

Angle Seat Globe Control Valve, Metal

Construction

The GEMÜ 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

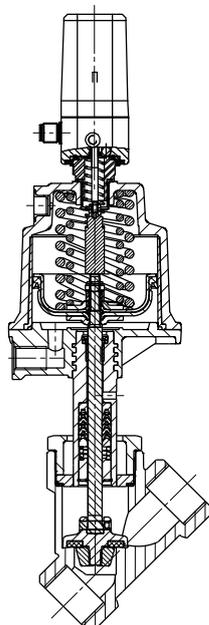
- Linear or modified equal-percentage control characteristics
- Cv values from approx. 0.2 - 70.2 gpm, depending on nominal size, valve seat and regulating cone design
- PID control system can be implemented with GEMÜ 1436 cPos
- Suitable for inert, corrosive*, liquid and gaseous media and steam
- Max. operating pressure 363 psi
- Max. operating temperature 356 °F

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)
- Optionally suitable for contact with food according to Regulation (EC) No. 1935/2004 (K-No. 2013)
- Standard gland packing suitable for vacuum up to 0.59 inHg (abs.)

*see information on working medium on page 2

Sectional drawing



GEMÜ 514
+ 1434 µPos



GEMÜ 514
+ 1435 ePos



GEMÜ 514
+ 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 14° to 356° F

Max. permissible viscosity 600 mm²/s (cSt)

Control medium

Inert gases, max. 140 °F

Filling volume	Actuator size 0:	3.05 cu in
	Actuator size 1:	7.63 cu in
	Actuator size 2:	38.14 cu in

Ambient conditions

Max. ambient temperature 140° F

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 psi at temperature °F*					
		RT	212	302	392	482	572
1, 3D, 9 (up DN 50)	9	232	232	232	196	-	-
1, 9, 17, 60, 63, 3C, 3D	37	363	345	310	274	254	234
0, 16, 17, 37, 59, 60, 65	34	363	355	325	294	264	234
13 (DN 15 - DN 50)	34	363	342	312	287	270	249
47 (DN 15 - DN 50)	34	231	193	174	161	148	141
1A, 1B, 59	C2	363	307	280	260	244	231

* The valves can be used down to 14 °F RT = Room Temperature All pressures are gauge pressures.

Correlation* Cv value, operating pressure, regulating cone number Valve body material: RG 5 (code 9), 1.4435 (code 34, C2), 1.4408 (code 37)

Nominal size DN	Cv value [gpm]	Operating pressure [psi]	Actuator size	Regulating cone number	
				linear	equal-percentage (mod.)
15	5.9	174	0	RS601	RS611
		363	1	RS600	RS610
20	11.7	90	0	RS602	RS612
		290	1	RS603	RS613
25	17.5	150	1	RS604	RS614
32	28.1	105	1	RS660	RS670
		319	2	RS605	RS615
40	44.5	65	1	RS661	RS671
		174	2	RS606	RS616
50	58.5	45	1	RS662	RS672
	70.2	150	2	RS607	RS617

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

Technical data

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

Nominal size DN	Cv value [gpm]	Operating pressure [psi]	Actuator size	Regulating cone number	
				linear	equal-percentage (mod.)
15	3.2	174	0	RS651	RS641
		363	1	RS650	RS640
20	7.4	90	0	RS652	RS642
		290	1	RS653	RS643
25	15.6	150	1	RS654	RS644
40	41.7	65	1	RS658	RS648
		174	2	RS656	RS646
50	58.5	45	1	RS659	RS649
	67.9	150	2	RS657	RS647

* only for connection code 37, 59

Correlation Cv value, operating pressure, regulating cone number Valve body material: 1.4435 (code 34, C2)¹⁾, 1.4408 (code 37)

Nominal size DN	Cv value [gpm]	Operating pressure [psi]	Actuator size	Regulating cone no.	
				linear	equal-percentage (mod.)
15	0.1 ²⁾	363	1	RA203	RA405
	0.2 ²⁾	363	1	RB207	RA406
	0.3 ²⁾	363	1	RB208	RB405
	0.5 ²⁾	363	1	RB209	RB406
	0.7 ²⁾	363	1	RC205	RC405
	1.2 ²⁾	363	1	RC206	RC406
	1.9	363	1	RD205	RD405
	2.9 ³⁾	363	1	RE207	RE407
20	1.9	363	1	RD206	RD406
	2.9	363	1	RE208	RE408
	4.7	363	1	RF207	RF407
	7.4 ³⁾	363	1	RG209	RG409
25	2.9	363	1	RE209	RE409
	4.7	363	1	RF208	RF408
	7.4	363	1	RG210	RG410
	11.7 ³⁾	218	1	RH209	RH409
32	4.7	363	1	RF209	RF409
	7.4	363	1	RG211	RG411
	11.7	232	1	RH210	RH410
	18.7	160	1	RJ207	RJ407
40	7.4	363	1	RG212	RG412
	11.7	261	1	RH211	RH411
	18.7	160	1	RJ208	RJ408
	29.3	261	2	RK205	RK405
50	11.7	261	1	RH212	RH412
	18.7	174	1	RJ209	RJ409
	29.3	348	2	RK206	RK406
	46.8	218	2	RM203	RM403

