

Globe Valve Metal

Construction

The GEMÜ 530 pneumatically operated 2/2-way globe valve has a robust maintenance-free stainless steel 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

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

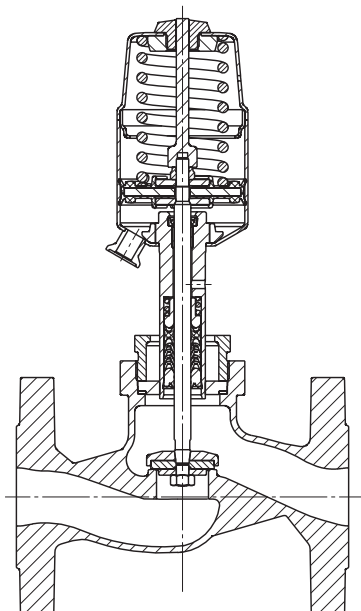
Advantages

- Stainless steel actuator for simple cleanability, corrosive atmospheres
- Standard gland packing suitable for vacuum
- Good flow capability and compact design
- Extensive range of accessories
 - Electrical position indicators
 - Combi switchboxes
 - Electro-pneumatic positioners/process controllers
 - Stroke limiter

*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.

Medium temperature -10° C to 180° C*

Operating pressure see table below

Max. permissible viscosity 600 mm²/s (cSt)

Other versions for lower/higher temperatures on request

Control medium

Inert gases, filtered 50 µm

Temperature 0° C to 80° C

Control pressure range (for details see below) 4 - 8 bar

Filling volume	Actuator size 1:	0.025 dm ³
	Actuator size 2:	0.084 dm ³
	Actuator size 3:	0.245 dm ³
	Actuator size 4:	0.437 dm ³
	Actuator size 5:	0.798 dm ³

Ambient conditions

Ambient temperature during operation at max. medium temperature -10° C to 60° C

Storage temperature -30° C to 85° C

Seat leakage

Leakage class VI PTFE seal

Leakage class IV Metal seal

Leakage class for control valves acc. to IEC 534_4/EN 1349

Pressure / temperature correlation for globe valve bodies

Connection code	Material code	Max. allowable pressure (barg) at temperature °C *				
		RT	50	100	150	200
8 (DN 50)	37	14.6	13.9	12.4	11.2	10.3
10 (DN 15-40)	37	25.0	23.7	21.3	19.2	17.7
39 (DN 15-40)	37	19.0	19.0	16.0	14.8	13.6
39 (DN 50)	37	16.0	15.4	14.0	12.5	10.5

* The valves can be used down to -10°C RT= Room Temperature

Nominal size [mm]	Max. operating pressure [bar] Normally closed (NC) Flow direction: under the seat					Max. operating pressure [bar] Normally closed (NC) Flow direction: over the seat			Kv value [m ³ /h]
	Actuator 1G piston ø 42 mm	Actuator 2G piston ø 60 mm	Actuator 3G piston ø 80 mm	Actuator 4G piston ø 100 mm	Actuator 5G piston ø 130 mm	Actuator 1M piston ø 42 mm	Actuator 2M piston ø 60 mm	Actuator 3M piston ø 80 mm	
15	11	25	-	-	-	10	10	-	4.6
20	6	15	25	-	-	10	10	10	8.0
25	-	8	16	25	-	-	10	10	13.0
32	-	5	10	18	25	-	-	10	22.0
40	-	-	6	12	20	-	-	10	35.0
50	-	-	3	7	15	-	-	10	50.0

All pressures are gauge pressures. Kv values determined acc. to IEC 534 standard, valve body material 1.4408 stainless steel and 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 [mm]	Control pressure [bar] Normally closed (NC) Flow direction: under the seat					Control pressure [bar] Normally closed (NC) Flow direction: over the seat		
	Actuator 1G piston ø 42 mm	Actuator 2G piston ø 60 mm	Actuator 3G piston ø 80 mm	Actuator 4G piston ø 100 mm	Actuator 5G piston ø 130 mm	Actuator 1M piston ø 42 mm	Actuator 2M piston ø 60 mm	Actuator 3M piston ø 80 mm
15	4 - 8	4 - 8	-	-	-	5 - 8	5 - 8	5 - 8
20	4 - 8	4 - 8	4 - 8	-	-	5 - 8	5 - 8	5 - 8
25	-	4 - 8	4 - 8	4 - 8	-	-	5 - 8	5 - 8
32	-	4 - 8	4 - 8	4 - 8	5 - 8	-	-	5 - 8
40	-	-	4 - 8	4 - 8	5 - 8	-	-	5 - 8
50	-	-	4 - 8	4 - 8	5 - 8	-	-	5 - 8

Higher control pressures on request.

