

Globe Valve, Metal

Construction

The GEMÜ 534 pneumatically operated 2/2-way globe valve has a plastic piston actuator.

The valve spindle is sealed by a self-adjusting gland packing providing low maintenance and reliable valve spindle sealing even after a long service life. The wiper ring fitted in front of the gland packing protects it against contamination and damage.

Features

- Suitable for inert and corrosive* liquid and gaseous media
- Valve bodies available in SG iron and stainless steel
- Flanged versions
- Customized control valve versions available
- Free from non-ferrous metals
- Versions according to ATEX on request

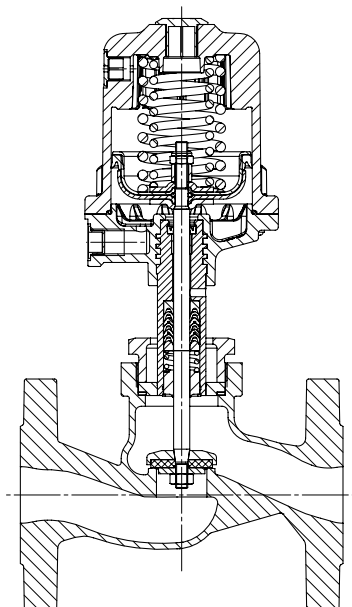
Advantages

- Good flow capability and compact design
- Accessories:
 - Electrical position indicators
 - Combi switchboxes
 - Electro-pneumatic positioners/process controllers (see data sheet GEMÜ 534 control valve)

*see information on working medium on page 2



Sectional drawing



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

Medium temperature -10° to 180 °C

Max. permissible viscosity 600 mm²/s (cSt)

Control medium

Inert gases

Max. perm. temperature of control medium: 60 °C

Filling volume:

Actuator size 0 and 3: 0.05 dm³

Actuator size 1 and 4: 0.125 dm³

Actuator size 2: 0.625 dm³

Leakage rate

Leakage rate A to P11/P12 EN 12266-1

Ambient conditions

Max. ambient temperature 60 °C

Nominal size [mm]	Max. operating pressure [bar] Normally closed					Control pressure [bar] Normally closed					Kv value [m ³ /h]
	Actuator size 0 piston ø 50 mm	Actuator size 3 piston ø 50 mm	Actuator size 1 piston ø 70 mm	Actuator size 4 piston ø 70 mm	Actuator size 2 piston ø 120 mm	Actuator size 0 under the seat	Actuator size 3 over the seat	Actuator size 1 under the seat	Actuator size 4 over the seat	Actuator size 2 under the seat	
15	12.0	10	36.0	10	-	4.8 - 7.0	min. control pressure see diagram max. control pressure 7 bar	5.5 - 7.0	min. control pressure see diagram max. control pressure 7 bar	-	4.6
20	6.0	10	20.0	10	36.0	4.8 - 7.0		5.5 - 7.0		4.0 - 7.0	8.0
25	2.5	10	10.0	10	36.0	4.8 - 7.0		5.5 - 7.0		4.0 - 7.0	13.0
32	-	-	7.0	10	20.0	-		5.5 - 7.0		4.0 - 7.0	22.0
40	-	-	4.5	10	12.0	-		5.5 - 7.0		4.0 - 7.0	35.0
50	-	-	3.0	10	10.0	-	5.5 - 7.0	5.0 - 7.0	50.0		

Kv values determined acc. to IEC 534 standard, flanges EN 1092. The Kv value data refers to control function 1 (NC) and the largest actuator for each nominal size. Kv values may be different for other combinations. Consult GEMÜ.

Nominal size DN	Max. operating pressure [bar] Normally open/ Double acting			Control pressure [bar] Normally open/ Double acting		
	Actuator size 0 piston ø 50 mm	Actuator size 1 piston ø 70 mm	Actuator size 2 piston ø 120 mm	Actuator size 0	Actuator size 1	Actuator size 2
15	25	25	-	max. 7 bar for values see diagram	max. 7 bar for values see diagram	max. 7 bar for values see diagram
20	20	25	25			
25	12	25	25			
32	-	20	25			
40	-	12	25			
50	-	8	25			

For max. operating pressures the pressure/temperature correlation must be observed (see table on page 3).
All pressures are gauge pressures.

