

## Diaphragm Valve, Plastic

### Construction

The pneumatically operated 2/2 way diaphragm valve GEMÜ 600 is a corrosion-resistant all plastic construction. It has a maintenance-free piston actuator which can be controlled by any inert gas. GEMÜ 600 has a stroke limiter and an integral optical position indicator. The control functions "normally closed", "normally open" and "double acting" are available.

### Features

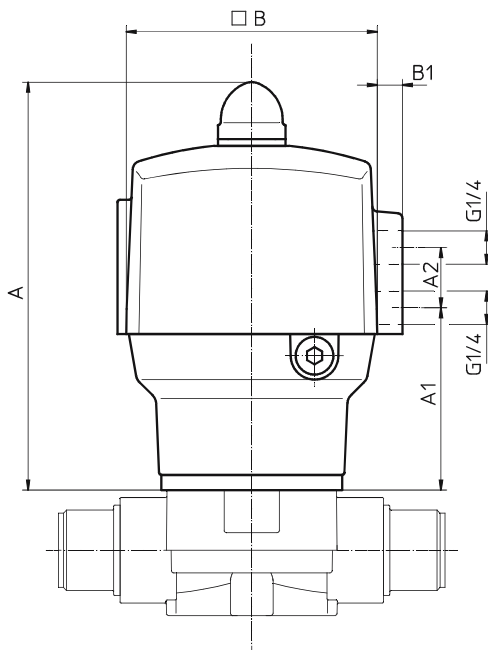
- Suitable for inert and corrosive\* liquid and gaseous media
- Valve body and diaphragm are available in various materials
- Connection for pilot valves acc. to NAMUR
- Control connection positioned in-line with piping as standard, thus installable in extremely restricted spaces
- Optional flow direction and mounting position

### Advantages

- Variable spring facility for working pressures up to 10 bar upstream and downstream
- Mounting plate for height compensation of differing body dimensions
- Upper part of actuator rotatable 4 x 90°
- Optional accessories
  - Electrical remote indication
  - Electrical position indicator with microswitches or proximity sensors
  - Pneumatic or electro-pneumatic positioner

\* see information on working medium on page 2

### Actuator dimensions (mm)



DN	B	B1	A	A1	A2
15-25	100	11	141	73	24
32-40	125	9	192	93	65
50	150	8	230	110	65



## Technical specifications

### Working medium

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

Max. perm. temperature of working medium:  
see data sheet "Technical Information on Plastic Materials"

### Control medium

Inert gas

Min. required control pressure see table below

Max. perm. control pressure 6 bar

Max. perm. temp. of control medium 40° C

## Order specifications

Nominal size (mm)	Control function 1 (bar)		Control functions 2+3 (bar)		K <sub>v</sub> value (m <sup>3</sup> /h)	Weight (kg)	
	Working pressure*	Control pressure	Working pressure	Control pressure			
15	0 - 10**	4 bar	0 - 10	min. 3 bar	5.6	1.8	
20	0 - 10**		0 - 10		max. 6 bar	8.2	1.8
25	0 - 10**		0 - 10			10.5	1.8
32	0 - 10**	6 bar	0 - 10	max. 6 bar	18.0	4.0	
40	0 - 10**		0 - 10		25.0	4.0	
50	0 - 10**		0 - 10		46.0	7.4	

\* Working pressure applied upstream only; \*\* Working pressure with PTFE diaphragm (ref. no. 52): 0-6 bar - further designs on enquiry.  
All pressures are given as gauge pressures.

### Body configuration

Ref. no.

Straight through D

### Valve body material

Ref. no.

PVC-U 1

ABS 4

PP 5

PVDF 20

Lining PPH natural 70

Lining PPH grey acc. RAL 7032 71

### Connection

Ref. no.

Spigot ends for solvent / butt welding  
DIN (PVC-U, PP, PVDF, ABS) 0

Loose flange, PN 10, for flange sleeve  
DIN 16962 T 12 4

Loose flange for short stub ends DIN 16962 T3 04

Union ends with metric sockets - DIN 7

Spigots for infrared butt welding (IR)  
for pipes acc. to DIN 8077 series 4 (PP) 20

Spigots for butt welding  
BCF (PVDF) 28

Spigot ends for solvent / butt welding - inch 30

Union ends with imperial sockets - inch 33

Union ends with insert for butt welding  
acc. to DIN 16962 T 13 series 4 78

### Diaphragm material

Ref. no.