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	10
Flanges ANSI class 125/150 RF length EN 558, series 1, ISO 5752, basic series 1	39

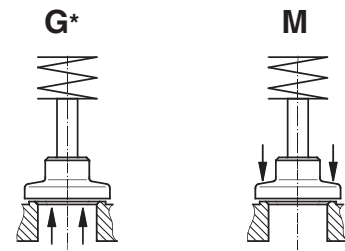
Valve body material	Code
1.4408 Cast stainless steel	37

Seat seal	Code
FPM	4
PTFE	5
PTFE, glass reinforced	5G
EPDM	14

Control function	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3
Double acting (normally open) (only for control valves)	8

Actuator size	Code
Actuator 1 piston ø 42 mm	1
Actuator 2 piston ø 60 mm	2
Actuator 3 piston ø 80 mm	3
Actuator 4 piston ø 100 mm	4
Actuator 5 piston ø 130 mm	5

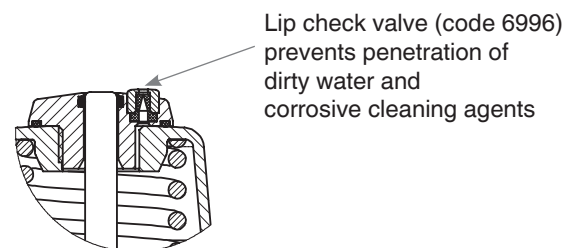
Flow direction	Code
Flow under the seat	G*
Flow over the seat	M



* Preferred flow direction with incompressible liquid media to avoid "water hammer"

Spring set	Code
Standard	1

Special versions (selection)	K-No.
External actuator surface electropolished Vibration ground finish - as standard	K-No. 1781
Special venting on the actuator for internal corrosion protection with particularly corrosive ambient external conditions	K-No. 6996
All special versions only available ex works	
Metallfaltenbalgausführungen auf Anfrage	

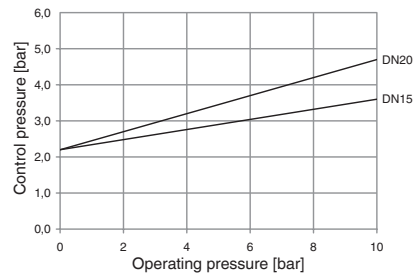


Order example	530	25	D	10	37	5	1	2	G	1	1781
Type	530										
Nominal size		25									
Body configuration (code)			D								
Connection (code)				10							
Valve body material (code)					37						
Seat seal (code)						5					
Control function (code)							1				
Actuator size (code)								2			
Flow direction (Code)									G		
Spring set (code)										1	
Special versions (code)											1781

Operating pressure / Control pressure characteristics
Flow direction: over the seat / Control function: normally closed (NC)

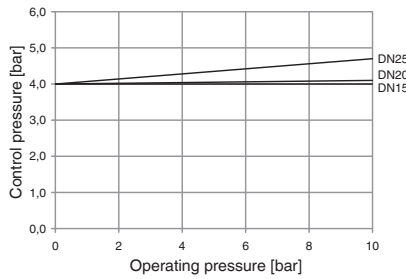
Actuator size 1

min. control pressure dependent on operating pressure



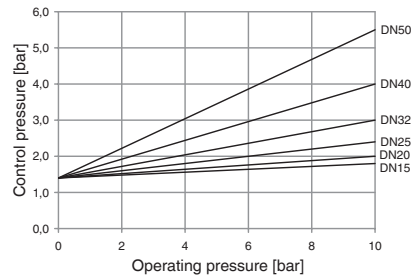
Actuator size 2

min. control pressure dependent on operating pressure



Actuator size 3

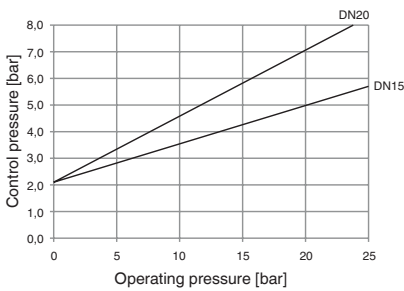
min. control pressure dependent on operating pressure



