

Diaphragm Valve, Plastic ***2/2 way, motorized***

Construction

- Maintenance-free electric actuator
- Maintenance-free toothed belt drive
- Reversible synchronous motor
- Manual override
- Optical position indicator

Features

- Suitable for inert and corrosive liquid and gaseous media
- The valve stroke can be limited by means of adjustable limit switches
- Valve body and diaphragm are available in various materials
- Suitable for use as a control valve (with GEMÜ series 1281-1284)
- The valve is insensitive to highly contaminated abrasive media



Advantages

- Consistent control system and reliable opening and closing action
- Direct 4-20 (0-20) mA control using the optional module GEMÜ series 1281-1284
- Optional mounting position
- Optional flow direction
- Available as an option: electrical position indication by means of a potentiometer

Working medium

Any inert or corrosive gas or liquid, subject to the correct choice of body and diaphragm material.

Max. perm. temperature of working medium:
See datasheet "Techn. Information on Plastic Materials"

Admissible temperatures

Ambient temperature -10...+55°C

Storage temperature -15...+55°C

Power consumption

10 VA

Rating

Continuously rated

Operating time

Standard design appr. 20 sec.

Protection class

IP 65 acc. to DIN 40050

Cable gland

2 x PG 13.5

Nom. size	Working press.	K_v value	Weight
(mm)	(bar)	(m ³ /h) ISO conn.	(kg)
15	0 - 10	5.6	2.6
20	0 - 10	8.2	2.6
25	0 - 10	10.5	2.6
32	0 - 6	18.0	3.5
40	0 - 6	25.0	3.5
50	0 - 6/4*	46.0	4.2

All pressures are given as gauge pressures when applied upstream only.

* DN 50 with PTFE diaphragm 4 bar

Body configuration

Ref. no.

Straight through

D

Connections

Ref. no.

Spigot ends for solvent / butt welding
DIN (PVC-U, PP, PVDF) 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 20

Spigots for butt welding
BCF (PVDF, DN 15-50) 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

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

Diaphragm material

Ref. no.

Perbunan NBR 2

Viton® FPM 4

Ethylene-Propylene EPDM 14

TFM/EPDM modified PTFE fully laminated 52

<i>Supply voltages</i>		<i>Ref. no.</i>
24 V	± 10%	C
120 V	± 10%	G
230 V	± 10%	L

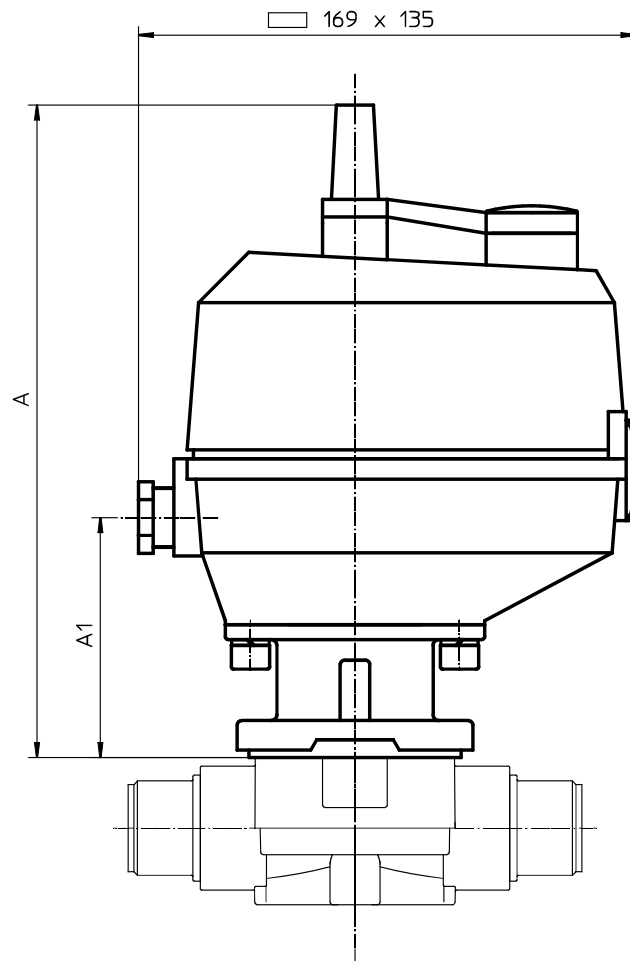
<i>Frequency</i>	<i>Ref. no.</i>
50 Hz	2
60 Hz	3

