**	**1¼"**	25.0	-	35.0	42.4	24.0	153.0	-	1.5	2.0
	40	**1½"**	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: DIN spigot
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 edition)/DIN 11866 series B

2) **Valve body material**
Code C3: 1.4435, investment casting

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), block material (code 44, A1, A3) [2], body configuration D

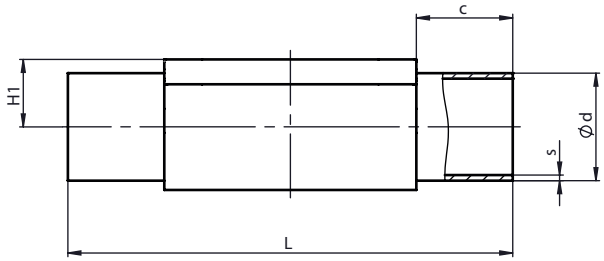
MG	DN	NPS	c (min)	ød					H1	L	s				
				Connection type							Connection type				
				55	59	63	64	65			55	59	63	64	65
8	**6**	**-**	20.0	-	-	10.3	-	10.3	8.5	72.0	-	-	1.24	-	1.73
	8	**1/4"**	20.0	6.35	6.35	13.7	-	13.7	8.5	72.0	1.2	0.89	1.65	-	2.24
	10	**3/8"**	20.0	9.53	9.53	-	-	-	8.5	72.0	1.2	0.89	-	-	-
	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**	**1¼"**	25.0	-	-	42.2	42.2	42.2	26.0	153.0	-	-	2.77	1.65	3.56
	40	**1½"**	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	**2½"**	30.0	-	63.50	-	-	-	34.0	173.0	-	1.65	-	-	-
80	**65**	**2½"**	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 edition)/DIN 11866 series C
Code 63: Spigot ANSI/ASME B36.19M Schedule 10s
Code 64: Spigot ANSI/ASME B36.19M Schedule 5s
Code 65: ANSI/ASME B36.19M Schedule 40s spigot

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 F4: 1.4539 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Connection type: Spigot ASME/BS (code 59) [1], forged material (code 40) [2], body configuration F

MG	DN	NPS	c (min)	ød	H1	L	s
80	**65**	**2½"**	30.0	63.50	43	216.0	1.65
	80	**3"**	30.0	76.20	43	254.0	1.65
100	**100**	**4"**	30.0	101.60	60,0	305.0	2.11

Dimensions in mm
MG = diaphragm size

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

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

Connection type: Spigot ASME BPE (code 59) [1], investment casting material (code C3) [2], body configuration D

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**	**1½"**	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 edition)/DIN 11866 series C

2) **Valve body material**
Code C3: 1.4435, investment casting

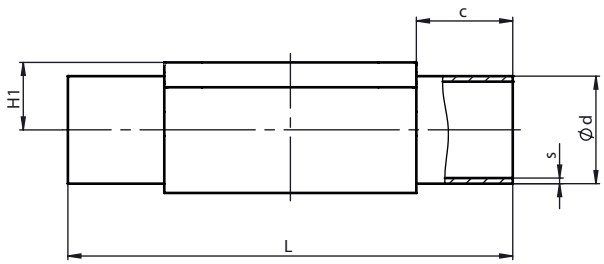
Connection type: Spigot ASME BPE (code 59) [1], block material (code 41, 43, A1, A3) [2], body configuration D

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 edition)/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%
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)



Connection type: Spigot ASME/BS (code 59, 63, 64, 65) [1], block material (code 44, A1, A3) [2], body configuration D

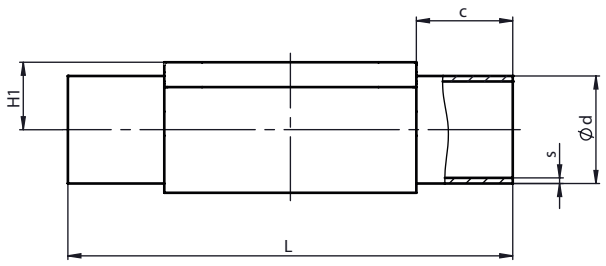
MG	DN	NPS	c (min)	ød		H1	L	s			
				Connection type				Connection type			
				59	63, 64, 65			59	63	64	65
80	**65**	**2½"**	30.0	63.50	73.0	62.0	216.0	1.65	3.05	2.11	5.16
	80	**3"**	30.0	76.20	88.9	62.0	254.0	1.65	3.05	2.11	5.49
100	**100**	**4"**	30.0	101.60	114.3	76.0	305.0	2.11	3.05	2.11	6.02
150	**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 edition)/DIN 11866 series C
Code 63: Spigot ANSI/ASME B36.19M Schedule 10s
Code 64: Spigot ANSI/ASME B36.19M Schedule 5s
Code 65: ANSI/ASME B36.19M Schedule 40s spigot

2) **Valve body material**
Code 44: 1.4539 / UNS N08904, block material
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Connection type: Spigot JIS/SMS (code 35, 36, 37) [1], forged material (code 40, 42, F4), block material (code 44, A1, A3) [2], body configuration D

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**	**1¼"**	25.0	31.8	42.7	33.7	26.0	153.0	1.2	2.80	1.2
	40	**1½"**	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	**2½"**	30.0	63.5	-	63.5	34.0	173.0	2.0	-	1.6
80	**65**	**2½"**	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) [3], body configuration D

