

## GEMÜ 620

### Pneumatically operated diaphragm valve



#### Features

- Actuator housing available in plastic or metal
- Various lining materials are available, such as PFA, PP or hard rubber
- Customised painting and coating options on request
- Extensive range of spare parts
- Standard optical position indicator
- Wide range of adaptation options for add-on components and accessories
- Suitable for particulate and abrasive media

#### Description

The GEMÜ 620 2/2-way diaphragm valve has a low maintenance membrane actuator made of metal or plastic and is pneumatically operated. The valve has a metal distance piece. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available.

#### Technical specifications

- **Media temperature :** 0 to 100 °C
- **Ambient temperature:** -10 to 60 °C
- **Operating pressure :** 0 to 10 bar
- **Nominal sizes:** DN 15 to 150
- **Body configurations:** Straight through body
- **Connection types:** Flange | thread
- **Connection standards :** ANSI | BS | EN | ISO
- **Body materials:** EN-GJL-250, cast iron material | EN-GJS-400-18-LT (GGG 40.3) | EN-GJS-400-18-LT (GGG 40.3), PFA lined | EN-GJS-400-18-LT (GGG 40.3), PP lined | EN-GJS-400-18-LT, hard rubber lined | EN-GJS-400-18-LT, SG iron material with butyl lining | EN-GJS-400-18-LT, SG iron material with soft rubber lining | EN-GJS-500-7, ductile iron material, PFA lined | EN-GJS-500-7, ductile iron material, PP lined
- **Diaphragm materials:** CR | EPDM | FKM | NBR | PTFE/EPDM | PTFE/FKM | PTFE/PVDF/EPDM
- **Conformities:** CRN | EAC | FDA | TA Luft (German Clean Air Act)

Technical data depends on the respective configuration



## Product description

### Construction



Item	Name	Materials
1	Optical position indicator	PP red
2	Actuator	Cast iron, PP reinforced
3	Diaphragm	NBR FKM CR EPDM PTFE / EPDM (one-piece) PTFE / EPDM (two-piece) PTFE / FKM (two-piece) PTFE / PVDF / EPDM (three-piece)
4	Valve body	EN-GJL-250 (GG 25) EN-GJS-400-18-LT (GGG 40.3) EN-GJS-400-18-LT (GGG 40.3), butyl lined EN-GJS-400-18-LT (GGG 40.3), PFA lined EN-GJS-400-18-LT (GGG 40.3), PP lined EN-GJS-400-18-LT (GGG 40.3), hard rubber lined EN-GJS-400-18-LT (GGG 40.3), soft rubber lined EN-GJS-500-7 (GGG 50), PFA lined EN-GJS-500-7 (GGG 50), PP lined

## Availability

Combinations that are not listed in the range overviews can be tested via the configurator in the GEMÜ online shop.

### Availability of valve bodies

#### Threaded connection

MG	DN	Connection types code 1, 31 <sup>1)</sup>
		Material code 90 <sup>2)</sup>
25	15	X
	20	X
	25	X
40	32	X
	40	X
50	50	X

MG = diaphragm size, X = standard

1) **Connection type**

Code 1: Threaded socket DIN ISO 228

Code 31: NPT female thread

2) **Valve body material**

Code 90: EN-GJS-400-18-LT (GGG 40.3)

**Flange**

MG	DN	Connection type code <sup>1)</sup>																				
		8				38				39				51			53		56			
		Material code <sup>2)</sup>																				
17	18	82, 83, 88	90	17	18 <sup>3)</sup>	82, 83, 88	17	18	82, 83, 88	90	17	81	91 <sup>3)</sup>	8	17	17	81	91 <sup>3)</sup>				
25	15	X	X	X	X	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-		
	20	X	X	X	X	X	X	X	X	X	X	X	-	-	-	X	-	-	-	-		
	25	X	X	X	X	X	X	X	X	X	X	X	-	X	X	-	-	-	X	X		
40	32	X	X	X	X	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-		
	40	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	X	X		
50	50	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	X	X		
	65	X	X	-	X	X	X	-	X	X	-	X	-	-	-	-	-	-	-	-		
80	80	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	X	X		
100	100	X	X	X	X	X	X	X	X	X	X	X	-	X	X	-	-	-	X	X		
	125	X	-	X	X	X	-	-	X	-	X	X	-	-	-	-	-	-	-	-		
125	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-		
150	150	X	-	X	X	X	-	X	X	-	X	X	X	-	-	X	X	X	-	-		

MG = diaphragm size, X = standard

**1) Connection type**

Code 8: Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

Code 38: Flange ANSI Class 150 RF, face-to-face dimension FTF MSS SP-88, length only for body configuration D

Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

Code 51: Flange BS 10 table E, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D

Code 53: Flange EN 1092, PN 16, form A, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D

Code 56: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D

**2) Valve body material**

Code 8: EN-GJL-250 (GG 25)

Code 17: EN-GJS-400-18-LT (GGG 40.3), PFA lining

Code 18: EN-GJS-400-18-LT (GGG 40.3), PP lining

Code 81: EN-GJS-500-7 (GGG 50), PFA lined

Code 82: EN-GJS-400-18-LT (GGG 40.3), soft rubber lined

Code 83: EN-GJS-400-18-LT (GGG 40.3), hard rubber lining

Code 88: EN-GJS-400-18-LT (GGG 40.3), butyl lined

Code 90: EN-GJS-400-18-LT (GGG 40.3)

Code 91: EN-GJS-500-7 (GGG 50), PP lined

**3) On request**

**Availability of actuator version**

MG	DN	Actuator version
25	15 - 25	0KN
40	32 - 40	1KN
50	50 - 65	2KN
80	80	3/2, 3/3, 3/D, 3/F,3A2, 3A3, 3AD, 3AF, 4A2
100	100	3/3, 3A3, 4A2, 4A3, 3/F, 3AF, 4AF, 3/D, 3AD, 4AD
	125	3/3, 3A3, 4C2, 4C3, 3/F, 3AF, 4CF, 3/D, 3AD, 4CD
125	125	4A2, 4A3, 4AD, 4AF
150	150	4A3, 4AD, 4AF