NBR 2

FPM 4

EPDM 14

PTFE/EPDM PTFE laminated 52

### Control function

Ref. no.

Normally closed 1

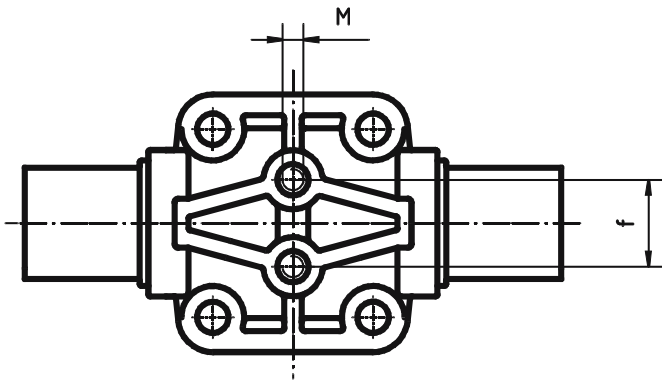
Normally open 2

Double acting (only DN 50) 3

### Order example

600 25 D 7 1 14 1

Type	600						
Nominal size		25					
Body configuration (reference number)			D				
Connection (reference number)				7			
Body material (reference number)					1		
Diaphragm material (reference number)						14	
Control function (reference number)							1



### Mounting dimensions (mm)

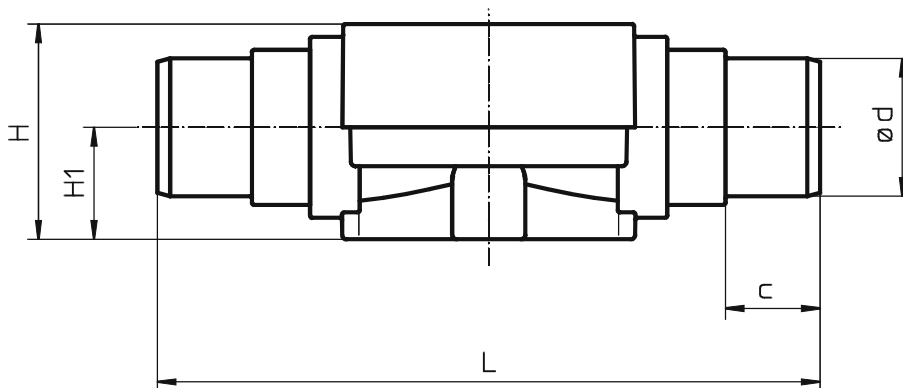
DN	M	f
15	M6	25.0
20	M6	25.0
25	M6	25.0
32	M8	44.5
40	M8	44.5
50	M8	44.5

### Body dimensions - Solvent cement / butt weld spigots DIN ref. no. 0 (mm)

DN	L	ød	Material ref. no. 1			Material ref. no. 5			Material ref. no. 20, 70, 71		
			H	H1	c	H	H1	c	H	H1	c
15	124	20	45	26	16	45	26	16	50	26	18
20	144	25	45	26	19	45	26	19	50	26	19
25	154	32	45	26	22	45	26	22	50	26	22
32	174	40	74	40	26	68	40	24	74	40	24
40	194	50	74	40	31	68	40	27	74	40	26
50	224	63	78	40	39	75	40	40	82	40	29

### Body dimensions - Solvent cement and butt weld spigots INCH ref. no. 30, material ref. no. 1, 4 (mm)

DN	L	H	H1	ød	c	
15	1/2"	141	45	26	21.4	24
20	3/4"	145	45	26	26.7	27
25	1"	154	45	26	33.6	30
32	1 1/4"	174	68	40	42.2	33
40	1 1/2"	194	68	40	48.3	39
50	2"	224	75	40	60.3	40

