GEMÜ®

Globe Valve, Metal

Construction

The GEMÜ 532 pneumatically operated 2/2-way globe valve has a pneumatic aluminium 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

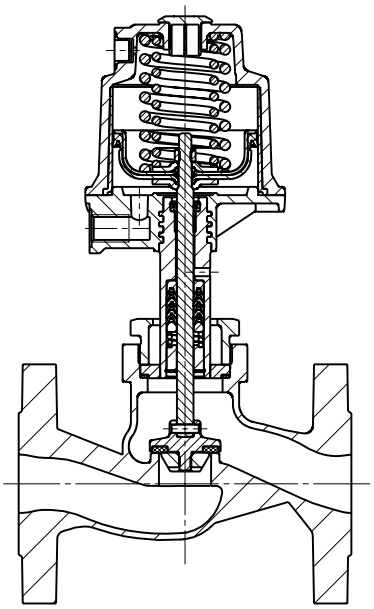
- Suitable for inert and corrosive* liquid and gaseous media
- Valve bodies available in SG iron and stainless steel
- Flanged versions
- Customized control valve versions available

Advantages

- Robust aluminium actuator
- Good flow capability and compact design
- Accessories:
  - Electrical position indicators
  - Combi switchboxes
  - Electro-pneumatic positioners/process controllers (see data sheet GEMÜ 532 control valve)
  - Stroke limiter
- Standard gland packing suitable for vacuum up to 20 mbar (abs.)

*see information on working medium on page 2

Sectional drawing



GEMÜ® 532

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^2/s (cSt)

Other versions for lower/higher temperatures and higher viscosities on request

Control medium

Inert gases

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

Filling volume:

Actuator size 0 and 3:	0.05 dm^3
Actuator size 1 and 4:	0.125 dm^3
Actuator size 2:	0.625 dm^3

Ambient conditions

Max. ambient temperature	60 °C

Leakage rate

Leakage rate A to P11/P12 EN 12266-1

Nominal size	Max. operating pressure [bar] C. f. 1 Normally closed (NC)					Control pressure [bar] C. f. 1 Normally closed (NC)					Kv values
	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	Actuator size 3	Actuator size 1	Actuator size 4	Actuator size 2	[m^3/h]
15	12.0	10.0	40.0	10.0	-	4.7 - 10	min. control pressure see diagram max. control pressure 7 bar	5.5 - 10	min. control pressure see diagram max. control pressure 8 bar	-	4.6
20	6.0	10.0	20.0	10.0	40.0	4.7 - 10		5.5 - 10		4.0 - 8	8.0
25	2.5	10.0	10.0	10.0	40.0	4.7 - 10		5.5 - 10		4.0 - 8	13.0
32	-	-	7.0	10.0	22.0*	-		5.5 - 10		4.0 - 8	22.0
40	-	-	4.5	10.0	12.0*	-		5.5 - 10		4.0 - 8	35.0
50	-	-	3.0	10.0	10.0	-		5.5 - 10		5.5 - 8	50.0
65	-	-	-	-	7.0	-		-		5.5 - 8	90.0
80	-	-	-	-	5.0	-		-		5.5 - 8	127.0
100	-	-	-	-	2.5	-		-		5.5 - 8	200.0

Operating pressure for seal material PTFE (code 5), for seal material steel (code 10) only 60% of the values indicated above.
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.
* Higher operating pressures on request

Nominal size	Max. operating pressure [bar] C. f. 2 Normally open (NO) / C. f. 3 Double acting (DA)		Control pressure [bar] C. f. 2 Normally open (NO) / C. f. 3 Double acting (DA)	
	Actuator size 1 piston ø 70 mm	Actuator size 2 piston ø 120 mm	Actuator size 1	Actuator size 2
15	40.0	-	max. 5 bar	max. 7 bar for values see diagram
20	40.0	40.0	max. 7 bar for values see diagram	
25	32.0	40.0		
32	20.0	40.0		
40	12.0	40.0		
50	8.0	19.0		
65	-	16.0		
80	-	10.0		
100	-	6.0		

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

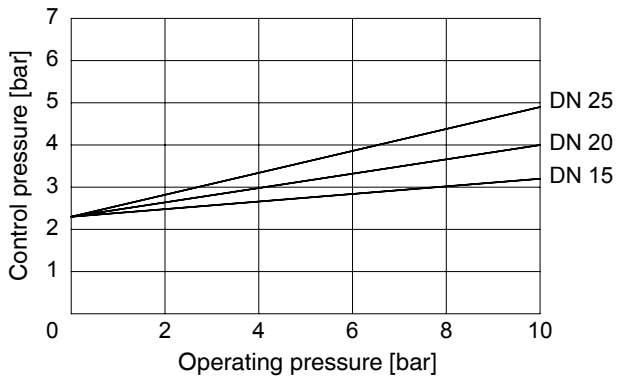
Connection code	Material code	Max. allowable operating pressures in bar at temperature °C*					
		RT	100	150	200	250	300
8	37	16.0	16.0	14.5	13.4	12.7	11.8
10	37	25.0	25.0	22.7	21.0	19.8	18.5
11	37	40.0	40.0	36.3	33.7	31.8	29,7
39	37	19.0	16.0	14.8	13.6	12.0	10.2
8	90	16.0	16.0	15.5	14.7	13.9	11.2
39	90	17.2	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
Control function 1: normally closed (NC) / Flow direction: over the seat

