

Diaphragm Valves, Plastic/Metal

Construction

GEMÜ SilverLine® is a range of simple yet robust plastic and metal diaphragm valves for the control of liquids and gases. Valve bodies are available in PVC-U, PP and brass.

GEMÜ S647 SilverLine® Version for direct pneumatic operation

GEMÜ S660 SilverLine® pneumatically operated with optical position indicator

GEMÜ S670 SilverLine® manually operated

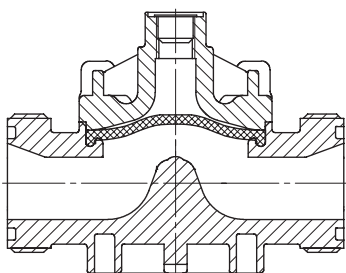
Features

- Compact design with few components
- Low weight
- Corrosion resistant materials
- Good flow coefficient
- Complies with the French drinking water standard ACS, medium wetted parts with PVC-U body and EPDM diaphragm
- Valve body and diaphragm available in various materials and designs
- Various connections available

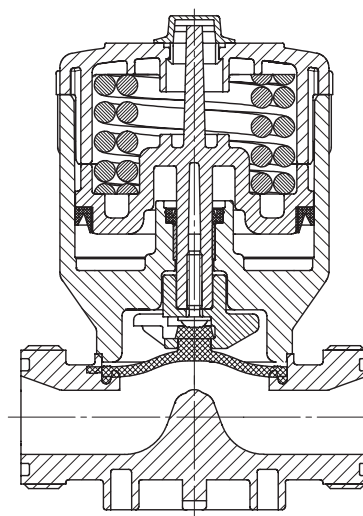
Advantages

- Excellent price-performance ratio
- Insensitive to particulate media
- Optional flow direction and mounting position

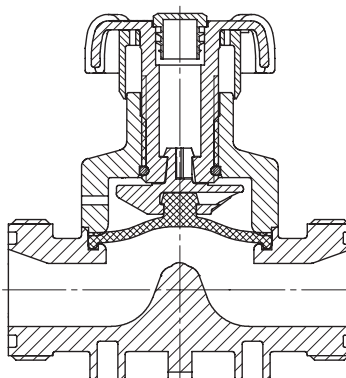
Sectional drawings



GEMÜ S647



GEMÜ S660



GEMÜ S670



GEMÜ S647



GEMÜ S660



GEMÜ S670



GEMÜ®
SilverLine®
S647, S660, S670

General technical data

Working medium

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

Media temperature max. 60° C
 Maximum permissible temperature of working medium see data sheet "Technical Information on Plastic Materials".

Ambient conditions

Max. ambient temperature 40° C

Flow direction

Optional

Pressure / temperature correlation

Temperature in °C (body)		5	10	20	25	30	40	50	60
Valve body material		Permissible operating pressure [bar]							
PVC-U	Code 1	10.0	10.0	10.0	10.0	8.0	6.0	3.5	1.5
PP	Code 5	10.0	10.0	10.0	10.0	8.5	7.0	5.5	4.0
Brass	Code 12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	8.0

Data for extended temperature ranges on request. Please note that the ambient temperature and medium temperature generate a combined temperature at the valve body which must not exceed the above values.

Seal material for valve bodies with union ends

Diaphragm material	O-ring material
EPDM	EPDM
NBR	EPDM

Other materials on request.

Technical data GEMÜ S647

		Max. operating pressure	Control pressure	Kv value
DN	MG	EPDM / NBR		[m³/h]
20, 25	25	6 bar	see diagram	17.7
32, 40	40			34.8
50	50			44.7