## Order data

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

## Order codes

1 Type	Code
Diaphragm valve, pneumatically operated, membrane actuator, cast iron distance piece	620

2 DN	Code
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100
DN 125	125
DN 150	150

3 Body configuration	Code
2/2-way body	D

4 Connection type	Code
<b>Threaded connection</b>	
Threaded socket DIN ISO 228	1
NPT female thread	31
<b>Flange</b>	
Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D	8
Flange ANSI Class 150 RF, face-to-face dimension FTF MSS SP-88, length only for body configuration D	38
Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D	39
Flange BS 10 table E, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D	51
Flange EN 1092, PN 16, form A, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D	53
Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D	56

5 Valve body material	Code
<b>Cast iron material</b>	
EN-GJL-250 (GG 25)	8
<b>SG iron material</b>	
EN-GJS-400-18-LT (GGG 40.3), PFA lining	17
EN-GJS-400-18-LT (GGG 40.3), PP lining	18
EN-GJS-500-7 (GGG 50), PFA lined	81
EN-GJS-400-18-LT (GGG 40.3), soft rubber lined	82
EN-GJS-400-18-LT (GGG 40.3), hard rubber lining	83
EN-GJS-400-18-LT (GGG 40.3), butyl lined	88
EN-GJS-400-18-LT (GGG 40.3)	90
EN-GJS-500-7 (GGG 50), PP lined	91

6 Diaphragm material	Code
<b>Elastomer</b>	
NBR	2
FKM	4
CR	8
EPDM	29
<b>PTFE</b>	
PTFE/EPDM one-piece	54
PTFE/EPDM two-piece	5M
PTFE/FKM two-piece	5T
PTFE/EPDM two-piece for lining bodies	5Y
PTFE/PVDF/EPDM three-piece	71
<b>Note:</b> The PTFE/EPDM diaphragm (code 5M) is available from diaphragm size 10.	
<b>Note:</b> The PTFE/EPDM diaphragm (code 5Y) is available for diaphragm size 25 and can only be combined with PFA-lined valve bodies.	
<b>Note:</b> The PTFE/PVDF/EPDM diaphragm (code 71) can only be combined with PFA lined valve bodies.	

7 Control function	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3

8 Actuator version	Code
DN 15 - 25, diaphragm size 25	
<b>Plastic actuator material</b>	
Actuator size 0KN	0KN

8 Actuator version	Code
DN 32 - 40, diaphragm size 40	
<b>Plastic actuator material</b>	
Actuator size 1KN	1KN
DN 50 - 65, diaphragm size 50	
<b>Plastic actuator material</b>	
Actuator size 2KN	2KN
DN 80, diaphragm size 80	
<b>Plastic actuator material</b>	
Actuator size 3/2	3/2
Actuator size 3/3	3/3
Actuator size 3/D	3/D
Actuator size 3/F	3/F
<b>Metal actuator material</b>	
Actuator size 3A2	3A2
Actuator size 3A3	3A3
Actuator size 3AD	3AD
Actuator size 3AF	3AF
Actuator size 4A2	4A2
DN 100, diaphragm size 100	
<b>Plastic actuator material</b>	
Actuator size 3/3	3/3
Actuator size 3/D	3/D
Actuator size 3/F	3/F
<b>Metal actuator material</b>	
Actuator size 3A3	3A3
Actuator size 3AD	3AD
Actuator size 3AF	3AF
Actuator size 4A2	4A2
Actuator size 4A3	4A3
Actuator size 4AD	4AD

8 Actuator version	Code
Actuator size 4AF	4AF
DN 125, diaphragm size 100	
<b>Plastic actuator material</b>	
Actuator size 3/3	3/3
Actuator size 3/D	3/D
Actuator size 3/F	3/F
<b>Metal actuator material</b>	
Actuator size 3A3	3A3
Actuator size 3AD	3AD
Actuator size 3AF	3AF
Actuator size 4C2	4C2
Actuator size 4C3	4C3
Actuator size 4CD	4CD
Actuator size 4CF	4CF
DN 125, diaphragm size 125	
<b>Metal actuator material</b>	
Actuator size 4A2	4A2
Actuator size 4A3	4A3
Actuator size 4AD	4AD
Actuator size 4AF	4AF
DN 150, diaphragm size 150	
<b>Metal actuator material</b>	
Actuator size 4A3	4A3
Actuator size 4AD	4AD
Actuator size 4AF	4AF
<b>Note:</b> On all actuators, the control air connector is 90° offset to flow direction.	
<b>9 Mounting type</b>	<b>Code</b>
With NAMUR mounting bracket	NO
With NAMUR mounting bracket and handwheel	NH

## Order example

Ordering option	Code	Description
1 Type	620	Diaphragm valve, pneumatically operated, membrane actuator, cast iron distance piece
2 DN	80	DN 80
3 Body configuration	D	2/2-way body
4 Connection type	8	Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D
5 Valve body material	90	EN-GJS-400-18-LT (GGG 40.3)
6 Diaphragm material	29	EPDM
7 Control function	1	Normally closed (NC)
8 Actuator version	3/3	Actuator size 3/3
9 Mounting type		Without

## Technical data

### Medium

**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.

**Control medium:** Inert gases

### Temperature

#### Media temperature:

MG	Diaphragm material	Valve body material	Standard
25, 40, 50, 80, 100, 125, 150	NBR (code 2)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 100 °C
25, 40, 50, 80, 100, 125, 150	FKM (code 4)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 90 °C
25, 40, 50, 80, 100	CR (code 8)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 100 °C
25, 40, 50, 80, 100, 125, 150	EPDM (code 29)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 100 °C
25, 40, 50, 80, 100, 125, 150	PTFE/EPDM (code 54)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 100 °C

MG	Diaphragm material	Valve body material	Standard
25, 40, 50, 80, 100	PTFE/PVDF/EPDM (code 71)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 100 °C
25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 100 °C
25	PTFE/EPDM (code 5Y)	GGG 40.3, PFA lined (code 17) GGG 50, PFA lined (code 81)	-10 to 100 °C
25, 40, 50, 80, 100	PTFE/FKM (code 5T)	GG 25, without lining (code 8) GGG 40.3, PP lined (code 18) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	-10 to 100 °C