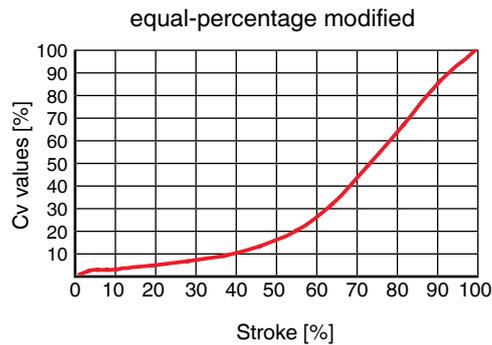
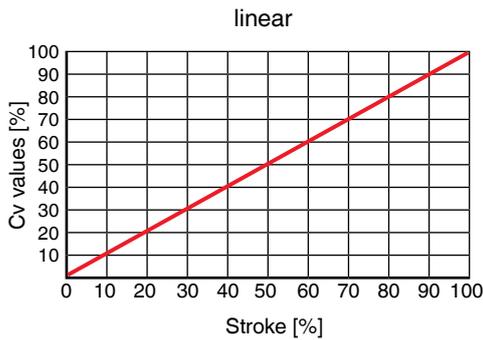
1) Angle seat globe valve bodies with valve body material code C2 and reduced seat have a surface roughness of $R_a \leq 47.24 \mu\text{inch}$ due to the reduction in the seat area.

2) metal seated (with no soft seat)

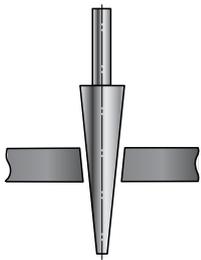
3) not for connection code 37, 59

Technical data

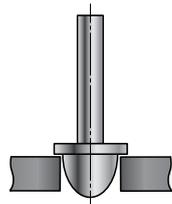
Example Cv value diagram



The adjacent diagram shows the approximative curve of the Cv 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 50

Order data

Body configuration

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

Nominal size

Nominal size	Code
DN 15 NPS 1/2"	15
DN 20 NPS 3/4"	20
DN 25 NPS 1"	25
DN 32 NPS 1 1/4"	32
DN 40 NPS 1 1/2"	40
DN 50 NPS 2"	50

Valve body material

Valve body material	Code
(Rg 5) CC499K, Cast bronze	9
1.4435 (ASTM A 351 CF3M \cong 316L), Investment casting	34
1.4408, Cast stainless steel	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.

Connection

Connection	Code
Butt weld spigots	
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 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
Threaded connections	
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
Flanges	
Flanges EN 1092 / PN25 / form B,	13
Flanges ANSI CLASS 125/150 RF	47
Bodies with clamp connections available on request	

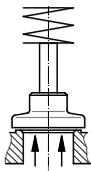
Order data

Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G
Steel (standard up to Cv value 1.2 gpm)	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	Flow	Code
Actuator 0 piston ø 1.97 in	under the seat	0
Actuator 1 piston ø 2.76 in	under the seat	1
Actuator 2 piston ø 4.72 in	under the seat	2

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



Flow under the seat

Version	Code
Gland packing PTFE / PTFE suitable for contact with food according to EU Regulation 1935/2004	2013
Media temperature 14 to 410 °F (only with seat seal Code 5G and 10)	2023
Surface finish for valve body material C2	
Ra ≤ 0,6 µm (25 µinch) for process contact surfaces, in accordance with ASME BPE SF2 + SF3, mechanically polished internal	1903
Ra ≤ 0,8 µm (30 µinch) for process contact surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1904
Ra ≤ 0,4 µm (15 µinch) for process contact surfaces, in accordance with DIN 11866 H4, ASME BPE SF1, mechanically polished internal	1909

Order example	514	25	D	9	37	5	1	1	RS614	1903
Type	514									
Nominal size		25								
Body configuration (code)			D							
Connection (code)				9						
Valve body material (code)					37					
Seat seal (code)						5				
Control function (code)							1			
Actuator size (code)								1		
Regulating cone (R-No.)									RS614	
Version (Code)										1903

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:

