Diaphragm Valve, Plastic

2/2 way, pneumatically operated

Construction

- Maintenance-free plastic piston actuator which can be controlled by any inert gas
- Control functions "normally closed", "normally open" and "double acting" are available
- Integral optical position indicator

Features

- Suitable for inert and corrosive liquid and gaseous media
- The valve is insensitive to highly contaminated abrasive media
- Being very compact, this valve is ideal for applications where space is at a premium
- Valve body and diaphragm are available in various materials
- Optional flow direction and mounting position

Advantages

- Corrosion-free due to all plastic construction
- Optional accessories
  - Stroke limiter
  - Electrical position indicator
  - Electrical position indicators with microswitches or proximity sensors

Working medium

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

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

Control medium

Any inert gas

Max. pressure of control medium	
C.f. 1	7 bar
C.f. 2 + 3 (see diagram page 3)	5 bar
Max. permiss. temperature of control medium	40° C
Filling volume	0.061 Nl

Nominal size (mm)	Working pressure (bar)	K_v value (m^3/h) ISO connection	Weight (g)
12	0 - 6	2.8	240
15	0 - 6	3.5	290

All pressures are gauge pressures when applied upstream only.

Body configuration	Ref. no.
Straight through	D

Diaphragm material		Ref. no.
Perbunan	NBR	2
Viton®	FPM	4
Ethylene-Propylene	EPDM	14
PTFE/EPDM	PTFE laminated	52

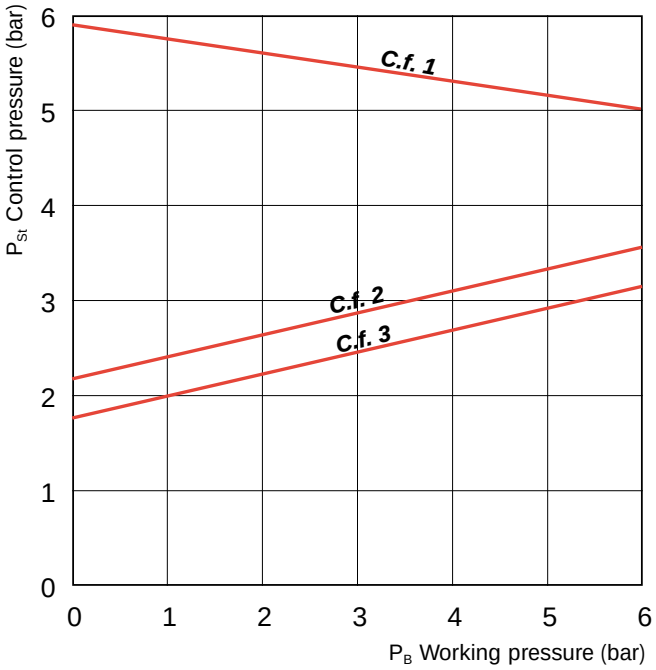
Connection	Ref. no.
Threaded sockets - DIN ISO 228	1
Solvent cement sockets - DIN (only with PVC-U)	2
Union ends with metric sockets - DIN	7
Spigots for butt welding (only with PVDF)	28
Union ends with metric butt weld spigots acc. to DIN 16962 T 13 series 4 (only with PP and PVDF)	78

Control function	Ref. no.
Normally closed	1
Normally open	2
Double acting	3

Valve body material	Ref. no.
PVC-U	1
PP	5
PVDF	20

Order example	610	15	D	7	1	14	1
Type	610						
Nominal size (mm)		15					
Body configuration (D)			D				
Connection (reference number)				7			
Body material (reference number)					1		
Diaphragm material (reference number)						14	
Control function (reference number)							1

Control pressure / working pressure diagram



With pneumatically operated valves there is an interdependence between control pressure and working pressure regarding the valve stroke.

