GEMÜ®

Diaphragm Valve, Metal

Construction

The GEMÜ 650 piston actuated 2/2-way diaphragm valve is designed for use in sterile areas of application.
All metallic actuator components are made of stainless steel. The compression springs of diaphragm sizes 80 and 100 are made of epoxy coated spring steel. Normally closed, Normally open and Double acting control functions are available. The valve has an optical position indicator as standard.

Features

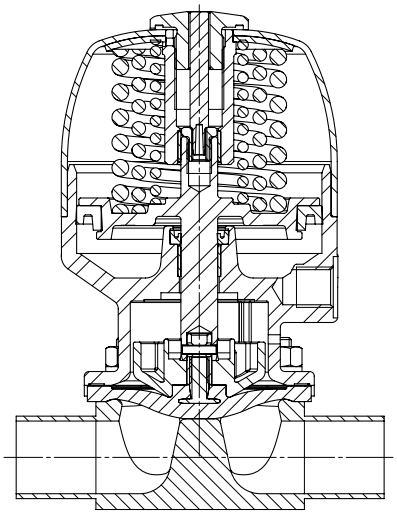
- Suitable for inert and corrosive* liquid and gaseous media
- Valve body and diaphragm available in various materials and designs
- Compact design (ideal when space is at a premium)
- Various connections available
- CIP/SIP cleaning and sterilizing capabilities
- Autoclave capability, dependent on version
- Surface finishes down to 0.25 µm, electropolished
- Versions according to ATEX on request

Advantages

- Hermetic separation between medium and actuator
- Optional flow direction
- Installation for an optimized draining is possible
- Control air connectors positioned in-line with piping (option: 90° offset)
- Expelled air from spring chamber can optionally be piped to other locations
- Extensive range of accessories, easily retrofitted

* see information on working medium on page 2

Sectional view



Actuator version "T"

Actuator version "D"

DN 100 „T“

GEMÜ® 650

Technical data

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).

Temperatures

Medium temperature	-10 to 100 °C
Sterilisation temperature	
EPDM (code 13/3A)	150 °C, max. 60 min
EPDM (code 17)	150 °C, max. 180 min
PTFE (code 52/5A)	Constant temperature* 150 °C
PTFE (code 5E)	Constant temperature* 150 °C

The sterilisation temperature is valid for steam or superheated water.
* The valves concerned must be serviced regularly if steam is applied continuously.

Ambient temperature	0 ... 60 °C

Control medium

Inert gases

Max. permissible temperature of control medium 70 °C

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 dm^3	0.01 dm^3
			T/R	A	0.02 dm^3	0.01 dm^3
10	10 .. 20	1	D/T/R	1	0.03 dm^3	0.07 dm^3
25	15 ... 25	2	D/T/R	1	0.13 dm^3	0.22 dm^3
40	32 ... 40	3	D/T/R	1	0.23 dm^3	0.50 dm^3
50	50	4	D/T/R	1	0.50 dm^3	1.20 dm^3
80	65 ... 80	5	T/R	1	2.68 dm^3	3.20 dm^3
100	100	6	T/R	1	2.78 dm^3	3.40 dm^3

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

Actuator			Operating pressure [bar]		Control pressure [bar]	
Code	**MG**	**DN**	**EPDM**	**PTFE**	**C.f. 1**	**C.f. 2 + 3**
0T1	8	4 ... 15	0 - 8	0 - 6	5.0 - 7	max. 4.5
0TA	8	4 ... 15	0 - 10	0 - 6	3.5 - 7	max. 4.5
1T1	10	10 ... 20	0 - 10	0 - 6	4.5 - 7	max. 4.5
2T1	25	15 ... 25	0 - 10	0 - 6	5.0 - 7	max. 4.5
3T1	40	32 ... 40	0 - 10	0 - 6	4.5 - 7	max. 5.5
4T1	50	50	0 - 10	0 - 6	4.5 - 7	max. 4.5
5T1	80	65 ... 80	0 - 8	0 - 5	3.5 - 7	max. 3.5
6T1	100	100	0 - 6	0 - 4	3.5 - 7	max. 3.5

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 MG = diaphragm size

Version with PTFE diaphragm up to 10 bar with actuator special function "H" and forged valve body possible on request

