

# GEMÜ 555

## Pneumatically operated angle seat globe valve



### Features

- Free from non-ferrous metals
- Welded valve plug/valve spindle design to remove possible contamination areas
- Low maintenance, fixed seat plug (without threads)
- Stainless steel bellows as spindle seal for high operating temperatures
- Batch traceability for all media-wetted components

### Description

The pneumatically operated GEMÜ 555 2/2-way angle seat globe valve is designed solely for gaseous media and steam. Due to the hermetic separation of the stainless steel piston actuator from the media wetted area by stainless steel bellows, the GEMÜ 555 is ideally suited to the isolation of pure steam. Valve plug and valve spindle are firmly welded to prevent dirt ingress.

### Technical specifications

- **Media temperature :** -10 to 185 °C
- **Ambient temperature:** -10 to 60 °C
- **Operating pressure :** 0 to 10 bar
- **Nominal sizes:** DN 8 to 80
- **Body configurations:** 2/2-way body
- **Connection types:** Clamp | Spigot
- **Connection standards:** ASME | DIN | EN | ISO
- **Body materials:** 1.4435 (316L), block material | 1.4435, investment casting material
- **Seat seal materials:** PTFE
- **Conformities:** ATEX | CRN | EAC | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | USP

Technical data depends on the respective configuration



further information  
webcode: GW-555



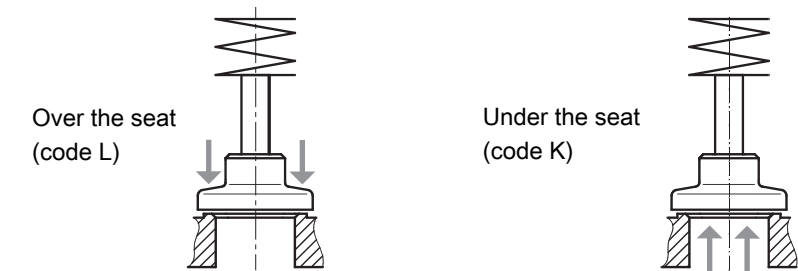
Product description

Construction

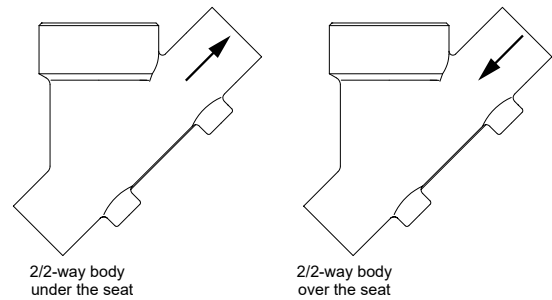


Item	Name	Materials
1	Optical position indicator	
2	Piston actuator	Stainless steel
3	Valve body	1.4435, investment casting (equivalent to 316L)

Flow direction



Under the seat (code K) is the preferred flow direction with incompressible liquid media to avoid water hammer  
The flow direction is indicated by an arrow on the valve body.



## 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.

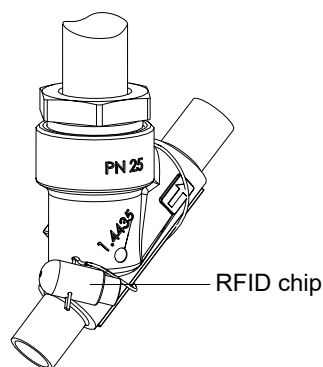
**For further information on GEMÜ CONEXO please visit:**

[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 (1) for electronic identification purposes. The position of the RFID chip can be seen below. The CONEXO pen helps read out information stored in the RFID chips. The CONEXO app or CONEXO portal is required to display this information.



## **Availabilities**

### **Type of design**

Type of design	
Grade of surface finish (code 1903, 1904, 1909, 1953, 1954 and 1959) as per order data	Valve body material (code C2)
For contact with foodstuffs, the product must be ordered with the following ordering options (code 2013)	Seat seal (code 5P) Valve body material (code C2)