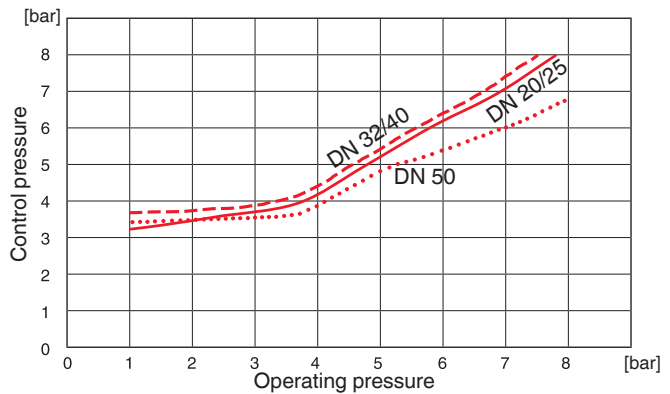
MG = diaphragm size

Control medium

Inert gases, max. 40°C

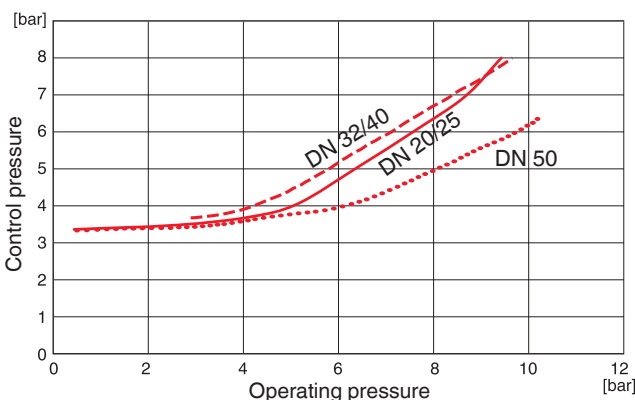
Operating pressure/Control pressure characteristics

PP (code 5)

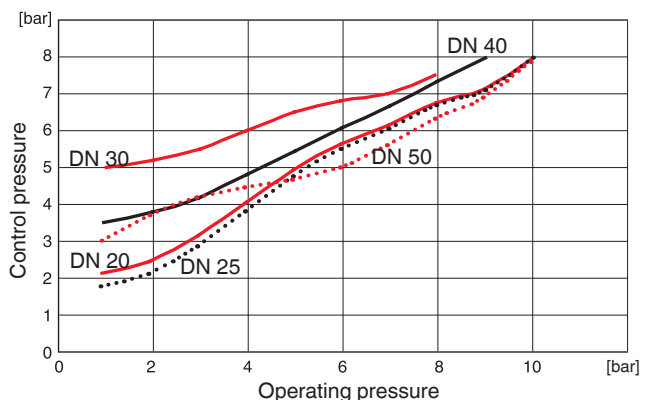


Operating pressure / Control pressure characteristics

PVC-U (code 1)



Brass (code 12)



Technical data GEMÜ S660

Control medium

Inert gases, max. 40°C

		Max. operating pressure	Control pressure	Kv value
DN	MG	EPDM / NBR		[m³/h]
10, 15	15	6.0 bar	4.5 - 6.0 bar	4.5
20, 25	25			17.7
32, 40	40			34.8
50	50			44.7

Technical data GEMÜ S670

		Max. operating pressure	Control pressure	Kv value
DN	MG	EPDM / NBR		[m³/h]
10, 15	15	6.0 bar	4.5 - 6.0 bar	4.5
20, 25	25			17.7
32, 40	40			34.8
50	50			44.7

Order data

Type	Code
Diaphragm valve with direct pneumatic operation	S647
Diaphragm valve with pneumatic actuator	S660
Diaphragm valve with manual operator	S670

Diaphragm material	Code
NBR	2
EPDM	14
Other diaphragm materials on request	

Body configuration	Code
2/2-way body	D

Control function	Code
Manually operated, S670	0
Normally closed (NC), S660	1
Closed by control pressure/ opened by operating pressure, S647	5

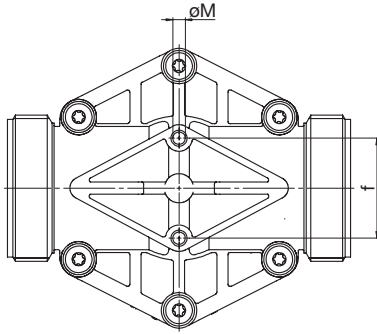
Connection	Code
Threaded sockets DIN ISO 228 (brass)	1*
Union ends with DIN insert (socket) (PP)	7
Body with threaded spigots for unions (PP) (without union nut, insert and O-ring)	7X
* only available with valve body material code 12	

Union insert material	Code
PVC-U, grey	1
PP	5
Without insert	X

Valve body material	Code
PVC-U, grey	1
PP-R-GR (reinforced polypropylene)	5*
MS, brass (only connection code 1)	12
* only with connection code 7 and 7X	

Order example	S647	25	D	7X	1	14	5	X
Type	S647							
Nominal size		25						
Body configuration (code)			D					
Connection (code)				7X				
Valve body material (code)					1			
Diaphragm material (code)						14		
Control function (code)							5	
Union insert material (code)								X

Body dimensions [mm]