MG	DN	NPS	c (min)	ød	H1	L	s
25	**25**	**1"**	25.0	25.0	19.0	120.0	1.2
40	**40**	**1½"**	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

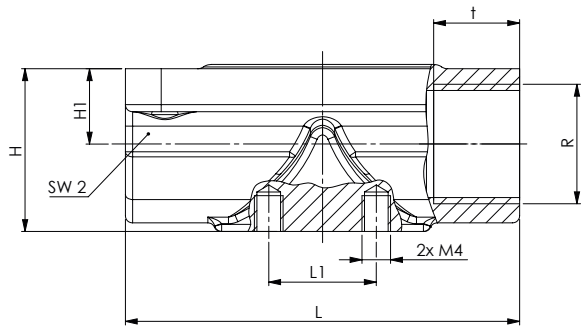
1) **Connection type**
Code 35: Spigot JIS-G 3447
Code 36: Spigot JIS-G 3459 Schedule 10s
Code 37: SMS 3008 spigot

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 F4: 1.4539 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

3) **Valve body material**
Code C3: 1.4435, investment casting

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

Threaded socket DIN (code 1, 1L)



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

MG	DN	NPS	H	H1	L	n	R	SW2	t	L1
10	**12**	**3/8**	22.7	10.5	55	2	G3/8	28	12	15

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

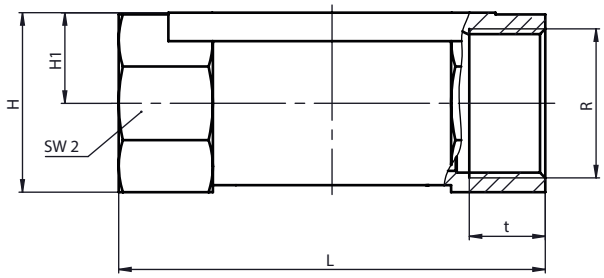
MG	DN	NPS	H	H1	L	n	R	SW2	t	L1
10	**15**	**1/2**	28.1	13	75	2	G1/2	32	15	15

Dimensions in mm
MG = diaphragm size
n = number of flats

1) **Connection type**
Code 1: Threaded socket DIN ISO 228
Code 1L: Threaded socket DIN ISO 228 body length (FTF): 75 mm

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

Threaded socket DIN ISO 228 (code 1)



Connection type threaded socket (code 1) [1], investment casting material (code 37) [2], body configuration D

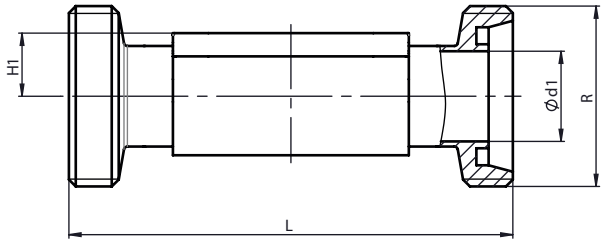
MG	DN	NPS	H	H1	L	n	R	SW 2	t
8	**8**	**1/4"**	19.0	9.0	72.0	6	G 1/4	18.0	11.0
10	**15**	**1/2"**	30.0	15.0	68.0	2	G 1/2	27.0	15.0
25	**15**	**1/2"**	28.3	14.8	85.0	6	G 1/2	27.0	15.0
	20	**3/4"**	33.3	17.3	85.0	6	G 3/4	32.0	16.0
	25	**1"**	42.3	21.8	110.0	6	G 1	41.0	19.0
40	**32**	**1¼"**	51.3	26.3	120.0	8	G 1¼	50.0	20.0
	40	**1½"**	56.3	28.8	140.0	8	G 1½	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, F4), block material (44, A1, A3) [2], body configuration D

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**	**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

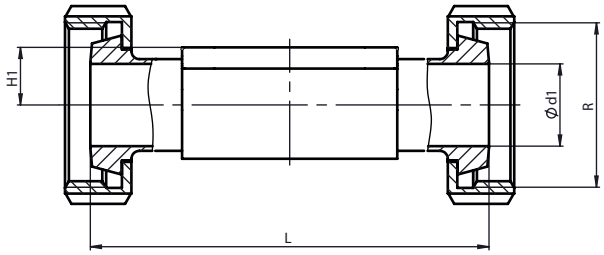
Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 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%
Code 44: 1.4539 / UNS N08904, block material
Code F4: 1.4539 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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

Cone spigot DIN 11851 (code 6K)



Connection type: Cone spigot DIN (code 6K) [1], forged material (code 40, 42, F4), block material (44, A1, A3) [2], body configuration D

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

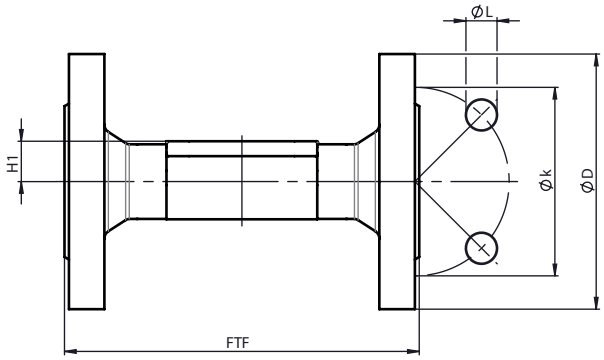
Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 6K: Tapered connector 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%
Code 44: 1.4539 / UNS N08904, block material
Code F4: 1.4539 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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

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, F4), block material (code 44, A1, A3) [2], body configuration D

