

## Angle Seat Globe Control Valve, Metal

### Construction

The GEMÜ 550 2/2-way angle seat globe control valve is designed for demanding flow control applications. It can be paired with the GEMÜ 1434 µPos, GEMÜ 1435 ePos positioners or the GEMÜ 1436 cPos positioner and process controller dependent on the control requirements (for features see page 12). The positioners are specially designed for GEMÜ valves and achieve optimum results when used as a system. The valve spindle is sealed by a self-adjusting gland packing providing low maintenance and reliable sealing even after a long service life with high cycle duties. A wiper ring protects the gland packing against contamination and damage.

### Features

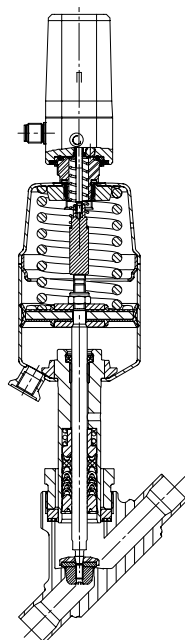
- Linear or modified equal-percentage control characteristics
- Kv values from approx. 0.16 - 60.0 m<sup>3</sup>/h, depending on nominal size, valve seat and regulating cone design
- PID control system can be implemented with GEMÜ 1436
- Suitable for inert, corrosive\*, liquid and gaseous media and steam
- Max. operating pressure 25 bar
- Max. operating temperature 180°C

### Advantages

- Simple and fast commissioning
- Good flow capability and compact design
- Valve and positioner are optimally adapted to each other. (For positioner details please refer to the relevant data sheets)
- Suitable for contact with food according to Regulation (EC) No. 1935/2004
- Standard gland packing suitable for vacuum up to 20 mbar (abs.)

\*see information on working medium on page 2

### Sectional drawing



GEMÜ 550  
+ 1434 µPos



GEMÜ 550  
+ 1435 ePos



GEMÜ 550  
+ 1436 cPos

## 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.	
Max. perm. pressure of working medium	see table
Media temperature	-10° to 180 °C
Max. permissible viscosity	600 mm <sup>2</sup> /s (cSt)

### Control medium

Inert gases, max. 60°C		
Max. control pressure:	8 bar	
Filling volume	Actuator size 1G1:	0.025 dm <sup>3</sup>
	Actuator size 2G1:	0.084 dm <sup>3</sup>
	Actuator size 3G1:	0.245 dm <sup>3</sup>
	Actuator size 4G1:	0.437 dm <sup>3</sup>

### Ambient conditions

Max. ambient temperature	60 °C
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### Maximum permissible seat leakage class

Seat seal	Standard	Test procedure	Leakage rate	Test medium
PTFE	DIN EN 60534-4	1	VI	air
Metal	DIN EN 60534-4	1	IV	air

### Pressure / temperature correlation for angle seat globe valve bodies

Connection code	Material code	Max. allowable operating pressures in bar at temperature °C*					
		RT	100	150	200	250	300
1, 9, 17, 60, 63, 3C, 3D	37	25.0	23.8	21.4	18.9	17.5	16.1
0, 16, 17, 18, 37, 59, 60, 65	34	25.0	24.5	22.4	20.3	18.2	16.1
13 (DN 15 - DN 50)	34	25.0	23.6	21.5	19.8	18.6	17.2
80, 88 (DN 15 - DN 40)	34	25.0	21.2	19.3**	-	-	-
80, 88 (DN 50 - DN 80)	34	16.0	16.0	16.0**	-	-	-
82 (DN 15 - DN 32)	34	25.0	21.2	19.3**	-	-	-
82 (DN 40 - DN 65)	34	16.0	16.0	16.0**	-	-	-
86 (DN 15 - DN 40)	34	25.0	21.2	19.3**	-	-	-
86 (DN 50 - DN 65)	34	16.0	16.0	16.0**	-	-	-
10 (DN 15 - DN 50)	37	25.0	25.0	22.7	21.0	19.8	18.5
47 (DN 15 - DN 50)	34	15.9	13.3	12.0	11.1	10.2	9.7
1A, 1B, 59	C2	25.0	21.2	19.3	17.9	16.8	15.9

\* The valves can be used down to -10°C  
All pressures are gauge pressures.

\*\* max. temperature 140 °C

RT = Room Temperature

### Correlation\* Kv value, operating pressure, regulating cone number Valve body material: 1.4435 (code 34, C2), 1.4408 (code 37)

Nominal size DN	Kv value [m <sup>3</sup> /h]	Operating pressure [bar]	Actuator size	Regulating cone number	
				linear	equal-percentage (mod.)
15	5	10	1G1	RS101	RS111
	5	22	2G1	RS100	RS110
20	10	12	2G1	RS102	RS112
25	15	7	2G1	RS103	RS113
32	24	10	3G1	RS104	RS114
40	38	6	3G1	RS105	RS115
50	60	7	4G1	RS106	RS116

\* not for connection code 37, 59, 80, 88; standard regulating cone - see following table

## Technical data

### Correlation\* Kv value, operating pressure, regulating cone number Valve body material: 1.4435 (code 34, C2)

Nominal size DN	Kv value [m <sup>3</sup> /h]	Operating pressure [bar]	Actuator size	Regulating cone number	
				linear	equal-percentage (mod.)
15	2.7	10	1G1	RS151	RS141
	2.7	22	2G1	RS150	RS140
20	6.3	12	2G1	RS152	RS142
25	13.3	7	2G1	RS153	RS143
40	35.6	6	3G1	RS155	RS145
50	58.0	7	4G1	RS156	RS146

\* only for connection code 37, 59, 80, 88;

### Correlation Kv value, operating pressure, regulating cone number Valve body material: 1.4435 (code 34, C2)<sup>1)</sup>, 1.4408 (code 37)