Version code 2013

Seat seal code 5, 5G, 10

Valve body material code 34, 37, C2

Actuator dimensions / Installation dimensions - Valve with 2/2-way body [inch]

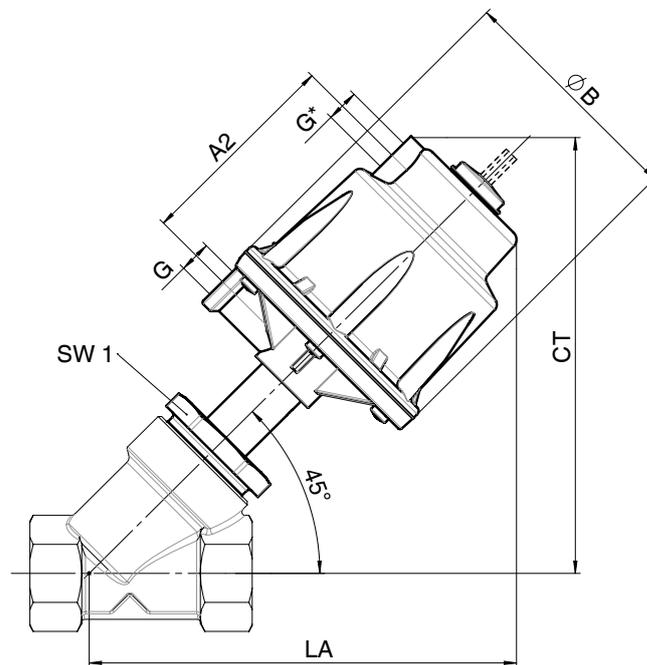
GEMÜ 514 without positioner [inch] / Weight [lbs]

Actuator dimensions [inch]

Actuator size	ø B	M	A2	G
0	2.80	M 16x1	-	G 1/4
1	3.78	M 16x1	3.37	G 1/4
2	6.46	M 22x1.5	4.84	G 1/4

Installation dimensions / Weight

DN	Wrench size SW1 [mm]	Actuator size 0		Actuator size 1		Actuator size 2	
		CT/LA [in]	Weight [lbs]	CT/LA [in]	Weight [lbs]	CT/LA [in]	Weight [lbs]
15	36	151	2.0	6.38	3.1	-	-
20	41	161	2.4	6.77	3.5	9.41	-
25	46	161	2.9	6.77	4.0	9.41	-
32	55	-	-	7.09	5.3	9.72	10.1
40	60	-	-	7.32	5.9	9.96	12.1
50	75	-	-	7.64	7.5	10.28	14.1



* Connection only for actuator sizes 1, 2 and 5; c.f. 2 and 3

Actuator dimensions / Installation dimensions - Valve with angle body [inch]

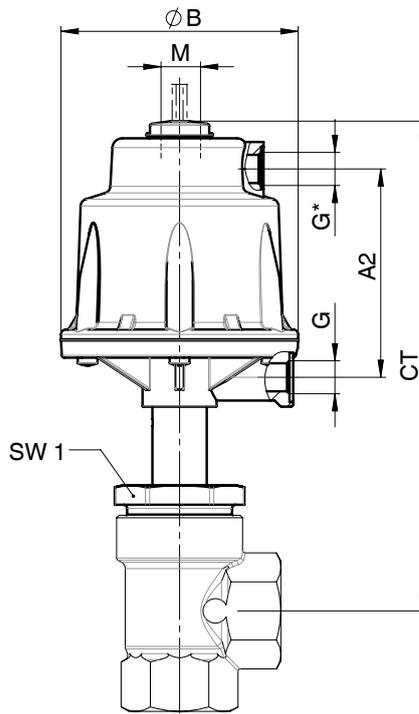
GEMÜ 514 without positioner [inch] / Weight [lbs]

Actuator dimensions [inch]

Actuator size	ø B	M	A2	G
0	2.80	M 16x1	-	G 1/4
1	3.78	M 16x1	3.37	G 1/4
2	6.46	M 22x1.5	4.84	G 1/4

Installation dimensions / Weight

DN	Wrench size SW1 [mm]	Actuator size 0		Actuator size 1		Actuator size 2	
		CT [in]	Weight [lbs]	CT [in]	Weight [lbs]	CT [in]	Weight [lbs]
15	36	6.81	2.0	7.20	3.1	-	-
20	41	6.93	2.4	7.32	3.5	10.28	-
25	46	7.09	2.9	7.48	4.0	10.43	-
32	55	-	-	7.60	5.3	10.55	10.1
40	60	-	-	7.80	5.9	10.75	12.1
50	75	-	-	8.07	7.5	11.02	14.1