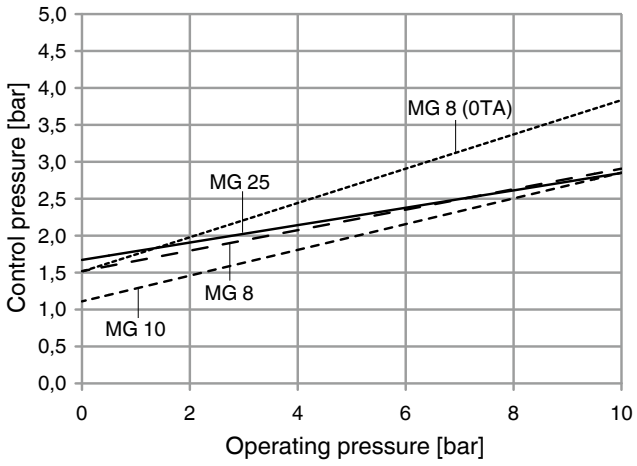
Technical data

Kv values [m^3/h]								
Diaphragm size	**DN**	**DIN Code 0**	**DIN 11850 Series 1 Code 16**	**DIN 11850 Series 2 Code 17**	**DIN 11850 Series 3 Code 18**	**SMS 3008 Code 37**	**ASME BPE Code 59**	**EN ISO 1127 Code 60**
8	4	0.5	-	-	-	-	-	-
	6	1.1	-	-	-	-	-	1.2
	8	1.3	-	-	-	-	0.6	2.2
	10	-	2.1	2.1	2.1	-	1.3	-
	15	-	-	-	-	-	2.0	-
10	10	-	2.4	2.4	2.4	-	2.2	3.3
	15	3.3	3.8	3.8	3.8	-	2.2	4.0
	20	-	-	-	-	-	3.8	-
25	15	4.1	4.7	4.7	4.7	-	-	7.4
	20	6.3	7.0	7.0	7.0	-	4.4	13.2
	25	13.9	15.0	15.0	15.0	12.6	12.2	16.2
40	32	25.3	27.0	27.0	27.0	26.2	-	30.0
	40	29.3	30.9	30.9	30.9	30.2	29.5	32.8
50	50	46.5	48.4	48.4	48.4	51.7	50.6	55.2
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

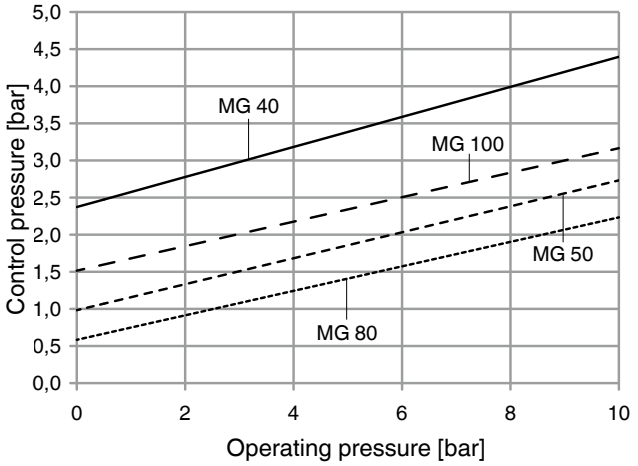
Kv values determined acc. to IEC 534 standard, inlet pressure 6 bar, Δ p 1 bar, stainless steel valve body and soft elastomer diaphragm.

Autoclavability	
Actuator size 0	Standard version with autoclave capability
Actuator size 1	Standard version with autoclave capability
Actuator size 2	Standard version with autoclave capability
Actuator size 3	with special version
Actuator size 4	with special version
Actuator size 5	not possible
Actuator size 6	not possible

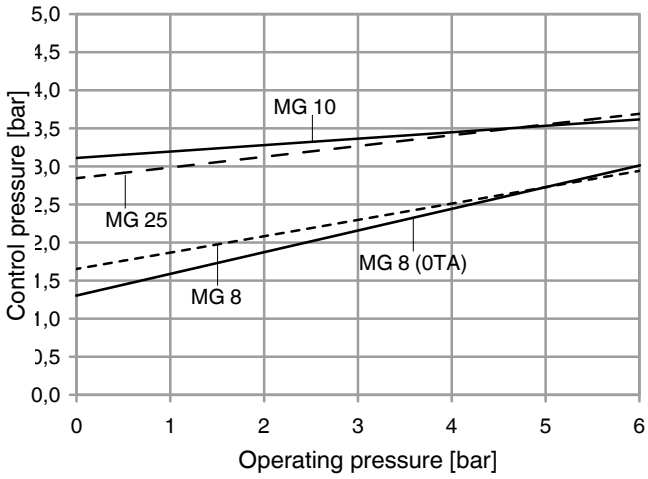
Control function 2 + 3 with elastomer diaphragm Diaphragm size 8 - 25



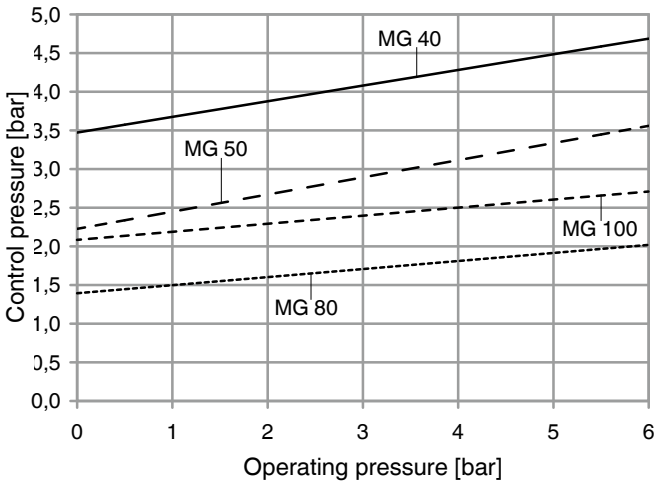
Control function 2 + 3 with elastomer diaphragm Diaphragm size 40 - 100



Control function 2 + 3 with PTFE diaphragm Diaphragm size 8 - 25



Control function 2 + 3 with PTFE diaphragm Diaphragm size 40 - 100



Order data (2/2-way valves)

Body configuration	Code
Tank bottom valve body (actuator version T)	B**
2/2-way body (actuator version D and T)	D
Multi-port design (actuator version T)	M**
T body (actuator version T)	T*
* For dimensions see T Valves brochure	
** Dimensions and versions on request	