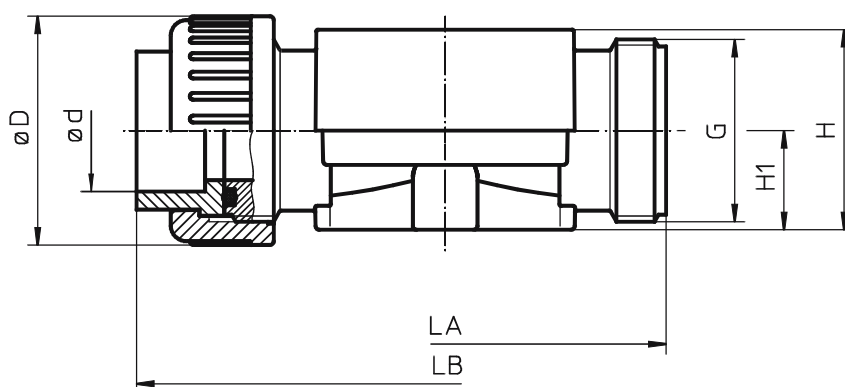


**Body dimensions - Unions with metric sockets**  
DIN ref. no. 7 (mm)

DN	øD	ød	G	Material ref. no. 1				Material ref. no. 20, 70, 71			
				LA	LB	H	H1	LA	LB	H	H1
15	43	20	G 1	108	146	51	26	108	144	50	26
20	53	25	G 1 1/4	108	152	51	26	108	146	50	26
25	60	32	G 1 1/2	116	166	51	26	116	162	50	26
32	74	40	G 2	134	192	74	40	134	186	74	40
40	83	50	G 2 1/4	154	222	74	40	154	210	74	40
50	103	63	G 2 3/4	182	264	82	40	182	248	82	40

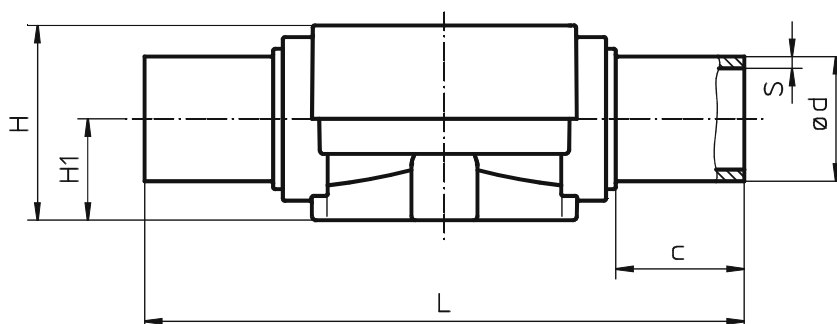
**Body dimensions - Unions with imperial sockets**  
INCH ref. no. 33, material ref. no. 1 (mm)

DN		LA	LB	H	H1	øD	ød	G
15	1/2"	108	150	51	26	43	21.4	1
20	3/4"	108	156	51	26	53	26.7	1 1/4
25	1"	116	170	51	26	60	33.6	1 1/2
32	1 1/4"	134	198	74	40	74	42.2	2
40	1 1/2"	154	220	74	40	83	48.3	2 1/4
50	2"	182	262	82	40	103	60.3	2 3/4



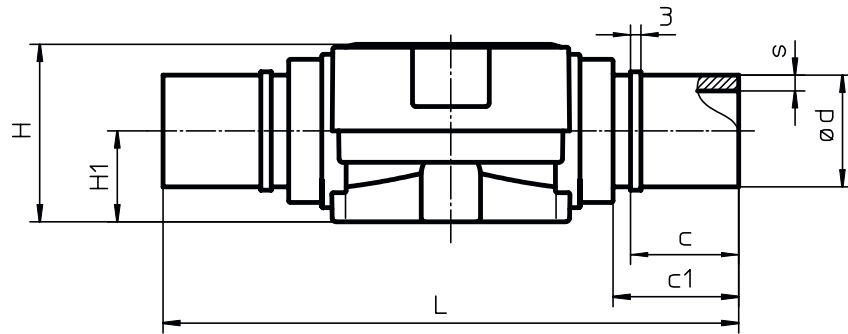
**Body dimensions - PP butt weld spigots ref. no. 20, material ref. no. 70, 71 (mm)**

DN	L	H	H1	ød	s	c
15	154	50	26	20	1.9	33
20	154	50	26	25	2.3	33
25	154	50	26	32	3.0	33
32	194	74	40	40	3.7	33
40	194	74	40	50	4.6	33
50	224	82	40	63	5.8	33



