GEMÜ®

Ball Valve, Stainless steel

Construction

GEMÜ 711, 728 and 751 are 3-piece 2/2-way stainless steel ball valves with top flange EN ISO 5211 in sizes 1/4“ to 4“ (DN 8 to DN 100). The top flange enables both pneumatic and electric actuators to be mounted.

GEMÜ 711 is manually operated and has a plastic sleeved hand lever with a locking device.

GEMÜ 751 is operated by a low maintenance, pneumatic piston actuator in single acting (spring return) or double acting design. The actuator has a robust Alodur coated aluminium housing. An integral optical position indicator as standard.

GEMÜ 728 has a low maintenance electric actuator with a powerful DC motor. The reduction gear in the motor provides the rotation through 90°. The actuator has an optical position indicator and a manual override as standard.

Features

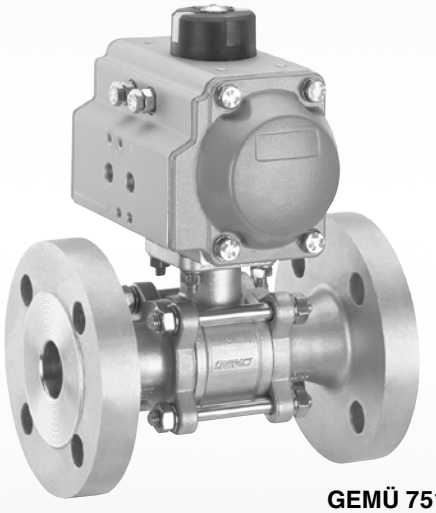
- Suitable for inert, corrosive*, liquid and gaseous media and steam
- Suitable for vacuum applications
- The ball valves comply with the safety requirements of Annex I of the European Pressure Equipment Directive 97/23/EC (PED) for fluids of groups 1 and 2
- Compliance with the technical requirements of TA Luft (German Clean Air Act) 2002 Sec. 5.2.6.4 VDI 2440 Nov. 2000, Sec. 3.3.1.3
- ATEX version on request

CE
0035
PED/97/23/EC
Category III
Module H

TA-LUFT

*see information on working medium on page 2

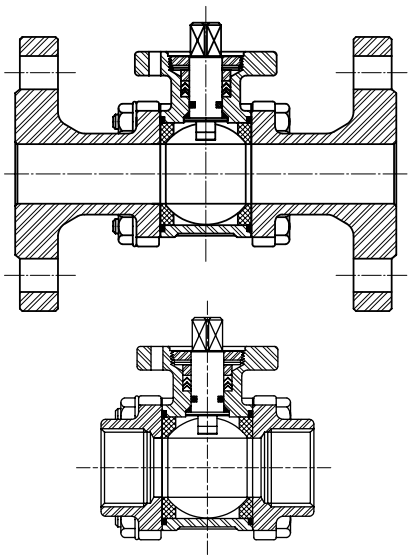
GEMÜ 711



GEMÜ 751

GEMÜ 728

Sectional drawing



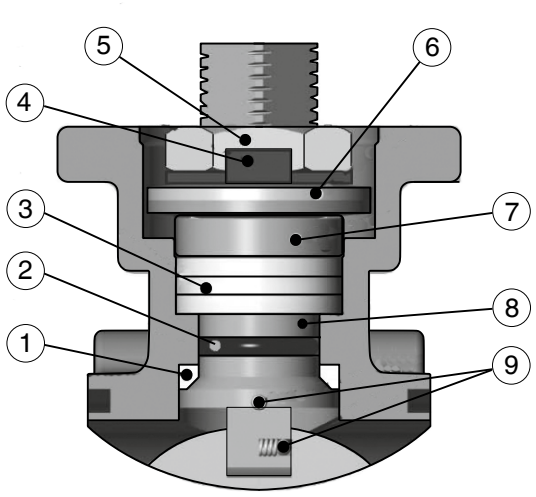
GEMÜ®

711, 728, 751

The spindle seal system

Long service life due to threefold spindle seal, TA-Luft compliant

- Conical spindle seal:
  The seal ① arranged at an angle of 45° effectively prevents the leakage of medium when operating the spindle.
- O-ring:
  Stabilising spindle seal ② with low wear and long service life
- Pretensioned, self-adjusting spindle seal:
  The spindle packing consists of several V-rings ③, a spring washer ⑥ and a stainless steel sleeve ⑦.
  The spring washer ⑥ is pretensioned via the spindle nut ⑤. The pretension force is distributed to the V-rings ③ via the stainless steel sleeve ⑦ thus preventing the leakage of media. The pretension provides low maintenance and reliable spindle sealing even after a long service life.



Specifications

Nominal sizes: 1/4“ – 4“
Connection options:
- Threaded sockets DIN ISO 228, NPT
- Threaded sockets NPT ANSI B 1.20.1
- Spigots
- Spigots ASME BPE *
- Spigots EN ISO 1127
- Flanges EN 1092*
- Flanges ANSI*

Valve body material: 1.4408 (316) investment casting
Ball material: 1.4401 (316)
Seat material: PTFE
Max. operating pressure: Acc. to pipe class of weld on ends (body pressure max. 63 bar)
Max. perm. operating temperature: 180° C

* with full-flow bore

Part list

① Conical spindle seal (PTFE)

② O-ring (FPM), other materials on request

③ V-rings (PTFE)

④ Lock washer (1.4301), secures the nut thus holding the valve spindle in position

⑤ Spindle nut (1.4301)

⑥ Spring washer (1.4310)

⑦ Stainless steel sleeve (1.4301)

⑧ Valve spindle (1.4401), the machined spindle surface reduces the friction at the spindle, reduces the actuation forces (torque) and minimizes wear

⑨ Antistatic device (1.4401), spindle ball

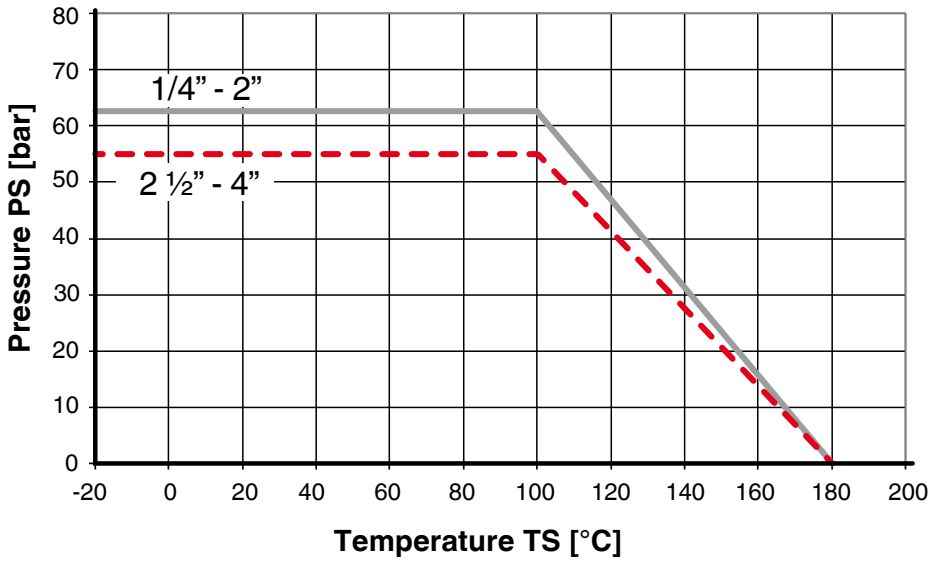
General technical data

Working medium
Corrosive, inert, gaseous and liquid media and steam, which have no negative impact on the physical and chemical properties of the body and seal material.
Maximum permissible pressure of the working medium see diagram (for water and non-hazardous media to which the body material is resistant)
Maximum permissible operating temperature 180 °C
Maximum permissible ambient temperature 60 °C