Nominal size DN	Kv value [m <sup>3</sup> /h]	Operating pressure [bar]	Actuator size	Regulating cone no.	
				linear	equal-percentage (mod.)
15	0.1 <sup>2)</sup>	25	2G1	RA202	RA403
	0.16 <sup>2)</sup>	25	2G1	RB204	RA404
	0.25 <sup>2)</sup>	25	2G1	RB205	RB403
	0.40 <sup>2)</sup>	25	2G1	RB206	RB404
	0.63 <sup>2)</sup>	25	2G1	RC203	RC403
	1.00 <sup>2)</sup>	25	2G1	RC204	RC404
	1.60	25	2G1	RD203	RD403
20	2.50 <sup>3)</sup>	25	2G1	RE204	RE404
	1.60	25	2G1	RD204	RD404
	2.50	25	2G1	RE205	RE405
	4.00	25	2G1	RF204	RF404
25	6.30 <sup>3)</sup>	21	2G1	RG205	RG405
	2.50	25	2G1	RE206	RE406
	4.00	25	2G1	RF205	RF405
	6.30	18	2G1	RG206	RG406
32	10.00 <sup>3)</sup>	10	2G1	RH205	RH405
	4.00	25	2G1	RF206	RF406
	6.30	18	2G1	RG207	RG407
	10.00	10	2G1	RH206	RH406
40	16.00	16	3G1	RJ204	RJ404
	6.30	25	3G1	RG208	RG408
	10.00	24	3G1	RH207	RH407
	16.00	15	3G1	RJ205	RJ405
50	25.00	18	4G1	RK203	RK403
	10.00	18	3G1	RH208	RH408
	16.00	12	3G1	RJ206	RJ406
	25.00	16	4G1	RK204	RK404
	40.00	10	4G1	RM202	RM402

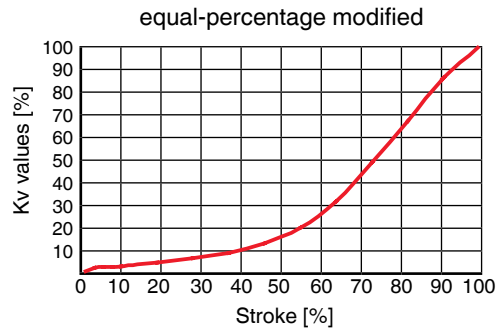
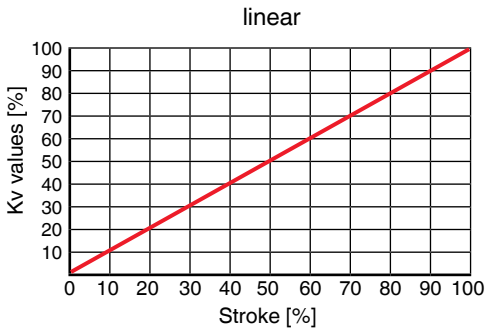
<sup>1)</sup> Angle seat globe valve bodies with valve body material code C2 and reduced seat have a surface roughness of Ra ≤ 1.2 µm due to the reduction in the seat area.

<sup>2)</sup> metal seated (with no soft seat)

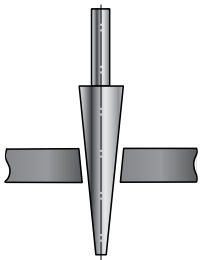
<sup>3)</sup> not for connection code 37, 59, 80, 88

## Technical data

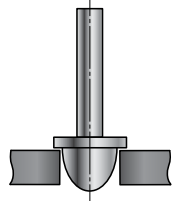
### Example Kv value diagram



The adjacent diagram shows the approximative curve of the Kv value characteristic. The characteristic may deviate dependent on valve body, nominal size, regulating cone and valve stroke.



Regulating needle



Regulating cone

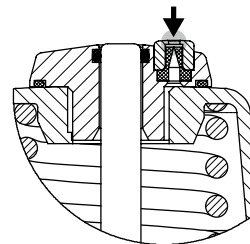
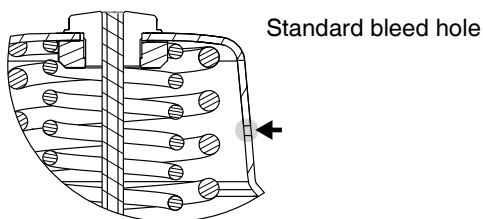
**Note:**

Regulating needle: RAxxx - RCxxx (reduced valve seat)

Regulating cone: DN 15 - DN 70

### Bleed hole in the actuator

To bleed the control medium, the pneumatic actuator has a bleed hole that is located on the side of the actuator housing (control function normally closed). In certain areas of application (e.g. the foodstuff industry), dirty water or cleaning media could enter through this bleed hole and penetrate the actuator, thereby adversely affecting correct operation. A special bleed system with lip check valve is available for these applications, which prevents such functional impairment. The bleed hole at the side is then closed.



Special bleed system  
K no. 6996

## Order data

Body configuration	Code
2/2-way body	D
Angle body only in material code 37 (DN 15 - 50)	E

Connection	Code
<b>Butt weld spigots</b>	
Spigots DIN	0
Spigots EN 10357 series B	16
Spigots EN 10357 series A (formerly DIN 11850 series 2) / DIN 11866 series A	17
Spigots DIN 11850 series 3	18
Spigots SMS 3008	37
Spigots ASME BPE	59
Spigots ISO 1127 / EN 10357 series C / DIN 11866 series B	60
Spigots ANSI/ASME B36.19M Schedule 10s	63
Spigots ANSI/ASME B36.19M Schedule 40s	65

<b>Threaded connections</b>	
Threaded sockets DIN ISO 228	1
Threaded sockets BS 21 Rc length DIN 3202-4 series M8	3C
Threaded spigots DIN ISO 228	9
Threaded sockets NPT length DIN 3202-4 series M8	3D

<b>Flanges</b>	
Flanges EN 1092 / PN25 / form B length EN 558, series 1	10
Flanges EN 1092 / PN25 / form B, Flanges ANSI CLASS 125/150 RF	13
	47

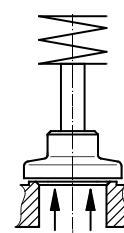
<b>Clamp connections</b>	
Clamps ASME BPE for pipe ASME BPE, length ASME BPE	80
Clamps DIN 32676 series B for pipe EN ISO 1127, length EN 558, series 1	82
Clamps DIN 32676 series A for pipe DIN 11850, length EN 558, series 1	86
Clamps ASME BPE for pipe ASME BPE, length EN 558, series 1	88

Valve body material	Code
1.4435 (ASTM A 351 CF3M $\cong$ 316L), Investment casting	34
1.4408, Investment casting	37
1.4435, Investment casting Material equivalency 316L	C2*
* A surface finish from the order code table "K number" must be specified for valve body material C2.	

Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G
PTFE, USP Class VI	5P
Steel (standard up to Kv value 1.00 m <sup>3</sup> /h)	10*
* R-No. on request	

Control function	Code
Normally closed (NC)	1
Double acting (DA)	3*
Double acting (normally open)	8*
* R-No. on request	

Actuator size	Code
Actuator 1 piston $\varnothing$ 42 mm	1G1
Actuator 2 piston $\varnothing$ 60 mm	2G1
Actuator 3 piston $\varnothing$ 80 mm	3G1
Actuator 4 piston $\varnothing$ 100 mm	4G1



Flow under the seat

Regulating cone	R-No.
For the regulating cone no. (R-No.) - linear or equal-percentage (mod.) - please refer to the table	

Version	Code
Media temperature -10 to 210 °C (only with seat seal code 5G and 10)	2023
Special bleed system in the actuator	6996
All special versions only available ex works	
Surface finish only for valve body material C2	
Ra $\leq$ 0.6 $\mu$ m (25 $\mu$ inch) for process contact surfaces, in accordance with ASME BPE SF2 + SF3, mechanically polished internal	1903
Ra $\leq$ 0.8 $\mu$ m (30 $\mu$ inch) for process contact surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1904
Ra $\leq$ 0.4 $\mu$ m (15 $\mu$ inch) for process contact surfaces, in accordance with DIN 11866 H4, ASME BPE SF1, mechanically polished internal	1909
Ra $\leq$ 0.6 $\mu$ m for process contact surfaces, in accordance with ASME BPE SF6, electropolished internal/external	1953
Ra $\leq$ 0.8 $\mu$ m for process contact surfaces, in accordance with DIN 11866 HE3, electropolished internal/external	1954
Ra $\leq$ 0.4 $\mu$ m for process contact surfaces, in accordance with DIN 11866 HE4/ASME BPE SF5, electropolished internal/external	1959

For further order data see page 6

## Order data

<b>Order example</b>	<b>550</b>	<b>25</b>	<b>D</b>	<b>17</b>	<b>C2</b>	<b>5</b>	<b>1</b>	<b>2G1</b>	<b>RS113</b>	<b>1904</b>
Type	550									
Nominal size		25								
Body configuration (code)			D							
Connection (code)				17						
Valve body material (code)					C2					
Seat seal (code)						5				
Control function (code)							1			
Actuator size (code)								2G1		
K number (code)									RS113	
Version (code)										1904

For the technical data and order data of the positioners please refer to data sheets GEMÜ 1434, 1435 and 1436. Please also note the table on the last page.

### Version for food contact

For food contact, the product must be ordered with the following ordering options:

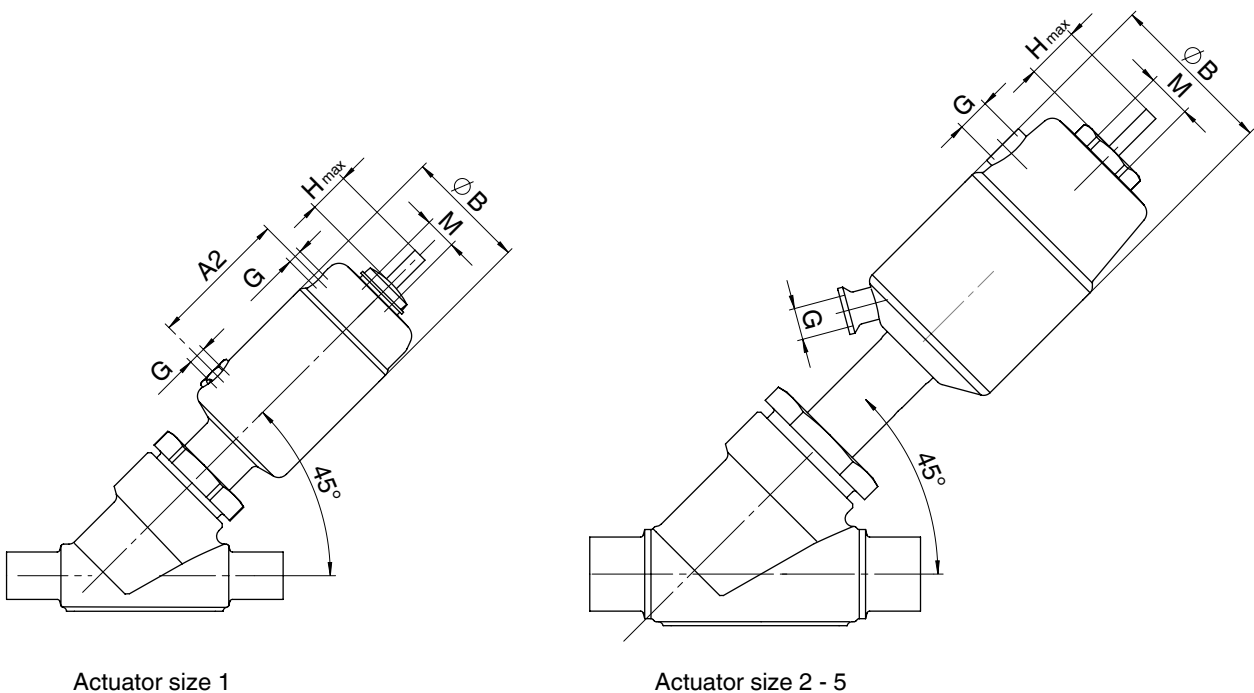
Seat seal code 5, 5G, 10

Valve body material code 34, 37, C2

### Actuator dimensions [mm]

Actuator dimensions					
Actuator size	$\varnothing B$	M	H max*	G	A2
1G1	46	M 16x1	12	G 1/8	53.0
2G1	63	M 16x1	22	G 1/8	-
3G1	84	M 16x1	28	G 1/4	-
4G1	104	M 22x1.5	32	G 1/4	-