Pressure / temperature correlation for globe valve bodies

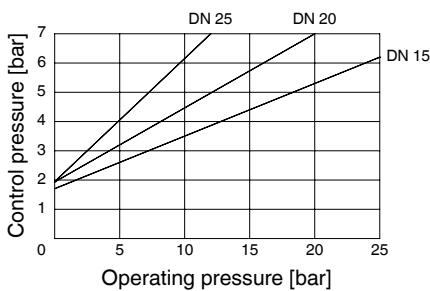
Connection code	Material code	Max. allowable operating pressures in bar at temperature °C*						
		RT	50	100	150	200	250	300
8	37	14.6	13.9	12.4	11.2	10.3	9.6	9.0
10	37	25.0	23.7	21.3	19.2	17.7	16.4	15.4
11	37	36.4	34.7	31.1	28.1	25.8	24.0	22.6
39	37	19.0	19.0	16.0	14.8	13.6	12.1	10.2
8	90	16.0	16.0	16.0	15.5	14.7	13.9	11.2
39	90	17.2	17.0	16.0	14.8	13.9	12.1	10.2

* The valves can be used down to -10°C RT = Room Temperature All pressures are gauge pressures.
 Pressure-temperature correlation for connection code 48: DN 15 - 40 see connection code 10, DN 50 see connection code 8.

Operating pressure/Control pressure characteristics

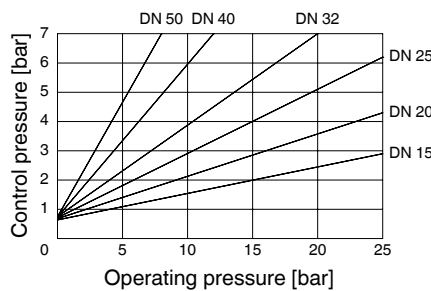
Actuator size 0 Normally open (NO) Double acting (DA)

Min. control pressure dependent on operating pressure
 (Flow direction: under the seat)



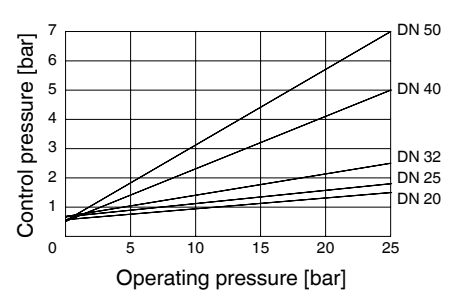
Actuator size 1 Normally open (NO) Double acting (DA)

Min. control pressure dependent on operating pressure
 (Flow direction: under the seat)



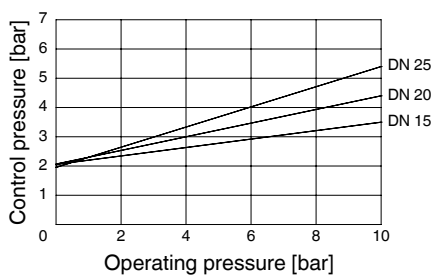
Actuator size 2 Normally open (NO) Double acting (DA)

Min. control pressure dependent on operating pressure
 ((Flow direction: under the seat)



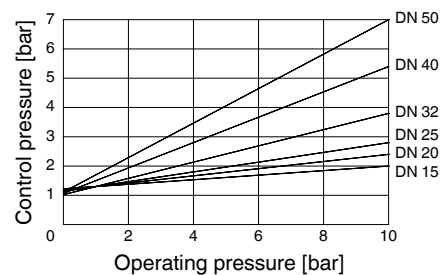
Actuator size 3 Normally closed (NC)

Min. control pressure dependent on operating pressure
 (Flow direction: over the seat)



Actuator size 4 Normally closed (NC)

Min. control pressure dependent on operating pressure
 (Flow direction: over the seat)



Order data

Body configuration	Code
2/2-way body	D

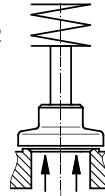
Control function		Code
Normally closed	(NC)	1
Normally open	(NO)	2
Double acting	(DA)	3

Connection	Code
Flanges Flanges EN 1092 / PN16 / form B, length EN 558, series 1, ISO 5752, basic series 1	8
Flanges EN 1092 / PN25 / form B, length EN 558, series 1, ISO 5752, basic series 1	10
Flanges EN 1092 / PN40 / form B, length EN 558, series 1, ISO 5752, basic series 1	11
Flanges ANSI CLASS 125/150 RF, length EN 558, series 1, ISO 5752, basic series 1	39
Flanges drilled according to JIS 20K (DN 15 - 40), Flanges drilled according to JIS 10K (DN 50), length EN 558, series 10, ASME/ANSI B 16.10 table 1, column 16	48

Actuator size	Flow	Code
Actuator 0 piston ø 50 mm	Flow under the seat	0*
Actuator 1 piston ø 70 mm	Flow under the seat	1*
Actuator 2 piston ø 120 mm	Flow under the seat	2*
Actuator 3 piston ø 50 mm	Flow over the seat	3**
Actuator 4 piston ø 70 mm	Flow over the seat	4**
* Preferred flow direction with incompressible liquid media to avoid "water hammer"		
** only control function NC		

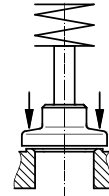
Valve body material	Code
1.4408, cast stainless steel	37
EN-GJS-400-18-LT (GGG 40.3) SG iron	90