<i>Design</i>	<i>Ref. no.</i>
Operating time approx. 20 sec., PG glands, terminal block	-
Operating time approx. 20 sec., PG glands, terminal block, with potentiometer	6049

<i>Order example</i>	<i>693</i>	<i>15</i>	<i>D</i>	<i>0</i>	<i>1</i>	<i>14</i>	<i>L</i>	<i>2</i>	<i>6049</i>
Type	693								
Nominal size (mm)		15							
Body configuration (D)			D						
Connection (reference number)				0					
Valve body material (reference number)					1				
Diaphragm material (reference number)						14			
Supply voltage (reference number)							L		
Frequency (reference number)								2	
Design (reference number)									6049

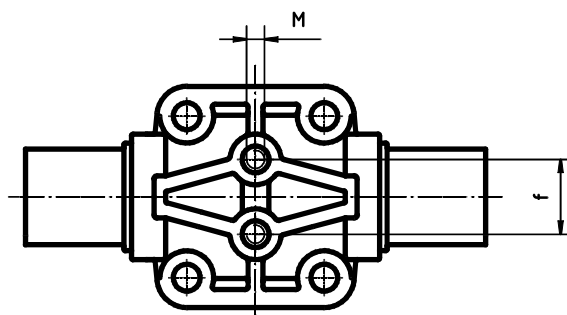
Actuator dimensions (mm)

DN	A	A1
15 - 25	222	82
32 - 40	271	131
50	278	138



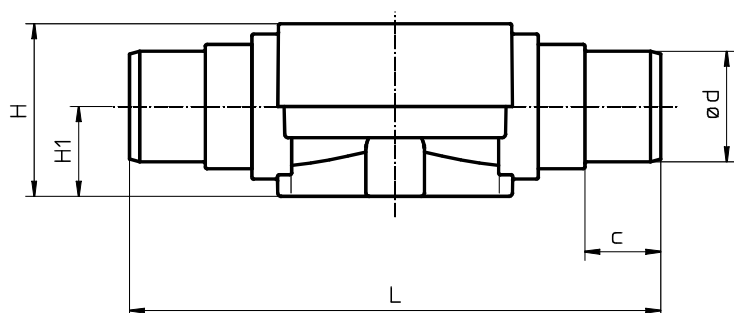
Mounting dimensions (mm)

DN	M	f
15	M 6	25.0
20	M 6	25.0
25	M 6	25.0
32	M 8	44.5
40	M 8	44.5
50	M 8	44.5



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

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

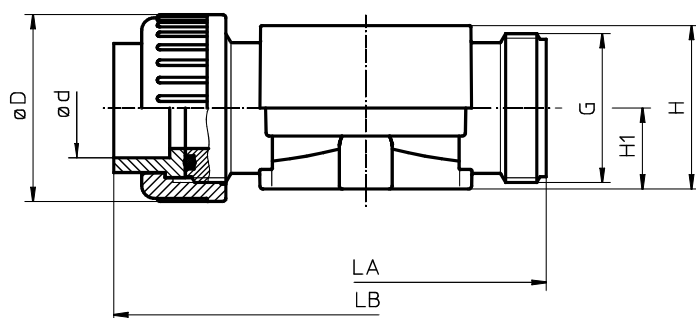


Body dimensions - Solvent cement and butt weld spigots INCH ref.no. 30, material ref.no. 1, 4 (mm)

DN		L	H	H1	ød	c
15	1/2"	141	45	24	21.4	24
20	3/4"	145	45	24	26.7	27
25	1"	154	45	24	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)

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

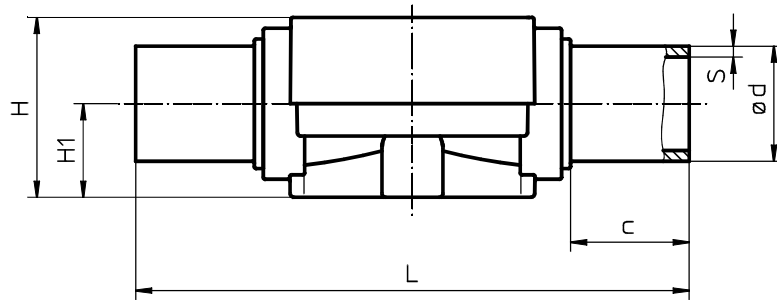


Body dimensions - Unions with imperial sockets INCH ref. no. 33, material ref. no. 1 (mm)