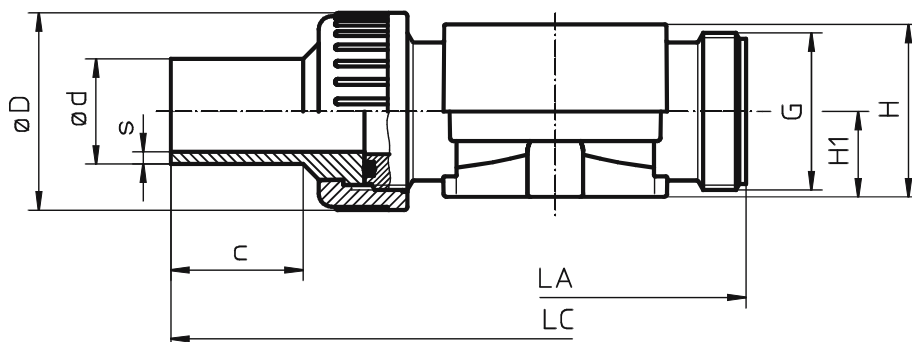
**Body dimensions - PVDF IR weld spigots (BCF) ref. no. 28 (mm)**

DN	L	H	H1	ød	c	c1	s
15	154	50	26	20	31	37	1.9
20	154	50	26	25	31	37	1.9
25	154	50	26	32	31	37	2.4
32	194	74	40	40	40	46	2.4
40	194	74	40	50	40	46	3.0
50	224	82	40	63	40	46	3.0



**Body dimensions - Union ends with metric butt weld spigots ref. no. 78, material ref.no. 20, 70, 71 (mm)**

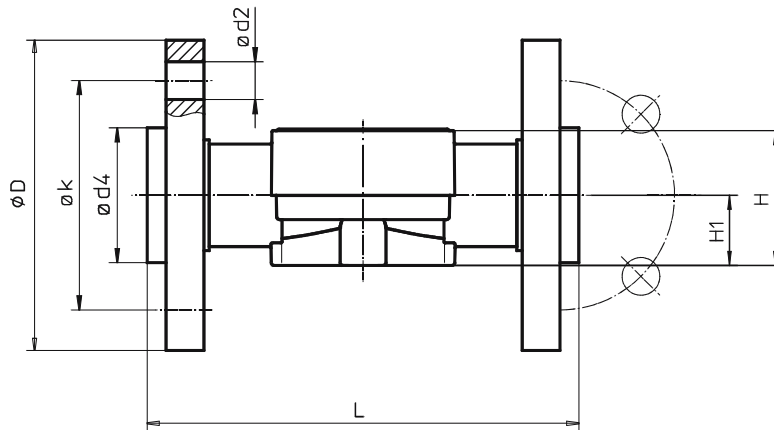
DN	LA	LC	H	H1	øD	ød	G	s	c
15	108	214	50	26	43	20	G 1	1.9	37
20	108	220	50	26	53	25	G 1 1/4	2.3	39
25	116	234	50	26	60	32	G 1 1/2	3.0	40
32	134	258	74	40	74	40	G 2	3.7	41
40	154	284	74	40	83	50	G 2 1/4	4.6	43
50	182	318	82	40	103	63	G 2 3/4	5.8	43



**Body dimensions with flanges ref. no. 4 (mm)**
**Body dimensions with flanges ref. no. 04 (mm)**

DN	L	øk	øD	ød2	Material ref.no. 5, 20			Material ref.no. 70, 71			Mat. ref.no. 5, 20			Mat. ref.no. 70, 71			No. of bolt holes			
					ød4	H	H1	ød4	H	H1	L	øk	øD	ød2	ød4	H		H1	H	H1
15	150*	65	95	14	34	45	26	45	50	26	-	-	95	14	34	-	-	50	26	4
20	150	75	105	14	41	45	26	41	50	26	164	75	105	14	41	45	26	50	26	4
25	160	85	115	14	50	45	26	50	50	26	182	85	115	14	50	45	26	50	26	4
32	180	100	140	18	61	69	40	61	74	40	182	100	140	18	61	69	40	74	40	4
40	200	110	150	18	73	69	40	73	74	40	204	110	150	18	73	69	40	74	40	4
50	230	125	165	18	90	75	40	90	82	40	238	125	165	18	90	75	40	82	40	4

\* no DIN length


**Overview of valve bodies for GEMÜ 600**

Material	PVC-U (ref.no. 1)				PP (ref.no. 5)			PP (ref.no. 70, ref.no. 71)					PVDF (ref.no. 20)					ABS (ref.no. 4)			
	0	7	30	33	0	4	04	0	4	04	7	20	78	0	4	04	7	20	28	78	30
DN 15	X	X	X	X	X	X	-	X	X	-	X	X	X	X	X	-	X	-	X	X	X
DN 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X
DN 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X
DN 32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X
DN 40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X
DN 50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X

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AND CONTROL SYSTEMS