

Multi-Port Globe Valve, Metal

Construction

The GEMÜ 352/354 pneumatically operated 3/2-way valves have a rugged low maintenance plastic piston actuator.

GEMÜ 352 is flanged, GEMÜ 354 has threaded sockets. The connection for the control medium can be rotated through 360°. 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.

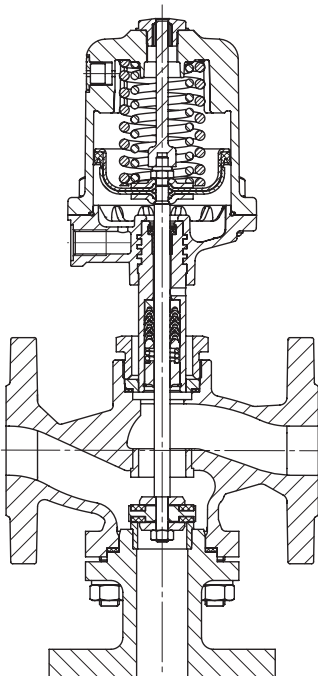
Features

- 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 352 and GEMÜ 354 valves control processes which normally require two separate valves can be combined, for example: mixing, separating, aerating and de-aerating
- Versions according to ATEX on request

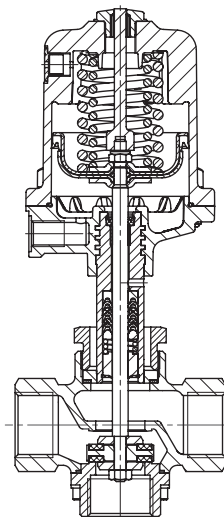
Advantages

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

GEMÜ 352



GEMÜ 354



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 14 °F to 356 °F

Control medium

Inert gaseous media

Control pressure see table below

Max. perm. temperature of control medium 140 °F

Filling volume Actuator 1 7.63 cu in
Actuator 2 38.14 cu in

Ambient conditions

Max. ambient temperature 140 °F

Maximum permissible seat leakage rate

Seat seal	Standard	Test procedure	Leakage rate	Test medium
PTFE	DIN EN 12266-1	P12	A	air

352	Operating pressure [psi]		Control pressure [psi]*		Cv value [gpm]		Weight [lbs]	
DN	Actuator 1	Actuator 2	Actuator 1	Actuator 2	B→AB	AB→A	Actuator 1	Actuator 2
	B→AB	B→AB	The valve is closed from AB to A					
15	508	-	80 - 102	-	7	4.9	9.7	-
20	319	-	80 - 102	-	14	8.3	12.8	-
25	218	-	80 - 102	-	21.6	14.9	14.8	-
32	105	348	80 - 102	58 - 102	30.4	17.5	22.9	29.3
40	65	203	80 - 102	58 - 102	46.8	31.6	25.3	32.0
50	36	150	80 - 102	73 - 102	70.2	50.3	33.7	40.6
65	-	105	-	73 - 102	121.7	79.6	-	56.2
80	-	60	-	73 - 102	169.6	112.3	-	70.5
100	-	30	-	73 - 102	257.4	168.5	-	97.0

*Operating pressure at connection A may not be greater than operating pressure B → AB (see drawing on pages 4 and 5).

Cv values determined with 1 psi pressure drop across valve, 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 Cv value data refers to control function 1 (NC) and the largest actuator for each nominal size. The Cv values for other product configurations (e.g. other connections or body materials) may differ.

354	Operating pressure [psi]		Control pressure [psi]*		Cv value [gpm]		Weight [lbs]	
DN	Actuator 1	Actuator 2	Actuator 1	Actuator 2	P→A	A→R	Actuator 1	Actuator 2
	P→A	P→A	The valve is closed from A to R					
15	232	-	80 - 102	-	4.2	2.9	3.7	-
20	232	-	80 - 102	-	6.4	3.9	4.0	-
25	150	-	80 - 102	-	12.4	8.5	4.6	-
32	90	232	80 - 102	58 - 102	21.1	12.2	7.0	13.4
40	65	203	80 - 102	58 - 102	36.3	24.5	8.2	14.8
50	36	150	80 - 102	73 - 102	55	39.4	10.4	17.4

*Operating pressure at connection R may not be greater than operating pressure P → A (see drawing on pages 4 and 5).

Cv values determined with 1 psi pressure drop across valve, 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 Cv value data refers to control function 1 (NC) and the largest actuator for each nominal size. The Cv values for other product configurations (e.g. other connections or body materials) may differ.