Plastic diaphragm valve, bottom view

DN	f	øM
10 - 25	25	2.8
32 - 50	45	5.6

Dimensions GEMÜ S647 [mm]

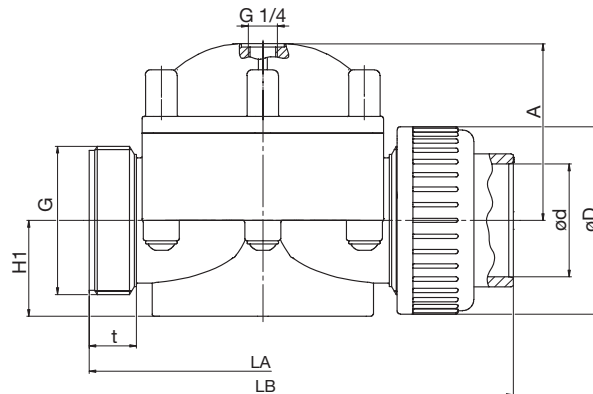
Valve body material: PVC-U (code 1), PP (code 5); connection code 7, 7X

DN	A	ød	øD	LB		H1	G	t	LA
				PP**	PVC-U**				
20*	59.0	25	60	154	160	31.0	G 1 1/2	15	116
25	59.0	32	60	158	166	31.0	G 1 1/2	15	116
32*	78,2	40	83	202	222	42.5	G 2 1/4	21	154
40	78,2	50	83	207	222	42.5	G 2 1/4	21	154
50	80.5	63	103	243	264	52.5	G 2 3/4	26	182

For materials see overview on page 6

* Only available with union ends incorporating a reducing socket

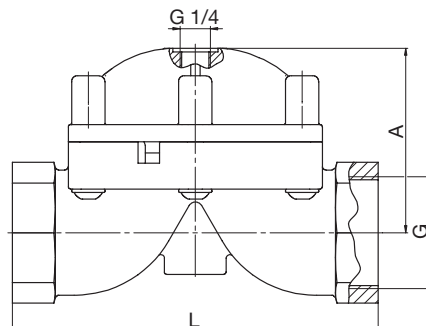
**Insert material



Valve body material: Brass (code 12), connection code 1

DN	A	G	L
20	63	G 3/4	95
25	63	G 1	110
32	78	G 1 1/4	150
40	78	G 1 1/2	150
50	50	G 2	165

For materials see overview on page 6



Dimensions GEMÜ S660 [mm]

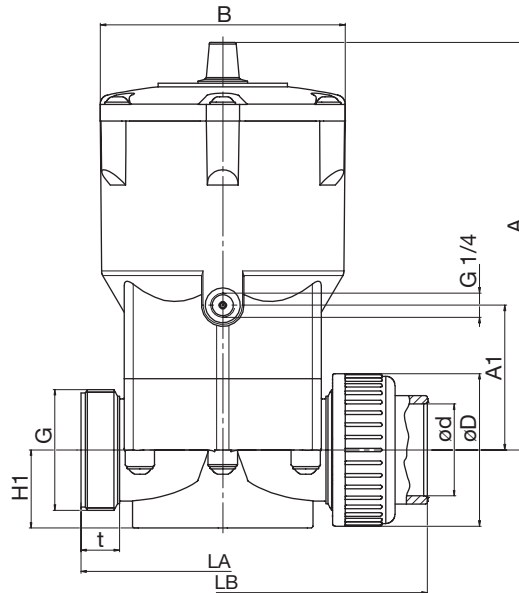
Valve body material: PVC-U (code 1), PP (code 5); connection code 7, 7X

DN	A	A1	B	ød	øD	H1	G	t	LA	LB	
										PP**	PVC-U**
10*	85	31	63	16	43	27.0	G 1	16	90	134	128
15	85	31	63	20	43	27.0	G 1	16	90	125	128
20*	135	33	105	25	60	31.0	G 1 1/2	15	116	154	160
25	135	33	105	32	60	31.0	G 1 1/2	15	116	158	166
32*	222	79	151	40	83	42.5	G 2 1/4	21	154	202	222
40	222	79	151	50	83	42.5	G 2 1/4	21	154	207	222
50	234	90	161	63	103	52.5	G 2 3/4	26	182	243	264