**Ambient temperature:**

MG	Diaphragm material	Valve body material	Standard
25, 40, 50, 80, 100, 125, 150	NBR (code 2)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C
25, 40, 50, 80, 100, 125, 150	FKM (code 4)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C
25, 40, 50, 80, 100	CR (code 8)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C
25, 40, 50, 80, 100, 125, 150	EPDM (code 29)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C
25, 40, 50, 80, 100, 125, 150	PTFE/EPDM (code 54)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C
25, 40, 50, 80, 100	PTFE/PVDF/EPDM (code 71)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C

MG	Diaphragm material	Valve body material	Standard
25, 40, 50, 80, 100	PTFE/EPDM (code 5M)	GG 25, without lining (code 8) GGG 40.3, PFA lined (code 17) GGG 40.3, PP lined (code 18) GGG 50, PFA lined (code 81) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C
25	PTFE/EPDM (code 5Y)	GGG 40.3, PFA lined (code 17) GGG 50, PFA lined (code 81)	0 to 60 °C
25, 40, 50, 80, 100	PTFE/FKM (code 5T)	GG 25, without lining (code 8) GGG 40.3, PP lined (code 18) GGG 40.3, soft rubber lined (code 82) GGG 40.3, hard rubber lined (code 83) GGG 40.3, butyl lined (code 88) GGG 40.3, without lining (code 90) GGG 50, PP lined (code 91)	0 to 60 °C

**Control medium temperature:** 0 – 40 °C

**Storage temperature:** 0 – 40 °C

**Pressure**

**Operating pressure:**

MG	DN	Control function	Actuator size	EPDM	PTFE
25	15 - 25	1, 2, 3	0KN	0 - 10	0 - 10
40	32 - 40	1, 2, 3	1KN	0 - 10	0 - 10
50	50 - 65	1, 2, 3	2KN	0 - 10	0 - 10
80	80	1	3/2	0 - 3	0 - 2
			3A2	0 - 3	0 - 2
			3/3	0 - 7	0 - 5
			3A3	0 - 7	0 - 5
		4A2	0 - 10	0 - 6	
		2	3/F, 3AF	0 - 10	0 - 6
3	3/D, 3AD	0 - 10	0 - 6		
100	100	1	3/3	0 - 6	0 - 4
			3A3	0 - 6	0 - 4
			4A2	0 - 6	0 - 4
			4A3	0 - 10	0 - 6
		2	3/F	0 - 6	0 - 4
			3AF	0 - 6	0 - 4
			4AF	0 - 10	0 - 6
		3	3/D	0 - 6	0 - 4
			3AD	0 - 6	0 - 4
			4AD	0 - 10	0 - 6
100	125	1	3/3	0 - 6	0 - 4
			3A3	0 - 6	0 - 4
			4C2	0 - 6	0 - 4
			4C3	0 - 10	0 - 6
		2	3/F	0 - 6	0 - 4
			3AF	0 - 6	0 - 4
			4CF	0 - 10	0 - 6
		3	3/D	0 - 6	0 - 4
			3AD	0 - 6	0 - 4
			4CD	0 - 10	0 - 6
125	125	1	4A2	0 - 5	0 - 3
			4A3	0 - 8	0 - 5
		2	4AF	0 - 10	0 - 6
		3	4AD	0 - 10	0 - 6
150	150	1	4A3	0 - 6	0 - 4
		2	4AF	0 - 8	0 - 5
		3	4AD	0 - 8	0 - 5

MG = diaphragm size

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

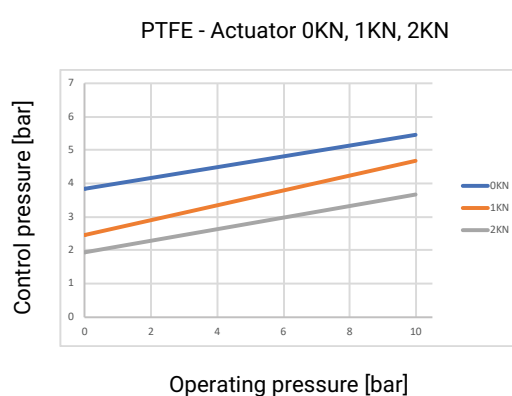
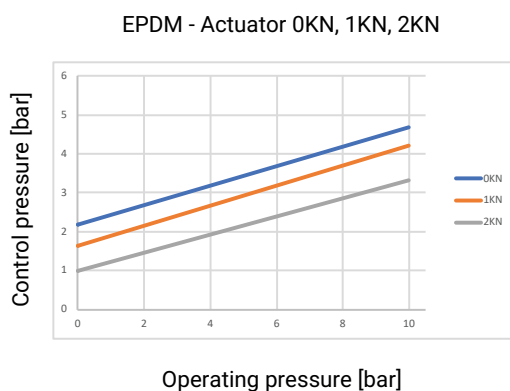
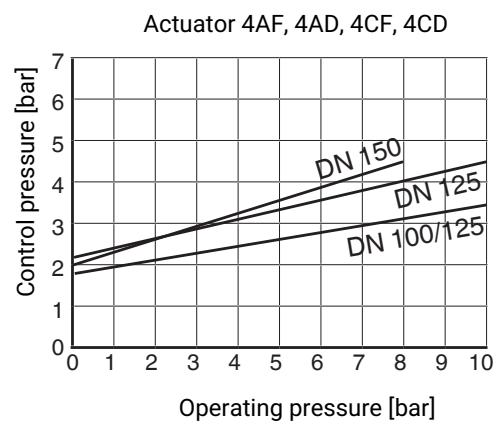
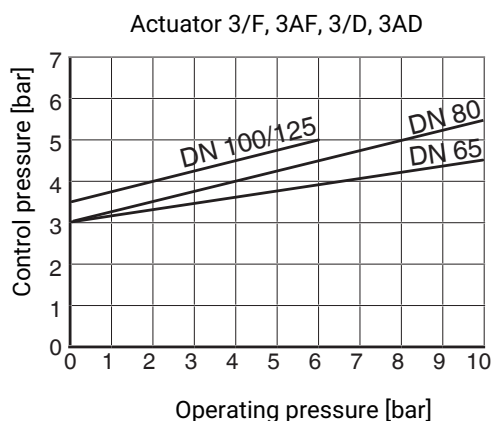
Information on operating pressures applied on both sides and for high purity media on request.

