

## GEMÜ 537

### Manually operated globe valve



#### Features

- High flow rates and compact design
- Continuous series with SG iron and stainless steel bodies
- Can be retrofitted with a pneumatic actuator
- Seat seal made of PTFE or PTFE/glass fibre
- Suitable for vacuum up to 20 mbar (a)
- Handwheel locknut for fixing the spindle, in order to set a continuous flow rate

#### Description

The GEMÜ 537 2/2-way globe valve has an ergonomically designed plastic handwheel and is manually operated. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. A handwheel extension available as an option enables installation of the valve in insulated pipelines.

#### Technical specifications

- **Media temperature:** -10 to 210 °C
- **Ambient temperature:** -10 to 60 °C
- **Operating pressure:** 0 to 40 bar
- **Nominal sizes:** DN 15 to 50
- **Body configurations:** 2/2-way body
- **Connection types:** Flange
- **Connection standards:** ANSI | ASME | EN | ISO | JIS
- **Body materials:** 1.4408, investment casting material | EN-GJS-400-18-LT, SG iron material
- **Seat seal materials:** PTFE, reinforced
- **Conformities:** CRN | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP

Technical data depends on the respective configuration

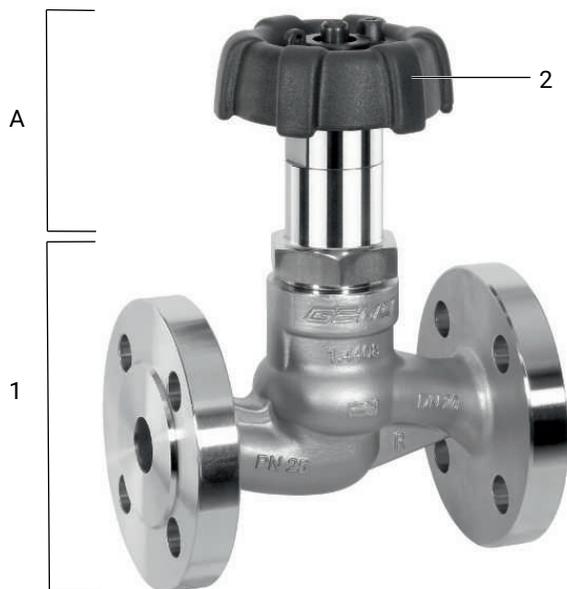


further information  
webcode: GW-537



## Product description

### Construction



Item	Name	Materials
A	Actuator	
1	Valve body	1.4408, investment casting EN-GJS-400-18-LT (GGG 40.3), SG iron
2	Handwheel	

## GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

**For further information on GEMÜ CONEXO please visit:**

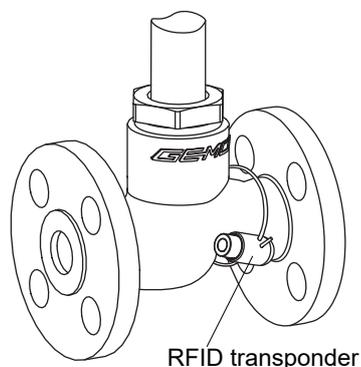
[www.gemu-group.com/conexo](http://www.gemu-group.com/conexo)

### Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

In the corresponding design with CONEXO, this product has an RFID chip for electronic identification purposes. The position of the RFID chip can be seen below.

### Installing the RFID chip



## Availability

### Flange

DN	Connection type code <sup>1)</sup>						
	8		10	11	39		48
	Material code <sup>2)</sup>						
	37	90	37		90	37	
15	-	X	-	X	X	X	X
20	-	X	-	X	X	X	X
25	-	X	-	X	X	X	X
32	-	X	X	X	X	X	-
40	-	X	X	X	X	X	X
50	X	X	-	X	X	X	X

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

Code 10: Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 11: Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 48: Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K

#### 2) Valve body material

Code 37: 1.4408, investment casting

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

## Design

Design	
Media temperature -10 to 210 °C (code 2023)	Seat seal (code 5G)
For contact with foodstuffs, the product must be ordered with the following ordering options (code 2013)	Seat seal (code 5, 5G) Valve body material (code 37)

## 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
Globe valve, manually operated, plastic handwheel	537

2 DN	Code
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50

3 Housing configuration	Code
2/2-way body	D

4 Connection type	Code
Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	8
Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	10
Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	11
Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	39
Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K	48

5 Valve body material	Code
1.4408, investment casting	37
EN-GJS-400-18-LT (GGG 40.3)	90

6 Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G

7 Control function	Code
Manually operated, with handwheel locknut	0

8 Actuator version	Code
Actuator size 1	1
Actuator size 1 Extended valve spindle	1E

9 Regulating cone	Code
Without	
Please find the number of the optional regulating cone (R-No.) for the linear or equal-percentage modified regulating cone in the Kv value table.	R...