Valve body material	Code
1.4435 - BN2 (CF3M), investment casting Fe<0.5%	32
1.4435 (ASTM A 351 CF3M ≙ 316L), investment casting	34
1.4408, investment casting	37
1.4408, PFA lined	39
1.4435 (316L), forged body	40
1.4435 (BN2), forged body Fe<0.5%	42

Connection	Code
Butt weld spigots	
Spigots DIN	0
Spigots DIN 11850, series 1	16
Spigots DIN 11850, series 2	17
Spigots DIN 11850, series 3	18
Spigots DIN 11866, series A	1A
Spigots DIN 11866, series B	1B
Spigots JIS-G 3447	35
Spigots JIS-G 3459	36
Spigots SMS 3008	37
Spigots BS 4825, Part 1	55
Spigots ASME BPE	59
Spigots EN ISO 1127	60
Spigots ANSI/ASME B36.19M, Schedule 10s	63
Spigots ANSI/ASME B36.19M, Schedule 40s	65
Threaded connections	
Threaded sockets DIN ISO 228	1
Threaded spigots DIN 11851	6
One side threaded spigot, other side cone spigot and union nut, DIN 11851	62
Aseptic unions on request	
Flanges	
Flanges EN 1092 / PN16 / form B, length EN 558, series 1, ISO 5752, basic series 1	8*
Flanges ANSI CLASS 150 RF, length MSS SP-88	38*
Flanges ANSI CLASS 125/150 RF, length EN 558, series 1, ISO 5752, basic series 1	39*
Clamp connections	
Clamps ASME BPE for pipe ASME BPE, length ASME BPE	80
Clamps DIN 32676 series B for pipe EN ISO 1127, length EN 558, series 7	82
Clamps ASME BPE for pipe ASME BPE, length EN 558, series 7	88
Clamps DIN 32676 series A for pipe DIN 11850, length EN 558, series 7	8A
Clamps SMS 3017 for pipe SMS 3008, length EN 558, series 7	8E
Aseptic clamps on request	
* Connection code 8, 38, 39 only possible in conjunction with actuator version code R	
For overview of available valve bodies see page 13/14	

Diaphragm material			Code
EPDM	13		3A*
EPDM	17		
PTFE/EPDM convex, PTFE loose	5E		
PTFE/EPDM, PTFE lamin.	52**		5A*
* for diaphragm size 8	** for diaphragm size 10 and 100		
Material complies with FDA requirements			

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

Actuator size		Code
Actuator size 0	(diaphragm size 8)	0
Actuator size 1	(diaphragm size 10)	1
Actuator size 2	(diaphragm size 25)	2
Actuator size 3	(diaphragm size 40)	3
Actuator size 4	(diaphragm size 50)	4
Actuator size 5	(diaphragm size 80)	5
Actuator size 6	(diaphragm size 100)	6

Actuator version		Code
Only for body configuration D	(diaphragm size 10 - 50)	D
For body config. B, D, M and T	(diaphragm size 8 - 100)	T
For body config. B, D, M and T Control air connector 90° offset to flow direction	(diaphragm size 8 - 100)	R

Spring set	Code
Standard	1
For higher operating pressure (diaphragm size 8)	A

For further order data see page 6

Order data (2/2-way valves)

Valve body surface finish, internal contour				
		Forged body Code 40, 42	Investment casting Code 32, 34	Code
Ra ≤ 6.3 µm	blasted internal/external	-	X	1500
Ra ≤ 6.3 µm	optical electropolishing	-	X	1509
Ra ≤ 0.8 µm	mechanically polished internal, blasted external	X	X	1502
Ra ≤ 0.8 µm	electropolished internal/external	X	-	1503
Ra ≤ 0.6 µm	mechanically polished internal, blasted external	X	X	1507
Ra ≤ 0.6 µm	electropolished internal/external	X	-	1508
Ra ≤ 0.4 µm	mechanically polished internal, blasted external	X	-	1536
Ra ≤ 0.4 µm	electropolished internal/external	X	-	1537
Ra ≤ 0.25 µm	mechanically polished internal, blasted external	X	-	1527
Ra ≤ 0.25 µm	electropolished internal/external	X	-	1516

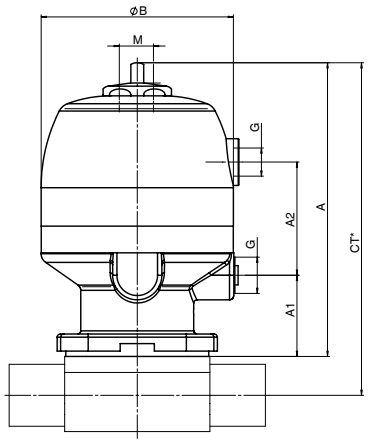
Ra acc. to DIN 4768; at defined reference points
Surface finish data refer to medium wetted surfaces

Special function	Code
3-A compliant design	M

Order example	650	50	D	60	40	17	1	4	T	1	1503	M
Type	650											
Nominal size		50										
Body configuration (code)			D									
Connection (code)				60								
Valve body material (code)					40							
Diaphragm material (code)						17						
Control function (code)							1					
Actuator size (code)								4				
Actuator version (code)									T			
Spring set (code)										1		
Surface finish (code)											1503	
Special function (Code)												M