**Pressure rating:** PN 16

**Leakage rate:** Leakage rate A (acc. to EN 12266-1)

**Control pressure:**

**Control pressure/operating pressure diagram**



Note: The above diagrams give the minimum control pressure for "normally open" actuators (control function 2) for different operating pressures.

**Control pressure:**

MG	DN	Control function	Actuator size	EPDM
25	15 - 25	1	0KN	5.5 - 7.0
		2	0KN	max. 5.5
		3	0KN	max. 5.5
40	32 - 40	1	1KN	5.5 - 7.0
		2	1KN	max. 5.5
		3	1KN	max. 5.5
50	50 - 65	1	2KN	5.5 - 7.0
		2	2KN	max. 5.0
		3	2KN	max. 5.0
80	80	1	3/2	4.5 - 7.0
			3A2	5.0 - 7.0
			3/3	5.6 - 7.0
			3A3	6.5 - 7.0
		2	4A2	3.5 - 7.0
			3/F, 3AF	max. 5.5
			3	3/D, 3AD
100	100	1	3/3	6.2 - 7.0
			3A3	6.5 - 7.0
			4A2	3.5 - 7.0
			4A3	4.5 - 7.0
		2	3/F	max. 5.0

Technical data

MG	DN	Control function	Actuator size	EPDM		
			3AF	max. 5.0		
			4AF	max. 3.5		
			3	3/D	max. 4.5	
			3AD	max. 4.5		
			4AD	max. 3.0		
100	125	1	3/3	6.2 - 7.0		
			3A3	6.5 - 7.0		
			4C2	3.5 - 7.0		
			4C3	4.5 - 7.0		
		2	3/F	max. 5.0		
			3AF	max. 5.0		
			4CF	max. 3.5		
		3	3/D	max. 4.5		
			3AD	max. 4.5		
			4CD	max. 3.0		
		125	125	1	4A2	4.0 - 7.0
					4A3	5.5 - 7.0
2	4AF			max. 4.5		
3	4AD			max. 4.0		
150	150	1	4A3	5.5 - 7.0		
		2	4AF	max. 4.5		
		3	4AD	max. 4.0		

MG = diaphragm size

**Filling volume:**

Actuator size 0KN	0.16 dm <sup>3</sup>
Actuator size 1KN	0.40 dm <sup>3</sup>
Actuator size 2KN	0.69 dm <sup>3</sup>
Actuator size 3	2.50 dm <sup>3</sup>
Actuator size 4	6.80 dm <sup>3</sup>

**Kv values:**

MG	DN	Cast body without lining		Rubber lining	Plastic lining
		Threaded body	Flanged body		
		Material code 90		Material code 82, 83, 88	Material code 17, 18, 81, 91
25	15	8.0	10.0	6.0	5.0
	20	11.5	14.0	11.0	9.0
	25	11.5	17.0	15.0	13.0
40	32	28.0	36.0	29.0	23.0
	40	28.0	40.0	32.0	26.0
50	50	60.0	68.0	53.0	47.0
	65	-	68.0	53.0	47.0
80	80	-	130.0	128.0	110.0
100	100	-	200.0	180.0	177.0
	125	-	200.0	160.0	160.0
150	150	-	484.0	397.0	365.0

MG = diaphragm size, Kv values in m<sup>3</sup>/h

Kv values determined in accordance with DIN EN 60534, inlet pressure 5 bar,  $\Delta p$  1 bar, with connection flange EN 1092 length EN 558 series 1 (or threaded socket DIN ISO 228 for body material GGG40.3) and soft elastomer diaphragm. The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.

The Kv value curve (Kv value dependent on valve stroke) can vary depending on the diaphragm material and term of use.

## Product compliance

**Pressure Equipment Directive:** 2014/68/EU

**Machinery Directive:** 2006/42/EC

**Food:** FDA\*  
Regulation (EC) No. 1935/2006  
Regulation (EC) No. 10/2011\*

**EAC:** TR CU 010/2011

**TA Luft (German Clean Air Act):** The product complies with the equivalence requirements of section 5.2.6.4 of the German Clean Air Act (TA Luft / VDI 2440 according to section 3.3.1.3)\*

The product complies with the requirements according to VDI 2440 (November 2000), VDI 3479, DIN EN ISO 158481, certificate no. 18 11 090235 002\*

\* see availability

**Mechanical data**

Weight:

Actuator			
MG	Actuator size	Control function	Weight
25	0KN	1	2.2
	0KN	2 + 3	1.7
40	1KN	1	4.7
	1KN	2 + 3	3.1
50	2KN	1	6.9
	2KN	2 + 3	5.2
80	3/2	1	16.5
	3/3		17.2
	3A2		26.4
	3A3		27.4
	4A2		54.7
	3/F-3/D	2 + 3	15.2
	3AF-3AD		20.0
100	3/3	1	17.8
	3A3		28.1
	4A2-4C2		63.0
	4A3-4C3		63.3
	3/F-3/D	2 + 3	16.0
	3AF-3AD		21.0
	4AF-4AD		35.0
	4CF-4CD		35.0
125	4A2	1	58.0
	4A3		66.0
	4AF-4AD	2 + 3	35.0
150	4A3	1	67.0
	4AF-4AD	2 + 3	45.0

MG = diaphragm size  
Weights in kg

**Weight:**

**Body**

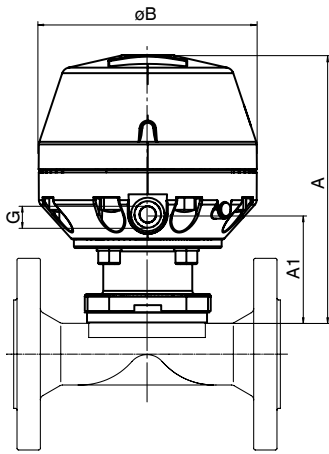
MG	DN	Threaded socket	Flange
		Connection type code	
		1, 31	8, 38, 39, 51, 53, 56
25	15	0.50	1.50
	20	0.60	2.20
	25	0.90	2.80
40	32	1.40	3.40
	40	1.90	4.50
50	50	2.70	6.30
	65	-	10.30
80	80	-	13.80
100	100	-	20.80
	125	-	26.30
150	150	-	37.30