Control medium (only GEMÜ 751)	
Control pressure	6 - 8 bar
Max. perm. temperature of control medium	60 °C

Nominal size	Torque	NPS	Kv values	Weight Ball valve without operator [kg]	
DN	[Nm]		[m^3/h]	Threaded sockets/ Butt weld spigots	Flanges
8	7	1/4”	6.8	0.35	-
10	7	3/8”	6.8	0.40	-
15	7	1/2”	12.8	0.65	2.45
20	8	3/4”	29.1	0.80	3.50
25	14	1”	47.8	1.20	4.70
32	20	1 1/4”	72.6	1.95	5.90
40	29	1 1/2”	106.8	2.75	7.80
50	39	2”	213.7	4.50	11.3
65	59	2 1/2”	273.3	8.90	16.9
80	91	3”	495.3	12.9	23.9
100	124	4”	871.1	22.5	34.9

Pressure-temperature diagram



Order data - GEMÜ 711 - manually operated

Type	Code
Ball valve with hand lever	711

Nominal size		Code
DN 8	1/4“	8
DN 10	3/8“	10
DN 15	1/2“	15
DN 20	3/4“	20
DN 25	1“	25
DN 32	1 1/4“	32
DN 40	1 1/2“	40
DN 50	2“	50
DN 65	2 1/2“	65
DN 80	3“	80
DN 100	4“	100

Body configuration	Code
Straight through (2/2-way)	D
Multi-port (3/2-way), see separate data sheet	M

Connection	Code
Threaded sockets DIN ISO 228	1
Threaded sockets NPT	31
Spigots	19
Spigots ASME BPE	59
Spigots EN ISO 1127	60
Flanges EN 1092 / PN40 / form B, length EN 558, series 1, ISO 5752, basic series 1	11
Flanges ANSI class 125/150 RF, up to DN 100 length EN 558, series 3 ASME/ANSI B16.10 Tab. 1, columns 8 and 9 from DN 125 length EN 558, series 12 ASME/ANSI B16.10 Tab. 1, column 3	46
For materials see overview on last page	

Valve body material		Code
1.4408 (316) 1.4401 (316)	body (investment cast) ball	37

Seat material*	Code
PTFE	5
* Spindle seal in FPM (other materials on request)	

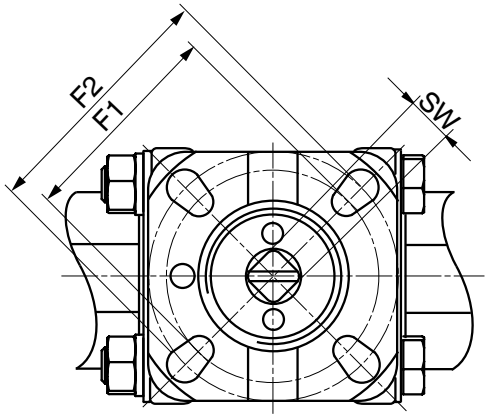
Control function	Code
Manually operated with lockable hand lever	L

Order example	711	15	D	1	37	5	L
Type (code)	711						
Nominal size (code)		15					
Body configuration (code)			D				
Connection (code)				1			
Valve body material (code)					37		
Seat material (code)						5	
Control function (code)							L

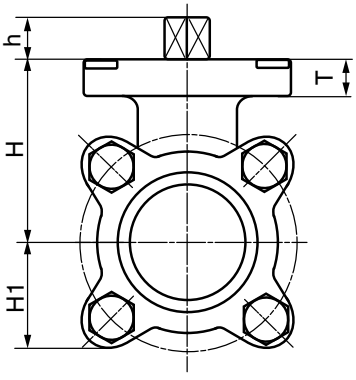
Note: Wearing parts kit - order code: SP.K715-DN… (dependent on nominal size) contains replacement parts for the spindle seal and seat: Conical spindle seal (PTFE), O-ring (FPM), V-ring spindle packing (PTFE), seat and flange seals (PTFE)

Body dimensions [mm]

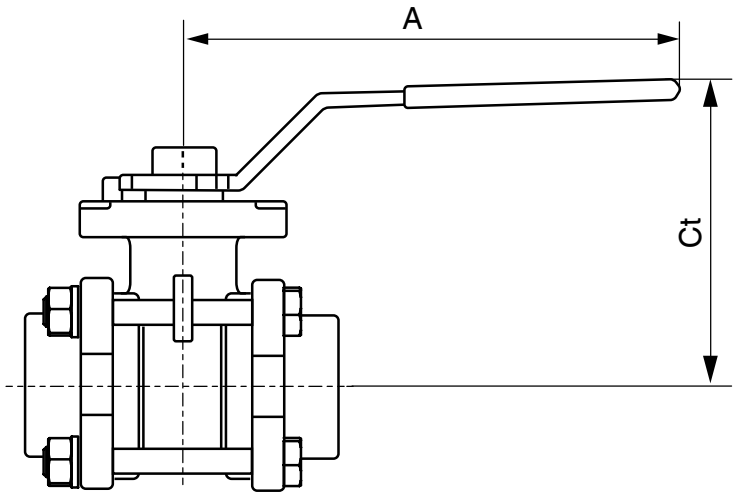
All versions											GEMÜ 711	
	Top flange										Hand lever	
DN	F1			F2		SW	H	H1	h ±0,5	T	A	Ct
8	F03	36	Ø6x4	F04	Ø 6x4	9	42.1	23.3	6.4	5	139	77
10	F03	36	Ø6x4	F04	Ø 6x4	9	42.1	23.3	6.4	5	139	77
15	F03	36	Ø6x4	F04	Ø 6x4	9	42.1	23.3	6.4	5	139	77
20	F03	36	Ø6x4	F04	Ø 6x4	9	48.0	25.4	6.9	5	139	83
25	F04	42	Ø6x4	F05	Ø 7x4	11	56.6	28.3	11.2	7	165	96
32	F04	42	Ø6x4	F05	Ø 7x4	11	60.9	34.5	11.2	7	165	100
40	F05	50	Ø7x4	F07	Ø 9x4	14	77.5	39.3	14.2	10	215	127
50	F05	50	Ø7x4	F07	Ø 9x4	14	85.2	47.3	14.2	10	215	134
65	F07	70	Ø9x4	F10	Ø 11x4	17	108.7	58.5	17.1	10	300	167
80	F07	70	Ø9x4	F10	Ø 11x4	17	117.7	69.0	18.1	10	370	176
100	F07	70	Ø9x4	F10	Ø 11x4	17	132.6	95.4	17.1	10	370	192