Dimensions [mm]

Actuator dimensions									
Actuator size	Diaphragm size	A	A1	A2	ø B	G	M	Weight [kg]	
								Version D	Version T
0T1	8	80.5	28	37.8	42	G 1/8	M12x1	-	0.5
0TA	8	89.5	28	39.1	47	G 1/8	M12x1	-	0.5
1T1	10	116.0	37	42.5	61	G 1/4	M16x1	1.1	0.9
2T1	25	137.5	38	53.0	90	G 1/4	M16x1	2.5	1.9
3T1	40	173.0	53	56.5	114	G 1/4	M16x1	5.0	3.0
4T1	50	223.0	52	70.5	144	G 1/4	M16x1	9.5	7.7
5T1	80	283.0	78	-	240	G 1/4	M26x1.5	-	18.5
6T1	100	298.0	87	-	240	G 1/4	M26x1.5	-	20.0

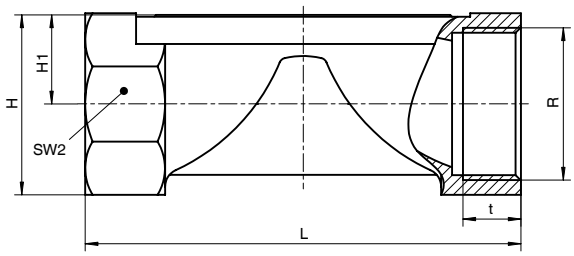


* CT = A + H1 (see body dimensions)

Body dimensions [mm]

Threaded sockets, connection code 1 Valve body material: Investment casting (code 37)									
MG	DN	R	H	H1	t	L	SW2	Number of flats	Weight [kg]
8	8	G 1/4	19	9	11	72	18	6	0.09
10	12	G 3/8	25	13	12	55	22	2	0.17
	15	G 1/2	30	15	15	68	27	2	0.26
25	15	G 1/2	29	16	15	85	27	6	0.32
	20	G 3/4	32	16	16	85	32	6	0.34
	25	G 1	37	16	13	110	41	6	0.39
40	32	G 1 1/4	49	24	20	120	50	8	0.88
	40	G 1 1/2	52	24	18	140	55	8	0.93
50	50	G 2	68	33	26	165	70	8	1.56

MG = diaphragm size For materials see overview on last page



Body dimensions [mm]

Butt weld spigots, connection code 0, 16, 17, 18
Valve body material: Investment casting (code 34), forged body (code 40)

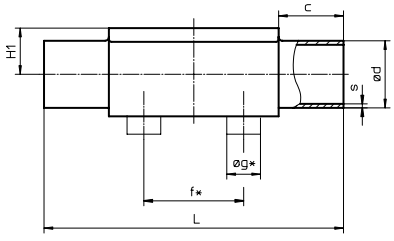
									DIN Series 0 Code 0		DIN 11850 Series 1 Code 16		DIN 11850 Series 2 Code 17		DIN 11850 Series 3 Code 18		Weight [kg]
MG	DN	NPS	f*	øg*	L	c	H1*	H1**	ød	s	ød	s	ød	s	ød	s	
8	4	-	-	-	72	20	8.5		6	1.0	-	-	-	-	-	-	0.09
	6	-	-	-	72	20	8.5		8	1.0	-	-	-	-	-	-	0.09
	8	1/4”	-	-	72	20	8.5		10	1.0	-	-	-	-	-	-	0.09
	10	3/8”	-	-	72	20	8.5		-	-	12	1.0	13	1.5	14	2.0	0.09
	15	1/2”	-	-	72	20	8.5		-	-	-	-	-	-	-	-	0.09
10	10	3/8”	30	13.5	108	25	12.5		-	-	12	1.0	13	1.5	14	2.0	0.30
	15	1/2”	30	13.5	108	25	12.5		18	1.5	18	1.0	19	1.5	20	2.0	0.30
	20	3/4”	30	13.5	108	25	12.5		-	-	-	-	-	-	-	-	0.30
25	15	1/2”	40	13.5	120	25	13.0	19.0	18	1.5	18	1.0	19	1.5	20	2.0	0.62
	20	3/4”	40	13.5	120	25	16.0	19.0	22	1.5	22	1.0	23	1.5	24	2.0	0.58
	25	1”	40	13.5	120	25	19.0	19.0	28	1.5	28	1.0	29	1.5	30	2.0	0.55
40	32	1 1/4”	68	13.5	153	25	24.0	26.0	34	1.5	34	1.0	35	1.5	36	2.0	1.45
	40	1 1/2”	75	13.5	153	25	26.0	26.0	40	1.5	40	1.0	41	1.5	42	2.0	1.32
50	50	2”	90	13.5	173	30	32.0	32.0	52	1.5	52	1.0	53	1.5	54	2.0	2.25
80	65	2 1/2”	-	-	216	30	-	62.0	-	-	-	-	70	2.0	-	-	8.60
	80	3”	-	-	254	30	-	62.0	-	-	-	-	85	2.0	-	-	8.00
100	100	4”	-	-	305	30	-	76.0	-	-	-	-	104	2.0	-	-	24.10

* only for investment cast design ** only for forged design MG = diaphragm size For materials see overview on last page

Butt weld spigots, connection code 1A, 1B, 60
Valve body material: Investment casting (code 34), forged body (code 40)