Operating pressure / Control pressure characteristics
Flow direction: under the seat / Control function: normally open (NO)

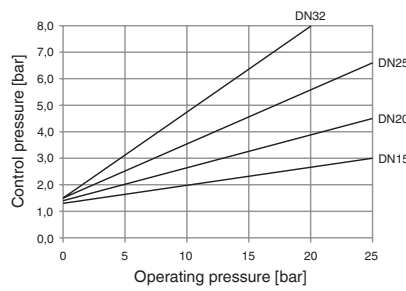
Actuator size 1

min. control pressure dependent on operating pressure



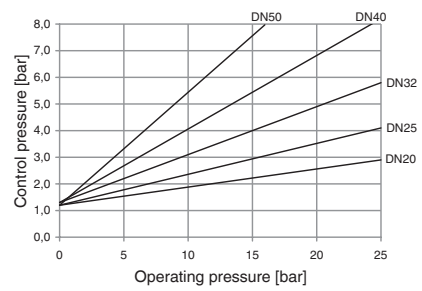
Actuator size 2

min. control pressure dependent on operating pressure



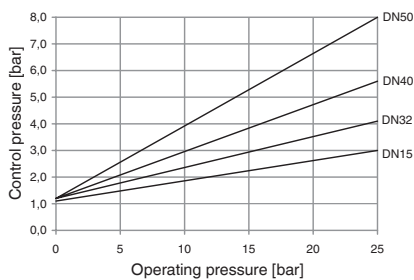
Actuator size 3

min. control pressure dependent on operating pressure



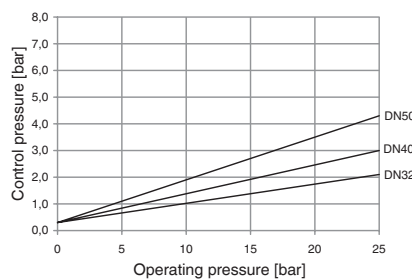
Actuator size 4

min. control pressure dependent on operating pressure



Actuator size 5

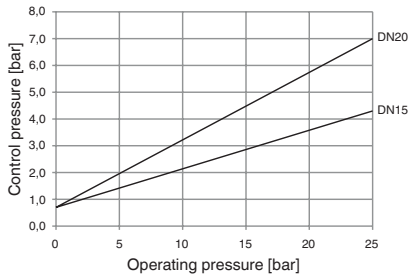
min. control pressure dependent on operating pressure



Operating pressure / Control pressure characteristics
Flow direction: under the seat / Control function: double acting (DA)