10 Design	Code
Standard	
PTFE-PTFE spindle seal	2013
For higher operating temperatures	2023

11 Special version	Code
Standard	
Rigid plug fixing	C
Special version for oxygen, (max. temperature 60 °C; max. operating pressure 10 bar), media wetted seal materials and auxiliary materials with BAM testing	S

12 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

## Order example

Ordering option	Code	Description
1 Type	537	Globe valve, manually operated, plastic handwheel
2 DN	25	DN 25
3 Housing configuration	D	2/2-way body
4 Connection type	10	Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
5 Valve body material	37	1.4408, investment casting
6 Seat seal	5	PTFE
7 Control function	0	Manually operated, with handwheel locknut

Order data

Ordering option	Code	Description
8 Actuator version	1	Actuator size 1
9 Regulating cone		Without
10 Design		Standard
11 Special version		Standard
12 CONEXO		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 seal material.

**Max. permissible viscosity:** 600 mm<sup>2</sup>/s (cSt)  
Other versions for lower/higher temperatures and higher viscosities on request.

### Temperature

**Media temperature:** Standard: -10 – 180 °C  
Special version: -10 – 210 °C only with the design ordering option (code 2023)  
-10 – 60 °C only with the special function ordering option (code S)

**Ambient temperature:** -10 – 60 °C

**Storage temperature:** 0 – 40 °C

### Pressure

**Operating pressure:** Open/close valve

DN	Operating pressure
15	40.0
20	40.0
25	40.0
32	40.0
40	40.0
50	16.0

All pressures are gauge pressures.  
For max. operating pressures the pressure / temperature correlation must be observed.

**Pressure/temperature correlation:**

Connection type code	Material code	Permissible operating pressures in bar at temperature in °C					
		RT	100	150	200	250	300
8	37	16.0	16.0	14.5	13.4	12.7	11.8
10	37	25.0	25.0	22.7	21.0	19.8	18.5
11	37	40.0	40.0	36.3	33.7	31.8	29.7
39	37	19.0	16.0	14.8	13.6	12.0	10.2
8	90	16.0	16.0	15.5	14.7	13.9	11.2
39	90	17.0	16.0	14.8	13.9	12.1	10.2

All pressures are gauge pressures.  
The valves are suitable for temperatures as low as -10 °C  
RT = room temperature  
Pressure/temperature correlation for connection code 48: DN 15–40 see connection code 10, DN 50 see connection code 8.

**Kv values:**

**Open/close valve**

DN	Kv values
15	4.6
20	8.0
25	13.0
32	22.0
40	35.0
50	50.0

Kv values in m<sup>3</sup>/h

Kv values determined in accordance with DIN EN 60534. The Kv value specifications refer to the largest actuator for the respective nominal size. The Kv values for other product configurations (e.g. other connections or body materials) may differ.

**Standard regulating cone (DIN)**

DN	Kv values	Operating pressure	Actuator version	Linear	Equal percentage
15	4.0	40.0	1	RS271	RS281
20	6.3	40.0	1	RS272	RS282
25	10.0	40.0	1	RS273	RS283
32	16.0	40.0	1	RS274	RS284
40	25.0	40.0	1	RS275	RS285
50	40.0	16.0	1	RS276	RS286

Always order standard regulating cones with special function code C – rigid valve plug

Kv values in m<sup>3</sup>/h

Pressures in bar

**Pressure rating:**

PN 16

PN 25

PN 40

**Leakage rate:**

**Open/Close valve**

Seat seal	Standard	Test procedure	Leakage rate	Test medium
PTFE	DIN EN 12266-1	P12	A	Air

**Control valve**

Seat seal	Standard	Test procedure	Leakage rate	Test medium
PTFE	DIN EN 60534-4	1	VI	Air

## Product conformity

<b>Food:</b>	Regulation (EC) No. 1935/2004* Regulation (EC) No. 10/2011*
<b>TA Luft (German Clean Air Act)*:</b>	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)
<b>Pressure Equipment Directive:</b>	2014/68/EU
<b>Machinery Directive:</b>	2006/42/EC
<b>Explosion protection:</b>	The product does not contain any potential ignition sources and therefore does not fall within the area of application of the ATEX Directive 2014/34/EU.
<b>Approvals:</b>	FDA* CRN * depending on version and/or operating parameters