For materials see overview on page 6

* Only available with union ends incorporating a reducing socket

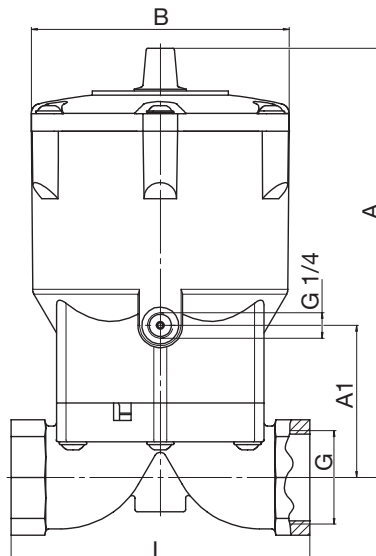
**Insert material



Valve body material: Brass (code 12), connection code 1

DN	A	A1	B	G	L
15	85	31	63	G 1/2	75
20	138	36	105	G 3/4	95
25	138	36	105	G 1	110
32	222	79	151	G 1 1/4	150
40	222	79	151	G 1 1/2	150
50	237	93	161	G 2	180

For materials see overview on page 6



Dimensions GEMÜ S670 [mm]

**Valve body material: PVC-U (code 1), PP (code 5);
connection code 7, 7X**

DN	A	A1	B	ød	øD	H1	G	t	LB	
									PP**	PVC-U**
10*	109,3	113,3	70	16	43	27,0	G 1	16	134	128
15	109,3	113,3	70	20	43	27,0	G 1	16	125	128
20*	112,0	125,0	70	25	60	31,0	G 1 1/2	15	154	160
25	112,0	125,0	70	32	60	31,0	G 1 1/2	15	158	166
32*	182,0	198,0	139	40	83	42,5	G 2 1/4	21	202	222
40	182,0	198,0	139	50	83	42,5	G 2 1/4	21	207	222
50	195,0	210,7	139	63	103	52,5	G 2 3/4	26	243	264

For materials see overview below

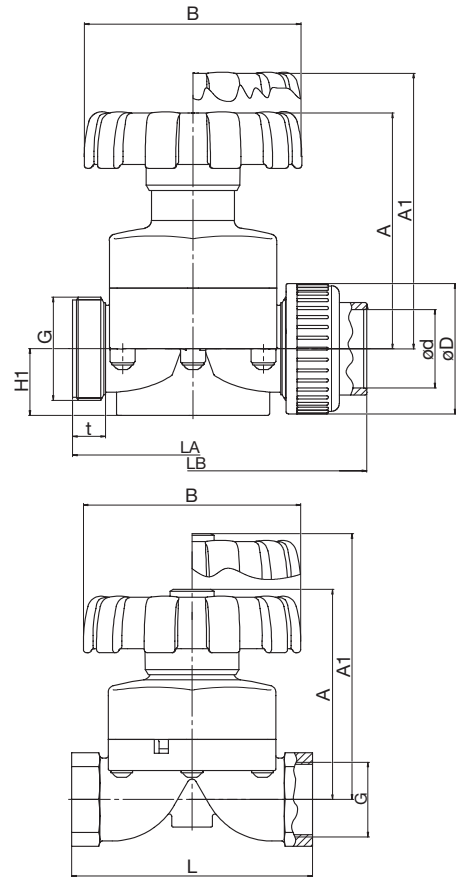
* Only available with union ends incorporating a reducing socket

**Insert material

**Valve body material: Brass (code 12),
connection code 1**

DN	A	A1	B	G	L
15	82	86,3	70	G 1/2	75
20	84	97,5	70	G 3/4	95
25	84	97,5	70	G 1	110
32	139	155,0	139	G 1 1/4	150
40	139	155,0	139	G 1 1/2	150
50	184	199,5	139	G 2	180

For materials see overview below



Overview of valve bodies

Connection code	1		7		7X	
	12	1	5	1	5	
Material code	12	1	5	1	5	
DN 10*	-	X	X	-	-	
DN 15**	X	X	X	X	X	
DN 20*	X	X*	X*	-	-	
DN 25	X	X	X	X	X	
DN 32*	X	X*	X*	-	-	
DN 40	X	X	X	X	X	
DN 50	X	X	X	X	X	

* Only available with union ends incorporating a reducing socket

** only GEMÜ S660 and S670

SilverLine® Angle seat globe and diaphragm valves



GEMÜ S560 SilverLine®
pneumatically operated
DN 10 - 50



GEMÜ S580 SilverLine®
motorized
DN 10 - 25



GEMÜ S680 SilverLine®
motorized
DN 10 - 25

Also available in PP or brass (PVC-U on request)

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

GEMÜ® VALVES, MEASUREMENT
AND CONTROL SYSTEMS