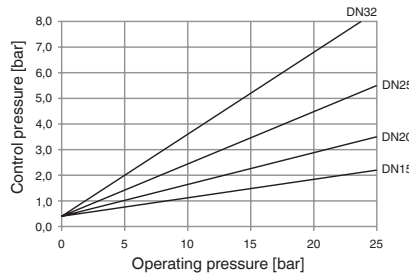
Actuator size 1

min. control pressure dependent on operating pressure



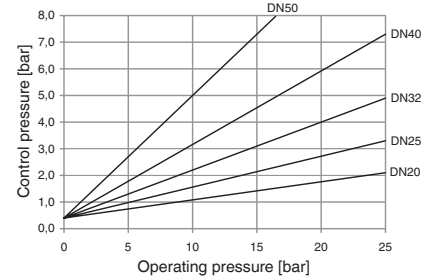
Actuator size 2

min. control pressure dependent on operating pressure



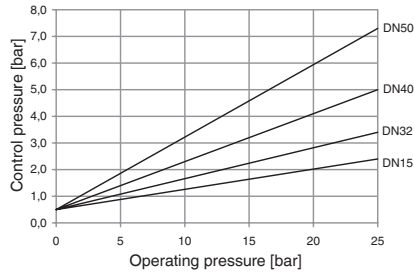
Actuator size 3

min. control pressure dependent on operating pressure



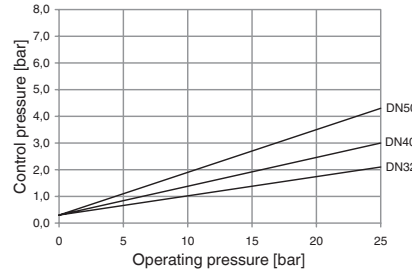
Actuator size 4

min. control pressure dependent on operating pressure



Actuator size 5

min. control pressure dependent on operating pressure



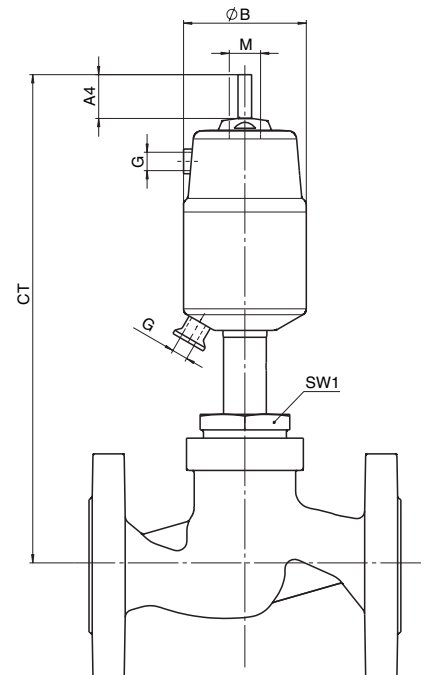
Installation dimensions

Actuator dimensions GEMÜ 530

Actuator size	øB	M	A4	G
1	46	M16x1	12	G1/8
2	63	M16x1	22	G1/8
3	84	M16x1	28	G1/4
4	104	M22x1.5	32	G1/4
5	135	M22x1.5	41	G1/4

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

DN	SW1 metric	Actuator size 1 ø42 mm		Actuator size 2 ø60 mm		Actuator size 3 ø80 mm		Actuator size 4 ø100 mm		Actuator size 5 ø130 mm	
		CT	Weight [kg]	CT	Weight [kg]	CT	Weight [kg]	CT	Weight [kg]	CT	Weight [kg]
15	36	165	2.9	212	3.2	-	-	-	-	-	-
20	41	172	3.8	219	4.0	-	-	-	-	-	-
25	46	-	-	230	4.8	249	5.5	-	-	-	-
32	55	-	-	235	6.6	254	7.3	288	8.7	315	11.8
40	60	-	-	-	-	265	8.4	299	9.8	325	12.9
50	75	-	-	-	-	273	10.7	307	12.1	333	15.2

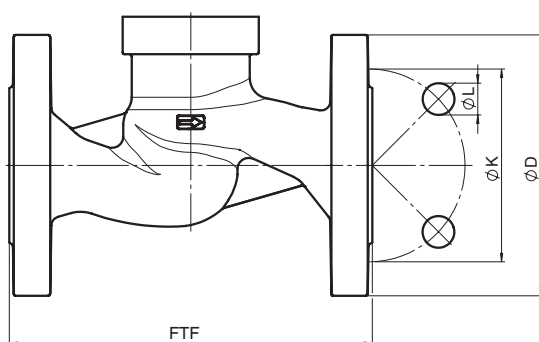


Body dimensions

Flanges, connection code 8, 10, 39 [mm]
Valve body material 1.4408 (code 37)

			Connection code 8 + 10			Connection code 39		
DN	L	Number of bolt holes	ø D	ø K	ø L	ø D	ø K	ø L
15	130	4	95	65	14	89.0	60.5	15.7
20	150	4	105	75	14	98.6	69.8	15.7
25	160	4	115	85	14	108.0	79.2	15.7
32	180	4	140	100	18	117.3	88.9	15.7
40	200	4	150	110	18	127.0	98.6	15.7
50	230	4	165	125	18	152.4	120.7	19.1

For materials see overview below



Overview of metal bodies for GEMÜ 530

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

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



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AND CONTROL SYSTEMS