									DIN 11866 Series A Code 1A		DIN 11866 Series B Code 1B		EN ISO 1127 Code 60		Weight [kg]
MG	DN	NPS	f*	øg*	L	c	H1*	H1**	ød	s	ød	s	ød	s	
8	4	-	-	-	72	20	8.5		-	-	-	-	-	-	0.09
	6	-	-	-	72	20	8.5		8	1.0	10.2	1.6	10.2	1.6	0.09
	8	1/4”	-	-	72	20	8.5		10	1.0	13.5	1.6	13.5	1.6	0.09
	10	3/8”	-	-	72	20	8.5		13	1.5	-	-	-	-	0.09
	15	1/2”	-	-	72	20	8.5		-	-	-	-	-	-	0.09
10	10	3/8”	30	13.5	108	25	12.5		13	1.5	17.2	1.6	17.2	1.6	0.30
	15	1/2”	30	13.5	108	25	12.5		19	1.5	21.3	1.6	21.3	1.6	0.30
	20	3/4”	30	13.5	108	25	12.5		-	-	-	-	-	-	0.30
25	15	1/2”	40	13.5	120	25	13.0	19.0	19	1.5	21.3	1.6	21.3	1.6	0.62
	20	3/4”	40	13.5	120	25	16.0	19.0	23	1.5	26.9	1.6	26.9	1.6	0.58
	25	1”	40	13.5	120	25	19.0	19.0	29	1.5	33.7	2.0	33.7	2.0	0.55
40	32	1 1/4”	68	13.5	153	25	24.0	26.0	35	1.5	42.4	2.0	42.4	2.0	1.45
	40	1 1/2”	75	13.5	153	25	26.0	26.0	41	1.5	48.3	2.0	48.3	2.0	1.32
50	50	2”	90	13.5	173	30	32.0	32.0	53	1.5	60.3	2.0	60.3	2.0	2.25
80	65	2 1/2”	-	-	216	30	-	62.0	70	2.0	76.1	2.0	76.1	2.0	8.60
	80	3”	-	-	254	30	-	62.0	85	2.0	88.9	2.3	88.9	2.3	8.00
100	100	4”	-	-	305	30	-	76.0	104	2.0	114.3	2.3	114.3	2.3	24.10

* only for investment cast design ** only for forged design MG = diaphragm size For materials see overview on last page



Body dimensions [mm]

Butt weld spigots, connection code 35, 36, 37
Valve body material: Investment casting (code 34), forged body (code 40)

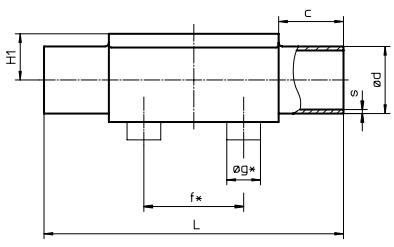
									JIS-G 3447 Code 35		JIS-G 3459 Code 36		SMS 3008 Code 37		Weight [kg]
MG	DN	NPS	f*	øg*	L	c	H1*	H1**	ød	s	ød	s	ød	s	
8	4	-	-	-	72	20	8.5		-	-	-	-	-	-	0.09
	6	-	-	-	72	20	8.5		-	-	10.5	1.20	-	-	0.09
	8	1/4"	-	-	72	20	8.5		-	-	13.8	1.65	-	-	0.09
	10	3/8"	-	-	72	20	8.5		-	-	-	-	-	-	0.09
	15	1/2"	-	-	72	20	8.5		-	-	-	-	-	-	0.09
10	10	3/8"	30	13.5	108	25	12.5		-	-	17.3	1.65	-	-	0.30
	15	1/2"	30	13.5	108	25	12.5		-	-	21.7	2.10	-	-	0.30
	20	3/4"	30	13.5	108	25	12.5		-	-	-	-	-	-	0.30
25	15	1/2"	40	13.5	120	25	13.0	19.0	-	-	21.7	2.10	-	-	0.62
	20	3/4"	40	13.5	120	25	16.0	19.0	-	-	27.2	2.10	-	-	0.58
	25	1"	40	13.5	120	25	19.0	19.0	25.4	1.2	34.0	2.80	25.0	1.2	0.55
40	32	1 1/4"	68	13.5	153	25	24.0	26.0	31.8	1.2	42.7	2.80	33.7	1.2	1.45
	40	1 1/2"	75	13.5	153	25	26.0	26.0	38.1	1.2	48.6	2.80	38.0	1.2	1.32
50	50	2"	90	13.5	173	30	32.0	32.0	50.8	1.5	60.5	2.80	51.0	1.2	2.25
80	65	2 1/2"	-	-	216	30	-	62.0	63.5	2.0	76.3	3.00	63.5	1.6	8.60
	80	3"	-	-	254	30	-	62.0	76.3	2.0	89.1	3.00	76.1	1.6	8.00
100	100	4"	-	-	305	30	-	76.0	101.6	2.0	114.3	3.00	101.6	2.0	24.10

* only for investment cast design ** only for forged design MG = diaphragm size For materials see overview on last page

Butt weld spigots, connection code 55, 59, 63, 65
Valve body material: Investment casting (code 34), forged body (code 40)