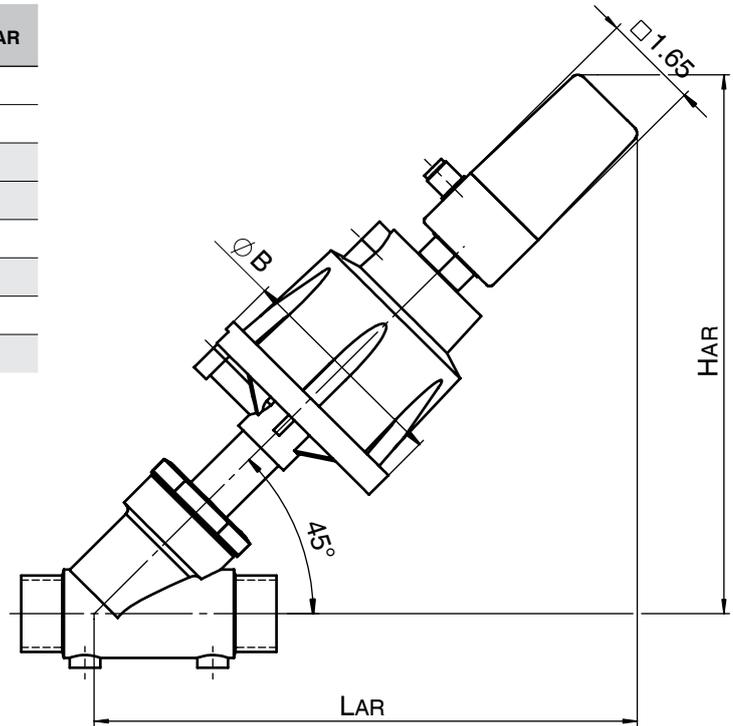


* Connection only for actuator sizes 1, 2 and 5; c.f. 2 and 3

2/2-way body

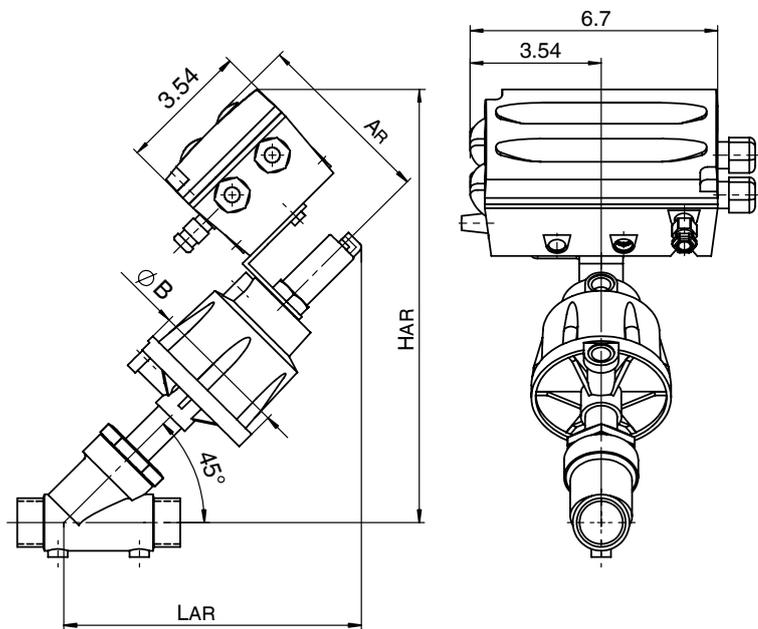
GEMÜ 514 with 1434 μ Pos

DN	Actuator size	Control function	$\varnothing B$	LAR / HAR
15	0	1	2.80	8.90
	1	1	3.78	9.17
20	0	1	2.80	9.29
	1	1	3.78	9.57
25	1	1	3.78	9.57
32	1	1	3.78	9.88
40	1	1	3.78	10.12
50	1	1	3.78	10.39