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

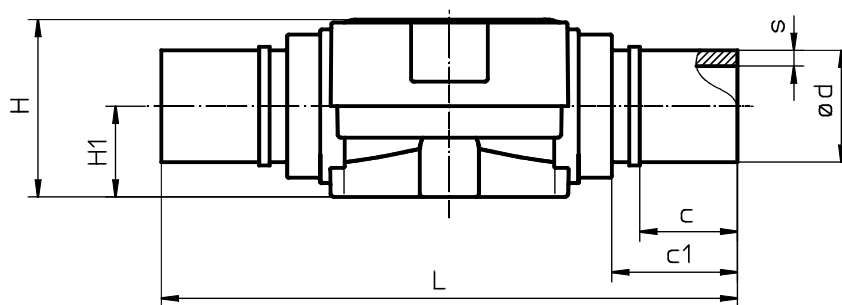
Body dimensions - PP butt weld spigots ref. no. 20, material ref. no. 70, 71 (mm)

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



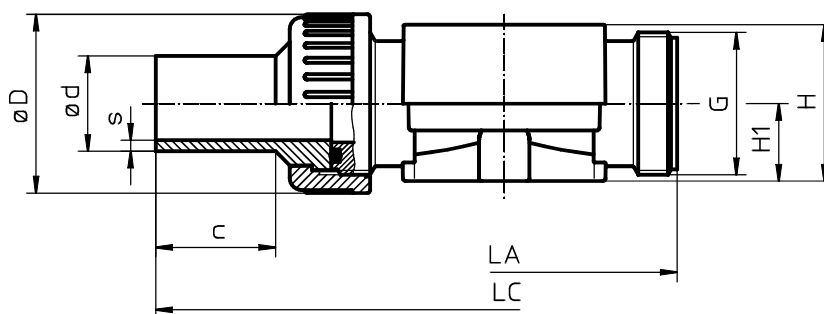
Body dimensions - PVDF butt weld spigots ref. no. 28 (mm)

DN	L	H	H1	ød	c	c1	s
15	165	45	24	20	38	36	1.9
20	165	45	24	25	38	36	1.9
25	165	45	24	32	38	36	2.4
32	209	68	40	40	37	46	2.4
40	209	68	40	50	37	46	3.0
50	235	75	40	63	37	46	3.0



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

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

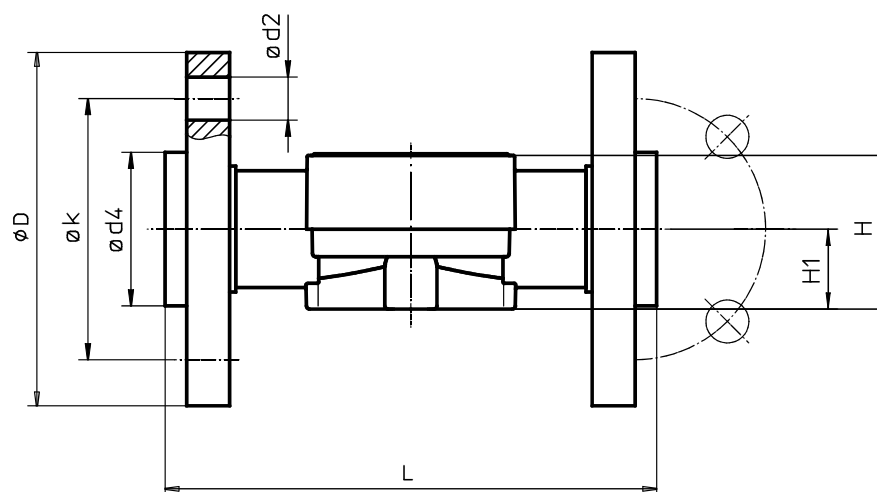


Body dimensions with flanges ref. no. 4 (mm)