Top flange



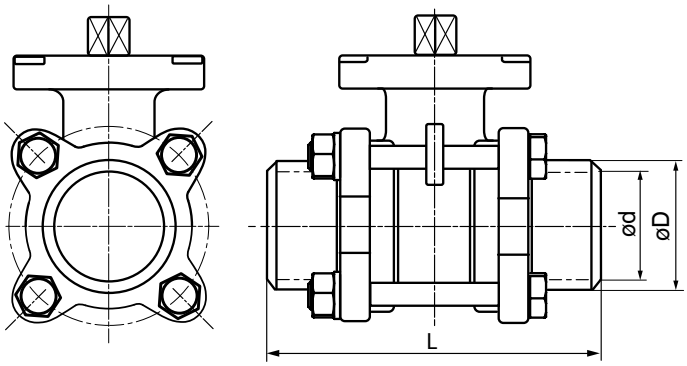
Connection
Code 1, 19, 31, 59, 60



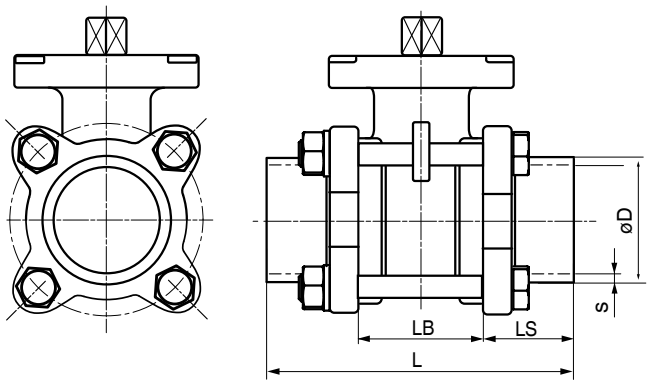
GEMÜ 711 hand lever

Body dimensions [mm]

	But weld spigots										
	Code 19			Code 59			Code 60				
DN	L	D	d	L	D	S	L	LB	LS	D	S
8	60	16.2	11.6	-	-	-	120.2	23.6	48.3	13.5	1.6
10	60	17.5	12.7	-	-	-	120.2	23.6	48.3	17.2	1.6
15	75	22.7	16.0	139.8	12.7	1.65	140.2	23.6	58.3	21.3	1.6
20	80	27.5	20.0	146.0	19.0	1.63	140.0	28.0	56.0	26.9	1.6
25	90	34.0	25.0	158.7	25.4	1.60	152.2	33.9	59.2	33.7	2.0
32	110	42.7	32.0	-	-	-	165.1	42.5	61.3	42.4	2.0
40	120	48.6	38.0	190.6	38.1	1.60	190.4	53.2	68.8	48.3	2.0
50	140	60.5	50.0	216.0	50.8	1.65	203.0	64.6	69.2	60.3	2.0
65	185	76.3	65.0	247.6	63.5	1.60	254.0	87.0	83.5	76.1	2.0
80	205	90.0	80.0	266.8	76.2	1.60	280.2	99.0	90.6	88.9	2.3
100	240	116.0	100.0	317.6	101.6	2.10	317.0	127.0	95.0	114.3	2.3

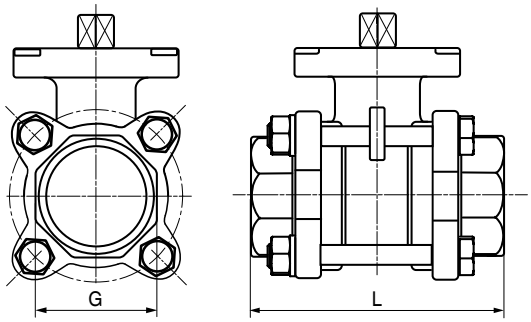


Butt weld spigots (code 19)

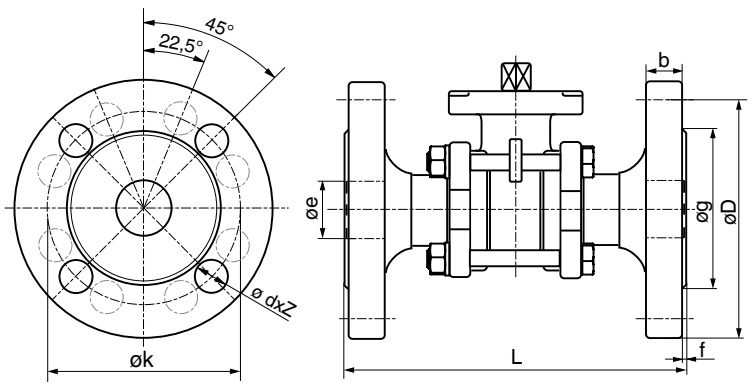


Butt weld spigots ISO (code 59, 60)

	Threaded sockets		Flanges								
	Code 1, 31		Code 11								
DN	G	L	b	Ød	ØD	Øe	f	Øg	Øk	L	Z
8	1/4“	60	-	-	-	-	-	-	-	-	-
10	3/8“	60	-	-	-	-	-	-	-	-	-
15	1/2“	75	16	14	95	15	2	45	65	130	4
20	3/4“	80	18	14	105	20	2	58	75	150	4
25	1“	90	18	14	115	25	2	68	85	160	4
32	1 1/4“	110	18	18	140	32	2	78	100	180	4
40	1 1/2“	120	18	18	150	38	3	88	110	200	4
50	2“	140	20	18	165	50	3	102	125	230	4
65	2 1/2“	185	22	18	185	65	3	122	145	290	8
80	3“	205	24	18	200	80	3	138	160	310	8
100	4“	240	24	22	235	100	3	162	190	350	8



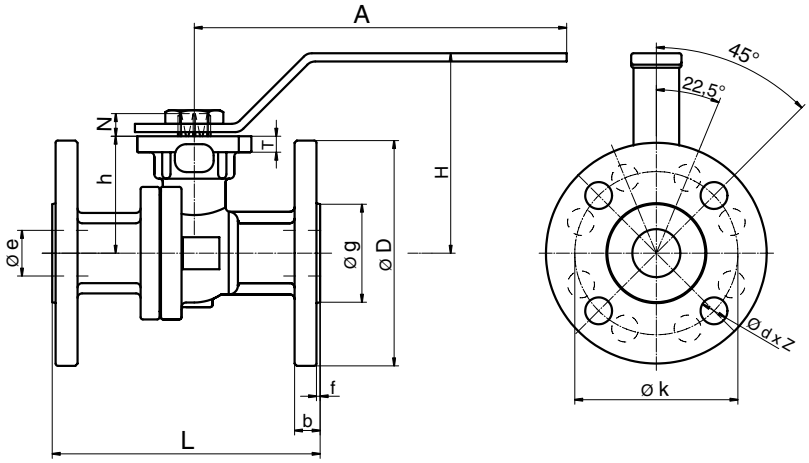
Threaded sockets (code 1, 31)