									BS 4825 Code 55		ASME BPE Code 59		ANSI/ASME B36.19M 10s Code 63		ANSI/ASME B36.19M 40s Code 65		Weight [kg]
MG	DN	NPS	f*	øg*	L	c	H1*	H1**	ød	s	ød	s	ød	s	ød	s	
8	4	-	-	-	72	20	8.5		-	-	-	-	-	-	-	-	0.09
	6	-	-	-	72	20	8.5		-	-	-	-	10.3	1.24	10.3	1.73	0.09
	8	1/4"	-	-	72	20	8.5		6.35	1.2	6.35	0.89	13.7	1.65	13.7	2.24	0.09
	10	3/8"	-	-	72	20	8.5		9.53	1.2	9.53	0.89	-	-	-	-	0.09
	15	1/2"	-	-	72	20	8.5		12.70	1.2	12.70	1.65	-	-	-	-	0.09
10	10	3/8"	30	13.5	108	25	12.5		9.53	1.2	9.53	0.89	17.1	1.65	17.1	2.31	0.30
	15	1/2"	30	13.5	108	25	12.5		12.70	1.2	12.70	1.65	21.3	2.11	21.3	2.77	0.30
	20	3/4"	30	13.5	108	25	12.5		19.05	1.2	19.05	1.65	-	-	-	-	0.30
25	15	1/2"	40	13.5	120	25	13.0	19.0	-	-	-	-	21.3	2.11	21.3	2.77	0.62
	20	3/4"	40	13.5	120	25	16.0	19.0	19.05	1.2	19.05	1.65	26.7	2.11	26.7	2.87	0.58
	25	1"	40	13.5	120	25	19.0	19.0	-	-	25.40	1.65	33.4	2.77	33.4	3.38	0.55
40	32	1 1/4"	68	13.5	153	25	24.0	26.0	-	-	-	-	42.2	2.77	42.2	3.56	1.45
	40	1 1/2"	75	13.5	153	25	26.0	26.0	-	-	38.10	1.65	48.3	2.77	48.3	3.68	1.32
50	50	2"	90	13.5	173	30	32.0	32.0	-	-	50.80	1.65	60.3	2.77	60.3	3.91	2.25
80	65	2 1/2"	-	-	216	30	-	62.0	-	-	63.50	1.65	73.0	3.05	73.0	5.16	8.60
	80	3"	-	-	254	30	-	62.0	-	-	76.20	1.65	88.9	3.05	88.9	5.49	8.00
100	100	4"	-	-	305	30	-	76.0	-	-	101.60	2.11	114.3	3.05	114.3	6.02	24.10

* only for investment cast design ** only for forged design MG = diaphragm size For materials see overview on last page

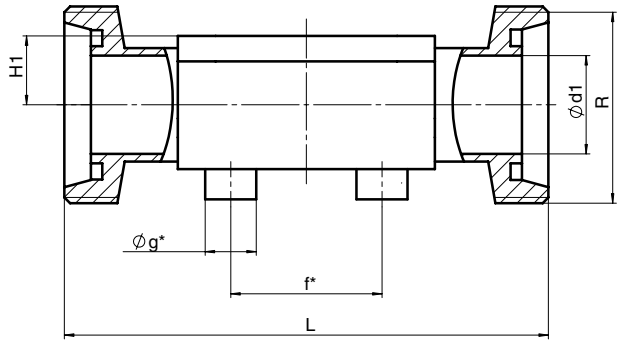


Body dimensions [mm]

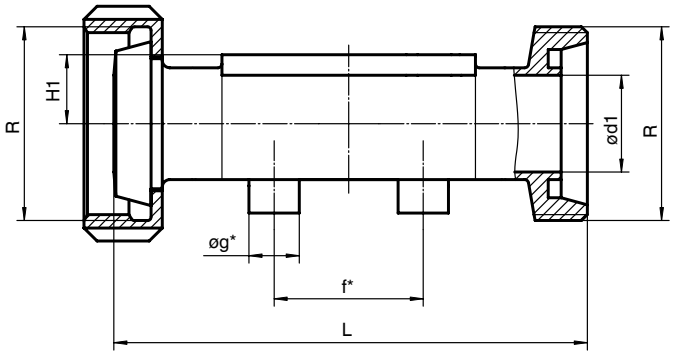
Threaded connections, connection code 6, 62 Valve body material: Investment casting (code 34), forged body (code 40)										
MG	**DN**	**H1***	**H1****	**f***	**øg***	**ød1**	**Thread to DIN 405 R**	**Code 6 L**	**Code 62 L**	**Weight [kg]**
8	10	8.5	-	-	-	10.0	RD 28 x 1/8	92	90	0.21
10	10	12.5	-	30.0	13.5	10.0	RD 28 x 1/8	118	116	0.33
	15	12.5	-	30.0	13.5	16.0	RD 34 x 1/8	118	116	0.35
25	15	13.0	19	40.0	13.5	16.0	RD 34 x 1/8	118	116	0.71
	20	16.0	19	40.0	13.5	20.0	RD 44 x 1/6	118	114	0.78
	25	19.0	19	40.0	13.5	26.0	RD 52 x 1/6	128	127	0.79
40	32	24.0	26	68.0	13.5	32.0	RD 58 x 1/6	147	147	1.66
	40	26.0	26	75.0	13.5	38.0	RD 65 x 1/6	160	160	1.62
50	50	32.0	32	90.0	13.5	50.0	RD 78 x 1/6	191	191	2.70
80	65	-	62	-	-	66.0	RD 95 x 1/6	246	246	9.22
	80	-	62	-	-	81.0	RD 110 x 1/4	256	256	9.20