GEMÜ 514 with 1435 ePos

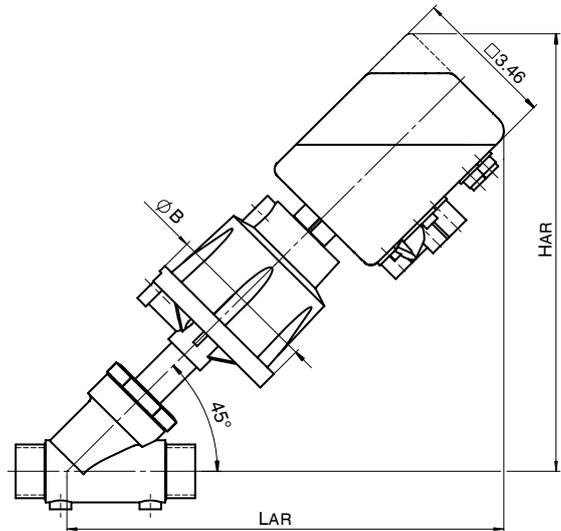
DN	Actuator size	Control function	$\varnothing B$	LAR	HAR	AR
15	0	1	2.80	8.11	11.81	4.65
		1	3.78	7.72	11.46	4.65
	1	3 and 8	3.78	8.39	12.09	4.65
20	0	1	2.80	8.50	12.20	4.65
		1	3.78	8.11	11.81	4.65
	1	3 and 8	3.78	8.78	12.48	4.65
	2	1	6.46	10.94	15.43	6.61
		3 and 8	6.46	11.50	15.12	5.43
25	1	1	3.78	8.11	11.81	4.65
		3 and 8	3.78	8.78	12.48	4.65
32	1	1	3.78	8.43	12.13	4.65
		3 and 8	3.78	9.09	12.80	4.65
	2	1	6.46	11.26	15.75	6.61
		3 and 8	6.46	11.77	15.43	5.43
40	1	1	3.78	8.66	12.36	4.65
		3 and 8	3.78	9.29	13.03	4.65
	2	1	6.46	11.50	15.98	6.61
		3 and 8	6.46	12.01	15.67	5.43
50	1	1	3.78	8.94	12.68	4.65
		3 and 8	3.78	9.61	13.31	4.65
	2	1	6.46	11.81	16.26	6.61
		3 and 8	6.46	12.32	15.98	5.43



2/2-way body

GEMÜ 514 with 1436 cPos

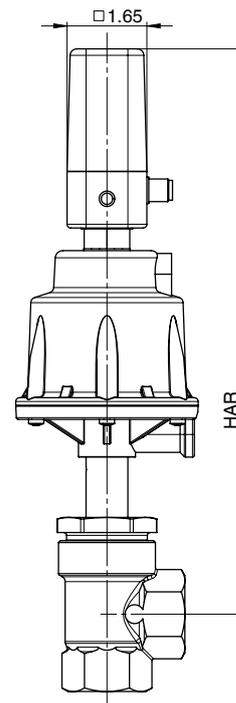
DN	Actuator size	Control function	øB	LAR / HAR
15	0	1	2.80	11.02
	1	1	3.78	10.63
		3 and 8	3.78	11.30
20	0	1	2.8	11.42
	1	1	3.78	11.02
		3 and 8	3.78	11.69
25	1	1	3.78	11.02
		3 and 8	3.78	11.69
32	1	1	3.78	11.34
		3 and 8	3.78	12.01
	2	1	6.46	14.17
		3 and 8	6.46	14.69
40	1	1	3.78	11.57
		3 and 8	3.78	12.20
	2	1	6.46	14.41
		3 and 8	6.46	14.92
50	1	1	3.78	11.85
		3 and 8	3.78	12.52
	2	1	6.46	14.72
		3 and 8	6.46	15.24



Angle body

GEMÜ 514 with 1434 µPos

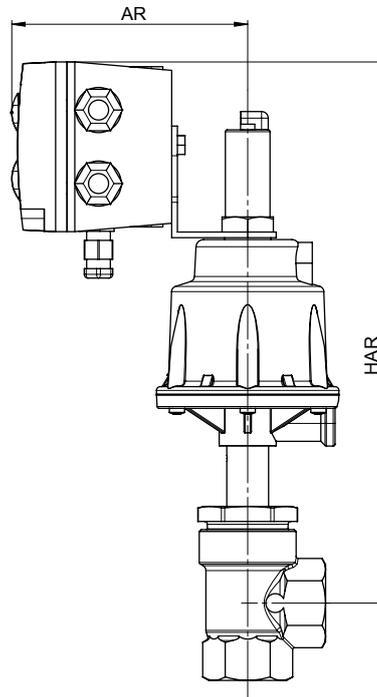
DN	Actuator size	Control function	øB	HAR
15	0	1	2.80	10.98
	1	1	3.78	11.38
20	0	1	2.80	11.10
	1	1	3.78	11.50
25	1	1	3.78	11.65
32	1	1	3.78	11.77
40	1	1	3.78	11.97
50	1	1	3.78	12.24