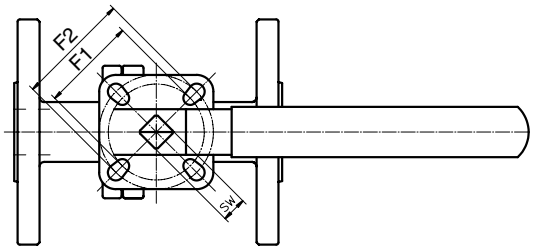


Flanges (code 11)

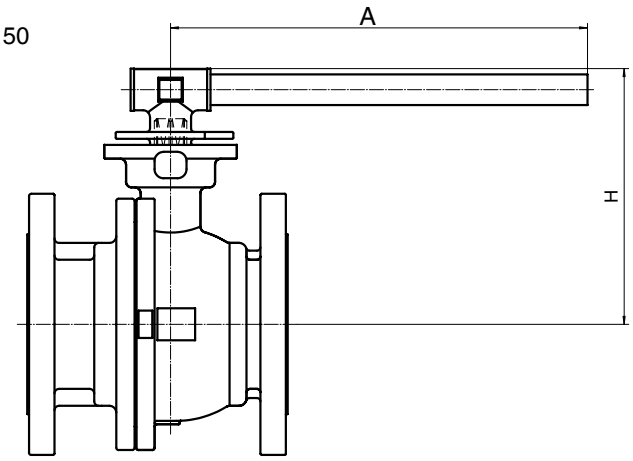
Body dimensions- ANSI flanges, 2-piece [mm]

Flanges, connection code 46																								
DN	A	b	ød	øD	øe	f	F1			F2			øg	h	H	øk	øg	f	øk	L	N	SW	T	Z
15	105	11.2	16.0	88.9	15	1.6	F04	42	ø6x4	F05	50	ø7x4	35.1	46.7	83	60.5	35.1	1.6	60.5	108.3	9.9	11	7.0	4
20	165	11.2	16.0	98.6	20	1.6	F04	42	ø6x4	F05	50	ø7x4	42.9	51.2	87	69.9	42.9	1.6	69.9	117.3	9.9	11	7.0	4
25	165	11.2	16.0	108.0	25	1.6	F04	42	ø6x4	F05	50	ø7x4	50.8	58.8	95	79.2	50.8	1.6	79.2	127.1	10.3	11	8.0	4
32	215	12.7	16.0	117.3	32	1.6	F05	50	ø7x4	F07	70	ø9x4	63.5	72.6	122	88.9	63.5	1.6	88.9	139.7	12.9	14	8.3	4
40	262	14.3	16.0	127.0	38	1.6	F07	70	ø9x4	F10	102	ø11x4	73.2	89.1	147	98.6	73.2	1.6	98.6	165.1	19.0	17/19	10.0	4
50	262	15.9	19.0	152.4	50	1.6	F07	70	ø9x4	F10	102	ø11x4	91.9	96.6	155	120.7	91.9	1.6	120.7	178.3	19.0	17/19	10.0	4
65	262	17.6	19.0	177.8	65	1.6	F07	70	ø9x4	F10	102	ø11x4	104.6	116.0	174	139.7	104.6	1.6	139.7	190.0	19.0	17/19	10.0	4
80	365	19.0	19.0	190.5	80	1.6	F10	102	ø11x4	F12	125	ø14x4	127.0	132.5	200	152.4	127.0	1.6	152.4	203.5	23.0	22	12.0	4
100	365	23.9	19.0	228.6	100	1.6	F10	102	ø11x4	F12	125	ø14x4	157.2	157.0	224	190.5	157.2	1.6	190.5	228.6	23.0	22	12.0	8
125	750	23.9	22.2	254.0	125	1.6	F12	125	ø14x4	F14	140	ø18x4	185.7	192.7	282	215.9	185.7	1.6	215.9	355.6	28.5	27	15.0	8
150	750	25.4	22.2	279.4	150	1.6	F12	125	ø14x4	F14	140	ø18x4	215.9	210.2	300	241.3	215.9	1.6	241.3	393.7	28.5	27	15.0	8





DN 80 - 150



Order data - GEMÜ 751 - pneumatically operated

Type	Code
Ball valve with pneumatic actuator	751

Body configuration	Code
Straight through (2/2-way)	D
Multi-port (3/2-way), see separate data sheet	M

Connection	Code
Threaded sockets DIN ISO 228	1
Threaded sockets NPT	31
Spigots	19
Spigots ASME BPE	59
Spigots EN ISO 1127	60
Flanges EN 1092 / PN40 / form B, length EN 558, series 1, ISO 5752, basic series 1	11
Flanges ANSI class 125/150 RF, up to DN 100 length EN 558, series 3 ASME/ANSI B16.10 Tab. 1, columns 8 and 9 from DN 125 length EN 558, series 12 ASME/ANSI B16.10 Tab. 1, column 3	46
For materials see overview on last page	

Valve body material		Code
1.4408 (316) 1.4401 (316)	body (investment cast) ball	37

Seat material*	Code
PTFE	5
* Spindle seal in FPM (other materials on request)	

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

K number	Code
Mounting flange with adapter	5222
For operating temperatures > 100° C a mounting flange with an adapter is required between ball valve and actuator!	