MG = diaphragm size  
Weights in kg

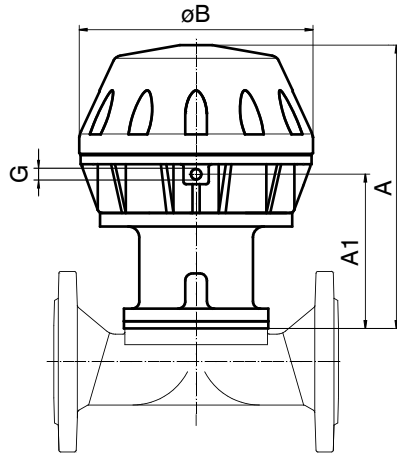
## Dimensions

### Actuator dimensions

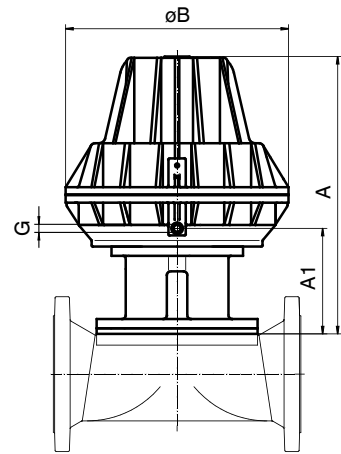
#### Control function 1



Actuator size 0-2  
0KN, 1KN, 2KN



Actuator size 3

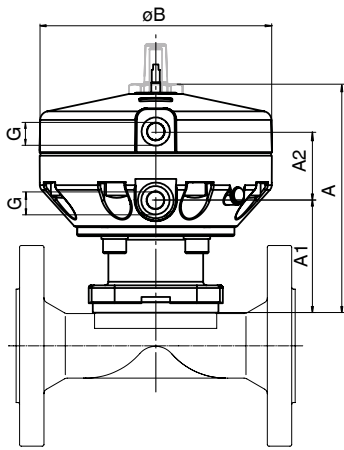


Actuator size 4

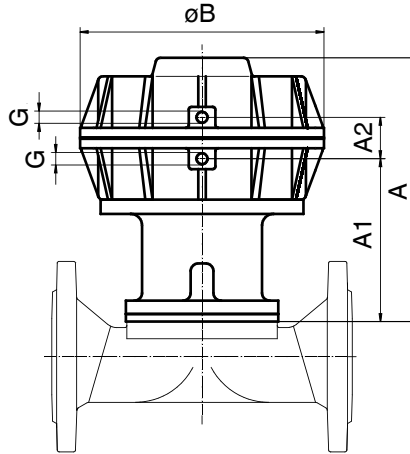
MG	DN	Actuator version	ø B	A	A1	G
25	15 - 25	0KN	130	170	59	G 1/4
40	32 - 40	1KN	171	208	75	G 1/4
50	50 - 65	2KN	211	244	90	G 1/4
80	80	3/2	259	333	173	G 1/4
		3/3	259	333	173	
		3A2	256	307	172	
		3A3	256	307	172	
		4A2	360	439	159	
100	100 - 125	3/3	259	333	173	G 1/4
		3A3	256	307	172	
		4A2	360	439	159	
		4A3	360	439	159	
		4C2	360	439	159	
125	125	4A2	360	451	171	G 1/4
		4A3	360	451	171	
150	150	4A3	360	440	160	G 1/4

Dimensions in mm  
MG = diaphragm size

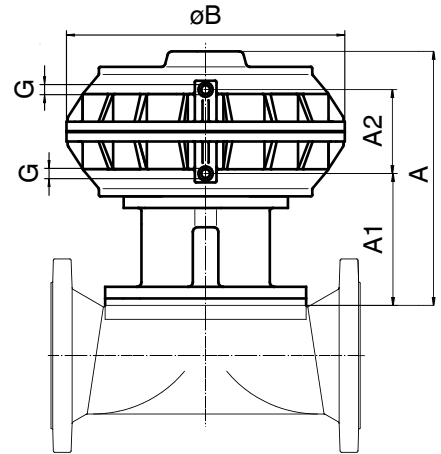
**Control functions 2 + 3**



Actuator size 0-2  
0KN, 1KN, 2KN



Actuator size 3

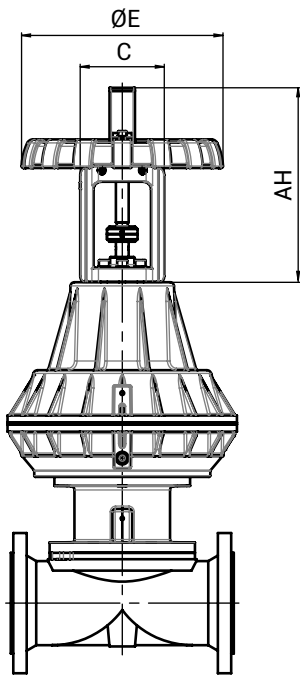


Actuator size 4

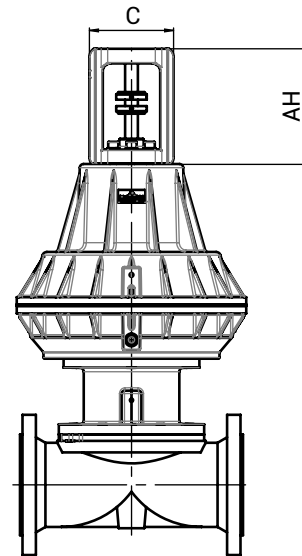
MG	DN	Actuator size	ø B	A	A1	A2	G
25	15 - 25	0KN	130	147	59	39	G 1/4
40	32 - 40	1KN	171	173	75	42	G 1/4
50	50 - 65	2KN	211	206	90	47	G 1/4
80	80	3/F - 3/D	256	282	169	45	G 1/4
		3AF - 3AD	256	282	169	45	G 1/4
100	100 - 125	3/F - 3/D	256	282	169	45	G 1/4
		3AF - 3AD	256	282	169	45	G 1/4
		4AF - 4AD	360	322	156	109	G 1/4
		4CF - 4CD	360	322	156	109	G 1/4
125	125	4AF - 4AD	360	334	168	109	G 1/4
150	150	4AF - 4AD	360	323	156	109	G 1/4