## 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	8 Actuator version	Code
Pharmaceutical angle seat globe valve, pneumatically operated, stainless steel piston actuator, glass bead blasted	555	Actuator size 2L1	2L1
		Actuator size 3L1	3L1
		Actuator size 4L1	4L1
2 DN	Code	9 Type of design	Code
DN 15	15	Without	
DN 20	20	Ra ≤ 0.6 µm (25 µinch) for media wetted surfaces, in accordance with ASME BPE SF2 and SF3, mechanically polished internal	1903
DN 25	25	Ra ≤ 0.8 µm (30 µinch) for media wetted surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1904
DN 40	40	Ra ≤ 0.4 µm (15 µinch) for media wetted surfaces, in accordance with DIN 11866 H4, ASME BPE SF1, mechanically polished internal	1909
DN 50	50	Ra ≤ 0.6 µm for media wetted surfaces, in accordance with ASME BPE SF6, electropolished internal/external	1953
DN 65	65	Ra ≤ 0.8 µm for media wetted surfaces, in accordance with DIN 11866 HE3, electropolished internal/external	1954
3 Body configuration	Code	Ra ≤ 0.4 µm for media wetted surfaces, in accordance with DIN 11866 HE4/ASME BPE SF5, electropolished internal/external	1959
2/2-way body	D	For higher operating temperatures	2023
4 Connection type	Code	Special bleed system integrated in actuator	6996
Clamp ASME BPE, face-to-face dimension FTF ASME BPE	80	10 Special version	Code
5 Valve body material	Code	Without	
1.4435, investment casting	C2	Special version with bellows	F
6 Seat seal	Code	11 CONEXO	Code
PTFE	5P	Without	
FDA compliant, USP class VI		Integrated RFID chip for electronic identification and traceability	C
7 Control function	Code		
Normally closed (NC)	1		
8 Actuator version	Code		
Actuator size 2K1	2K1		
Actuator size 3K1	3K1		
Actuator size 4K1	4K1		
Actuator size 5K1	5K1		
Actuator size 1L1	1L1		

## Order example

Ordering option	Code	Description
1 Type	555	Pharmaceutical angle seat globe valve, pneumatically operated, stainless steel piston actuator, glass bead blasted
2 DN	15	DN 15
3 Body configuration	D	2/2-way body
4 Connection type	80	Clamp ASME BPE, face-to-face dimension FTF ASME BPE
5 Valve body material	C2	1.4435, investment casting

## Order data

Ordering option	Code	Description
6 Seat seal	5P	PTFE FDA compliant, USP class VI
7 Control function	1	Normally closed (NC)
8 Actuator version	2K1	Actuator size 2K1
9 Type of design		Without
10 Special version		Without
11 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  
Other versions for lower / higher temperatures and higher viscosities on request.

**Control medium:** Inert gases

### Temperature

**Media temperature:** -10 – 185 °C

**Ambient temperature:** -10 – 60 °C

**Storage temperature:** 0 – 40 °C

**Control medium temperature:** max. 60 °C

### Pressure

**Operating pressure:** 0 – 10 bar  
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.  
The operating pressures apply at room temperature. In case of deviating temperatures, observe the pressure / temperature correlation.

**Control pressure:**

Actuator version code	Control pressure
2	4.0 - 8.0
3	4.0 - 8.0
4	4.0 - 8.0
5	5.0 - 8.0

All pressures are gauge pressures.

**Pressure rating:** PN 16

**Pressure/temperature correlation:**

Connection type code	Material code	Permissible operating pressures in bar at temperature in °C			
		RT	100	150	180
80 (DN 15 - 40)	C2	25.0	21.2	19.3	17.9
80 (DN 50 - 65)	C2	16.0	16.0	16.0	16.0

All pressures are gauge pressures.

The valves are suitable for temperatures as low as -10 °C

RT = room temperature

**Leakage rate:**

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

**Kv values:**

DN	Actuator version Code	Kv values
15	2	2.0
20	2	4.0
25	2	8.7
40	3	17.5
50	4	32.5
65	5	33.0

Kv values in m³/h

Kv values determined in accordance with EN 60534. The Kv value data refers to control function 1 (NC) and the largest actuator for each nominal size. The Kv values for other product configurations (e.g. other connection types or body materials) may differ.

