

Multi-Port Globe Valve, Metal

Construction

The GEMÜ 312/314 pneumatically operated 3/2-way valves have a rugged low maintenance aluminium piston actuator.

GEMÜ 312 is flanged, GEMÜ 314 has threaded sockets. The double sided valve plug is connected to the actuator via a spindle. 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. A wiper ring fitted in front of the gland packing protects it against contamination and damage.

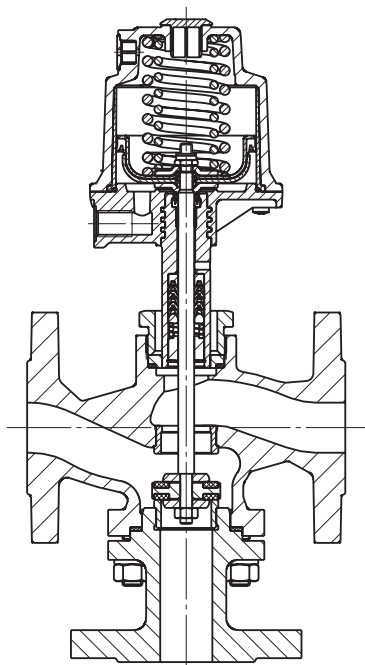
Features

- Suitable for inert liquid and gaseous media
- Control medium: inert gases
- Suitable for high working medium temperatures
- Materials of wetted parts can be selected to suit relevant applications
- With GEMÜ 312 and GEMÜ 314 valves control processes which normally require two separate valves can be combined, for example: mixing, separating, aerating and de-aerating

Advantages

- Extensive range of accessories
- Simple adaptation for use as a control valve

Sectional drawing



Technical data

Working medium

Inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and seal material.

Permissible pressure of working medium:
see table below

Medium temperature -10°C to 180° C
(lower/higher temperatures on request)

Control medium

Inert gaseous media

Control pressure see table below

Max. perm. temperature of control medium 80° C

Filling volume Actuator 1 0.125 dm³
Actuator 2 0.625 dm³

Ambient conditions

Max. ambient temperature 60°

DN	Operating pressure [bar]		Control pressure [bar]*		Kv value [m ³ /h]				Weight [kg]			
	Actuator 1	Actuator 2	Actuator 1	Actuator 2	GEMÜ 312		GEMÜ 314		Actuator 1		Actuator 2	
	P→A	P→A	The valve is closed from A to R		P→A	A→R	P→A	A→R	GEMÜ 312	GEMÜ 314	GEMÜ 312	GEMÜ 314
15	16.0	-	5.5 - 7.0	-	6.0	4.2	3.6	2.5	4.4	1.7	-	-
20	16.0	-	5.5 - 7.0	-	12.0	7.1	5.5	3.3	5.8	1.8	-	-
25	10.0	-	5.5 - 7.0	-	18.5	12.7	10.6	7.3	6.7	2.1	-	-
32	6.0	16.0	5.5 - 7.0	4.5 - 7.0	26.0	15.0	18.0	10.4	10.4	3.2	13.3	6.1
40	4.5	14.0	5.5 - 7.0	4.5 - 7.0	40.0	27.0	31.0	20.9	11.5	3.7	14.5	6.7
50	2.5	10.0	5.5 - 7.0	5.5 - 7.0	60.0	43.0	47.0	33.7	15.3	4.7	18.4	7.9
65	-	7.0	-	5.5 - 7.0	104.0	68.0	-	-	-	-	25.5	-
80	-	4.0	-	5.5 - 7.0	145.0	96.0	-	-	-	-	32.0	-
100	-	2.0	-	5.5 - 7.0	220.0	144.0	-	-	-	-	44.0	-

*Operating pressure at connection R may not be greater than operating pressure P → A (see drawing on pages 3 and 4).

Kv values determined acc. to IEC 534 standard, valve body material cast iron EN-GJL-250 with connection flange EN 1092, valve body material cast bronze with threaded socket connection DIN ISO 228. 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.

Order data

Body configuration	Code
Multi-port	M

Connection	Code
Threaded sockets DIN ISO 228 (GEMÜ 314)	1
Flanges EN 1092 / PN 16 / form B length EN 558, series 1, ISO 5752, basic series 1 (GEMÜ 312)	8
Flanges ANSI class 125/150 RF length EN 558, series 1, ISO 5752, basic series 1 (GEMÜ 312)	39

Valve body material	Code
GEMÜ 312: EN-GJL-250 (GG 25) Cast iron	8
GEMÜ 314: Rg 5, Cast bronze	9

Seat seal	Code
PTFE	5
PTFE, glass reinforced	5G

Control function	Code
Normally closed (NC)	1
Other control functions on request	

Actuator size	Code
Actuator 1 piston ø 70 mm	1
Actuator 2 piston ø 120 mm	2

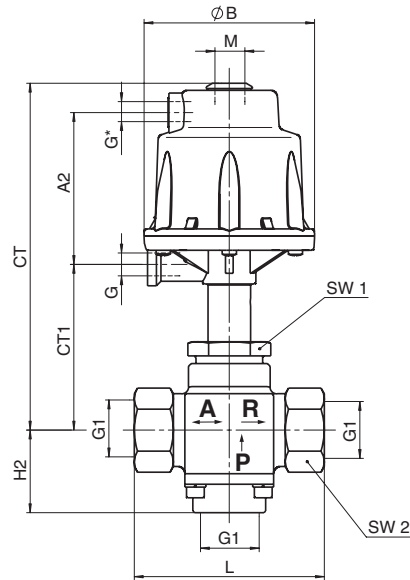
Note

The versions described in this data sheet are those included in our standard range. Other versions for higher pressures and temperatures, other seal systems etc. on request.

Order example	312	20	M	8	8	5	1	1
Type	312							
Nominal size		20						
Body configuration (code)			M					
Connection (code)				8				
Valve body material (code)					8			
Seat seal (code)						5		
Control function (code)							1	
Actuator size (code)								1

Actuator dimensions [mm]

	$\varnothing B$	M	A2	G
Actuator size 1	96	M16 x 1	85.5	G 1/4
Actuator size 2	164	M22 x 1.5	123.0	G 1/4



*Connection only for control functions 2 and 3

Dimensions - GEMÜ 314 connection code 1 Valve body material: Cast bronze (code 9)

						Actuator 1		Actuator 2	
DN	G 1	L	SW1	SW2	H2	CT1	CT	CT	CT1
15	G 1/2	75	36	27	41	186	88	-	-
20	G 3/4	87	36	32	46	190	92	-	-
25	G 1	107	41	41	47	190	92	-	-
32	G 1 1/4	123	55	50	66	194	96	269	125
40	G 1 1/2	147	55	58	68	194	96	269	125
50	G 2	171	55	70	74	198	100	273	129

Overview of valve bodies - GEMÜ 312, 314

Connection code	1 (GEMÜ 314)	8 (GEMÜ 312)	39 (GEMÜ 312)
Material code	9	8	8
DN 15	X	X	X
DN 20	X	X	X
DN 25	X	X	X
DN 32	X	X	X
DN 40	X	X	X
DN 50	X	X	X
DN 65	-	X	X
DN 80	-	X	X
DN 100	-	X	X



GEMÜ® VALVES, MEASUREMENT
AND CONTROL SYSTEMS