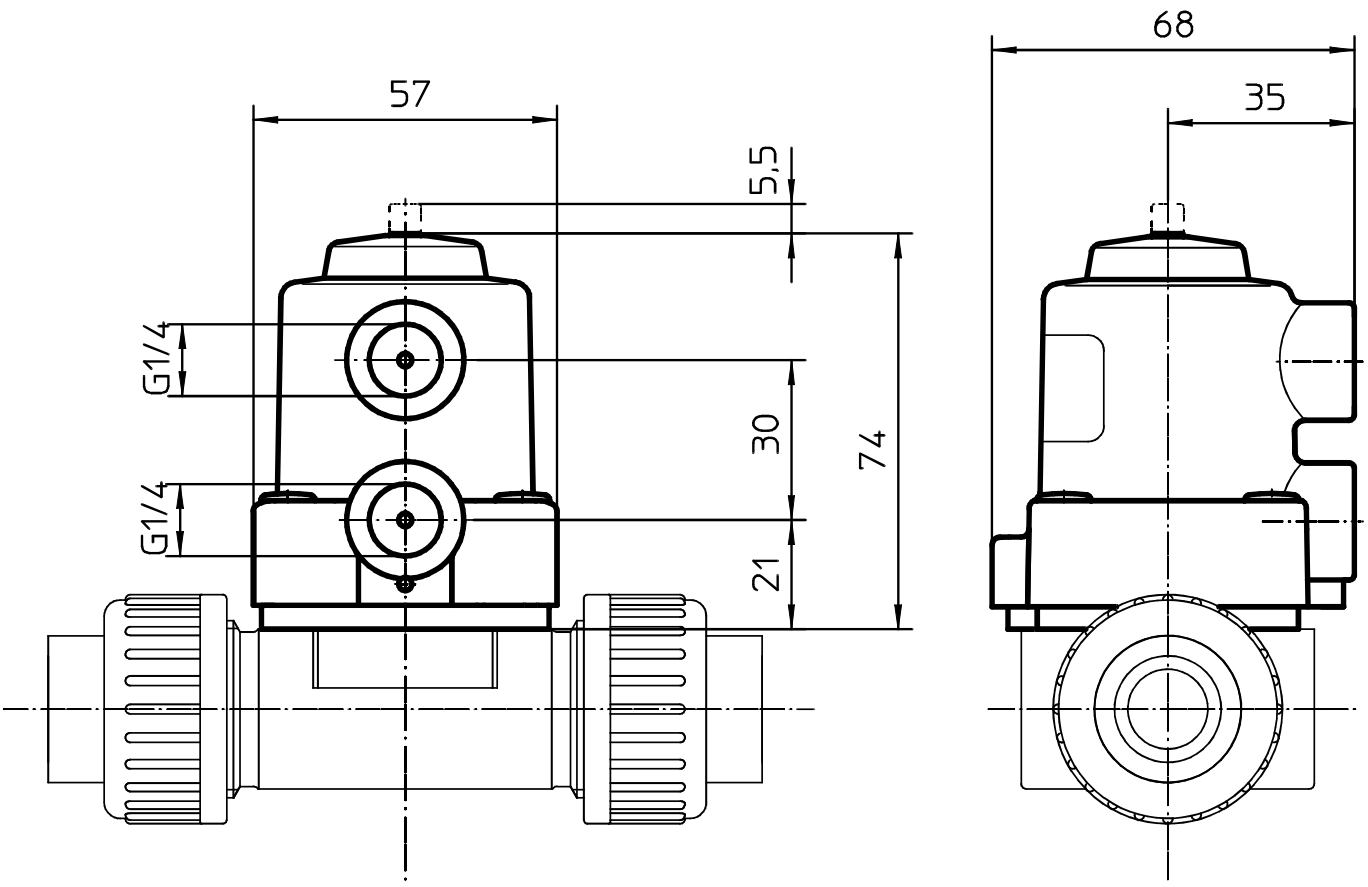
With valves closed by spring pressure this means: The lower the working pressure, the higher the control pressure must be to open the valve completely. With valves opened by spring pressure the opposite applies.

In principle care has to be taken that the stated maximum pressures are not exceeded in any case and that the minimum pressures are adhered to.

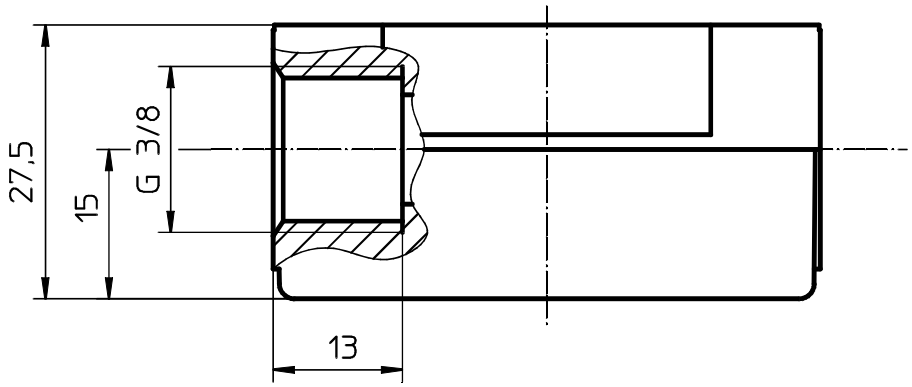
The necessary control pressures can be seen from the adjacent diagram.