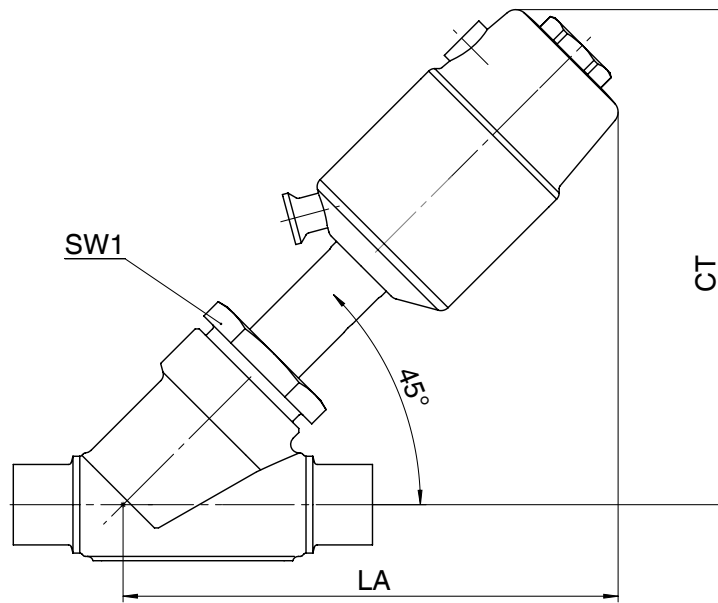
H max\*: dependent on nominal size



**Installation dimensions - Valve with 2/2-way body [mm]**

**Installation dimensions / Actuator weight (without body) [kg]**

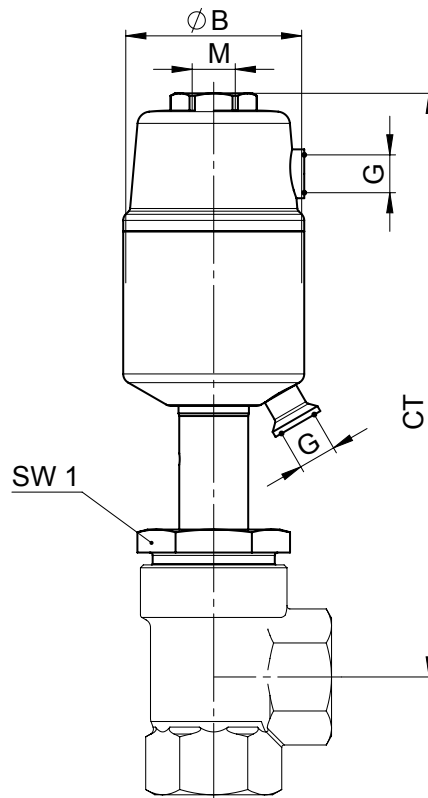
DN	Nut size SW1	Actuator size 1G1		Actuator size 2G1		Actuator size 3G1		Actuator size 4G1	
		CT/LA	Weight	CT/LA	Weight	CT/LA	Weight	CT/LA	Weight
15	36	133	0.66	170	0.97	-	-	-	-
20	41	139	0.73	176	1.00	194	1.7	-	-
25	46	-	-	180	1.10	198	1.8	231	3.2
32	55	-	-	188	1.30	206	2.0	239	3.4
40	60	-	-	-	-	212	2.1	245	3.5
50	55	-	-	-	-	220	2.3	253	3.7



Installation dimensions - Valve with angle body [mm]

Installation dimensions / Actuator weight (without body) [kg]

DN	Nut size SW1	Actuator size 1G1		Actuator size 2G1		Actuator size 3G1		Actuator size 4G1	
		CT	Weight	CT	Weight	CT	Weight	CT	Weight
15	36	149	0.66	195	0.97	-	-	-	-
20	41	152	0.73	198	1.00	214	1.7	-	-
25	46	-	-	202	1.10	218	1.8	256	3.2
32	55	-	-	205	1.30	221	2.0	259	3.4
40	60	-	-	-	-	226	2.1	264	3.5
50	55	-	-	-	-	233	2.3	271	3.7

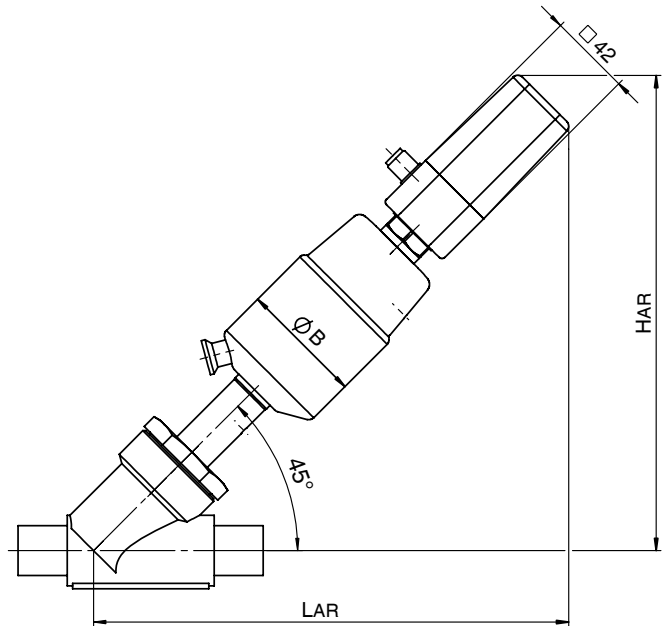




## 2/2-way body

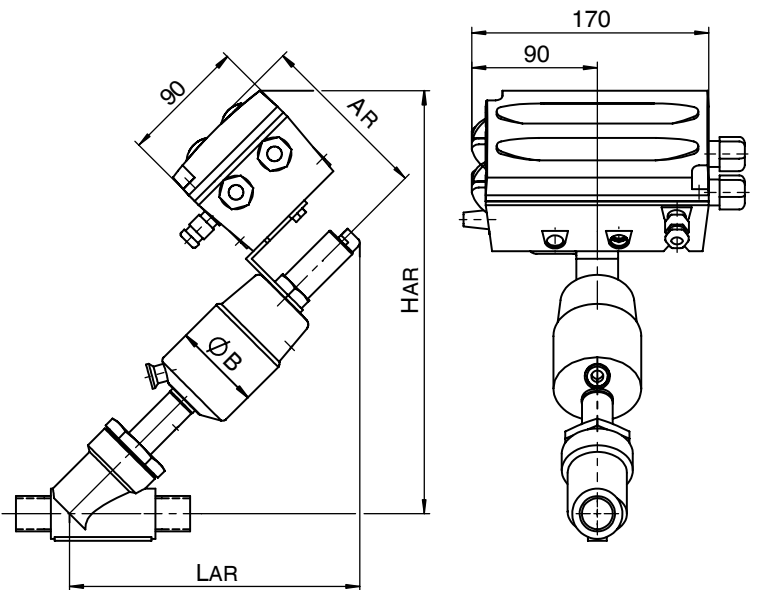
### GEMÜ 550 with 1434 $\mu$ Pos

DN	Actuator size	Control function	$\varnothing B$	LAR / HAR
15	1G1	1	46	209
	2G1	1	63	242
20	2G1	1	63	252
25	2G1	1	63	252
32	2G1	1	63	259
	3G1	1	84	271
40	3G1	1	-	-
50	3G1	1	-	-