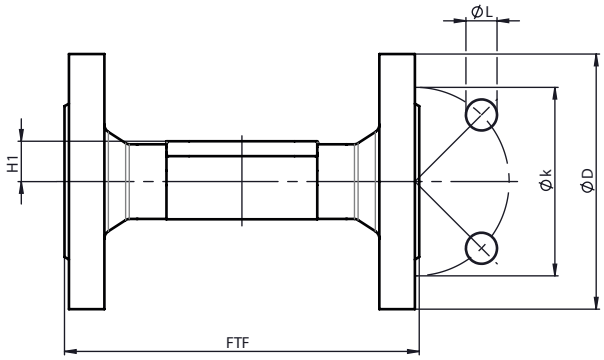
MG	DN	NPS	øD	FTF			H1			øk	øL	n
				Material			Material					
				39	C3	40, 42, A1	39	C3	40, 42, A1			
25	**15**	**1/2"**	95.0	130.0	150.0	150.0	18.0	13.0	19.0	65.0	14.0	4
	20	**3/4"**	105.0	150.0	150.0	150.0	20.5	16.0	19.0	75.0	14.0	4
	25	**1"**	115.0	160.0	160.0	160.0	23.0	19.0	19.0	85.0	14.0	4
40	**32**	**1¼"**	140.0	180.0	180.0	180.0	28.7	24.0	26.0	100.0	18.0	4
	40	**1½"**	150.0	200.0	200.0	200.0	33.0	26.0	26.0	110.0	18.0	4
50	**50**	**2"**	165.0	230.0	230.0	230.0	39.0	32.0	32.0	125.0	18.0	4
	65	**2½"**	185.0	290.0	-	-	51.0	-	-	145.0	18.0	4
80	**65**	**2½"**	185.0	-	-	290.0	-	-	62.0	145.0	18.0	4
	80	**3"**	200.0	310.0	-	310.0	59.5	-	62.0	160.0	18.0	8
100	**100**	**4"**	220.0	350.0	-	350.0	73.0	-	76.0	180.0	18.0	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 lining
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 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

Flange JIS B2220 (code 34)



Connection type: Flange, length 558 (code 34) [1], investment casting material (code 39) [2], body configuration D

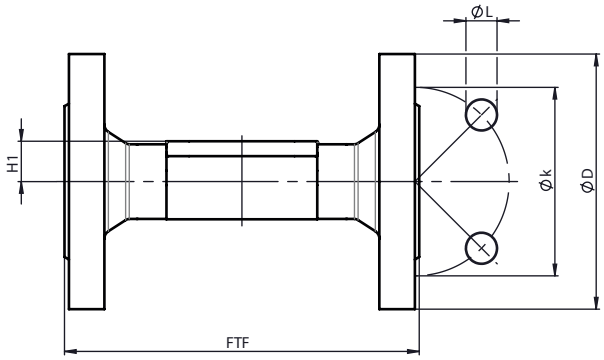
MG	DN	NPS	øD	øk	øL	n	H1	FTF
25	15	1/2"	95.0	70.0	15.0	4	18.0	130.0
	20	3/4"	100.0	75.0	15.0	4	20.5	150.0
	25	1"	125.0	90.0	19.0	4	23.0	160.0
40	32	1¼	135.0	100.0	19.0	4	28.7	180.0
	40	1½"	140.0	105.0	19.0	4	33.0	200.0
50	50	2"	155.0	120.0	19.0	4	39.0	230.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 34: Flange JIS B2220, 10K, RF, Overall length FTF EN 558 Series 1, ISO 5752, basic series 1, Overall length only for housing form D

2) **Valve body material**
Code 39: 1.4408, PFA lining

Flange ANSI Class 150 RF (code 38)



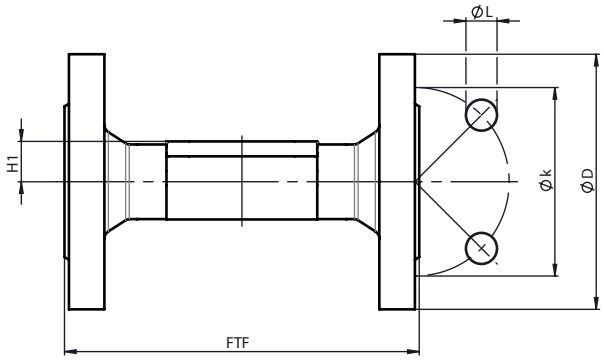
Connection type: Flange, length MSS SP-88 (code 38) [1], investment casting material (code 39) [2], body configuration D

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 lining



Connection type: Flange, length EN 558 (code 39) [1], investment casting material (code 39, C3), forged material (code 40, 42), block material (code A1, A3) [2], body configuration D

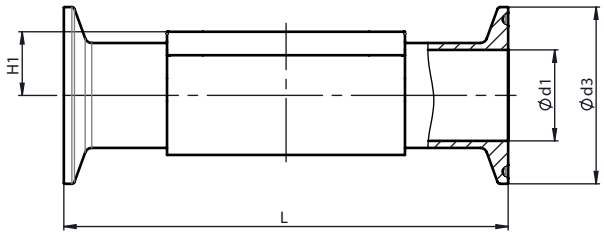
MG	DN	NPS	øD	FTF			H1			øk	øL	n
				Material			Material					
				39	C3	40, 42, A1, A3	39	C3	40, 42, A1, A3			
25	**15**	**1/2"**	90.0	130.0	150.0	150.0	-	13.0	19.0	60.3	15.9	4
	20	**3/4"**	100.0	150.0	150.0	150.0	20.5	16.0	19.0	69.9	15.9	4
	25	**1"**	110.0	160.0	160.0	160.0	23.0	19.0	19.0	79.4	15.9	4
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 lining
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 A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