Angle body

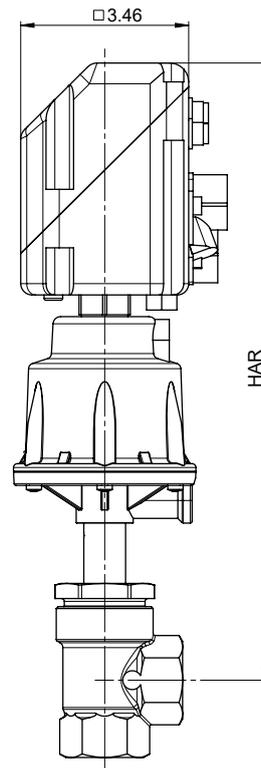
GEMÜ 514 with 1435 ePos

DN	Actuator size	Control function	HAR
15	0	1	11.30
	1	1	10.75
		3 and 8	11.69
20	0	1	11.42
	1	1	10.87
		3 and 8	11.81
2	1	14.02	
	3 and 8	14.76	
25	1	1	11.02
		3 and 8	11.97
32	1	1	11.14
		3 and 8	12.09
	2	1	14.29
3 and 8		15.04	
40	1	1	11.34
		3 and 8	12.28
	2	1	14.49
3 and 8		15.24	
50	1	1	11.61
		3 and 8	12.56
	2	1	14.76
3 and 8		15.51	



GEMÜ 514 with 1436 cPos

DN	Actuator size	Control function	HAR
15	0	1	12.68
	1	1	12.13
		3 and 8	13.07
20	0	1	12.80
	1	1	12.24
		3 and 8	13.19
25	1	1	12.40
		3 and 8	13.35
32	1	1	12.52
		3 and 8	13.46
	2	1	15.67
3 and 8		16.42	
40	1	1	12.72
		3 and 8	13.66
	2	1	15.87
3 and 8		16.61	
50	1	1	12.99
		3 and 8	13.94
	2	1	16.14
3 and 8		16.89	



Body dimensions [inch]

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

DN	Material code 34		Material code 37		Connection code									
					0		16		17		37		60	
	L	LB	L	LB	ø d	s	ø d	s	ø d	s	ø d	s	ø d	s
15	4.13	1.40	3.94	1.30	0.709	0.059	0.709	0.039	0.748	0.059	-	-	0.839	0.063
20	4.72	1.54	4.25	1.30	0.866	0.059	0.866	0.039	0.906	0.059	-	-	1.059	0.063
25	4.92	1.52	4.41	1.26	1.102	0.059	1.102	0.039	1.142	0.059	0.984	0.047	1.327	0.079
32	6.10	1.89	5.39	1.54	-	-	1.339	0.039	1.378	0.059	-	-	1.669	0.079
40	6.30	1.85	5.75	1.57	1.575	0.059	1.575	0.039	1.614	0.059	1.496	0.047	1.902	0.079
50	7.09	1.89	6.30	1.50	2.047	0.059	2.047	0.039	2.087	0.059	2.008	0.047	2.374	0.079

For materials see overview on page 14

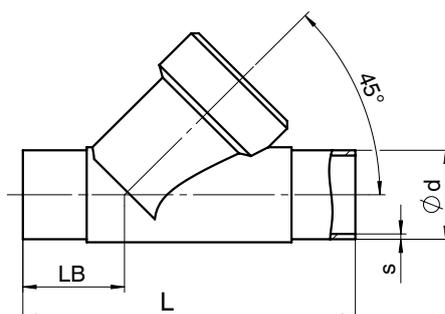
Butt weld spigots, connection code 59, 63, 65 Valve body material: 1.4435 (code 34), 1.4408 (code 37)

DN	Material code 34		Material code 37		Connection code					
					59		63		65	
	L	LB	L	LB	ø d	s	ø d	s	ø d	s
15	4.13	1.40	3.94	1.30	0.500	0.065	0.839	0.083	0.839	0.109
20	4.72	1.54	4.25	1.30	0.750	0.065	1.051	0.083	1.051	0.113
25	4.92	1.52	4.41	1.26	1.000	0.065	1.315	0.108	1.315	0.153
32	6.10	1.89	5.39	1.54	-	-	-	-	1.669	0.140
40	6.30	1.85	5.75	1.57	1.500	0.065	1.902	0.109	1.902	0.145
50	7.09	1.89	6.30	1.50	2.000	0.065	2.374	0.109	2.374	0.154

Werkstoffe siehe Übersichtstabelle auf Seite 14

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

DN	Material code 34		Material code 37		Connection code					
					17		60		59	
	L	LB	ø d	s	ø d	s	ø d	s		
15	4.13	1.40	0.748	0.059	0.839	0.063	0.500	0.065		
20	4.72	1.54	0.906	0.059	1.059	0.063	0.750	0.065		
25	4.92	1.56	1.142	0.059	1.327	0.079	1.000	0.065		
32	6.10	1.89	1.378	0.059	1.669	0.079	-	-		
40	6.30	1.85	1.614	0.059	1.902	0.079	1.500	0.065		
50	7.09	1.89	2.087	0.059	2.374	0.079	2.000	0.065		