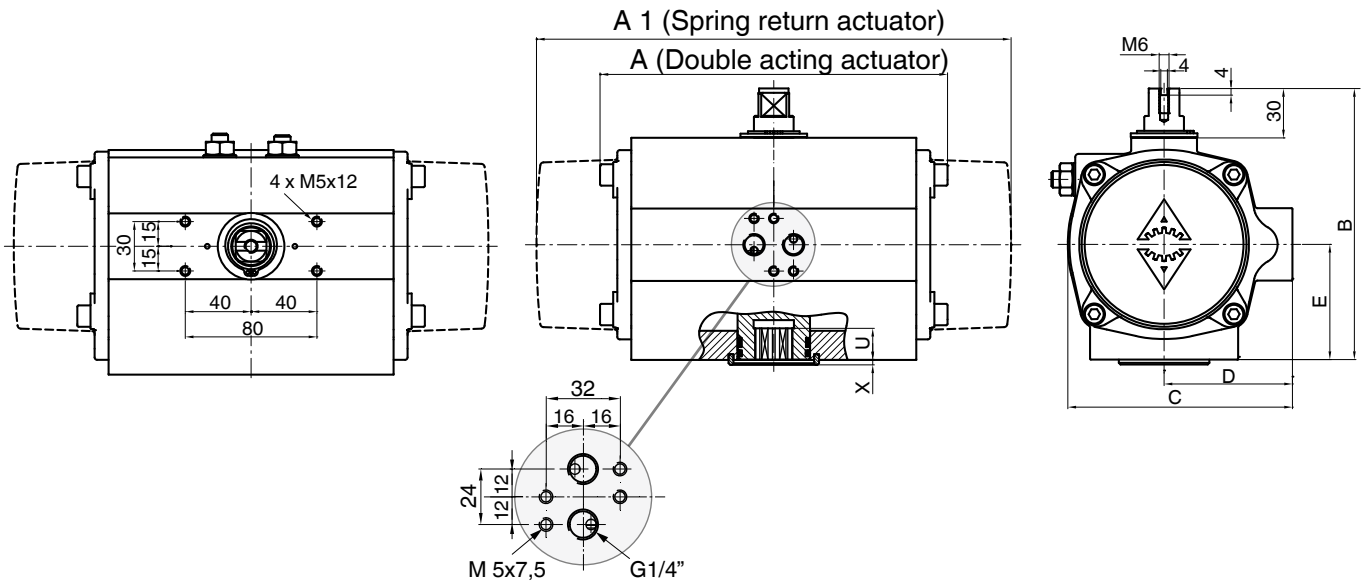
Actuator size		Code	Actuator size		Code
DN	**Single acting SC**		**DN**	**Single acting ASR**	
DN 8	SC0015U 6 F04NS11A	SU01KO0	DN 8	ASR0020U S08 F04YS14/S11A	AU02FA0
DN 10	SC0015U 6 F04NS11A	SU01KO0	DN 10	ASR0020U S08 F04YS14/S11A	AU02FA0
DN 15	SC0015U 6 F04NS11A	SU01KO0	DN 15	ASR0020U S08 F04YS14/S11A	AU02FA0
DN 20	SC0030U 6 F04NS11A	SU03KO0	DN 20	ASR0040U S14 F04YS14/S11A	AU04KA0
DN 25	SC0060U 6 F05F07NS14A	SU06KP0	DN 25	ASR0040U S14 F05YS14/S11A	AU04KB0
DN 32	SC0060U 6 F05F07NS14A	SU06KP0	DN 32	ASR0080U S14 F05F07YS17/S14A	AU08KC0
DN 40	SC0100U 6 F05F07NS17A	SU10KC0	DN 40	ASR0080U S14 F05F07YS17/S14A	AU08KC0
DN 50	SC0150U 6 F07F10NS17A	SU15KC0	DN 50	ASR0130U S14 F05F07YS17/S14A	AU13KC0
DN 65	SC0220U 6 F07F10NS22A	SU22KD0	DN 65	ASR0200U S14 F07F10YS17/S14A	AU20KE0
DN 80	SC0300U 6 F07F10NS22A	SU30KD0	DN 80	ASR0300U S14 F07F10YS22A	AU30KD0
DN 100	SC0450U 6 F10F12NS27A	SU45KG0	DN 100	ASR0500U S14 F10YS22A	AU50KF0
	Double acting DR			**Double acting ADA**	
DN 8	DR0015U F04NS11A	DU01AO0	DN 8	ADA0020U F04YS11A	BU02AA0
DN 10	DR0015U F04NS11A	DU01AO0	DN 10	ADA0020U F04YS11A	BU02AA0
DN 15	DR0015U F04NS11A	DU01AO0	DN 15	ADA0020U F04YS11A	BU02AA0
DN 20	DR0015U F04NS11A	DU01AO0	DN 20	ADA0020U F04YS11A	BU02AA0
DN 25	DR0030U F05F07NS14A	DU03AP0	DN 25	ADA0020U F04YS11A	BU02AA0
DN 32	DR0030U F05F07NS14A	DU03AP0	DN 32	ADA0040U F05YS14/S11A	BU04AB0
DN 40	DR0060U F05F07NS17A	DU06AC0	DN 40	ADA0040U F05YS14/S11A	BU04AB0
DN 50	DR0060U F05F07NS17A	DU06AC0	DN 50	ADA0080U F05F07YS17/S14A	BU08AC0
DN 65	DR0100U F05F07NS17A	DU10AC0	DN 65	ADA0080U F05F07YS17/S14A	BU08AC0
DN 80	DR0150U F07F10NS22A	DU15AD0	DN 80	ADA0130U F05F07YS17/S14A	BU13AC0
DN 100	DR0220U F07F10NS22A	DU22AD0	DN 100	ADA0200U F07F10YS17/S14A	BU20AE0

Order example	751	15	D	1	37	5	1	SU01KO0	5222
Type (code)	751								
Nominal size (code)		15							
Body configuration (code)			D						
Connection (code)				1					
Valve body material (code)					37				
Seat material (code)						5			
Control function (code)							1		
Actuator size (code)								SU01KO0	
K number (code)									5222

Note: Wearing parts kit - order code: SP.K715-DN… (dependent on nominal size) contains replacement parts for the spindle seal and seat: Conical spindle seal (PTFE), O-ring (FPM), V-ring spindle packing (PTFE), seat and flange seals (PTFE).

Actuator dimensions - GEMÜ 751 - pneumatically operated

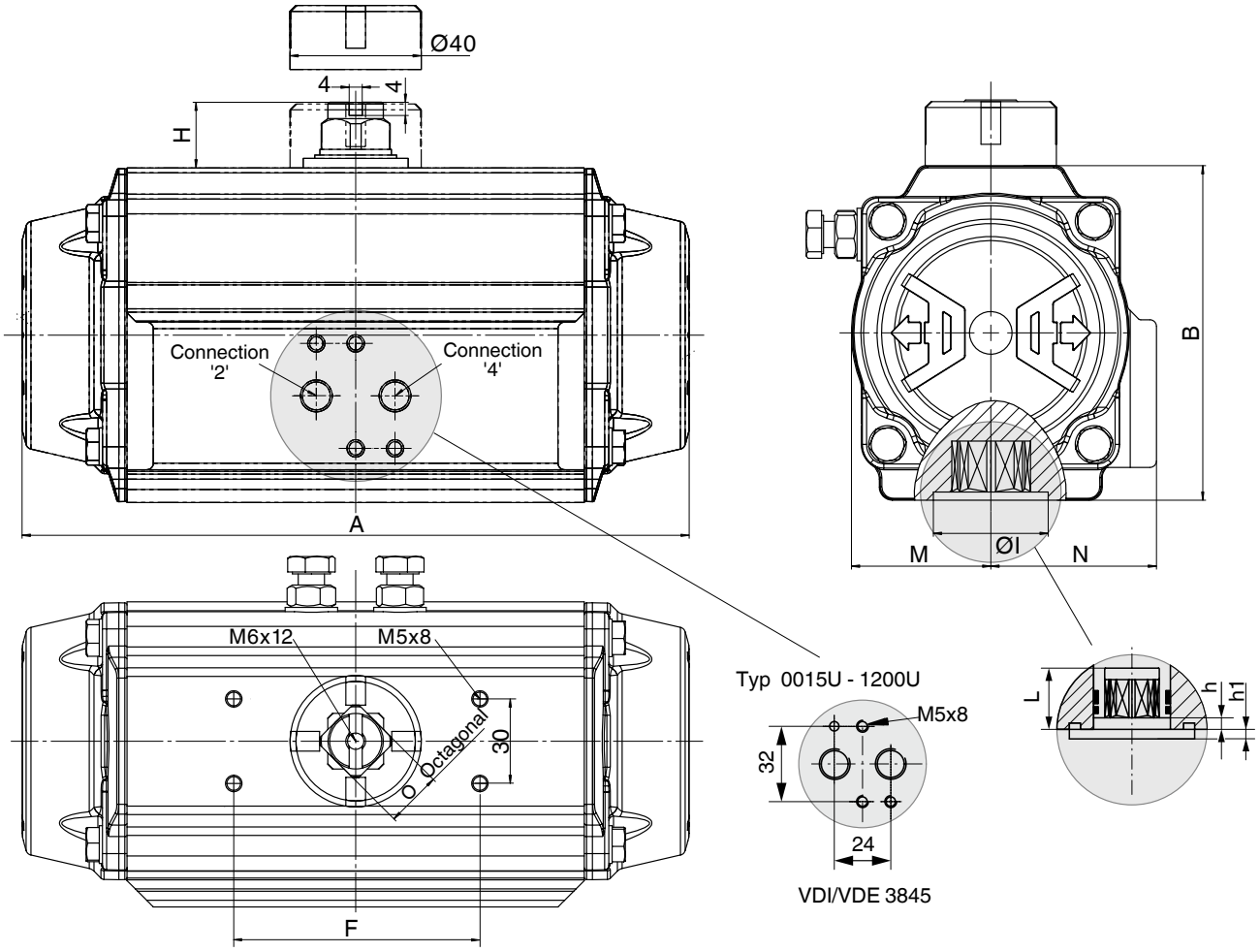
Actuator ADA/ASR [mm]