## Mechanical data

### Weight:

#### Actuator

DN	Actuator size (code 1, 1E)
15	1.0
20	1.2
25	1.4
32	2.4
40	2.6
50	3.8

Weights in kg

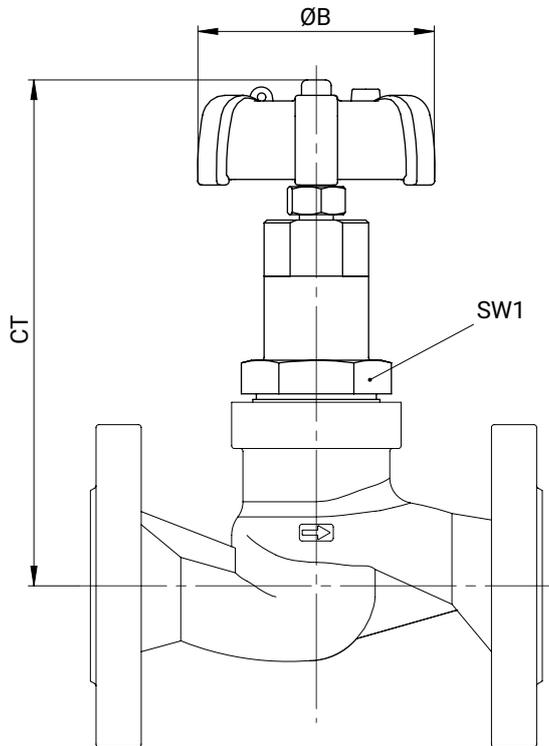
#### Valve body

DN	Weight
15	2.2
20	3.0
25	3.7
32	5.3
40	6.3
50	11.5

Weights in kg

## Dimensions

### Installation dimensions

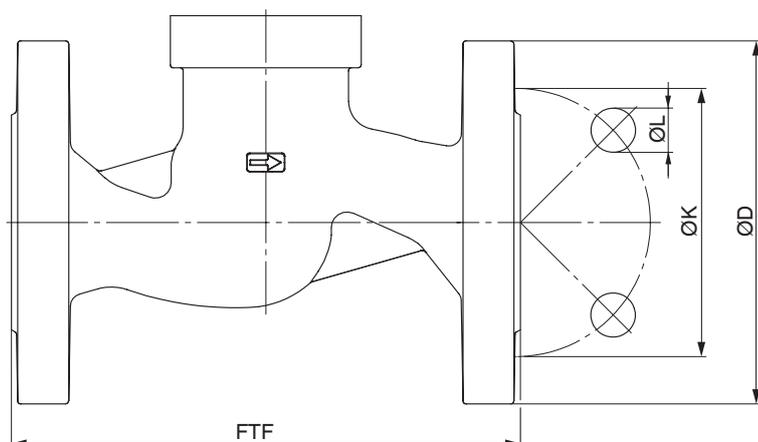


DN	SW1	ØB	CT (max. height)	
			Control function (code 0)	Actuator size (code 1E)
15	41.0	90.0	168.0	196.0
20	46.0	90.0	178.0	205.0
25	46.0	90.0	194.0	221.0
32	41.0	90.0	200.0	228.0
40	41.0	90.0	218.0	245.0
50	41.0	90.0	230.0	257.0

Dimensions in mm

## Body dimensions

### Flange EN (code 8)



#### Connection type flange, length EN 558 (code 8)<sup>1)</sup>, SG iron material (code 90)<sup>2)</sup>

DN	NPS	ø D	FTF	ø k	ø L	n
15	1/2"	95.0	130.0	65.0	14.0	4
20	3/4"	105.0	150.0	75.0	14.0	4
25	1"	115.0	160.0	85.0	14.0	4
32	1¼"	140.0	180.0	100.0	18.0	4
40	1½"	150.0	200.0	110.0	18.0	4
50	2"	165.0	230.0	125.0	18.0	4