Body dimensions

Threaded sockets DIN, connection code 1 Valve body material: Cast bronze (code 9), 1.4408 (code 37)

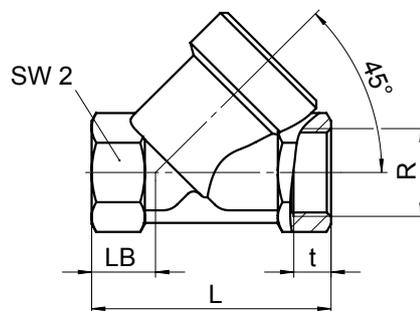
DN	L [in]	LB [in]	R	t [in]	SW2 [mm]	
15	2.56	0.65	G 1/2	0.59	27	hexagonal
20	2.95	0.69	G 3/4	0.64	32	hexagonal
25	3.54	0.94	G 1	0.75	41	hexagonal
32	4.33	1.30	G 1 1/4	0.84	50	octagonal
40	4.72	1.18	G 1 1/2	0.84	55	octagonal
50	5.91	1.57	G 2	1.01	70	octagonal

For materials see overview on page 14

Threaded sockets NPT, BS 21 Rc, connection code 3C, 3D Valve body material: Cast bronze (code 9), 1.4408 (code 37)

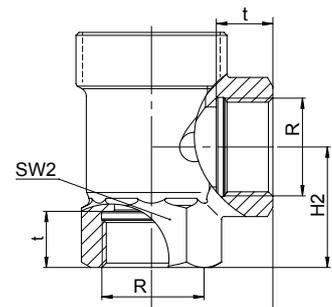
DN	L [in]	LB [in]	Connection code					
			3C			3D		
			R	t [in]	R	t [in]		
15	2.56	0.65	27	hexagonal	Rc 1/2	0.59	1/2" NPT	0.54
20	2.95	0.69	32	hexagonal	Rc 3/4	0.64	3/4" NPT	0.56
25	3.54	0.94	41	hexagonal	Rc 1	0.75	1" NPT	0.67
32	4.33	1.30	50	octagonal	Rc 1 1/4	0.84	1 1/4" NPT	0.69
40	4.72	1.18	55	octagonal	Rc 1 1/2	0.84	1 1/2" NPT	0.68
50	5.91	1.57	70	octagonal	Rc 2	1.01	2" NPT	0.70

For materials see overview on page 14



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

DN	SW2 [mm]	LE [in]	H2 [in]	Connection code 1		Connection code 3D	
				R	t [in]	R	t [in]
15	27	1.18	1.18	G 1/2	0.59	1/2" NPT	0.54
20	32	1.38	1.48	G 3/4	0.64	3/4" NPT	0.56
25	41	1.61	1.61	G 1	0.75	1" NPT	0.67
32	50	1.97	1.89	G 1 1/4	0.84	1 1/4" NPT	0.69
40	55	1.97	2.17	G 1 1/2	0.84	1 1/2" NPT	0.68
50	70	2.36	2.44	G 2	1.01	2" NPT	0.70

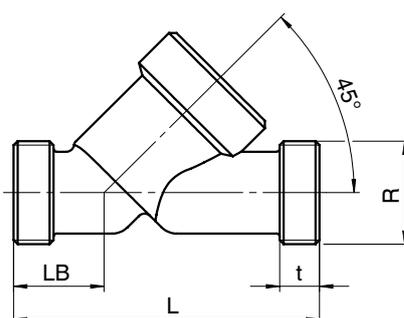


Body dimensions [inch]

Threaded spigots, connection code 9 Valve body material: Cast bronze (code 9), 1.4408 (code 37)