### GEMÜ 550 with 1435 ePos

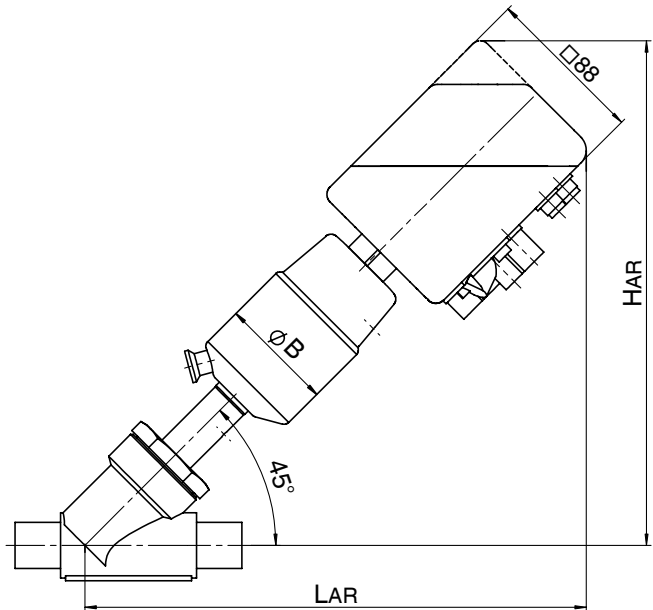
DN	Actuator size	Control function	$\varnothing B$	LAR	HAR	AR
15	2G1	1	63	205	299	118
		3 and 8	63	222	316	118
20	2G1	1	63	215	309	118
		3 and 8	63	231	326	118
25	2G1	1	63	215	309	118
		3 and 8	63	231	326	118
32	2G1	1	63	222	317	118
		3 and 8	63	239	333	118
	3G1	1	84	249	328	118
		3 and 8	84	266	345	118
40	3G1	1	84	255	334	118
		3 and 8	84	272	350	118
	4G1	1	104	285	378	138
		3 and 8	104	299	391	138
50	3G1	1	84	263	341	118
		3 and 8	84	280	358	118
	4G1	1	104	293	386	138
		3 and 8	104	306	399	138



## 2/2-way body

### GEMÜ 550 with 1436 cPos

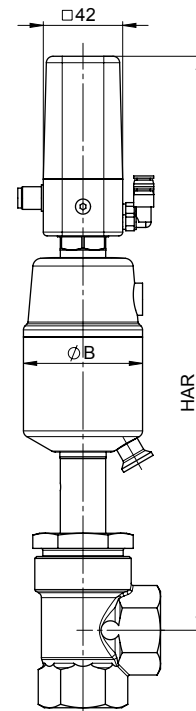
DN	Actuator size	Control function	øB	LAR / HAR
15	2G1	1	63	279
		3 and 8	63	295
20	2G1	1	63	289
		3 and 8	63	305
25	2G1	1	63	289
		3 and 8	63	305
32	2G1	1	63	296
		3 and 8	63	313
	3G1	1	84	323
		3 and 8	84	340
40	3G1	1	84	329
		3 and 8	84	346
	4G1	1	104	359
		3 and 8	104	373
50	3G1	1	84	337
		3 and 8	84	354
	4G1	1	104	367
		3 and 8	104	380



## Angle body

### GEMÜ 550 with 1434 µPos

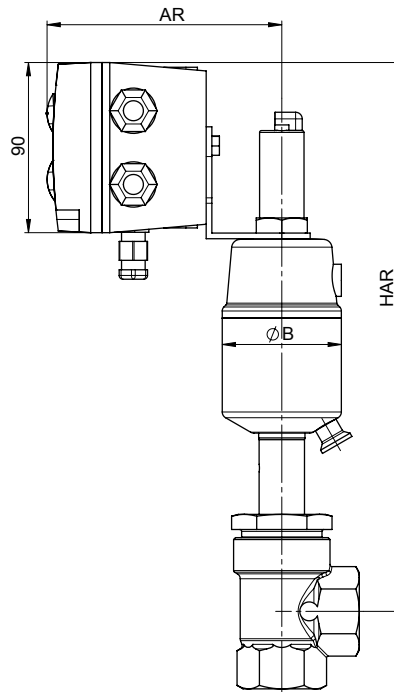
DN	Actuator size	Control function	øB	HAR
15	1G1	1	46	255
	2G1	1	63	301
20	2G1	1	63	304
25	2G1	1	63	308
32	2G1	1	63	311
	3G1	1	84	327
40	3G1	1	-	-
50	3G1	1	-	-



## Angle body

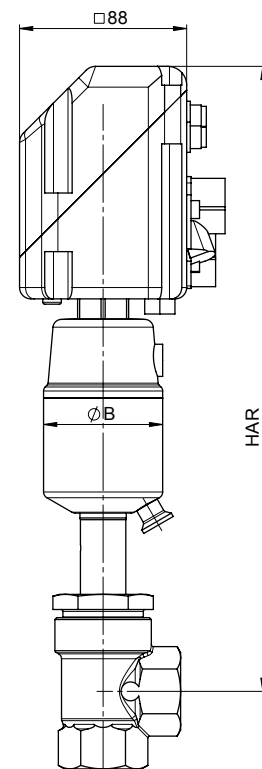
### GEMÜ 550 with 1435 ePos

DN	Actuator size	Control function	øB	HAR	AR
15	2G1	1	63	285	118
		3 u. 8	63	309	118
20	2G1	1	63	288	118
		3 u. 8	63	312	118
25	2G1	1	63	292	118
		3 u. 8	63	316	118
32	2G1	1	63	295	118
		3 u. 8	63	319	118
	3G1	1	84	311	118
		3 u. 8	84	335	118
40	3G1	1	84	316	118
		3 u. 8	84	340	118
	4G1	1	104	359	138
		3 u. 8	104	378	138
50	3G1	1	84	323	118
		3 u. 8	84	347	118
	4G1	1	104	366	138
		3 u. 8	104	385	138