Pressure / temperature correlation

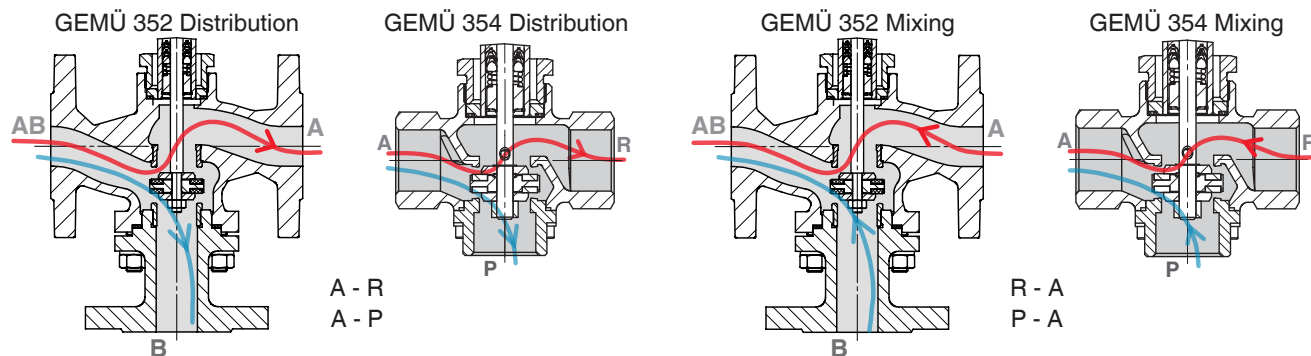
Connection code	Material code	Max. allowable operating pressures in psi at temperature °F*			
		RT	212	302	392
1	9	232	232	232	196
8	37	232	232	210	194
11	37	580	580	526	489
39	37	276	232	215	197

* The valves can be used down to 14 °F

RT = Room Temperature

All pressures are gauge pressures.

Functions



Order data

Body configuration	Code
Multi-port	M

Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G

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
DN 65	NPS 2 1/2"	65
DN 80	NPS 3"	80
DN 100	NPS 4"	100

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

Actuator size	Code
Actuator 1 piston ø 2.76 in	1
Actuator 2 piston ø 4.72 in	2

Note
Other versions on request.

Connection	Code
Threaded sockets DIN ISO 228 (GEMÜ 354)	1
Flanges EN 1092 / PN16 / form B, length EN 558, series 1, ISO 5752, basic series 1 (GEMÜ 352)	8
Flanges EN 1092 / PN40 / form B, length EN 558, series 1, ISO 5752, basic series 1 (GEMÜ 352)	11
Flanges ANSI Class 125/150 RF, length EN 558, series 1, ISO 5752, basic series 1 (GEMÜ 352)	39

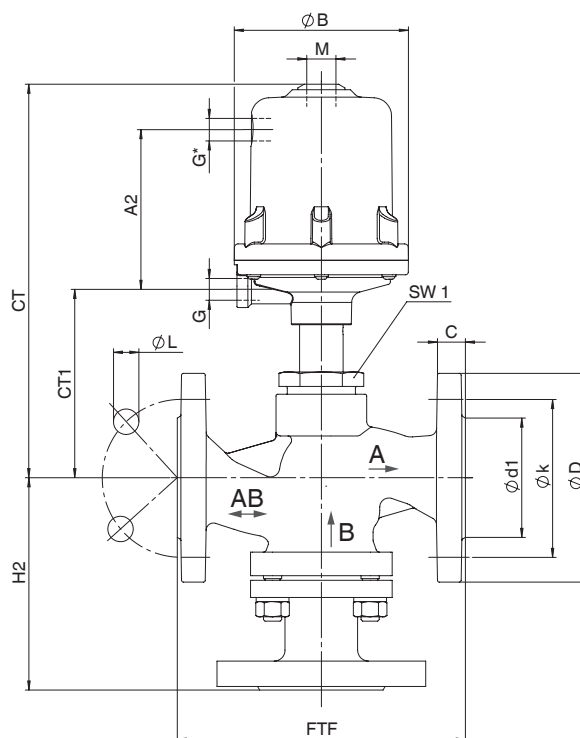
Valve body material	Code
GEMÜ 352: 1.4408, Investment casting	37
GEMÜ 354: (Rg 5) CC499K, Cast bronze	9

Order example	352	20	M	11	37	5	1	1
Type	352							
Nominal size		20						
Body configuration (code)			M					
Connection (code)				11				
Valve body material (code)					37			
Seat seal (code)						5		
Control function (code)							1	
Actuator size (code)								1

Dimensions GEMÜ 352 [inch]

Actuator dimensions

	ø B	M	A2	G
Actuator size 1	3.78	M16 x 1	3.39	G 1/4
Actuator size 2	6.61	M22 x 1.5	5.87	G 1/4



*Connection only for control functions 2 and 3

Body dimensions / Installation dimensions

Flanges - DIN EN 1092, connection code 8, 11 Valve body material: 1.4408 (code 37)

DN	FTF [in]	ø D [in]	ø k [in]	ø L [in]	Number of bolts	SW1 [mm]	ø d1 [in]	C [in]	H2 [in]	Actuator 1		Actuator 2	
										CT [in]	CT1 [in]	CT [in]	CT1 [in]
15	5.12	3.74	2.56	0.55	4	41	1.772	0.63	3.82	8.27	4.09	-	-
20	5.91	4.13	2.95	0.55	4	41	2.283	0.71	4.41	8.46	4.29	-	-
25	6.30	4.53	3.35	0.55	4	41	2.677	0.71	4.65	8.50	4.33	-	-
32	7.09	5.51	3.94	0.71	4	41	3.071	0.71	5.59	8.90	4.72	12.64	5.71
40	7.87	5.91	4.33	0.71	4	41	3.465	0.71	5.83	9.25	5.08	12.99	6.06
50	9.06	6.50	4.92	0.71	4	41	4.016	0.79	6.22	9.53	5.35	13.27	6.34
65	11.42	7.28	5.71	0.71	4	55	4.803	0.79	7.20	-	-	13.74	6.81
80	12.20	7.87	6.30	0.71	8	55	5.433	0.87	8.03	-	-	14.21	7.28
100	13.78	8.66	7.09	0.71	8	55	6.220	0.94	9.29	-	-	14.76	7.83