Clamp (code 80, 82, 84, 86, 88, 8A, 8E, 8F, 8H, 8P, 8T)



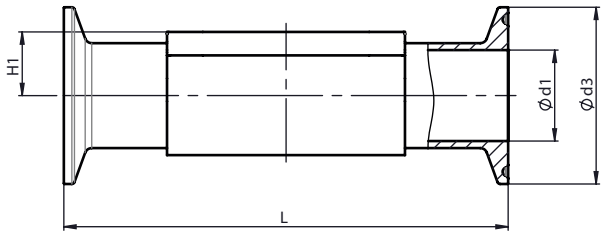
Connection type: Clamp DIN/ASME (code 80, 88, 8P, 8T) [1], forged material (code 40, 42, F4), block material (code A1), body configuration D

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	**10**	**3/8"**	7.75	-	25.0	-	12.5	88.9	-
	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 configurations D & F
Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F
Code 8P: Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configurations D & F
Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F

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



Connection type: Clamp DIN/ASME (code 80, 88, 8P, 8T) [1], forged material (code 40) [2], body configuration F

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
80	**65**	**2½"**	60.20	60.20	77.5	77.5	43.0	193.8	216.0
	80	**3"**	72.90	72.90	91.0	91.0	43.0	222.3	254.0
100	**100**	**4"**	97.38	97.38	119.0	119.0	60.0	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 configurations D & F
Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F
Code 8P: Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configurations D & F
Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F

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

Connection type: Clamp DIN/ASME (code 88, 8T) [1], block material (code 41, 43, A1, A3) [2], body configuration D

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

2) **Valve body material**
Code 41: 1.4435 (316L), block material
Code 43: 1.4435 (BN2), block material, Δ Fe < 0.5%
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

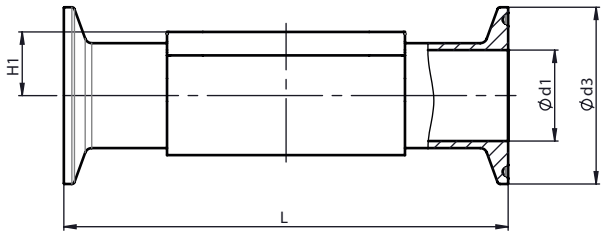
Connection type: Clamp DIN/ASME (code 80, 88, 8P, 8T) [1], block material (code 44, A1) [2], body configuration D

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 configurations D & F
Code 88: Clamp ASME BPE, for pipe ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F
Code 8P: Clamp DIN 32676 series C, face-to-face dimension FTF ASME BPE, length only for body configurations D & F
Code 8T: Clamp DIN 32676 series C, face-to-face dimension FTF EN 558 series 7, length only for body configurations D & F

2) **Valve body material**
Code 44: 1.4539 / UNS N08904, block material
Code A1: 3.7035, titanium



Connection type: Clamp DIN/ISO (code 82, 86, 8A, 8E) [1], forged material (code 40, 42, F4), block material (code 44, A1, A3) [2], body configuration D

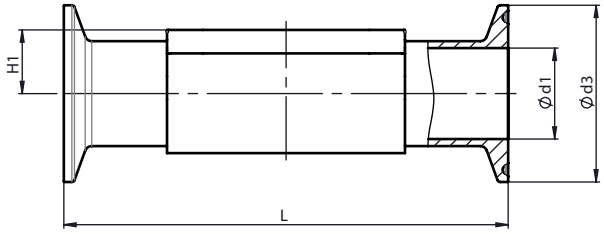
MG	DN	NPS	ød1				ød3				H1	L			
			Connection type				Connection type					Connection type			
			82	86	8A	8E	82	86	8A	8E		82	86	8A	8E
8	**6**	**1/8"**	7.0	-	6.0	-	25.0	-	25.0	-	8.5	63.5	-	63.5	-
	8	**1/4"**	10.3	-	8.0	-	25.0	-	25.0	-	8.5	63.5	-	63.5	-
	10	**3/8"**	-	10.0	10.0	-	-	34.0	34.0	-	8.5	-	115.0	88.9	-
10	**10**	**3/8"**	14.0	10.0	10.0	-	25.0	34.0	34.0	-	12.5	108.0	151.0	108.0	-
	15	**1/2"**	18.1	16.0	16.0	-	50.5	34.0	34.0	-	12.5	108.0	151.0	108.0	-
25	**15**	**1/2"**	18.1	16.0	16.0	-	50.5	34.0	34.0	-	19.0	108.0	165.0	108.0	-
	20	**3/4"**	23.7	20.0	20.0	-	50.5	34.0	34.0	-	19.0	117.0	165.0	117.0	-
	25	**1"**	29.7	26.0	26.0	22.6	50.5	50.5	50.5	50.5	19.0	1270	165.0	127.0	127.0
40	**32**	**1¼"**	38.4	32.0	32.0	31.3	64.0	50.5	50.5	50.5	26.0	146.0	198.0	146.0	146.0
	40	**1½"**	44.3	38.0	38.0	35.6	64.0	50.5	50.5	50.5	26.0	159.0	198.0	159.0	159.0
50	**50**	**2"**	56.3	50.0	50.0	48.6	77.5	64.0	64.0	64.0	32.0	190.0	218.0	190.0	190.0
	65	**2½"**	-	-	-	60.3	-	-	-	77.5	34.0	-	-	-	216.0
80	**65**	**2½"**	72.1	66.0	66.0	60.3	91.0	910	91.0	77.5	62.0	216.0	250.0	216.0	216.0
	80	**3"**	84.3	81.0	81.0	72.9	106.0	106.0	106.0	91.0	62.0	254.0	299.0	254.0	254.0
100	**100**	**4"**	109.7	100.0	100.0	97.6	130.0	119.0	119.0	119.0	76.0	305.0	365.0	305.0	305.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 82: Clamp DIN 32676 Series B, Overall length FTF EN 558 Series 7, Overall length only for housing type D
Code 86: Clamp DIN 32676 series A
Code 8A: Clamp DIN 32676 Series A, Overall length FTF according to EN 558 Series 7, Overall length only for housing type D
Code 8E: Clamp ISO 2852 for pipe ISO 2037, Clamp SMS 3017 for pipe SMS 3008 Overall length FTF EN 558 Series 7, Overall length only for housing type D