### GEMÜ 550 with 1436 cPos

DN	Actuator size	Control function	øB	LAR / HAR
15	2G1	1	63	320
		3 u. 8	63	344
20	2G1	1	63	323
		3 u. 8	63	347
25	2G1	1	63	327
		3 u. 8	63	351
32	2G1	1	63	330
		3 u. 8	63	354
	3G1	1	84	346
		3 u. 8	84	370
40	3G1	1	84	351
		3 u. 8	84	375
	4G1	1	104	394
		3 u. 8	104	413
50	3G1	1	84	358
		3 u. 8	84	382
	4G1	1	104	401
		3 u. 8	104	420



## Body dimensions [mm]

### Butt weld spigots, connection code 0, 16, 17, 18, 37, 60 Valve body material: 1.4435 (code 34), 1.4408 (code 37)

		Connection code															
		Material code 34		Material code 37		0		16		17		18		37		60	
DN	L	LB	L	LB	ø d	s	ø d	s	ø d	s	ø d	s	ø d	s	ø d	s	
15	105	35.5	100	33	18	1.5	18	1.0	19	1.5	20	2.0	-	-	21.3	1.6	
20	120	39.0	108	33	22	1.5	22	1.0	23	1.5	24	2.0	-	-	26.9	1.6	
25	125	38.5	112	32	28	1.5	28	1.0	29	1.5	30	2.0	25.0	1.2	33.7	2.0	
32	155	48.0	137	39	-	-	34	1.0	35	1.5	36	2.0	-	-	42.4	2.0	
40	160	47.0	146	40	40	1.5	40	1.0	41	1.5	42	2.0	38.0	1.2	48.3	2.0	
50	180	48.0	160	38	52	1.5	52	1.0	53	1.5	54	2.0	51.0	1.2	60.3	2.0	

For materials see overview on page 16

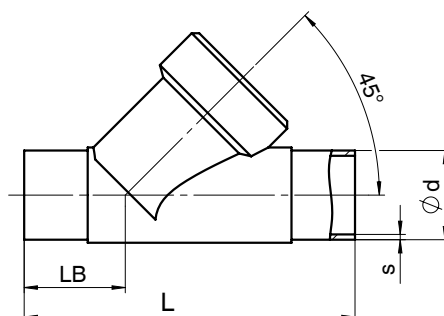
### Butt weld spigots, connection code 59, 63, 65 Valve body material: 1.4435 (code 34), 1.4408 (code 37)

		Connection code									
		Material code 34		Material code 37		59		63		65	
DN	L	LB	L	LB	ø d	s	ø d	s	ø d	s	
15	105	35.5	100	33	12.70	1.65	21.3	2.11	21.3	2.77	
20	120	39.0	108	33	19.05	1.65	26.7	2.11	26.7	2.87	
25	125	38.5	112	32	25.40	1.65	33.4	2.75	33.4	3.88	
32	155	48.0	137	39	-	-	-	-	42.4	3.56	
40	160	47.0	146	40	38.10	1.65	48.3	2.77	48.3	3.68	
50	180	48.0	160	38	50.80	1.65	60.3	2.77	60.3	3.91	

For materials see overview on page 16

### Butt weld spigots, connection code 17, 59, 60 Valve body material: 1.4435 (code C2)

		Connection code						
		17		60		59		
DN	L	LB	ø d	s	ø d	s	ø d	s
15	105	35.5	19	1.5	21.3	1.6	12.70	1.65
20	120	39.0	23	1.5	26.9	1.6	19.05	1.65
25	125	39.5	29	1.5	33.7	2.0	25.40	1.65
32	155	48.0	35	1.5	42.4	2.0	-	-
40	160	47.0	41	1.5	48.3	2.0	38.10	1.65
50	180	48.0	53	1.5	60.3	2.0	50.80	1.65



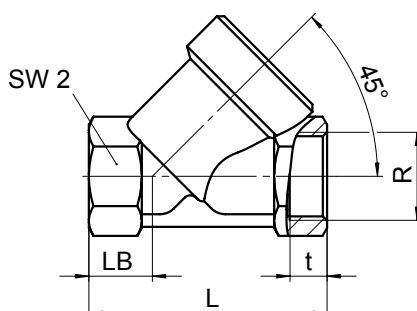
## Body dimensions [mm]

### Threaded sockets DIN, connection code 1 Valve body material: 1.4408 (code 37)

DN	L	LB	R	t	SW	
15	65	16.5	G 1/2	15.0	27	hexagonal
20	75	17.5	G 3/4	16.3	32	hexagonal
25	90	24.0	G 1	19.1	41	hexagonal
32	110	33.0	G 1 1/4	21.4	50	octagonal
40	120	30.0	G 1 1/2	21.4	55	octagonal
50	150	40.0	G 2	25.7	70	octagonal

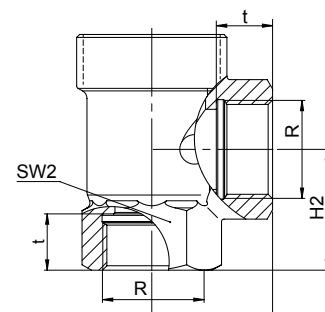
### Threaded sockets NPT, BS 21 Rc, connection code 3C, 3D Valve body material: 1.4408 (code 37)

					Connection code			
					3C		3D	
DN	L	LB	SW		R	t	R	t
15	65	16.5	27	hexagonal	1/2" NPT	15.0	Rc 1/2	13.6
20	75	17.5	32	hexagonal	3/4" NPT	16.3	Rc 3/4	14.1
25	90	24.0	41	hexagonal	1" NPT	19.1	Rc 1	17.0
32	110	33.0	50	octagonal	1 1/4" NPT	21.4	Rc 1 1/4	17.5
40	120	30.0	55	octagonal	1 1/2" NPT	21.4	Rc 1 1/2	17.3
50	150	40.0	70	octagonal	2" NPT	25.7	Rc 2	17.8