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

					Material ref. no. 5, 20			Material ref. no. 70, 71								Mat. ref. no. 5, 20		Mat. ref. no 70, 71		Number of bolt holes
DN	L	øk	øD	ød2	ød4	H	H1	ød4	H	H1	L	øk	øD	ød2	ød4	H	H1	H	H1	
15	150*	65	95	14	34	45	24	45	50	26	-	-	95	14	34	-	-	50	26	4
20	150	75	105	14	41	45	24	41	50	26	164	75	105	14	41	45	24	50	26	4
25	160	85	115	14	50	45	24	50	50	26	182	85	115	14	50	45	24	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

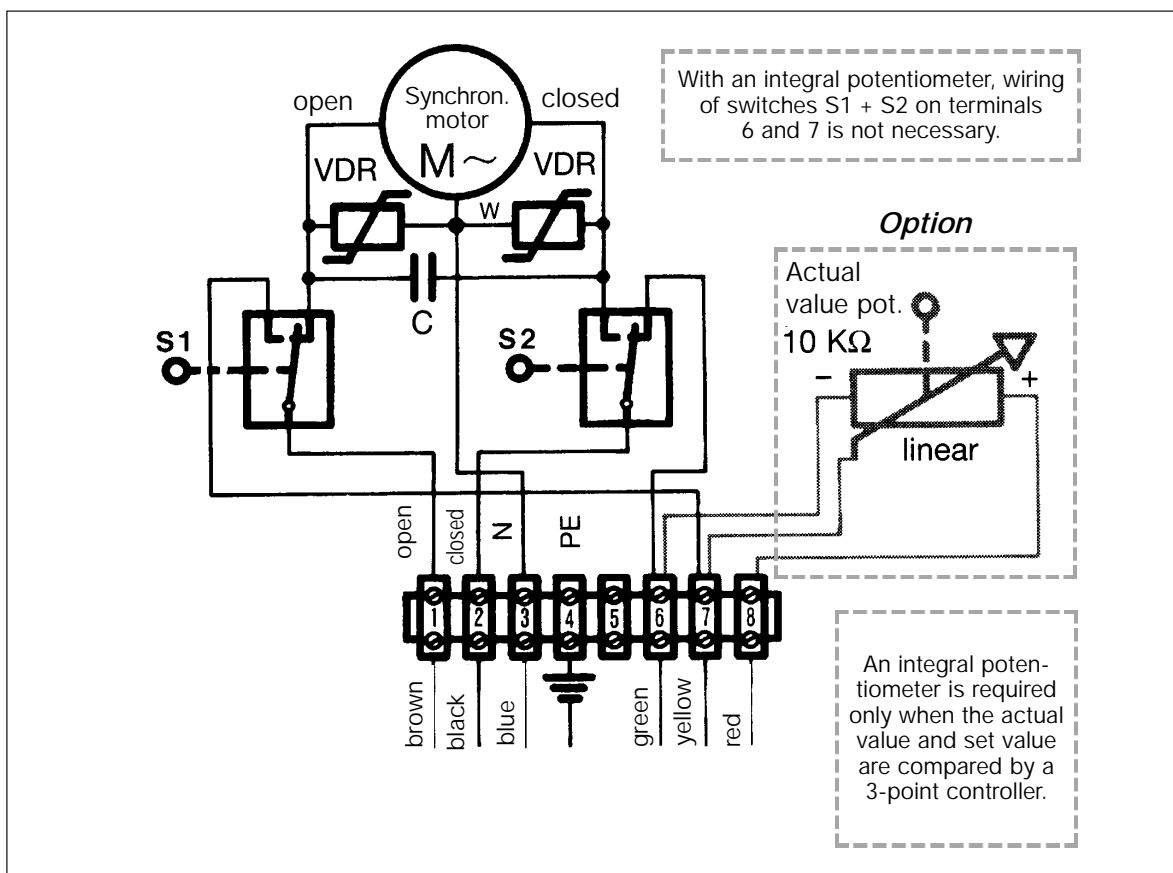
* no DIN length



Overview of valve bodies for type 693

Material	PVC-U (ref.no. 1)				PP (ref.no. 5)			PP (ref.no. 70, Kz 71)						PVDF (ref.no. 20)								ABS (ref.no. 4)
Conn. (ref.no.)	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	

Connection diagram GEMÜ 693



GEMÜ® VALVES, ACTUATORS
AND CONTROL SYSTEMS