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 F4: 1.4539 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Connection type: Clamp DIN/ISO (code 82, 8A, 8E)[1], block material (code 44, A1)[2], body configuration D

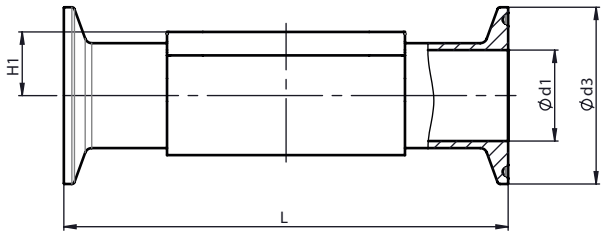
MG	DN	NPS	ød1			ød3			H1	L
			Connection type			Connection type				
			82	8A	8E	82	8A	8E		
80	**65**	**2½"**	72.1	66.0	60.3	91.0	91.0	77.5	62.0	216.0
	80	**3"**	84.3	81.0	72.9	106.0	106.0	91.0	62.0	254.0
100	**100**	**4"**	109.7	100.0	97.6	130.0	119.0	119.0	76.0	305.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 82: Clamp DIN 32676 Series B, Overall length FTF EN 558 Series 7, Overall length only for housing type D
Code 8A: Clamp DIN 32676 Series A, Overall length FTF according to EN 558 Series 7, Overall length only for housing type D
Code 8E: Clamp ISO 2852 for pipe ISO 2037, Clamp SMS 3017 for pipe SMS 3008 Overall length FTF EN 558 Series 7, Overall length only for housing type D

2) **Valve body material**
Code 44: 1.4539 / UNS N08904, block material
Code A1: 3.7035, titanium

Dimensions



Connection type: Clamp BS/JIS (code 84, 8F, 8H) [1], forged material (code 40, 42, F4), block material (code 44, A1, A3) [2], body configuration D

MG	DN	NPS	ød1			ød3			H1	L		
			Connection type			Connection type				Connection type		
			84	8F	8H	84	8F	8H		84	8F	8H
8	**8**	**1/4"**	-	-	10.5	-	-	34.0	8.5	-	-	88.9
	10	**3/8"**	-	-	-	-	-	-	8.5	-	-	-
	15	**1/2"**	10.3	-	-	25.0	-	-	8.5	108.0	-	-
10	**10**	**3/8"**	-	-	14.0	-	-	34.0	12.5	-	-	108.0
	15	**1/2"**	10.3	-	17.5	25.0	-	34.0	12.5	108.0	-	108.0
	20	**3/4"**	16.7	-	-	25.0	-	-	12.5	117.0	-	-
25	**15**	**1/2"**	10.3	-	17.5	25.0	-	34.0	19.0	108.0	-	108.0
	20	**3/4"**	16.7	-	-	25.0	-	-	19.0	117.0	-	-
	25	**1"**	-	23.0	-	-	50.5	-	19.0	-	127.0	-
40	**32**	**1¼"**	-	29.4	-	-	50.5	-	26.0	-	146.0	-
	40	**1½"**	-	35.7	-	-	50.5	-	26.0	-	159.0	-
50	**50**	**2"**	-	47.8	-	-	64.0	-	32.0	-	190.0	-
	65	**2½"**	-	-	-	-	-	-	34.0	-	-	-
80	**65**	**2½"**	-	59.5	-	-	77.5	-	62.0	-	216.0	-
	80	**3"**	-	72.3	-	-	91.0	-	62.0	-	254.0	-
100	**100**	**4"**	-	97.6	-	-	119.0	-	76.0	-	305.0	-

Dimensions in mm
MG = diaphragm size

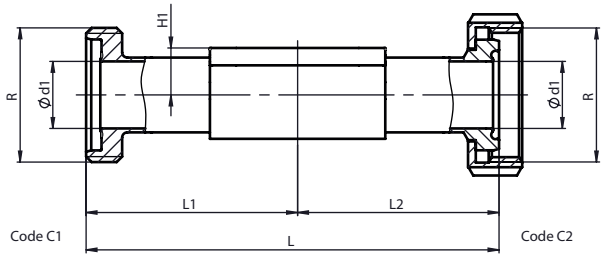
1) **Connection type**
Code 84: Clamp for tube BS 4825 Part 1, DN 15 and DN 20, clamp OD 25.0 mm, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
Code 8F: Clamp IDF/ISO for tube JIS-G 3447, face-to-face dimension FTF EN 558 series 7, length only for body configuration D
Code 8H: Clamp IDF/ISO for tube JIS-G 3459, 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 44: 1.4539 / UNS N08904, block material
Code F4: 1.4539 / UNS N08904, forged body
Code A1: 3.7035, titanium
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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