### Threaded sockets DIN, connection code 1, 3D / Angle body Valve body material: 1.4408 (Code 37)

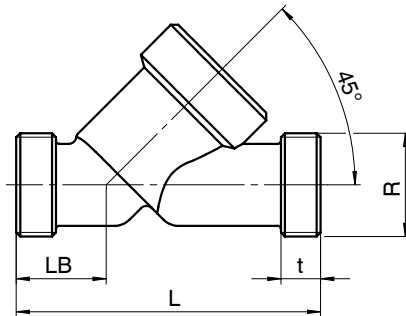
				Connection code 1		Connection code 3D	
DN	SW2	LE	H2	R	t	R	t
15	27	30	30.0	G 1/2	15.0	1/2" NPT	13.6
20	32	35	37.5	G 3/4	16.3	3/4" NPT	14.1
25	41	41	41.0	G 1	19.1	1" NPT	17.0
32	50	50	48.0	G 1 1/4	21.4	1 1/4" NPT	17.5
40	55	50	55.0	G 1 1/2	21.4	1 1/2" NPT	17.3
50	70	60	62.0	G 2	25.7	2" NPT	17.8



## Body dimensions [mm]

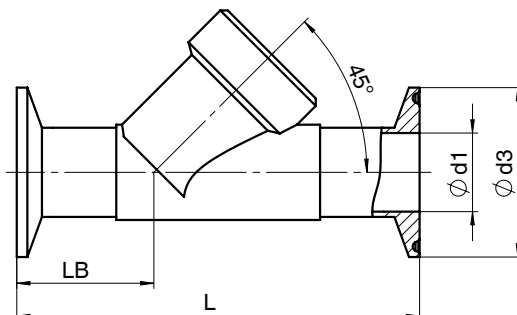
### Threaded spigots, connection code 9 Valve body material: 1.4408 (code 37), 1.4435

DN	L	LB	t	R
15	90	25	12	G 3/4
20	110	30	15	G 1
25	118	30	15	G 1 1/4
32	130	38	13	G 1 1/2
40	140	35	13	G 1 3/4
50	175	50	15	G 2 3/8



### Clamp connections, connection code 80, 82, 86, 88 Valve body material: 1.4435 (code 34)

DN	NPS	Connection code								Connection code			
		LB	L	82		86		88		80			
				ø d1	ø d3	ø d1	ø d3	ø d1	ø d3	LB	L	ø d1	ø d3
15	1/2"	47,5	130	18.1	50.5	16	34.0	9.40	25.0	33.5	101.6	9.40	25.0
20	3/4"	54,0	150	23.7	50.5	20	34.0	15.75	25.0	30.0	101.6	15.75	25.0
25	1"	56,0	160	29.7	50.5	26	50.5	22.10	50.5	33.0	114.3	22.10	50.5
32	1 1/4"	62,0	180	38.4	64.0	32	50.5	-	-	-	-	-	-
40	1 1/2"	67,0	200	44.3	64.0	38	50.5	34.80	50.5	37.0	139.7	34.80	50.5
50	2"	73,0	230	56.3	77.5	50	64.0	47.50	64.0	36.5	158.8	47.50	64.0

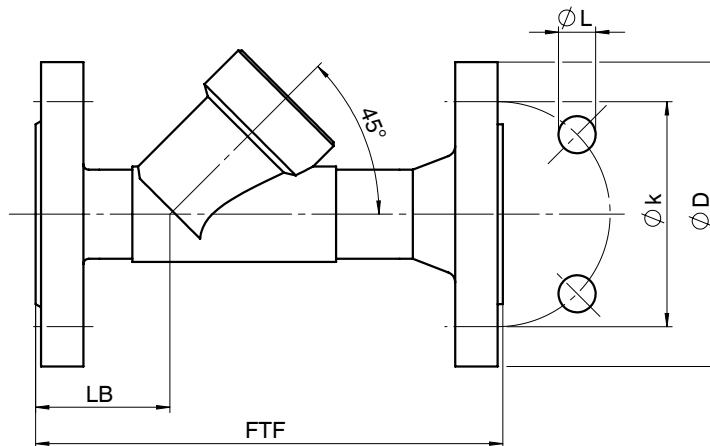


## Body dimensions [mm]

### Flanges, connection code 10 Valve body material: 1.4408 (code 37)

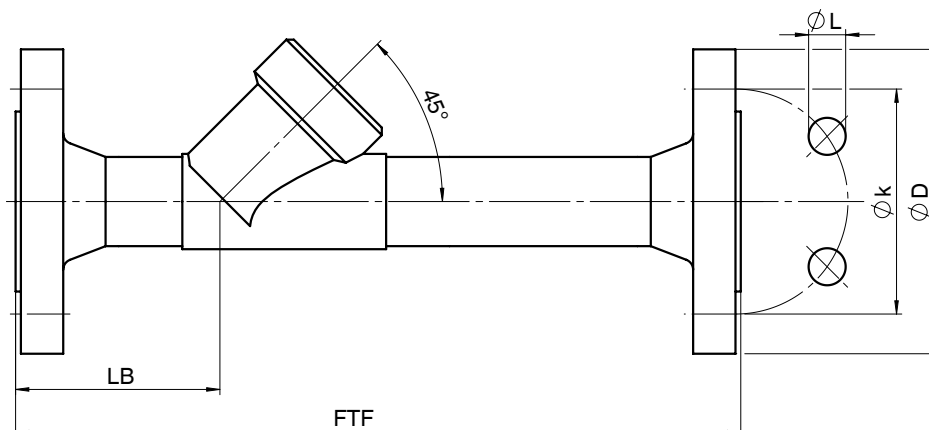
DN	FTF	LB	ø D	ø L	ø k	Number of bolts
15	130	33	95	14	65	4
20	150	45	105	14	75	4
25	160	44	115	14	85	4
32	180	51	140	18	100	4
40	200	52	150	18	110	4
50	230	50	165	18	125	4

For possible combinations with actuator sizes see table on page 16



### Flanges, connection code 13, 47 Valve body material: 1.4435 (code 34)

DN	FTF	LB	ø D	ø L	ø k	Number of bolts
15	210	72	95	14	65	4
20	280	78	105	14	75	4
25	280	77	115	14	85	4
32	310	89	140	18	100	4
40	320	91	150	18	110	4
50	333	95	165	18	125	4