## Product conformity

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

**Food:** Regulation (EC) No. 1935/2004\*  
Regulation (EC) No. 10/2011\*  
Regulation (EC) No. 2023/2006\*  
USP\* Class VI  
FDA\*

**Explosion protection:** ATEX (2014/34/EU)\*  
\* depending on version and/or operating parameters

**Environment:** RoHS

## Mechanical data

**Weight:**
**Actuator**

DN	Actuator size code	Weight
15	2	1.3
20	2	1.4
25	2	1.5
40	3	2.7
50	4	4.6
65	5	10.2

Weights in kg

**Valve body**

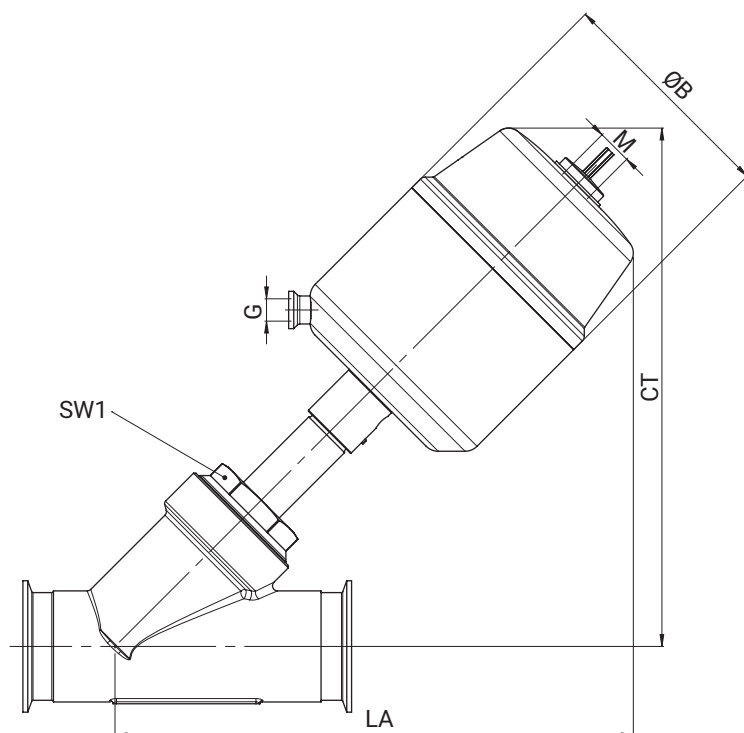
DN	Clamp
15	0.35
20	0.30
25	0.50
40	1.00
50	1.40
65	2.40

Weights in kg



## Dimensions

### Installation and actuator dimensions

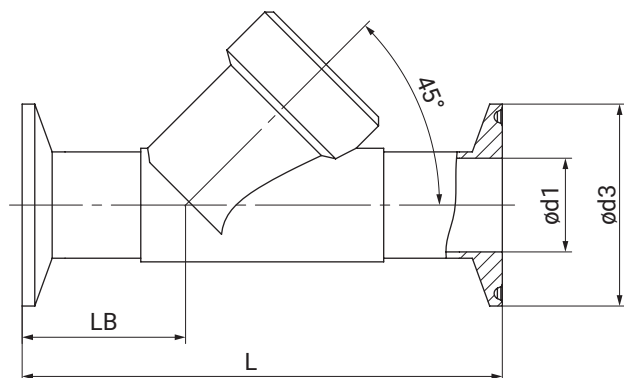


DN	Actuator size	WAF1 metric	G	ØB	CT/LA	M
15	2	36.0	G 1/8	63.0	183.0	M16x1
20	2	36.0	G 1/8	63.0	178.0	M16x1
25	2	41.0	G 1/8	63.0	191.0	M16x1
40	3	46.0	G 1/4	84.0	210.0	M16x1
50	4	60.0	G 1/4	104.0	280.0	M22x1.5
65	5	55.0	G 1/4	135.0	298.0	M22x1.5

Dimensions in mm

## Body dimensions

### Clamp ASME (code 80)



#### Connection type clamp ASME (code 80)<sup>1)</sup>, investment casting material (code C2)<sup>2)</sup>

DN	NPS	LB	L	ø d1	ø d3
15	1/2"	28.5	88.9	9.4	25.0
20	3/4"	35.0	101.6	15.75	25.0
25	1"	33.0	114.3	22.10	50.5
40	1 1/2"	40.0	139.7	34.80	50.5
50	2"	44.0	158.8	47.50	64.0
65	2 1/2"	54.3	193.8	60.20	77.5

Dimensions in mm

#### 1) Connection type

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

#### 2) Valve body material

Code C2: 1.4435, investment casting



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