Aseptic connections

Aseptic union DIN



Aseptic union end DIN, series A (code C1, C2) [1], forged body (code 40, 42, F4), block material (code 44, A3) [2], body configuration D

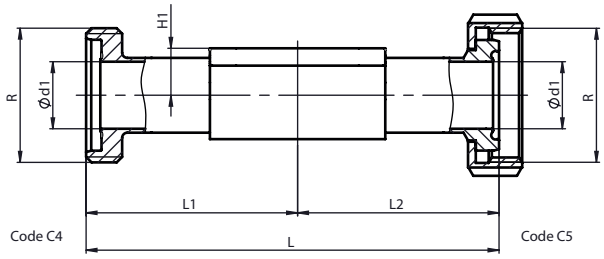
MG	DN	H1	Ød1	Thread	Connection type (code)			
					C1		C2	
				R	L	L1, L2	L	L1, L2
8	**10**	8.5	10.0	RD 28 x 1/8	88.0	44.0	84.0	42.0
10	**10**	12.5	10.0	RD 28 x 1/8	120.0	60.0	116.0	58.0
	15	12.5	16.0	RD 34 x 1/8	120.0	60.0	116.0	58.0
25	**15**	19.0	16.0	RD 34 x 1/8	120.0	60.0	116.0	58.0
	20	19.0	20.0	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 nipple with groove cap 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%
Code 44: 1.4539 / UNS N08904, block material
Code F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic union end DIN, series B (code C4, C5)[1], forged body (code 40, 42, F4), block material (code 44, A3)[2], body configuration D

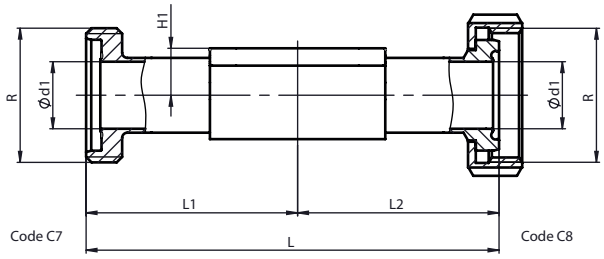
MG	DN	H1	Ød1	Thread	Connection type (code)			
					C4		C5	
				R	L	L1, L2	L	L1, L2
8	**8**	8.5	10.3	RD 28 x 1/8	88.0	44.0	84.0	42.0
10	**10**	12.5	14.0	RD 34 x 1/8	120.0	60.0	116.0	58.0
	15	12.5	18.1	RD 44 x 1/6	120.0	60.0	116.0	58.0
25	**15**	19.0	18.1	RD 44 x 1/6	120.0	60.0	116.0	58.0
	20	19.0	23.7	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 nipple with groove cap 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%
Code 44: 1.4539 / UNS N08904, block material
Code F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic union end DIN, series C (code C7, C8) [1], forged body (code 40, 42, F4), block material (code 44, A1, A3) [2], body configuration D

MG	DN	H1	Ød1	Thread	Connection type (code)			
					C7		C8	
				R	L	L1, L2	L	L1, L2
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 nipple with groove cap 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%
Code 44: 1.4539 / UNS N08904, block material
Code F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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

Aseptic union end DIN, series C (code C7, C8) [1], forged body (code 40) [2], body configuration F

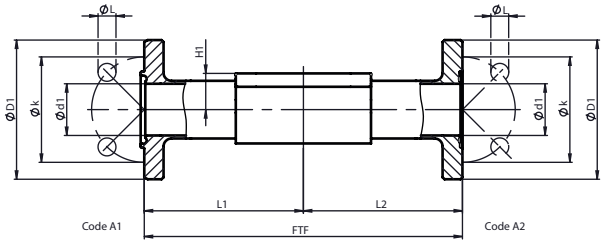
MG	DN	H1	Ød1	Thread	Connection type (code)			
					C7		C8	
				R	L	L1, L2	L	L1, L2
80	**65**	43.0	60.2	RD 95 x 1/6	314.0	157.0	310.0	155.0
	80	43.0	72.9	RD 110 x 1/4	342.0	171.0	334.0	167.0
100	**100**	60.0	97.38	RD 130 x 1/4	398.0	199.0	390.0	195.0

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 nipple with groove cap nut DIN 11864-BS, for pipe DIN 11866 series C and ASME BPE

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

Aseptic flange DIN



Aseptic flange DIN, series A (code A1, A2) [1], forged body (code 40, 42, F4), block material (code 44, A3) [2], body configuration D