### Overview of metal bodies for GEMÜ 550

Connection code	Spigots													
	0	16	17			18	37	59		60			63	65
Material code	34	34	34	37	C2	34	34	34	C2	34	37	C2	37	34
DN 15	X	X	X	X	X	X	-	X	X	X	X	X	X	X
DN 20	X	X	X	X	X	X	-	X	X	X	X	X	X	X
DN 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DN 32	-	X	X	X	X	X	-	-	-	X	X	X	-	X
DN 40	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DN 50	X	X	X	X	X	X	X	X	X	X	X	X	X	X

### Overview of metal bodies for GEMÜ 550

Connection code	Threaded connections						Clamp				Flanges		
	1		3C	9	3D		80	82	86	88	10	13	47
Material code	37	37	37	37	37	37	34	34	34	34	37	34	34
Body configuration	2/2-way body	Angle body			2/2-way body	Angle body							
DN 15	X	X	X	X	X	X	X	X	X	X	X*	X	X
DN 20	X	X	X	X	X	X	X	X	X	X	X*	X	X
DN 25	X	X	X	X	X	X	X	X	X	X	X*	X	X
DN 32	X	X	X	X	X	X	-	X	X	-	X*	X	X
DN 40	X	X	X	X	X	X	X	X	X	X	X*	X	X
DN 50	X	X	X	X	X	X	X	X	X	X	X*	X	X

\*For possible combinations with actuator sizes see table below

#### \* Actuators for connection code 10

DN 15	Actuator 1G1 + 2G1
DN 20	Actuator 1G1 + 2G1 + 3G1
DN 25	Actuator 2G1 + 3G1 + 4G1
DN 32	Actuator 2G1 + 4G1
DN 40	Actuator 4G1
DN 50	Actuator 3G1 + 4G1



# Specification sheet

for designing regulating cones for globe valves

Project (customer) \_\_\_\_\_ Valve/TAG number \_\_\_\_\_

Date \_\_\_\_\_ Telephone \_\_\_\_\_

Contact person \_\_\_\_\_ E-Mail \_\_\_\_\_

## Technical requirements

Medium <sup>1)</sup> \_\_\_\_\_

Requirement characteristic	1st operating point maximum flow		2nd operating point medium flow		3rd operating point minimum flow	
Media temperature <sup>4)</sup>		°C		°C		°C
Inlet pressure		bar(g)		bar(g)		bar(g)
Outlet pressure		bar(g)		bar(g)		bar(g)
<b>Flow rate <sup>2, 3)</sup></b>						
in [m <sup>3</sup> /h] for liquids		m <sup>3</sup> /h		m <sup>3</sup> /h		m <sup>3</sup> /h
Gases <sup>6)</sup>		Nm <sup>3</sup> /h		Nm <sup>3</sup> /h		Nm <sup>3</sup> /h
in [kg/h] for steam		kg/h		kg/h		kg/h

Valve body / Actuator	Type					
	Required valve DN					
	Max. operating pressure					
	Ambient temperature <sup>5)</sup>					
	Max. media temperature					
	Connection					
	Body material					
	Seat seal	<input type="radio"/> PTFE	<input type="radio"/> Other			
	Control function	<input type="radio"/> NC (normally closed)	<input type="radio"/> DA (double acting)	<input type="radio"/> Double acting (normally open)		
	Control pressure	min	max			
Regulating cone	Characteristic	<input type="radio"/> linear	<input type="radio"/> modified equal-percentage			
	<input type="checkbox"/> Other					

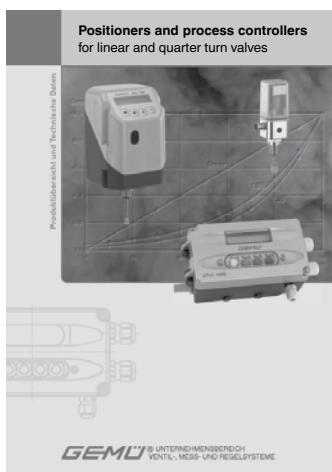
- Liquid or gas?  
For media other than water or air, it is necessary to give data for the density and viscosity (with unit of measurement) of the medium. Otherwise we will assume data for standard conditions.
- For steam especially, the minimum or maximum flow rate should be assigned to the appropriate inlet or outlet pressure. The temperature of the medium should also be taken into account.
- GEMÜ recommends a positioning ratio of 1 : 10 (e.g. minimum flow rate is 10 m<sup>3</sup>/h and the maximum flow rate is 100 m<sup>3</sup>/h). Please note that the valve only controls reliably from a flow of

about 10% of the max. Kv value on account of the valve opening behaviour. Other positioning ratios are possible on request or in the selection of standard regulating cones.

- The media temperature range must be specified for steam applications. T = 20 °C is assumed unless specified otherwise.
- This data is not absolutely necessary. A room temperature of 20 °C is assumed unless specified otherwise.
- Basis: standard conditions 0 °C, 1013.25 mbar. If conditions differ, please specify them.

Positioner functions / features			
	1434 $\mu$ Pos	1435 ePos	1436 cPos
<b>Controller type</b>			
Positioner	X	X	X
Process controller			X
<b>Control air flow</b>			
Version 1	15 l/min	50 l/min	150 l/min
Version 2		90 l/min	200 l/min
<b>Operation</b>			
Local display / keypad		X	X
Status display	X	X	X
Web browser user			X
Field bus (Profibus DP, Device Net)			X
<b>Signal</b>			
24V DC / 3-wire	X	X	X
<b>Body</b>			
Plastic	X		X
Aluminium / industrial		X	
<b>Functions</b>			
Automatic initialisation	X	X	X
Alarm / error outputs		X	X
Min/max positions adjustable		X	X

GEMÜ 1434  $\mu$ Pos not available for actuator size 4G1.  
For actuator size 1G1 please order GEMÜ 1434 with K number 2442.



For detailed information on positioners and process controllers please refer to the adjacent brochure.

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

## Other GEMÜ control valves



**GEMÜ 514**  
+ 1436 cPos



**GEMÜ 530**  
+ 1434  $\mu$ Pos



**GEMÜ 532**  
+ 1435 ePos



**GEMÜ 534**  
+ 1436 cPos



**GEMÜ 554**  
+ 1434  $\mu$ Pos

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Should there be any doubts or misunderstandings, the German version of this data sheet is the authoritative document!

Subject to alteration · 07/2019 · 88342360

**GEMÜ**® VALVES, MEASUREMENT  
AND CONTROL SYSTEMS