Dimensions in mm  
MG = diaphragm size

**Mounting type with NAMUR mounting bracket**



Control function 1  
Mounting type with NAMUR mounting  
bracket and handwheel (code NH)



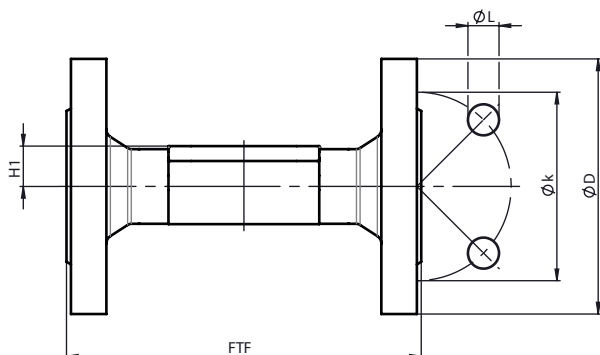
Control function 1  
Mounting type with NAMUR mounting  
bracket (code N0)

MG	DN	AH		C	ØE
		Mounting type code N0	Mounting type code NH		
80-150	80-150	181.0	305.0	132.0	316.0

Dimensions in mm  
MG = diaphragm size

## Body dimensions

### Flange EN (code 8)



Connection type flange, length EN 558 (code 8)<sup>1)</sup>, SG iron material (code 17, 18, 82, 83, 88, 90)<sup>2)</sup>

MG	DN	øD	øk	øL	n	H1			FTF		
						Material			Material		
						17, 82, 83, 88	18	90	17, 82, 83, 88	18	90
25	15	95.0	65.0	14.0	4	18.0	18.0	14.0	130.0	130.0	130.0
	20	105.0	75.0	14.0	4	20.5	20.5	16.5	150.0	150.0	150.0
	25	115.0	85.0	14.0	4	23.0	23.0	19.5	160.0	160.0	160.0
40	32	140.0	100.0	18.0	4	28.7	28.7	23.0	180.0	180.0	180.0
	40	150.0	110.0	18.0	4	33.0	33.0	27.0	200.0	200.0	200.0
50	50	165.0	125.0	18.0	4	39.0	39.0	32.0	230.0	230.0	230.0
	65	185.0	145.0	18.0	4	-	-	38.7	-	-	290.0
80	80	200.0	160.0	18.0	8	59.5	59.5	31.5	310.0	310.0	310.0
100	100	220.0	180.0	18.0	8	73.0	73.0	43.0	350.0	350.0	350.0
	125	250.0	210.0	18.0	8	73.0	-	58.0	400.0	-	400.0
125	125	250.0	210.0	18.0	8	87.0	-	-	400.0	-	-
150	150	285.0	240.0	22.0	8	109.0	-	58.0	480.0	-	480.0

Dimensions in mm

MG = diaphragm size

n = number of bolt holes

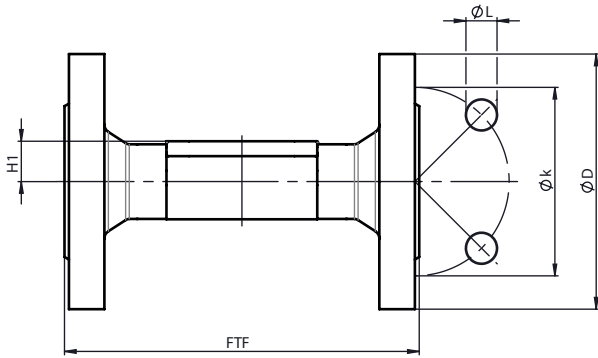
#### 1) Connection type

Code 8: Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

#### 2) Valve body material

Code 17: EN-GJS-400-18-LT (GGG 40.3), PFA lining  
 Code 18: EN-GJS-400-18-LT (GGG 40.3), PP lining  
 Code 82: EN-GJS-400-18-LT (GGG 40.3), soft rubber lined  
 Code 83: EN-GJS-400-18-LT (GGG 40.3), hard rubber lining  
 Code 88: EN-GJS-400-18-LT (GGG 40.3), butyl lined  
 Code 90: EN-GJS-400-18-LT (GGG 40.3)

**Flange EN (code 53)**



**Connection type flange, length EN 558 (code 53)<sup>1)</sup>, cast iron material (code 8), SG iron material (code 17)<sup>2)</sup>**

MG	DN	øD		øk	øL	n	H1		FTF	
							Material		Material	
		8	17				8	17	8	17
25	20	105.0	-	75.0	14.0	4	19.0	-	117.0	-
40	40	150.0	-	110.0	18.0	4	28.0	-	159.0	-
50	50	165.0	-	125.0	18.0	4	35.0	-	191.0	-
80	80	200.0	-	160.0	18.0	8	33.0	-	254.0	-
125	125	250.0	-	210.0	18.0	8	65.0	-	356.0	-
150	150	285.0	280.0 <sup>3)</sup>	240.0	22.0	8	58.0	109.0	406.0	416.0

Dimensions in mm

MG = diaphragm size

n = number of bolt holes

1) **Connection type**

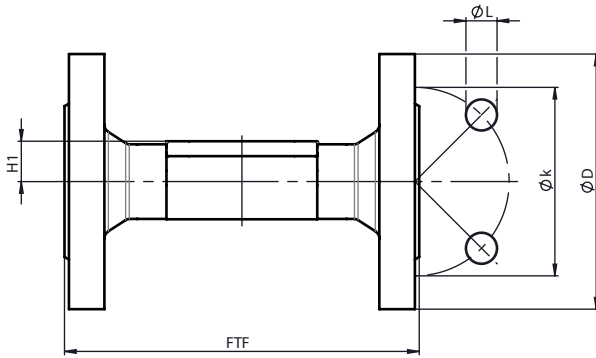
Code 53: Flange EN 1092, PN 16, form A, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D

2) **Valve body material**

Code 8: EN-GJL-250 (GG 25)