* only for investment cast design ** only for forged design MG = diaphragm size For materials see overview on last page

Code 6



Code 62



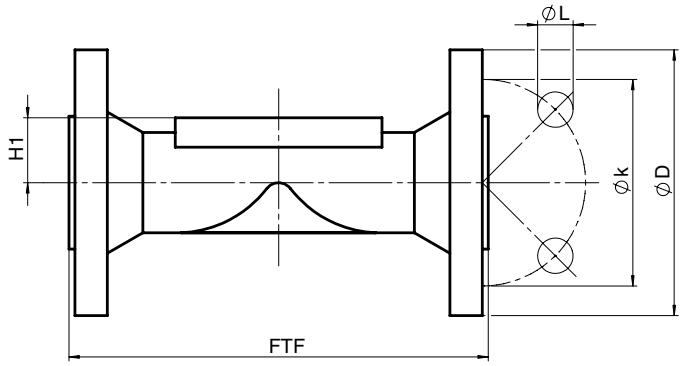
Body dimensions [mm]

Flanges - DIN EN 1092, connection code 8 Valve body material: 1.4435 (code 34, 40), 1.4408 (code 39)										
MG	DN	øD	øk	øL	Number of bolts	H1			FTF	Weight [kg]
						Material code 34	Material code 39	Material code 40		
25	15	95	65	14	4	13.0	18.0	19.0	130*	1.85
	20	105	75	14	4	16.0	20.5	19.0	150	2.35
	25	115	85	14	4	19.0	23.0	19.0	160	2.85
40	32	140	100	18	4	24.0	28.7	26.0	180	4.90
	40	150	110	18	4	26.0	33.0	26.0	200	5.65
50	50	165	125	18	4	32.0	39.0	32.0	230	7.45
80	65	185	145	18	4	-	51.0	62.0	290	10.20
	80	200	160	18	8	-	59.5	62.0	310	14.20
100	100	220	180	18	8	-	73.0	76.0	350	21.00

*Material code 34, 40 FTF = 150 (no DIN length) MG = diaphragm size For materials see overview on page 13

Flanges - ANSI CLASS 125/150 RF, connection code 38, 39 Valve body material: 1.4435 (code 34, 40), 1.4408 (code 39)											
MG	DN	øD	øk	øL	Number of bolts	H1			FTF		Weight [kg]
						Material code 34	Material code 39	Material code 40	Connection code 38	Connection code 39	
25	15	90	60.3	15.9	4	13.0	18.0	19.0	-	130	1.85
	20	100	69.9	15.9	4	16.0	20.5	19.0	146	150	2.35
	25	110	79.4	15.9	4	19.0	23.0	19.0	146	160	2.85
40	32	115	88.9	15.9	4	24.0	28.7	26.0	-	180	4.90
	40	125	98.4	15.9	4	26.0	33.0	26.0	175	200	5.65
50	50	150	120.7	19.0	4	32.0	39.0	32.0	200	230	7.45
80	65	180	139.7	19.0	4	-	51.0	62.0	226	290	10.20
	80	190	152.4	19.0	4	-	59.5	62.0	260	310	14.20
100	100	230	190.5	19.0	8	-	73.0	76.0	327	350	21.00

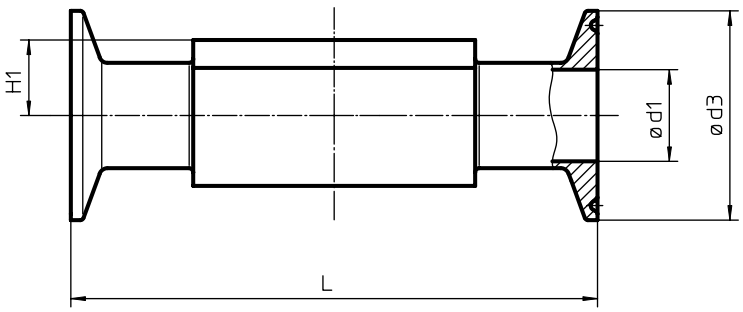
MG = diaphragm size For materials see overview on page 13



Body dimensions [mm]