Control function 1: Given control pressures apply to max. stroke of valve.
Values are lower for lower strokes.

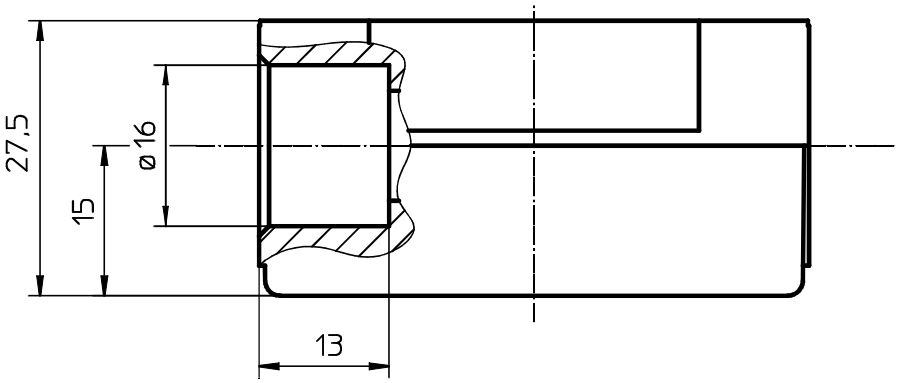
Actuator dimensions (mm)



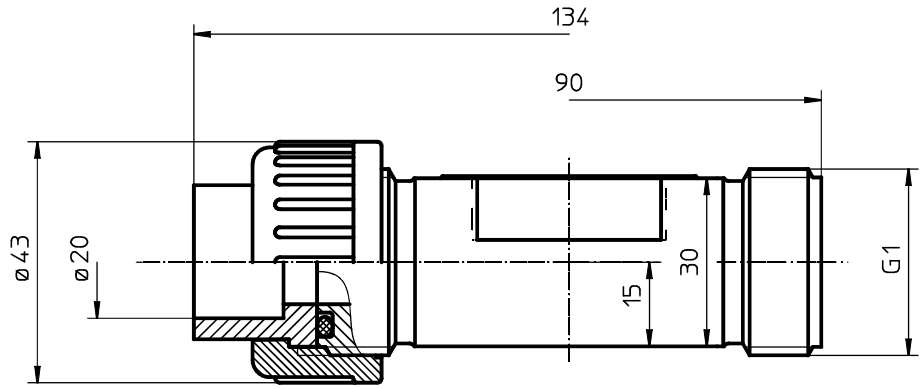
Body dimensions - Threaded sockets ref. no. 1, material ref. no. 1, 5 (mm)



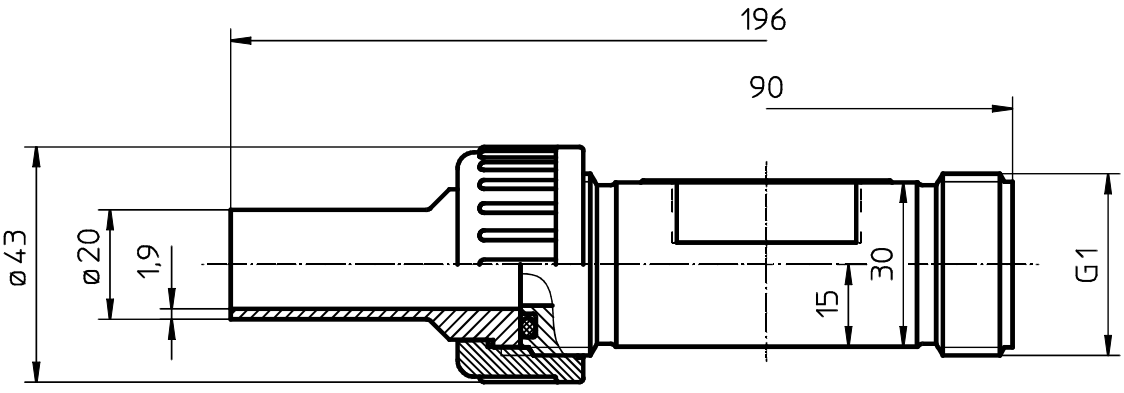
Body dimensions - Solvent cement/welded spigots for socket welding ref. no. 2, material ref. no. 1 (mm)