GEMÜ 534
Actuators 0, 1, 2



Flow
under the seat

GEMÜ 534
Actuators 3, 4



Flow
over the seat

Seat seal	Code
PTFE	5
PTFE, glass reinforced	5G
Other seat seals on request	

Note

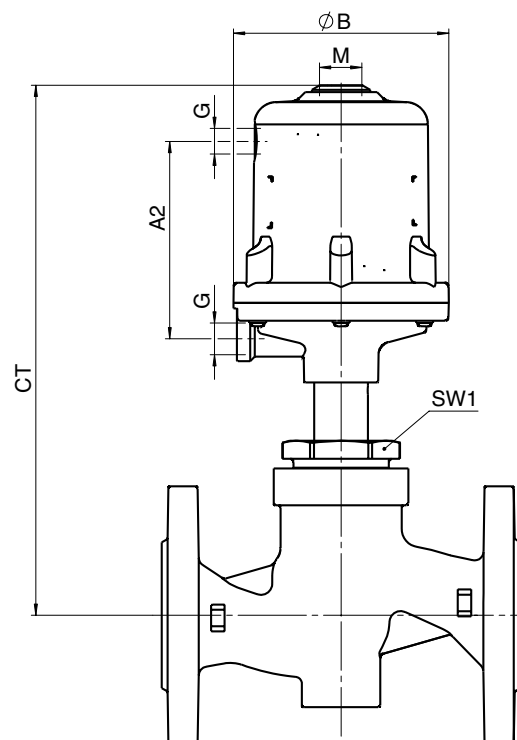
Overview available valve bodies see table on page 6

Order example	534	25	D	8	90	5	1	1
Type	534							
Nominal size		25						
Body configuration (code)			D					
Connection (code)				8				
Valve body material (code)					90			
Seat seal (code)						5		
Control function (code)							1	
Actuator size (code)								1

Actuator dimensions / Installation dimensions [mm]

Actuator dimensions

Actuator size	øB	M	A2	G
0 + 3	72	M16x1	70	G 1/4
1 + 4	96	M16x1	86	G 1/4
2	168	M22x1.5	149	G 1/4



Installation dimensions [mm] / weight of valve [kg]

DN	SW1 metric	Actuator 0 + 3		Actuator 1 + 4		Actuator 2	
		CT	Gewicht	CT	Weight	CT	Weight
15	36	190	3.1	218	3.6	-	7.8
20	41	197	4.1	225	4.6	320	8.6
25	46	208	5.0	236	5.5	331	9,3
32	55	-	-	241	7,7	336	10.9
40	60	-	-	252	9.0	347	11.9
50	75	-	-	260	11.8	355	14.0

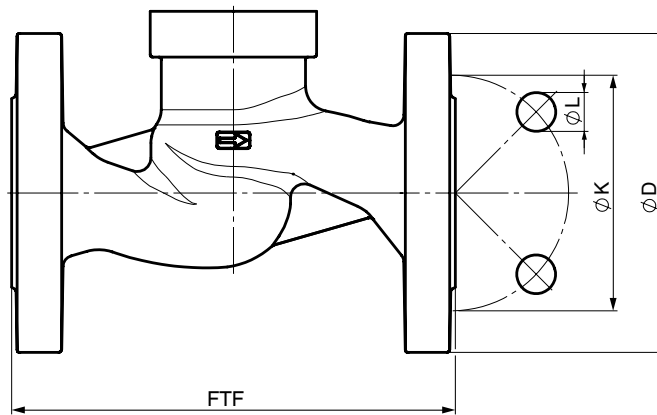
For materials see overview on last page

Body dimensions [mm]

Flanges. connection code 8, 10, 11, 39, 48
Valve body material: 1.4408 (code 37), EN-GJS-400-18-LT (code 90)

DN	Number of bolts	Connection code 8, 10, 11				Connection code 39				Connection code 48				Weight [kg]
		FTF	ø D	ø K	ø L	FTF	ø D	ø K	ø L	FTF	ø D	ø K	ø L	
15	4	130	95	65	14	130	90	60.3	15.9	108	95	70	15	2.2
20	4	150	105	75	14	150	100	69.9	15.9	117	100	75	15	3.0
25	4	160	115	85	14	160	110	79.4	15.9	127	125	90	19	3.7
32	4	180	140	100	18	180	115	88.9	15.9	-	-	-	-	5.3
40	4	200	150	110	18	200	125	98.4	15.9	165	140	105	19	6.3
50	4	230	165	125	18	230	150	120.7	19.0	203	155	120	19	8.4

For materials see overview below



Overview of metal bodies for GEMÜ 534

Connection code	8		10	11	39		48
Material code	37	90	37	37	37	90	37
DN 15	-	X	-	X	X	X	X
DN 20	-	X	-	X	X	X	X
DN 25	-	X	-	X	X	X	X
DN 32	-	X	X	-	X	X	-
DN 40	-	X	X	-	X	X	X
DN 50	X	X	-	-	X	X	X

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

GEMÜ® VALVES, MEASUREMENT
 AND CONTROL SYSTEMS