ADA/ASR	0020U			0040U		0080U	0130U	0200U	0300U	0500U
ISO 5211	F03/F05	F04	F05	F04	F05	F05	F05	F07	F07	F10
Octagonal	9	14		14		17	17	17	22	22
Air connector	G¼			G¼		G¼	G¼	G¼	G¼	G¼
A	145			158		177	196	225	273	304
A1	163			195		217	258	299	348,5	397
B	96			115		137	147	165	182	199
C	76			91		111	122	135,5	152,5	173
D	48			56		66	71	78	86	96
E	34			45		55	60	70	80	85
ØT	25	35		35		55	55	55	70	70
U	10	12		12		19	22	23	24	32
Weight [kg]										
ADA	1,4			2,1		3,0	3,8	5,6	8,5	11,2
ASR	1,5			2,3		3,7	4,8	7,3	10,8	15,4

Actuator dimensions - GEMÜ 751 - pneumatically operated

Actuator DR/SC [mm]



Stroke limiter on request

Typ	0015U	0030U	0060U	0100U	0150U	0220U	0300U	0450U
ISO Flange	F04	F04/05	F05/07	F05/07	F07/10	F07/10	F07/10	F10/12
Octagonal	11	14	14	17	17	22	22	27
Air Connector	G 1/8	G 1/8	G 1/8	G 1/8	G 1/4	G 1/4	G 1/4	G 1/4
A	136.0	153.5	203.5	241.0	259.0	304.0	333.0	394.5
B	69.0	85.0	102.0	115.0	127.0	145.0	157.0	177.0
H	20	20	20	20	20	30	30	30
Ø I	30	35	35	40	55	55	55	70
M	29.0	36.0	42.5	49.5	55.5	64.0	69.5	80.0
N	43.0	48.5	50.5	56.5	63.0	72.0	77.0	86.0
O	11	11	17	17	17	27	27	27
h	0.5	0.5	0.5	1.5	1.5	1.5	1.5	1.5
h1	1.5	2.0	2.0	1.5	2.0	2.0	2.0	3.0
L	11	11	19	19	19	19	25	32
Weight [kg]								
DR	1.0	1.6	2.7	3.8	5.4	8.4	10.2	14.5
SC	1.1	1.7	3.2	4.4	6.5	9.8	12.6	18.1

Technical data - GEMÜ 728 - motorized

Travel range	
Nominal travel range	90°
Max. travel range	93°
Setting range limit switch Min.	-2 to 12°
Setting range limit switch Max.	76 to 91°

Manual override
With Allen key SW3 for actuator version 1015, 2015, 3035
With hand crank for actuator version 2070, 4100, 4200

Permissible temperatures	
Ambient temperature	-10 to +60° C
Storage temperature	-20 to +60° C

Protection class to EN 60529
IP 65

Weight	
Actuator version 1015	1.0 kg
Actuator version 2015	1.2 kg
Actuator version 3035	2.4 kg
Actuator version 2070	4.6 kg
Actuator version 4100, 4200	11.0 kg

Actuator materials

Actuator version	1015	2015, 3035	2070	4100, 4200
Housing base	PP (30% glass reinforced)	PP (30% glass reinforced)	ABS	Aluminium
Housing cover	PPO (10% glass reinforced)	PP (30% glass reinforced)	ABS	Aluminium
Optical position indicator	PPR natural	PPR natural	PPR natural	PMMA

Correlation Actuator / Ball valve type 728

Ball valve			Adapter required	Actuator version					
DN	Flange type	SW		1015 15 Nm	2015 15 Nm	3035 35 Nm	2070 70 Nm	4100 100 Nm	4200 200 Nm
8	F04	9	no	X	X	-	-	-	-
10	F04	9	no	X	X	-	-	-	-
15	F04	9	no	X	X	-	-	-	-
20	F04	9	no	X	X	-	-	-	-
25	F05	11	yes	X	X	-	-	-	-
32	F05	11	yes	-	-	X	X	-	-
40	F07	14	no	-	-	X	X	-	-
50	F07	14	no	-	-	X	X	-	-
65	F10	17	yes	-	-	X	X	-	-
80	F10	17	no	-	-	-	-	X	-
100	F10	17	no	-	-	-	-	-	X

Note: For connection and wiring diagrams for motorized GEMÜ actuators see data sheet

Data sheet GEMÜ 9428: Actuator version code 1006, 1015, 2006, 2015, 3035
Data sheet GEMÜ 9468: Actuator version code 2070, 4100, 4200, 6400

Technical data - GEMÜ 728 - motorized

Correlation Actuator version (torque) / Voltage-frequency

	Voltage/Frequency	B1 12V DC	C1 24V DC	B4 12V AC	C4 24V AC	G4 120V AC	L4 230V AC	O4 100-250V AC
Actuator version	1015 (15 Nm)	X	X	-	-	-	-	-
	2015 (15 Nm)	-	-	X	X	-	-	X
	3035 (35 Nm)	-	X	-	X	-	-	-
	2070 (70 Nm)	-	X	-	X	X	X	-
	4100 (100 Nm)	-	X	-	X	X	X	-
	4200 (200 Nm)	-	X	-	X	X	X	-