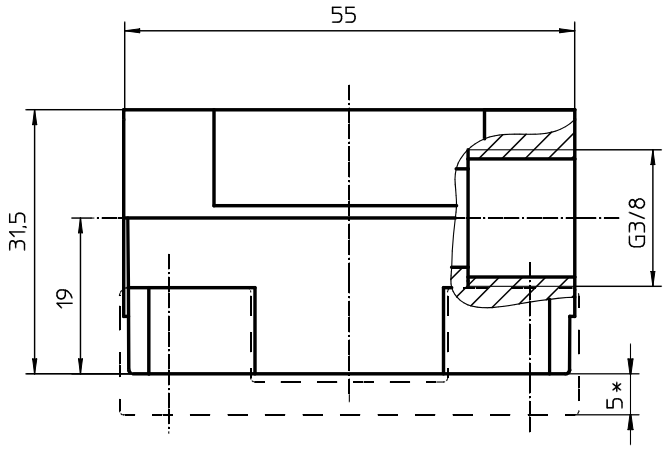
Body dimensions - Union ends with inserts for socket welding - DIN ref. no. 7, material ref. no. 1, 5 (mm)



Body dimensions - Union ends with inserts for butt welding ref. no. 78, material ref. no. 5 (mm)

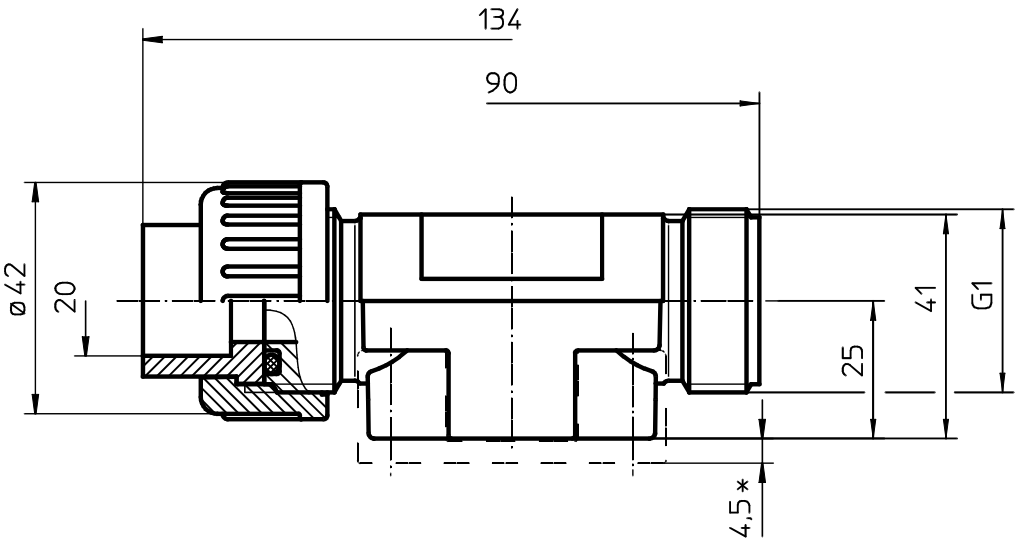


Body dimensions - Threaded sockets ref. no. 1, material ref. no. 20 (mm)



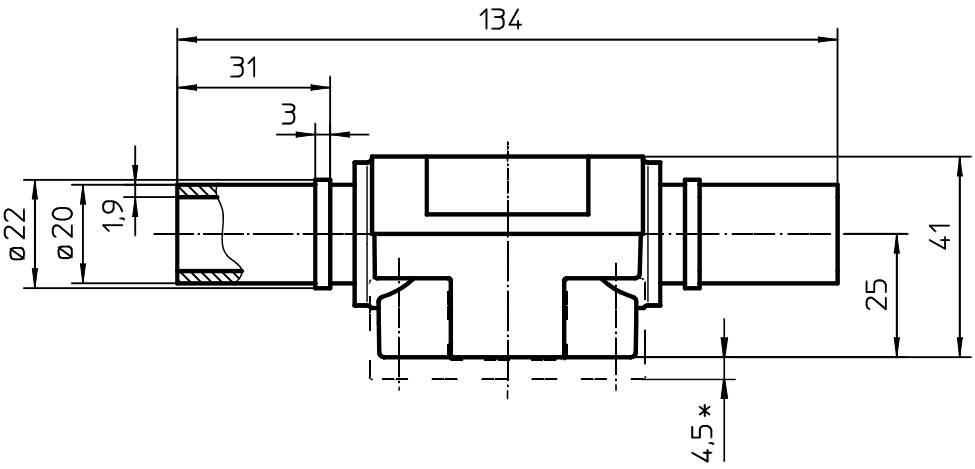
* Dimensions in conjunction with mounting plate GEMÜ 1041