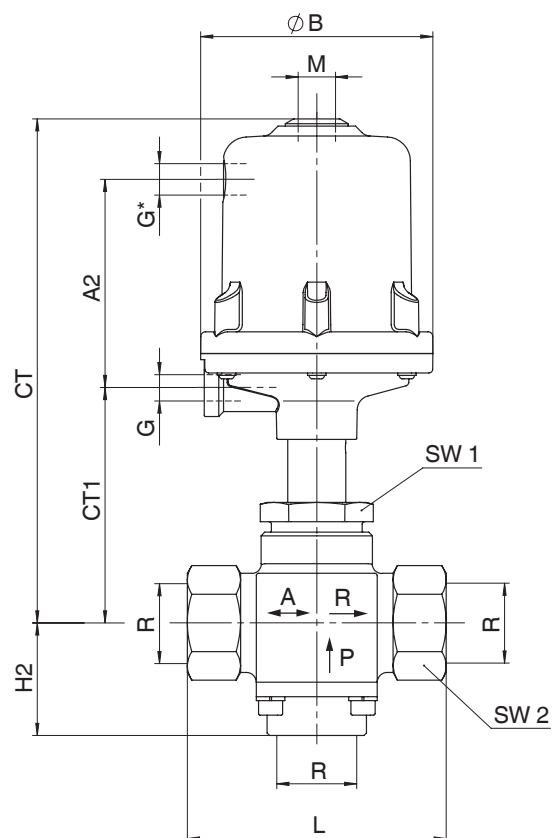
Flanges - ANSI Class 125/150 RF, connection code 39 Valve body material: 1.4408 (code 37)

DN	FTF [in]	ø D [in]	ø k [in]	ø L [in]	Number of bolts	SW1 [mm]	ø d1 [in]	C [in]	H2 [in]	Actuator 1		Actuator 2	
										CT [in]	CT1 [in]	CT [in]	CT1 [in]
15	5.12	3.54	2.37	0.63	4	41	1.374	0.63	3.82	8.27	4.09	-	-
20	5.91	3.94	2.75	0.63	4	41	1.689	0.71	4.41	8.46	4.29	-	-
25	6.30	4.33	3.13	0.63	4	41	2.000	0.71	4.65	8.50	4.33	-	-
32	7.09	4.53	3.50	0.63	4	41	2.500	0.71	5.59	8.90	4.72	12.64	5.71
40	7.87	4.92	3.87	0.63	4	41	2.874	0.71	5.83	9.25	5.08	12.99	6.06
50	9.06	5.91	4.75	0.75	4	41	3.626	0.79	6.22	9.53	5.35	13.27	6.34
65	11.42	7.09	5.50	0.75	4	55	4.118	0.88	7.20	-	-	13.74	6.81
80	12.20	7.48	6.00	0.75	4	55	5.000	0.94	8.03	-	-	14.21	7.28
100	13.78	9.06	7.50	0.75	8	55	6.189	0.94	9.29	-	-	14.76	7.83

Dimensions GEMÜ 354 [inch]

Actuator dimensions

	$\varnothing B$	M	A2	G
Actuator size 1	3.78	M16 x 1	3.39	G 1/4
Actuator size 2	6.61	M22 x 1.5	5.87	G 1/4



*Connection only for control functions 2 and 3

Body dimensions / Installation dimensions

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

DN	R	L [in]	SW1 [mm]	SW2 [mm]	H2 [in]	Antrieb 1		Antrieb 1	
						CT [in]	CT1 [in]	CT [in]	CT1 [in]
15	G 1/2	2.95	36	27	1.61	7.99	3.82	-	-
20	G 3/4	3.43	36	32	1.81	8.15	3.98	-	-
25	G 1	4.21	41	41	1.85	8.15	3.98	-	-
32	G 1 1/4	4.84	55	50	2.60	8.31	4.13	12.05	5.12
40	G 1 1/2	5.79	55	58	2.68	8.31	4.13	12.05	5.12
50	G 2	6.73	55	70	2.91	8.46	4.29	12.20	5.28

Overview of valve bodies - GEMÜ 352, 354				
Connection code	1 (GEMÜ 354)	8 (GEMÜ 352)	11 (GEMÜ 352)	39 (GEMÜ 352)
Material code	9	37	37	37
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

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Other multi-port globe valve



GEMÜ 312 / 314



GEMÜ 343

Should there be any doubts or misunderstandings, the German version of this data sheet is the authoritative document!

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