Correlation Actuator version (torque) / Functional module

	Functional module	A0	AE	AP	E2	E1	00	0E	0P
Actuator version	1015 (15 Nm)	X	X	-	-	-	-	-	-
	2015 (15 Nm)	X	X	-	-	-	-	-	-
	3035 (35 Nm)	X	X	-	-	-	-	-	-
	2070 (70 Nm)	X	X	X	X	X	X	X	X
	4100 (100 Nm)	X	X	X	X	X	X	X	X
	4200 (200 Nm)	X	X	X	X	X	X	X	X

Power consumption [W]

	Voltage/ Frequency	B1 12V DC		C1 24V DC		B4 12V AC		C4 24V AC		G4 120V AC		L4 230V AC		O4 100-250V AC	
	Functional module	A0,AE,AP E1,E2	00,0E 0P	A0,AE,AP E1,E2	00,0E 0P	A0,AE,AP E1,E2	00,0E 0P	A0,AE,AP E1,E2	00,0E 0P	A0,AE,AP E1,E2	00,0E 0P	A0,AE,AP E1,E2	00,0E 0P	A0,AE,AP E1,E2	00,0E 0P
Actuator version	1015	24	-	24	-	-	-	-	-	-	-	-	-	-	-
	2015	-	-	-	-	24	-	24	-	-	-	-	-	30	-
	3035	-	-	24	-	-	-	24	-	-	-	-	-	-	-
	2070	-	-	96	63	-	-	-	63	160	-	161	-	-	-
	4100	-	-	96	105	-	-	-	140	160	105	161	130	-	-
	4200	-	-	96	90	-	-	-	110	160	90	161	105	-	-

Electrical connection

Actuator version	1015, 2015, 3035		2070, 4100, 4200			
Supply voltages	12 V / 24 V	100 - 250 V	24 V, 120 V, 230 V			
Functional module	A0, AE		A0, AE, AP	00, 0E, 0P	E1	E2
Control input voltage	Motor voltage	20 - 250 V AC/DC	24 - 250 V AC/DC	Motor voltage	0 to 10 V	-
Control input current	-	typ. 1 mA	typ. 1 mA			0/4 to 20 mA
Rating	Continuously rated	rated 40%	Continuously rated			
Connection	Cable connection PG 13,5	Hirschmann plug type Typ N6RFFS11	Flange plug Binder 692/693			
Cable diameter	7,5 ... 12,5 mm	7 ... 9 mm	max. 8 mm			
Max. cross section of wire	1,5 mm^2	1,5 mm^2	0,75 mm^2			
Recommended connection cable	5x1 mm^2	1 connector (standard): 7x1 mm^2	7x1 mm^2			
Overload protection	Motor protective system by customer	Integrated stall and overload protection plus excess current release T 1A 5x20 mm	Motor protective system by customer			

Order data - GEMÜ 728 - motorized

Type	Code
Ball valve with motorized actuator	728

Body configuration	Code
Straight through (2/2-way)	D
Multi-port (3/2-way), see separate data sheet	M

Connection	Code
Threaded sockets DIN ISO 228	1
Threaded sockets NPT	31
Spigots	19
Spigots ASME BPE	59
Spigots EN ISO 1127	60
Flanges EN 1092 / PN40 / form B, length EN 558, series 1, ISO 5752, basic series 1	11
Flanges ANSI class 125/150 RF, up to DN 100 length EN 558, series 3 ASME/ANSI B16.10 Tab. 1, columns 8 and 9 from DN 125 length EN 558, series 12 ASME/ANSI B16.10 Tab. 1, column 3	46
For materials see overview on last page	

Valve body material		Code
1.4408 (316) 1.4401 (316)	body (investment cast) ball	37

Seat material*	Code
PTFE	5
* Spindle seal in FPM (other materials on request)	

Voltage/Frequency	Code
12 V DC	B1
12 V AC 50/60Hz	B4
24 V DC	C1
24 V AC 50/60Hz	C4
120 V AC 50/60Hz	G4
100-250 V AC 50/60Hz	O4
230 V AC 50/60Hz	L4

Functional module	Code
OPEN / CLOSE control with relay, not reversible	00
OPEN / CLOSE control with 2 additional potential-free limit switches, with relay, not reversible	0E
OPEN / CLOSE control with potentiometer output, with relay, not reversible	0P
Standard OPEN/CLOSE control	A0
OPEN/CLOSE control with 2 additional potential-free limit switches	AE
OPEN/CLOSE control with potentiometer output	AP
Control module for external set value 0-10V DC	E1
Control module for external set value 0/4-20 mA	E2

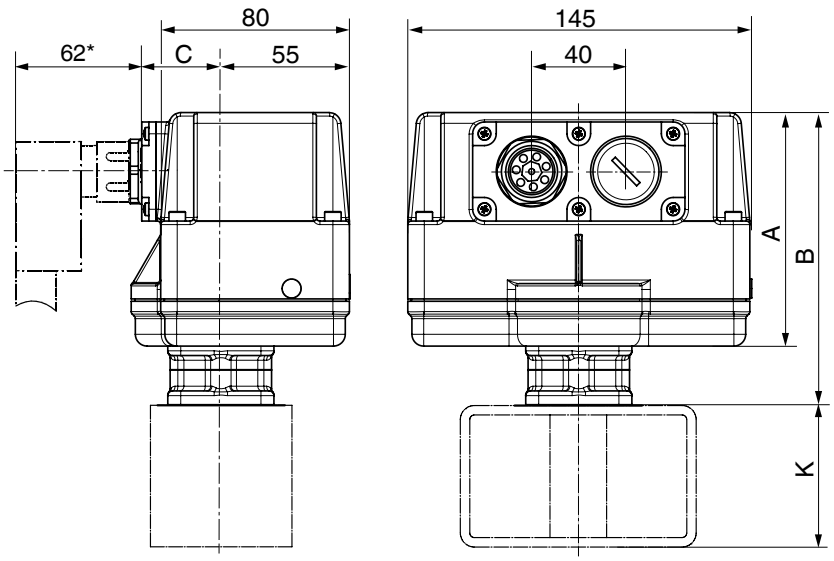
Actuator version	Code
DN 15 - 25 (Torque 15 Nm) operating time 11 sec; supply voltage B1/C1	1015
DN 15 - 25 (Torque 15 Nm) operating time 11 sec; supply voltage B4/C4/O4	2015
DN 32 - 65 (Torque 70 Nm) operating time 15 sec; supply voltage C1/C4/G4/L4	2070
DN 32 - 65 (Torque 35 Nm) operating time 15 sec; supply voltage C1,C4,O4	3035
DN 80 (Torque 100 Nm) operating time 20 sec; supply voltage C1/C4/G4/L4	4100
DN 100 (Torque 200 Nm) operating time 16 sec; supply voltage C1/C4/G4/L4	4200

Order example	728	25	D	1	37	5	C1	A0	1015
Type	728								
Nominal size		25							
Body configuration (code)			D						
Connection (code)				1					
Valve body material (code)					37				
Seat material (code)						5			
Voltage/Frequency (code)							C1		
Functional module (code)								A0	
Actuator version (code)									1015