Clamp connections, connection code 80, 82, 88, 8A, 8E Valve body material: Forged body (code 40)																			
				for pipe ASME BPE code 80			for pipe EN ISO 1127 code 82			for pipe ASME BPE code 88			for pipe DIN 11850 code 8A			for pipe SMS 3008 code 8E			Weight [kg]
MG	DN	NPS	H1	ød1	ød3	L	ød1	ød3	L	ød1	ød3	L	ød1	ød3	L	ød1	ød3	L	
8	6	1/8 ”	8.5	-	-	-	7.0	25.0	63.5	-	-	-	6	25.0	63.5	-	-	-	-
	8	1/4”	8.5	4.57	25.0	63.5	10.3	25.0	63.5	-	-	-	8	25.0	63.5	-	-	-	0.15
	10	3/8”	8.5	7.75	25.0	63.5	-	-	-	-	-	-	10	34.0	88.9	-	-	-	0.18
	15	1/2”	8.5	9.40	25.0	63.5	-	-	-	9.40	25.0	108	-	-	-	-	-	-	0.18
10	10	3/8”	12.5	-	-	-	14.0	25.0	108.0	-	-	-	10	34.0	108.0	-	-	-	0.30
	15	1/2”	12.5	9.40	25.0	88.9	18.1	50.5	108.0	9.40	25.0	108	16	34.0	108.0	-	-	-	0.43
	20	3/4”	12.5	15.75	25.0	101.6	-	-	-	15.75	25.0	117	-	-	-	-	-	-	0.43
25	15	1/2”	19.0	-	-	-	18.1	50.5	108.0	-	-	-	16	34.0	108.0	-	-	-	0.75
	20	3/4”	19.0	15.75	25.0	101.6	23.7	50.5	117.0	15.75	25.0	117	20	34.0	117.0	-	-	-	0.71
	25	1”	19.0	22.10	50.5	114.3	29.7	50.5	127.0	22.10	50.5	127	26	50.5	127.0	22.6	50.5	127	0.63
40	32	1 1/4”	26.0	-	-	-	38.4	64.0	146.0	-	-	-	32	50.5	146.0	31.3	50.5	146	1.62
	40	1 1/2”	26.0	34.80	50.5	139.7	44.3	64.0	159.0	34.80	50.5	159	38	50.5	159.0	35.6	50.5	159	1.50
50	50	2”	32.0	47.50	64.0	158.8	56.3	77.5	190.0	47.50	64.0	190	50	64.0	190.0	48.6	64.0	190	2.50
80	65	2 1/2”	62.0	60.20	77.5	193.8	72.1	91.0	216.0	60.20	77.5	216	66	91.0	216.0	60.3	77.5	216	8.90
	80	3”	62.0	72.90	91.0	222.3	84.3	106.0	254.0	72.90	91.0	254	81	106.0	254.0	72.9	91.0	254	8.50
100	100	4”	76.0	97.38	119.0	292.1	109.7	130.0	305.0	97.38	119.0	305	100	119.0	305.0	97.6	119.0	305	24.80

MG = diaphragm size



Overview of valve bodies for GEMÜ 650

		Spigots																					
Connection code		**0**		**16**		**17**		**18**		**1A**	**1B**	**35**		**36**	**37**		**55**		**59**		**60**		**63**	**65**
Material code		**34**	**40**	**34**	**40**	**34**	**40**	**34**	**40**	**40**	**40**	**34**	**40**	**40**	**34**	**40**	**34**	**40**	**34**	**40**	**34**	**40**	**40**	**40**
MG	**DN**																							
8	4	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	X	X	-	-	-	-	-	-	X	X	-	-	X	-	-	-	-	-	-	-	X	X	X
	8	X	X	-	-	-	-	-	-	X	X	-	-	X	-	-	X	X	X	X	X	X	X	X
	10	-	-	X	X	X	X	X	X	X	-	-	-	-	-	-	X	X	X	X	-	-	-	-
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-
10	10	-	-	X	X	X	X	X	X	X	X	-	-	X	-	-	-	X	-	X	X	X	X	X
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	X	X	X	X	X	X	X	X	X	X	-	-	X	-	-	X	X	-	X	X	X	X	X
	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-
25	15	X	X	X	X	X	X	-	X	X	X	-	-	X	-	-	-	-	-	-	X	X	X	X
	20	X	X	X	X	X	X	-	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	X	X	X	-	-	X	X	X	X	X	X
40	32	X	X	X	X	X	X	X	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	X	X	-	-	X	X	X	X	X	X
50	50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	X	X	X	X	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*

*Valve bodies are not suitable for use with diaphragms code 5E MG = diaphragm size

Overview of valve bodies for GEMÜ 650

		Threaded connections					Clamps				
Connection code		**1**	**6**		**62**		**80**	**82**	**88**	**8A**	**8E**
Material code		**37**	**34**	**40**	**34**	**40**	**40**	**40**	**40**	**40**	**40**
MG	**DN**										
8	6	-	-	-	-	-	-	K	-	K	-
	8	X	-	-	-	-	K	K	-	K	-
	10	-	W	W	W	W	K	-	-	W	-
	15	-	-	-	-	-	K	-	W	-	-
10	10	-	W	W	W	W	-	K	-	K	-
	12	X	-	-	-	-	-	-	-	-	-
	15	X	W	W	W	W	K	W	K	K	-
	20	-	-	-	-	-	K	-	K	-	-
25	15	X	W	W	W	W	-	W	-	K	-
	20	X	W	W	W	W	K	K	K	K	-
	25	X	W	W	W	W	K	K	K	K	K
40	32	X	W	W	W	W	-	W	-	K	K
	40	X	W	W	W	W	K	W	K	K	K
50	50	X	W	W	W	W	K	W	K	K	K
80	65	-	-	W	-	W	K	K	K	K	K
	80	-	-	W	-	W	K	W	K	W	K
100	100	-	-	-	-	-	W*	W*	W	W*	W*

*Valve bodies are not suitable for use with diaphragms code 5E
X = Standard
K = Connections completely machined (not welded)
W = Welded construction
MG = diaphragm size

Availability of material code 32 same as code 34, code 42 same as code 40

For further metal diaphragm valves, accessories and other products, please see our Product Range catalogue and Price List. Contact GEMÜ.

Subject to alteration · 05/2015 · 88203150

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