Code 17: EN-GJS-400-18-LT (GGG 40.3), PFA lining

3) Diameter deviates from standard

**Flange ANSI Class (code 38, 39)****Connection type flange, length MSS SP-88 (code 38)<sup>1)</sup>, SG iron material (code 17, 18, 82, 83, 88)<sup>2)</sup>**

MG	DN	øD	øk	øL	n	H1		FTF		
						Material		Material		
						17, 82, 83, 88	18	17	18	82, 83, 88
25	20	100.0	69.9	15.9	4	20.5	20.5	146.0	146.0	146.4
	25	110.0	79.4	15.9	4	23.0	23.0	146.0	146.0	146.4
40	40	125.0	98.4	15.9	4	33.0	33.0	175.0	175.0	171.4
50	50	150.0	120.7	19.0	4	39.0	39.0	200.0	200.0	197.4
80	80	190.0	152.4	19.0	4	59.5	59.5	260.0	260.0	260.4
100	100	230.0	190.5	19.0	8	73.0	73.0	327.0	327.0	324.4
150	150	280.0	241.3	22.2	8	109.0	-	416.0	-	416.0

Dimensions in mm

MG = diaphragm size

n = number of bolt holes

**1) Connection type**

Code 38: Flange ANSI Class 150 RF, face-to-face dimension FTF MSS SP-88, length only for body configuration D

**2) Valve body material**

Code 17: EN-GJS-400-18-LT (GGG 40.3), PFA lining

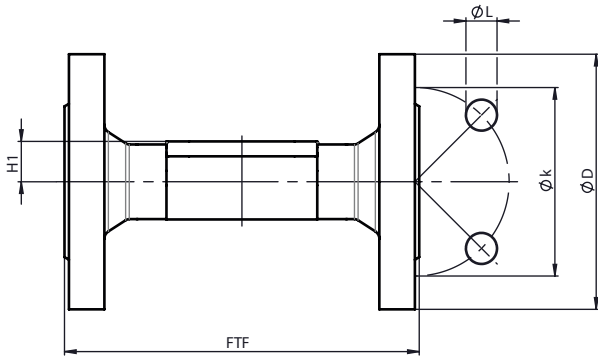
Code 18: EN-GJS-400-18-LT (GGG 40.3), PP lining

Code 82: EN-GJS-400-18-LT (GGG 40.3), soft rubber lined

Code 83: EN-GJS-400-18-LT (GGG 40.3), hard rubber lining

Code 88: EN-GJS-400-18-LT (GGG 40.3), butyl lined

## Dimensions



Connection type flange, length EN 558 (code 39),<sup>1)</sup> SG iron material (code 17, 18, 82, 83, 88, 90)<sup>2)</sup>

MG	DN	øD	øk	øL	n	H1			FTF		
						Material			Material		
						17, 82, 83, 88	18	90	17, 82, 83, 88	18	90
25	15	90.0	60.3	15.9	4	18.0	18.0	14.0	130.0	130.0	130.0
	20	100.0	69.9	15.9	4	20.5	20.5	16.5	150.0	150.0	150.0
	25	110.0	79.4	15.9	4	23.0	23.0	19.5	160.0	160.0	160.0
40	32	115.0	88.9	15.9	4	28.7	28.7	23.0	180.0	180.0	180.0
	40	125.0	98.4	15.9	4	33.0	33.0	27.0	200.0	200.0	200.0
50	50	150.0	120.7	19.0	4	39.0	39.0	32.0	230.0	230.0	230.0
	65	180.0	139.7	19.0	4	-	-	38.7	-	-	290.0
80	80	190.0	152.4	19.0	4	59.5	59.5	31.5	310.0	310.0	310.0
100	100	230.0	190.5	19.0	8	73.0	73.0	43.0	350.0	350.0	350.0
	125	255.0	215.9	22.2	8	73.0	-	58.0	400.0	-	400.0
125	125	255.0	215.9	22.2	8	-	-	-	-	-	-
150	150	280.0	241.3	22.2	8	109.0	-	58.0	480.0	-	480.0

Dimensions in mm

MG = diaphragm size

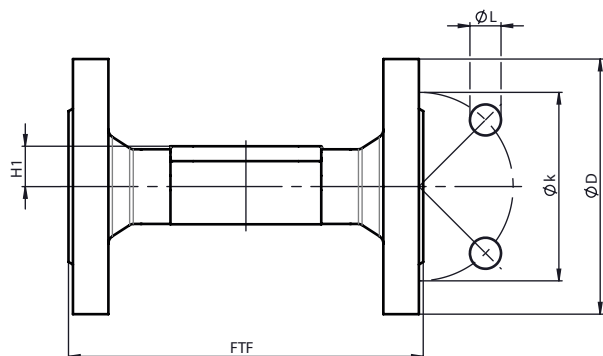
n = number of bolt holes

### 1) Connection type

Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

### 2) Valve body material

Code 17: EN-GJS-400-18-LT (GGG 40.3), PFA lining  
 Code 18: EN-GJS-400-18-LT (GGG 40.3), PP lining  
 Code 82: EN-GJS-400-18-LT (GGG 40.3), soft rubber lined  
 Code 83: EN-GJS-400-18-LT (GGG 40.3), hard rubber lining  
 Code 88: EN-GJS-400-18-LT (GGG 40.3), butyl lined  
 Code 90: EN-GJS-400-18-LT (GGG 40.3)

**Flange ANSI Class (code 56)****Connection type flange, length EN 558 (code 56), <sup>1)</sup> SG iron material (code 17, 81, 91)<sup>2)</sup>**

MG	DN	øD	øk	øL	n	H1		FTF	
						Material		Material	
						17	81, 91	17	81, 91
<b>25</b>	<b>25</b>	110.0	79.4	15.9	4	-	23.0	-	127.0
<b>40</b>	<b>40</b>	125.0	98.4	15.9	4	-	32.0	-	165.0
<b>50</b>	<b>50</b>	150.0	120.7	19.0	4	-	40.0	-	191.0
	<b>65</b>	180.0	139.7	19.0	4	-	47.5	-	216.0
<b>80</b>	<b>80</b>	190.0	152.4	19.0	4	-	58.0	-	254.0
<b>100</b>	<b>100</b>	230.0	190.5	19.0	8	-	70.0	-	311.0
<b>150</b>	<b>150</b>	280.0	241.3	22.2	8	109.0	-	416.0	-