#### Connection type flange, length EN 558 (code 8)<sup>1)</sup>, investment casting material (code 37)<sup>2)</sup>

DN	NPS	ø D	FTF	ø k	ø L	n
50	2"	165.0	230.0	125.0	18.0	4

Dimensions in mm

n = number of bolts

#### 1) Connection type

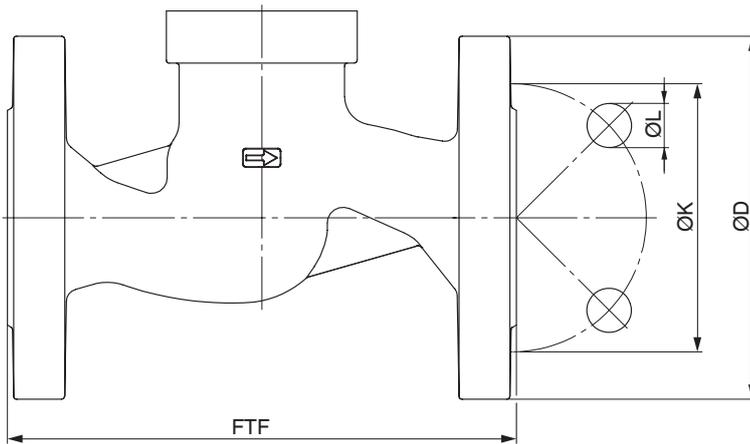
Code 8: Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

#### 2) Valve body material

Code 37: 1.4408, investment casting

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

**Flange EN/JIS (code 10, 11, 48)**



**Connection type flange, length EN 558 (code 10)<sup>1)</sup>, investment casting material (code 37)<sup>2)</sup>**

DN	NPS	ø D	FTF	ø k	ø L	n
32	1¼"	140.0	180.0	100.0	18.0	4
40	1½"	150.0	200.0	110.0	18.0	4

**Connection type flange, length EN 558 (code 11), investment casting material (code 37)<sup>2)</sup>**

DN	NPS	ø D	FTF	ø k	ø L	n
15	1/2"	95.0	130.0	65.0	14.0	4
20	3/4"	105.0	150.0	75.0	14.0	4
25	1"	115.0	160.0	85.0	14.0	4
32	1¼"	140.0	180.0	100.0	18.0	4
40	1½"	150.0	200.0	110.0	18.0	4
50	2"	165.0	230.0	125.0	18.0	4

**Connection type flange, length EN 558 (code 48), investment casting material (code 37)<sup>2)</sup>**

DN	NPS	ø D	FTF	ø k	ø L	n
15	1/2"	95.0	108.0	70.0	15.0	4
20	3/4"	100.0	117.0	75.0	15.0	4
25	1"	125.0	127.0	90.0	19.0	4
40	1½"	140.0	165.0	105.0	19.0	4
50	2"	155.0	203.0	120.0	19.0	4

Dimensions in mm

n = number of bolts

**1) Connection type**

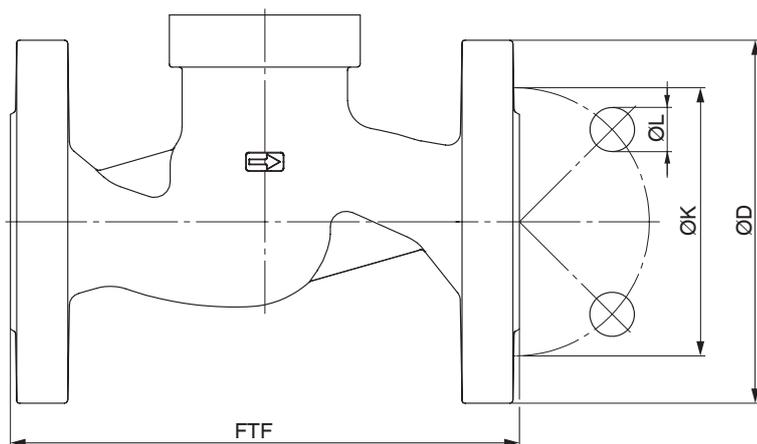
Code 10: Flange EN 1092, PN 25, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 11: Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 48: Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K

**2) Valve body material**

Code 37: 1.4408, investment casting

**Flange ANSI Class (code 39)**

Connection type flange, length EN 558 (code 39)<sup>1)</sup>, investment casting material (code 37), SG iron material (code 90)<sup>2)</sup>

DN	NPS	ø D	FTF	ø k	ø L	n
15	1/2"	90.0	130.0	60.3	15.9	4
20	3/4"	100.0	150.0	69.9	15.9	4
25	1"	110.0	160.0	79.4	15.9	4
32	1¼"	115.0	180.0	88.9	15.9	4
40	1½"	125.0	200.0	98.4	15.9	4
50	2"	150.0	230.0	120.7	19.0	4

Dimensions in mm

n = number of bolts

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

2) **Valve body material**

Code 37: 1.4408, investment casting

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



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