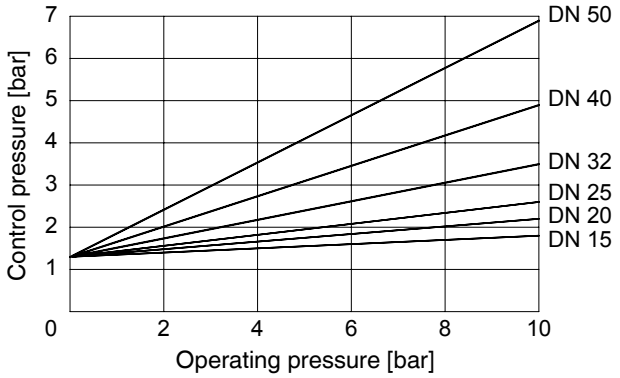
Actuator size 3

min. control pressure dependent on operating pressure



Actuator size 4

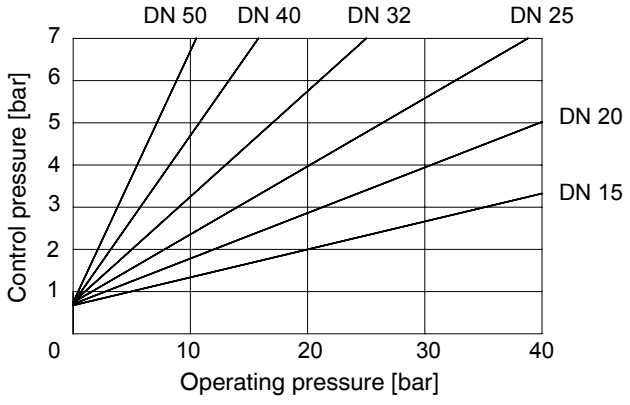
min. control pressure dependent on operating pressure



Operating pressure / Control pressure characteristics
Control function 2: normally open (NO) / Control function 3: double acting (DA)
Flow direction: under the seat

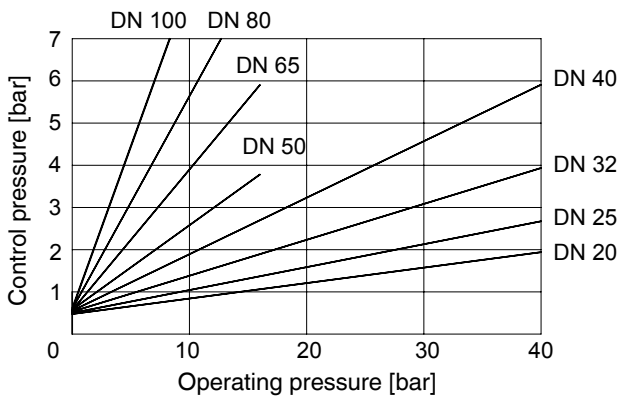
Actuator size 1

min. control pressure dependent on operating pressure



Actuator size 2

min. control pressure dependent on operating pressure



Order data

Body configuration	Code
2/2-way body	D

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

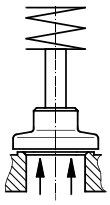
Valve body material	Code
1.4408, cast stainless steel	37
EN-GJS-400-18-LT (GGG 40.3) SG iron	90

Seat seal	Code
PTFE	5
PTFE, glass filled	5G
Steel	10
Other seat seals on request	

Control function		Code
Normally closed	(NC)	1
Normally open	(NO)	2*
Double acting	(DA)	3*
*not with piston ø 50 mm		

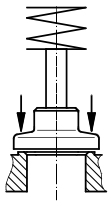
Actuator size		Flow	Code
Actuator 0	piston ø 50 mm	Flow under the seat	0*
Actuator 1	piston ø 70 mm	Flow under the seat	1*
Actuator 2	piston ø 120 mm	Flow under the seat	2*
Actuator 3	piston ø 50 mm	Flow over the seat	3**
Actuator 4	piston ø 70 mm	Flow over the seat	4**
* Preferred flow direction with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

GEMÜ 532
Actuators 0, 1, 2



Flow
under the seat

GEMÜ 532
Actuator 3, 4



Flow
over the seat

Special versions	Code
Media temperature -10 to 210 °C (only with seat seal Code 5G and 10)	K-Nr. 2023