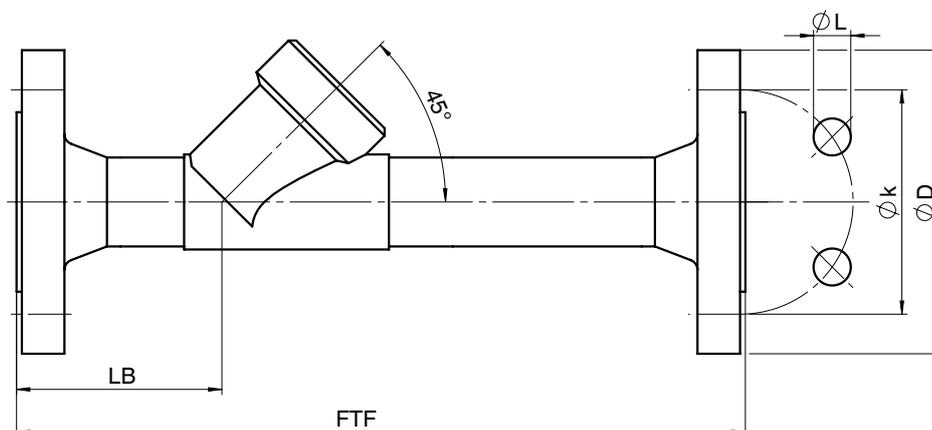
DN	L	LB	t	R
15	3.54	0.98	0.47	G 3/4
20	4.33	1.18	0.59	G 1
25	4.65	1.18	0.59	G 1 1/4
32	5.12	1.50	0.51	G 1 1/2
40	5.51	1.38	0.51	G 1 3/4
50	6.89	1.97	0.59	G 2 3/8

For materials see overview on page 14



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

DN	FTF	LB	Connection code 13				Connection code 47			
			$\varnothing D$	$\varnothing L$	$\varnothing k$	Number of bolts	$\varnothing D$	$\varnothing L$	$\varnothing k$	Number of bolts
15	8.27	2.83	3.74	0.55	2.56	4	3.50	0.62	2.38	4
20	11.02	3.07	4.13	0.55	2.95	4	3.88	0.62	2.75	4
25	11.02	3.03	4.53	0.55	3.35	4	4.25	0.62	3.12	4
32	12.2	3.50	5.51	0.71	3.94	4	4.62	0.62	3.50	4
40	12.6	3.58	5.91	0.71	4.33	4	5.00	0.62	3.88	4
50	12.99	3.74	6.50	0.71	4.92	4	6.00	0.75	4.75	4



Overview of metal bodies for GEMÜ 514													
Connection code	Spigots												
	0	16	17			37	59		60			63	65
Material code	34	34	34	37	C2	34	34	C2	34	37	C2	37	34
DN 15	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
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
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

Overview of metal bodies for GEMÜ 514											
Connection code	Threaded connections									Flanges	
	1			3C	9		3D			13	47
Material code	9	37	37	37	9	37	9	37	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
DN 20	X	X	X	X	X	X	X	X	X	X	X
DN 25	X	X	X	X	X	X	X	X	X	X	X
DN 32	X	X	X	X	-	X	X	X	X	X	X
DN 40	X	X	X	X	X	X	X	X	X	X	X
DN 50	X	X	X	X	X	X	X	X	X	X	X

Specification sheet

for designing regulating cones for globe valves

Project (customer) _____ Valve/TAG number _____

Date _____ Telephone _____

Contact person _____ E-Mail _____

Technical requirements

Medium ¹⁾ _____

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

Valve body / Actuator	Type	_____		
	Required valve DN	_____		
	Max. operating pressure	_____		
	Ambient temperature ⁵⁾	_____		
	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		

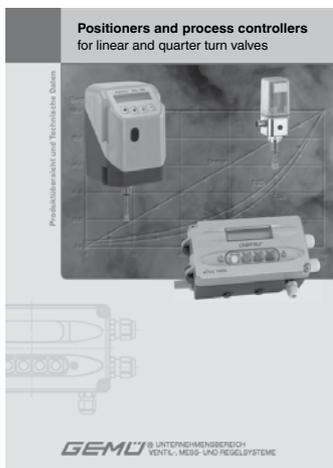
- Liquid or gas?
For media other than water or air, it is necessary to give data for the density and viscosity (with unit of measurement) of the medium. Otherwise we will assume data for standard conditions.
- For steam especially, the minimum or maximum flow rate should be assigned to the appropriate 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 m³/h and the maximum flow rate is 100 m³/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 μ Pos	1435 ePos	1436 cPos
Controller type			
Positioner	X	X	X
Process controller			X
Control air flow			
Version 1	4 gpm	13.2 gpm	39.6 gpm
Version 2		23.8 gpm	52.8 gpm
Operation			
Local display / keypad		X	X
Status display	X	X	X
Web browser user			X
Field bus (Profibus DP, Device Net)			X
Signal			
24V DC / 3-wire	X	X	X
Body			
Plastic	X		X
Aluminium / industrial		X	
Functions			
Automatic initialisation	X	X	X
Alarm / error outputs		X	X
Min/max positions adjustable		X	X

GEMÜ 1434 μ Pos not available for actuator size 2



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 530
+ 1434 μ Pos



GEMÜ 532
+ 1435 ePos



GEMÜ 534
+ 1436 cPos



GEMÜ 550
+ 1434 μ Pos



GEMÜ 554
+ 1435 ePos

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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 · 05/2021 · 88749287