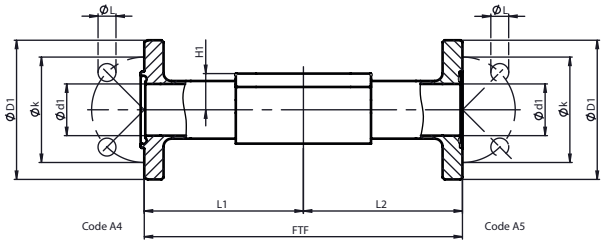
MG	DN	H1	Ød1	ØD1	Øk	ØL	Connection type (code)			
							A1		A2	
							FTF	L1, L2	FTF	L1, L2
8	**10**	8.5	10.0	54.0	37.0	4 x 9	100.0	50.0	100.0	50.0
10	**10**	12.5	10.0	54.0	37.0	4 x 9	130.0	65.0	130.0	65.0
	15	12.5	16.0	59.0	42.0	4 x 9	130.0	65.0	130.0	65.0
25	**15**	19.0	16.0	59.0	42.0	4 x 9	130.0	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, overall length FTF EN 558 Series 1, overall length only for housing form D
Code A2: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 Series A and EN 10357 Series A, overall length FTF EN 558 Series 1, overall length only for housing form D

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic flange DIN, series B (code A4, A5) [1], forged body (code 40, 42, F4), block material (code 44, A3) [2], body configuration D

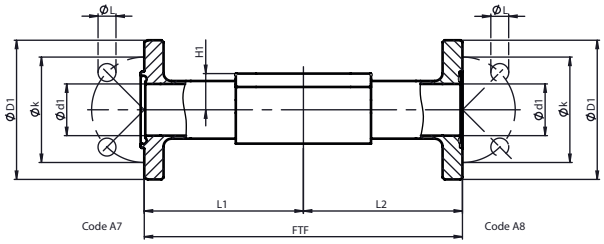
MG	DN	H1	Ød1	ØD1	Øk	ØL	Connection type (code)			
							A4		A5	
							FTF	L1, L2	FTF	L1, L2
8	**8**	8.5	10.3	54.0	37.0	4 x 9.0	100.0	50.0	100.0	50.0
10	**10**	12.5	14.0	59.0	42.0	4 x 9.0	130.0	65.0	130.0	65.0
	15	12.5	18.1	62.0	45.0	4 x 9.0	130.0	65.0	130.0	65.0
25	**15**	19.0	18.1	62.0	45.0	4 x 9.0	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, overall length FTF EN 558 series 1, overall length only for housing form D
Code A5: Aseptic loose flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127 Overall length FTF EN 558 series 1, Overall length only for housing form D

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic flange DIN, series C (code A7, A8) [1], forged body (code 40, 42, F4), block material (code 44, A3) [2], body configuration D

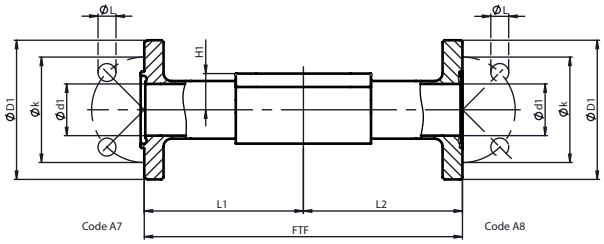
MG	DN	H1	Ød1	ØD1	Øk	ØL	Connection type (code)			
							A7		A8	
							FTF	L1, L2	FTF	L1, L2
8	**15**	8.5	9.4	54.0	37.0	4 x 9.0	100.0	50.0	100.0	50.0
10	**15**	12.5	9.4	54.0	37.0	4 x 9.0	130.0	65.0	130.0	65.0
	20	12.5	15.8	59.0	42.0	4 x 9.0	150.0	75.0	150.0	75.0
25	**15**	19.0	9.4	54.0	37.0	4 x 9.0	130.0	65.0	130.0	65.0
	20	19.0	15.8	59.0	42.0	4 x 9.0	150.0	75.0	150.0	75.0
	25	19.0	22.1	66.0	49.0	4 x 9.0	160.0	80.0	160.0	80.0
40	**40**	26.0	34.8	79.0	62.0	4 x 9.0	200.0	100.0	200.0	100.0
50	**50**	32.0	47.5	92.0	75.0	4 x 9.0	230.0	115.0	230.0	115.0
	65	32.0	60.2	107.0	89.0	8 x 9.0	290.0	145.0	290.0	145.0
80	**65**	62.0	60.2	107.0	89.0	8 x 9.0	290.0	145.0	290.0	145.0
	80	62.0	72.9	125.0	104.0	8 x 11.0	310.0	155.0	310.0	155.0
100	**100**	76.0	97.4	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 configurations D & F
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 configurations D & F

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic flange DIN, series C (code A7, A8) [1], forged body (code 40) [2], body configuration F

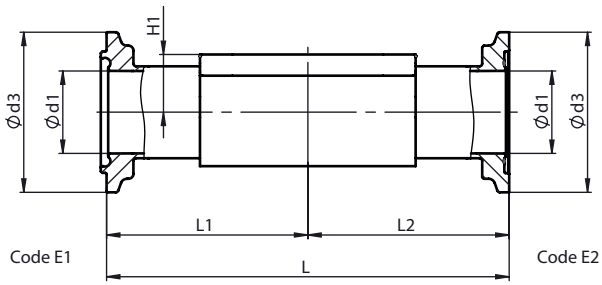
MG	DN	H1	Ød1	ØD1	Øk	ØL	Connection type (code)			
							A7		A8	
							FTF	L1, L2	FTF	L1, L2
80	**65**	43.0	60.2	107.0	89.0	8 x 9.0	290.0	145.0	290.0	145.0
	80	43.0	72.9	125.0	104.0	8 x 11.0	310.0	155.0	310.0	155.0
100	**100**	60.0	97.4	157.0	135.0	8 x 11.0	350.0	175.0	350.0	175.0

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 configurations D & F
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 configurations D & F