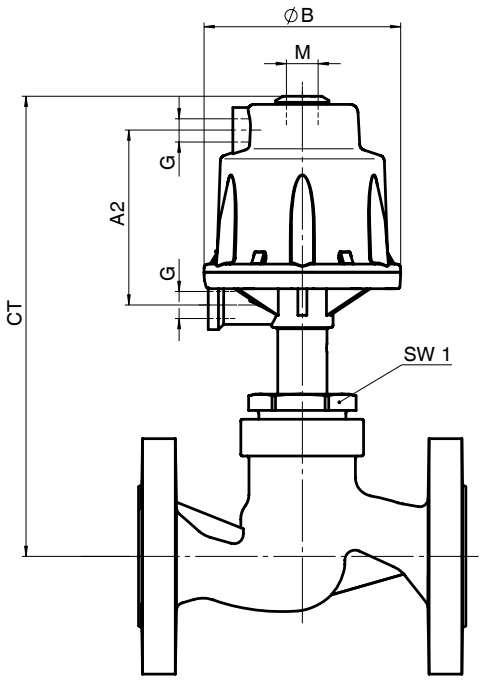
Note
Overview available valve bodies see table on page 7

Order example	532	25	D	8	90	5	1	1	-
Type	532								
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	
Special versions (code)									-

Dimemsions [mm]

Actuator dimensions				
Actuator size	**øB**	**M**	**A2**	**G**
0 + 3	71	M16x1	-	G 1/4
1 + 4	96	M16x1	85.5	G 1/4
2	164	M22x1.5	123.0	G 1/4

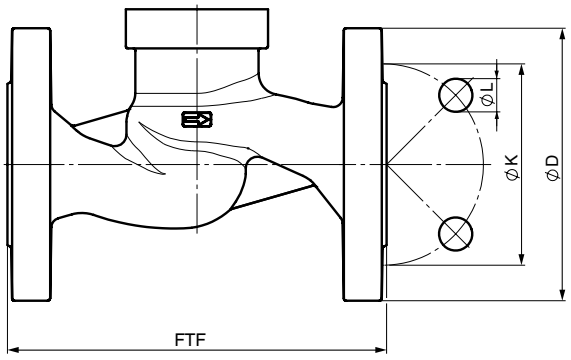
Installation dimensions [mm] / weight of valve [kg]							
		Actuator size 0 + 3		**Actuator size 1 + 4**		**Actuator size 2**	
DN	**SW1 metric**	**CT**	**Weight**	**CT**	**Weight**	**CT**	**Weight**
15	36	191	3.25	201	4.1	-	-
20	41	198	4.25	208	5.1	283	-
25	46	209	5.15	219	6.0	294	-
32	55	-	-	224	8.2	299	-
40	60	-	-	235	9.5	310	-
50	75	-	-	243	12.3	318	-
65	75	-	-	-	-	346	-
80	75	-	-	-	-	361	-
100	75	-	-	-	-	382	-



Body dimensions [mm]

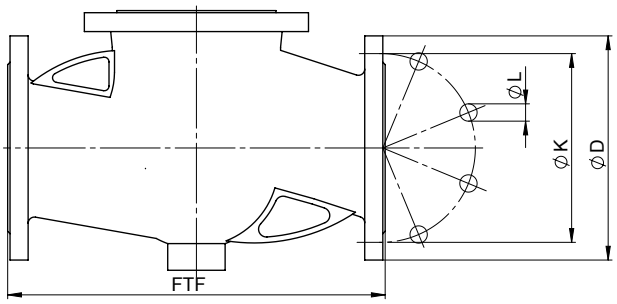
Flanges, connection code 8, 10, 11, 39, 48 Valve body material 1.4408 (code 37), EN-GJS-400-18-LT (code 90)														
		Connection code 8, 10, 11				Connection code 39				Connection code 48				Weight [kg]
DN	Number of bolts	FTF	ø D	ø K	ø L	FTF	ø D	ø K	ø L	FTF	ø D	ø K	ø L	
15	4	130	95	65	14	130	90	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 on page 7



Flanges, connection code 8, 39 Valve body material 1.4408 (code 37), EN-GJS-400-18-LT (code 90)										
		Connection code 8				Connection code 39				Weight [kg]
DN	FTF	ø D	ø K	ø L	Number of bolts	ø D	ø K	ø L	Number of bolts	
65	290	185	145	18	4	180	139.7	19	4	12.7
80	310	200	160	18	8	190	152.4	19	4	15.4
100	350	220	180	18	8	230	190.5	19	8	23.0

For materials see overview on page 7



Overview of metal bodies for GEMÜ 532							
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	X	-
DN 40	-	X	X	X	X	X	X
DN 50	X	X	-	-	X	X	X
DN 65	X	X	-	-	X	X	-
DN 80	X	X	-	-	X	X	-
DN 100	X	X	-	-	X	X	-

Accessories - GEMÜ 532

GEMÜ 1436 cPos
Intelligent Positioner
and integrated process controller

GEMÜ 1435 ePos
Electro-pneumatic positioner

GEMÜ 1434 µPos
Electro-pneumatic positioner

GEMÜ 1201 - 1236
Electrical position indicators
with microswitches or proximity switches

GEMÜ 4222
Combi switchbox
with integrated pilot valve

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

GEMÜ Gebr.Müller · Apparatebau GmbH & Co.KG · Fritz-Müller-Str. 6-8 · D-74653 Ingelfingen-Criesbach · Telefon +49(0)7940/123-0 · Telefax +49(0)7940/123-192
info@gemue.de · www.gemu-group.com