Note: Wearing parts kit - order code: SP.K715-DN… (dependent on nominal size) contains replacement parts for the spindle seal and seat: Conical spindle seal (PTFE), O-ring (FPM), V-ring spindle packing (PTFE), seat and flange seals (PTFE)

Actuator dimensions - GEMÜ 728 motorized [mm]

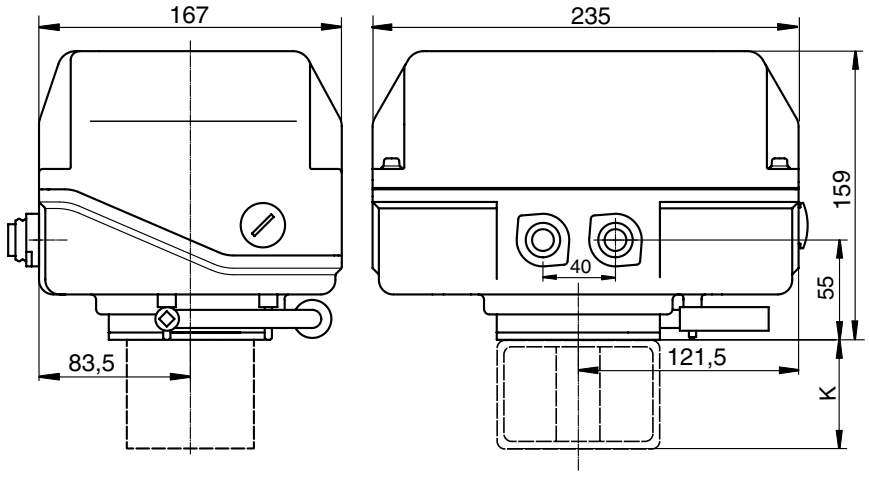
Actuator version 1015 / 2015



Actuator version	Voltages	ISO 5211	SW square drive socket	A	B	C	K
1015	12V, 24V	F04 / F05	9	69	94	34	60
2015	100V - 250V			99	124	38	60

* Standard with supply voltage code O4

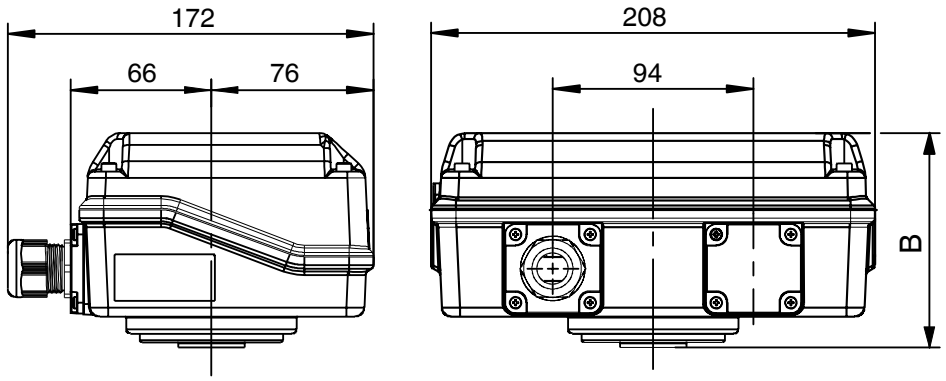
Actuator version 2070



DN	ISO 5211	SW square drive socket	K
25, 32	F05 (with mounting bracket)	11	56
40, 50	F07 (without mounting bracket)	14	-
65	F10 ((with mounting bracket))	17	76

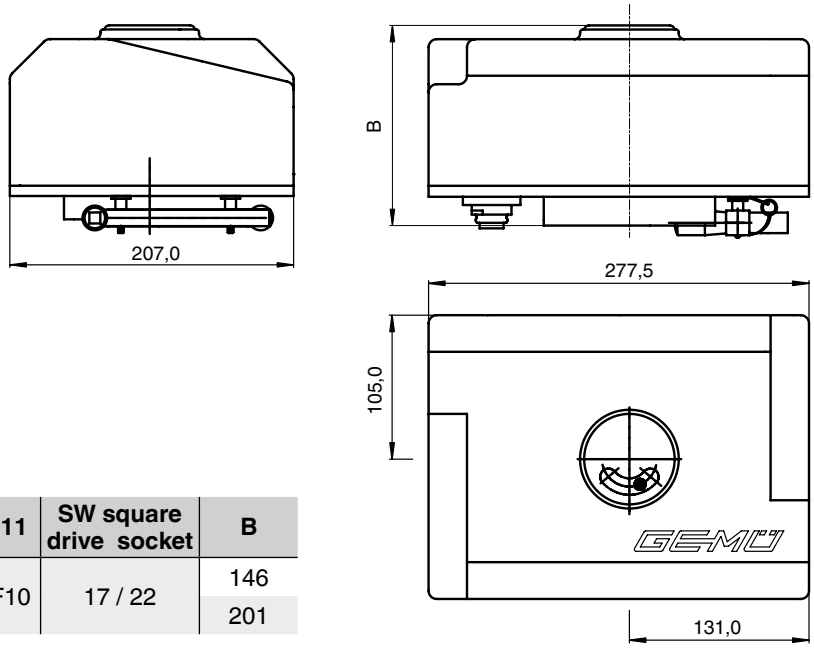
Actuator dimensions - GEMÜ 728 motorized [mm]

Actuator version 3035



Voltages	B
24 V	100,5
100 V - 250 V	124,5

Actuator version 4100 / 4200



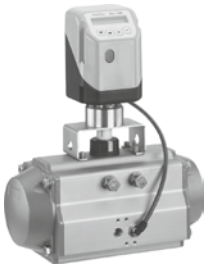
Functional module	ISO 5211	SW square drive socket	B
00, 0E, 0P	F07 + F10	17 / 22	146
A0, AE, AP, E2, E1			201

Overview of valve bodies for GEMÜ 711, 728, 751							
DN	Sockets		Spigots			Flange	
	Connection code						
	1	31	19	59	60	11	46
8	X	-	X	-	X	-	-
10	X	X	X	-	X	-	-
15	X	X	X	X	X	X	X
20	X	X	X	X	X	X	X
25	X	X	X	X	X	X	X
32	X	X	X	-	X	X	X
40	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X
65	X	X	X	X	X	X	X
80	X	X	X	X	X	X	X
100	X	X	X	X	X	X	X
125	-	-	-	-	-	-	X
150	-	-	-	-	-	-	X

Instrumentation for quarter turn valves

GEMÜ ES2
Electrical
position indicator
on pneumatic actuator

GEMÜ 1436 cPos
Intelligent positioner and
process controller on
pneumatic actuator



GEMÜ 1435 ePos
Intelligent positioner
on pneumatic actuator

GEMÜ 4221
Combi switchbox with
integrated pilot valve on
pneumatic actuator

For detailed information on electrical position indicators, combi switchboxes and positioners for quarter turn valves please refer to the adjacent brochures.

Electrical position indicators and combi switchboxes

Positioners and process controllers

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

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