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

Aseptic clamp DIN



Aseptic clamp DIN, series A (code E1, E2) [1], forged body (code 40, 42, F4), block material (code 44, A3) [2], body configuration D

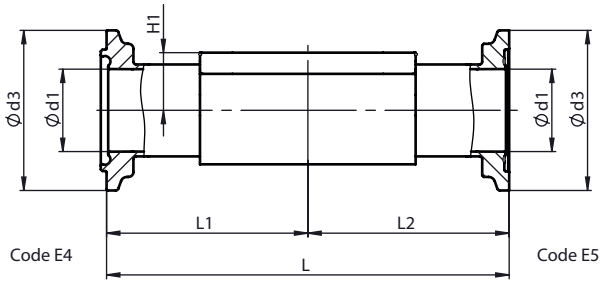
MG	DN	H1	Ød1	Ød3	Connection type (code)			
					E1		E2	
					L	L1, L2	L	L1, L2
8	**10**	8.5	10.0	34.0	88.9	44.5	88.9	44.5
10	**10**	12.5	10.0	34.0	108.0	54.0	108.0	54.0
	15	12.5	16.0	34.0	108.0	54.0	108.0	54.0
25	**15**	19.0	16.0	34.0	108.0	54.0	108.0	54.0
	20	19.0	20.0	50.5	117.0	58.5	117.0	58.5
	25	19.0	26.0	50.5	127.0	63.5	127.0	63.5
40	**32**	26.0	32.0	50.5	146.0	73.0	146.0	73.0
	40	26.0	38.0	64.0	159.0	79.5	159.0	79.5
50	**50**	32.0	50.0	77.5	190.0	95.0	190.0	95.0
80	**65**	62.0	66.0	91.0	216.0	108.0	216.0	108.0
	80	62.0	81.0	106.0	254.0	127.0	254.0	127.0
100	**100**	76.0	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, overall length FTF EN 558 series 7, overall length only for housing form D
Code E2: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A, overall length FTF EN 558 series 7, overall length only for housing form D

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic clamp DIN, series B (code E4, E5) [1], forged body (code 40, 42, F4), block material (code 44, A3) [2], body configuration D

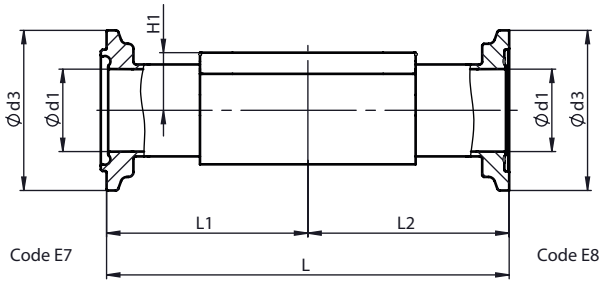
MG	DN	H1	Ød1	Ød3	Connection type (code)			
					E4		E5	
					L	L1, L2	L	L1, L2
8	**8**	8.5	10.3	34.0	88.9	44.5	88.9	44.5
10	**10**	12.5	14.0	34.0	108.0	54.0	108.0	54.0
	15	12.5	18.1	34.0	108.0	54.0	108.0	54.0
25	**15**	19.0	18.1	34.0	108.0	54.0	108.0	54.0
	20	19.0	23.7	50.5	117.0	58.5	117.0	58.5
	25	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: Grooved clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form D
Code E5: Aseptic notched clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127, overall length FTF EN 558 series 7, overall length only for housing form D

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic clamp DIN, series C (code E7, E8) [1], forged body (code 40, 42, F4), block material (code 44, A3) [2], body configuration D

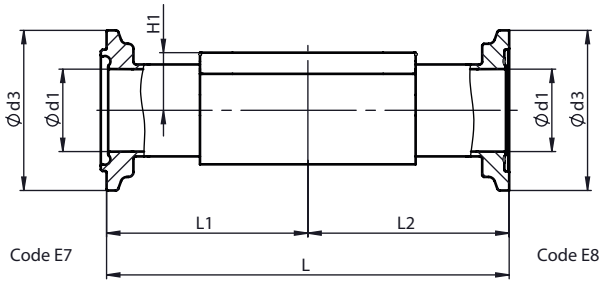
MG	DN	H1	Ød1	Ød3	Connection type (code)			
					E7		E8	
					L	L1, L2	L	L1, L2
8	**15**	8.5	9.4	34.0	88.9	44.5	88.9	44.5
10	**15**	12.5	9.4	34.0	108.0	54.0	108.0	54.0
	20	12.5	15.8	34.0	108.0	54.0	108.0	54.0
25	**15**	19.0	9.4	34.0	108.0	54.0	108.0	54.0
	20	19.0	15.8	34.0	117.0	58.5	117.0	58.5
	25	19.0	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 configurations D & F
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 configurations D & F

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 F4: 1.4539 / UNS N08904, forged body
Code A3: 2.4602, block material Alloy 22, (NiCr21Mo14W)

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



Aseptic clamp DIN, series C (code E7, E8) [1], forged body (code 40) [2], body configuration F

MG	DN	H1	Ød1	Ød3	Connection type (code)			
					E7		E8	
					L	L1, L2	L	L1, L2
80	**65**	43.0	60.2	91.0	216.0	108.0	216.0	108.0
	80	43.0	72.9	106.0	254.0	127.0	254.0	127.0
100	**100**	60.0	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 configurations D & F
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 configurations D & F

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



Subject to alteration | 07.2026 | 88203150

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