Body dimensions - Union ends with inserts for socket welding - DIN ref. no. 7, material ref. no. 20 (mm)



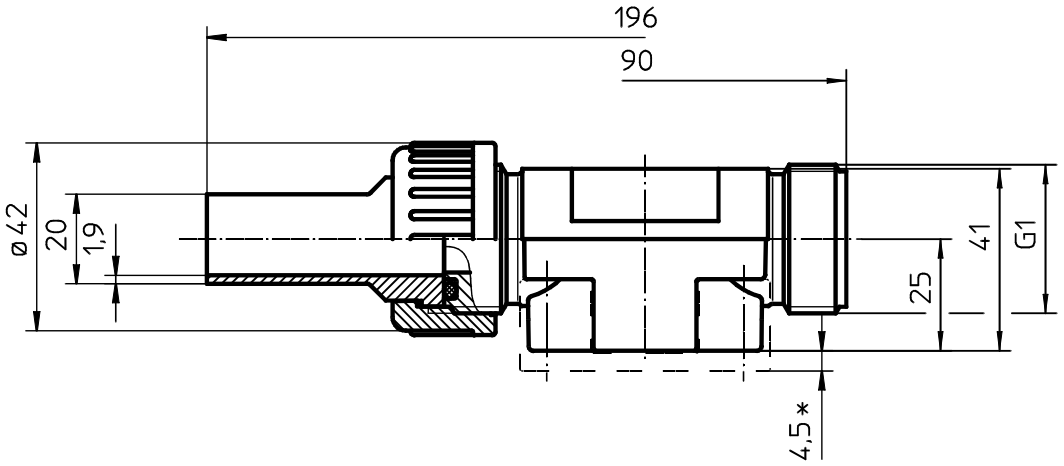
* Dimensions in conjunction with mounting plate GEMÜ 1041

Body dimensions - Welded spigots for butt-welding ref. no. 28, material ref. no. 20 (mm)



* Dimensions in conjunction with mounting plate GEMÜ 1041

Body dimensions - Union ends with inserts for butt welding ref. no. 78, material ref. no. 20 (mm)

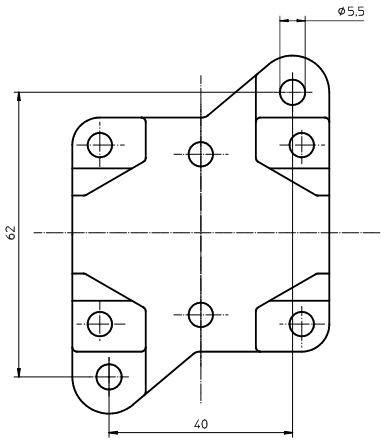


* Dimensions in conjunction with mounting plate GEMÜ 1041

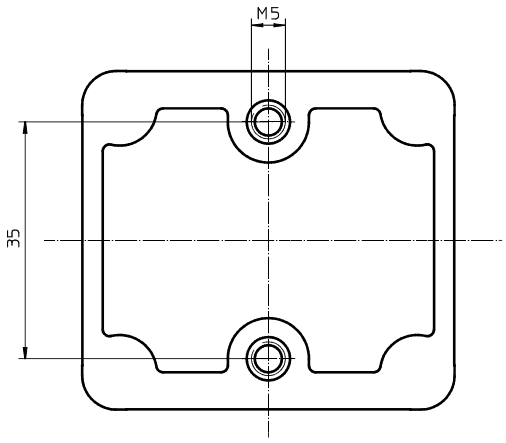
Overview of valve bodies for GEMÜ 610

Valve body material (ref. no.)	PVC-U (ref. no. 1)			PP (ref. no. 5)			PVDF (ref. no. 20)			
Connection (ref. no.)	1	2	7	1	7	78	1	7	28	78
DN 12	X	X	-	X	-	-	X	-	-	-
DN 15	-	-	X	-	X	X	-	X	X	X

Dimensions of mounting plate GEMÜ 1041 (mm)



Mounting dimensions - Valve body (mm)



GEMÜ® VALVES, ACTUATORS AND CONTROL SYSTEMS

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