Dimensions in mm

MG = diaphragm size

n = number of bolt holes

**1) Connection type**

Code 56: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D

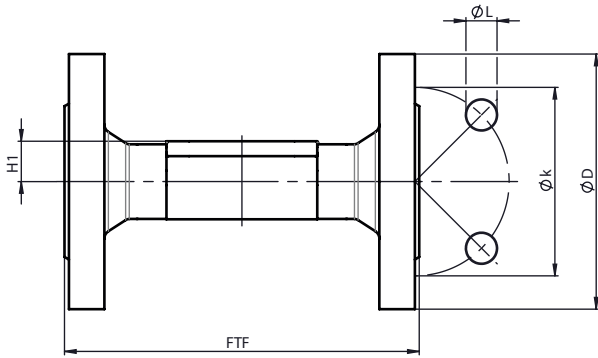
**2) Valve body material**

Code 17: EN-GJS-400-18-LT (GGG 40.3), PFA lining

Code 81: EN-GJS-500-7 (GGG 50), PFA lined

Code 91: EN-GJS-500-7 (GGG 50), PP lined

**Flange BS (code 51)**



**Connection type flange, length EN 558 (code 51), <sup>1)</sup> SG iron material (code 17, 81, 91)<sup>2)</sup>**

MG	DN	øD	øk	øL	n	H1		FTF	
						Materials		Materials	
						17	81, 91	17	81, 91
<b>25</b>	<b>25</b>	114.0	83.0	14.0	4	-	23.0	-	127.0
<b>40</b>	<b>40</b>	133.0	98.0	14.0	4	-	32.0	-	165.0
<b>50</b>	<b>50</b>	152.0	114.0	17.0	4	-	40.0	-	191.0
	<b>65</b>	165.0	127.0	17.0	4	-	47.5	-	216.0
<b>80</b>	<b>80</b>	184.0	146.0	17.0	4	-	58.0	-	254.0
<b>100</b>	<b>100</b>	216.0	178.0	17.0	8	-	70.0	-	311.0
<b>150</b>	<b>150</b>	279.0	235.0	22.0	8	109.0	-	416.0	-

Dimensions in mm

MG = diaphragm size

n = number of bolt holes

**1) Connection type**

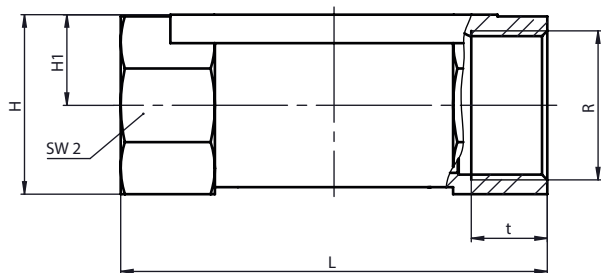
Code 51: Flange BS 10 table E, face-to-face dimension FTF EN 558 series 7, ISO 5752, basic series 7, length only for body configuration D

**2) Valve body material**

Code 17: EN-GJS-400-18-LT (GGG 40.3), PFA lining

Code 81: EN-GJS-500-7 (GGG 50), PFA lined

Code 91: EN-GJS-500-7 (GGG 50), PP lined

**Threaded socket DIN (code 1)****Connection type threaded socket (code 1)<sup>1)</sup>, SG iron material (code 90)<sup>2)</sup>**

MG	DN	NPS	H	H1	L	n	R	SW 2	t
25	15	1/2"	32.7	16.7	85.0	6	G 1/2	32	15.0
	20	3/4"	42.0	21.5	85.0	6	G 3/4	41	16.3
	25	1"	46.7	23.7	110.0	6	G 1	46	19.1
40	32	1 1/4"	56.0	28.5	120.0	6	G 1 1/4	55	21.4
	40	1 1/2"	66.0	33.5	140.0	6	G 1 1/2	65	21.4
50	50	2"	76.0	38.5	165.0	6	G 2	75	25.7

Dimensions in mm

MG = diaphragm size

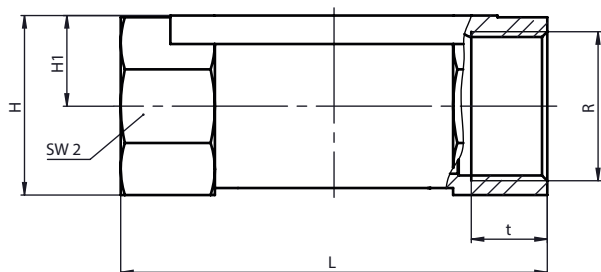
n = number of flats

**1) Connection type**

Code 1: Threaded socket DIN ISO 228

**2) Valve body material**

Code 90: EN-GJS-400-18-LT (GGG 40.3)

**Threaded socket NPT (code 31)****Connection type threaded socket NPT (code 31)<sup>1)</sup>, SG iron material (code 90)<sup>2)</sup>**

MG	DN	NPS	H	H1	L	n	R	SW 2	t
25	15	1/2"	32.7	16.7	85.0	6	NPT 1/2	32	13.6
	20	3/4"	42.0	21.5	85.0	6	NPT 3/4	41	14.1
	25	1"	46.7	23.7	110.0	6	NPT 1	46	16.8
40	32	1 1/4"	56.0	28.5	120.0	6	NPT 1 1/4	55	17.3
	40	1 1/2"	66.0	33.5	140.0	6	NPT 1 1/2	65	17.3
50	50	2"	76.0	38.5	165.0	6	NPT 2	75	17.7

Dimensions in mm

MG = diaphragm size

n = number of flats

**1) Connection type**

Code 31: NPT female thread

**2) Valve body material**

Code 90: EN-GJS-400-18-LT (GGG 40.3)

## Accessories



### **GEMÜ 1450**

#### **NAMUR mounting bracket**

GEMÜ 1450 is a NAMUR mounting bracket for pneumatically operated diaphragm valves and globe valves. The product is available with a handwheel for manual override or without a handwheel. In the version with an emergency handwheel, an optical position indicator is integrated as standard. GEMÜ 1450 has height-adjustable trip cams for the installation of inductive proximity switches or mechanical switches. Mounting parts for switches must be configured separately.



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