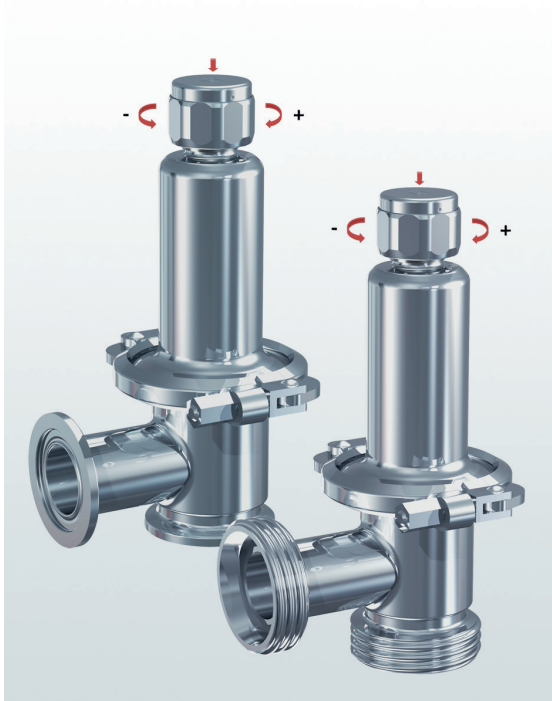


Hygienic 400.5

Overflow / Pressure control valve made of stainless steel, angle type
- External adjustment -

→ **Series Hygienic 400.5**



■ SUITABLE FOR

Liquids	neutral and non-neutral	
Air, gases and vapours	neutral and non-neutral	
Steam		

■ EXAMPLES OF USE

For the protection of:

- Pumps against overloading in closed circuits for neutral / non-neutral liquids

For the control of:

- processes, plants and containers in the food and pharmaceutical industry for air, neutral and non-neutral vapours and gases, steam and liquids

- Food industry
- Breweries and beverage industry
- Pharmaceutical industry
- Cosmetic industry
- Medical technology
- Clean Service applications

■ FEATURES

- Smooth and faultless surface finish optimized for cleaning process
- Minimal dead space in inlet area and no gaps in the valve
- Exposed and rinsed o-ring seals
- Shape of valve body avoids forming of puddles in the valve
- Adjustable and settable during operation
- Possible to carry-out CIP/SIP by lifting the disc from the seat
- Gap-free installation of seals
- Surface roughness standard Ra<0,8 um
- Option: mechanically polished and/or electro-polished

■ APPROVALS

TR ZU 032/2013 - TR ZU 010/2011

Requirements

DGR 2014/68/EU

Additional hygienic requirements

EG No. 852/2004
DIN EN 1672-2

9. GPSGV
GS-NG 2 and 5

Klassifizierungsgesellschaften

Russian Maritime Register of Shipping
DNVGL

RS
DNVGL



■ MATERIAL



■ SPECIFICATION



Clamp connection
DN 20 – DN 32



-40°C to + 200°C



0,4 – 16 bar

■ MATERIALS

Component	Material	DIN EN	ASME
Body	Stainless steel	1.4435	316 L
Inner parts, wetted	Stainless steel	1.4435	316 L
Upper section, other inner parts	Stainless steel	1.4404	316 L
Spring	Stainless steel	1.4310	302
Bellows	Stainless steel	1.4571	316 Ti

b	Standard with bellows	for neutral and non-neutral media and/or counter pressure up to 4 bar. Spring, moving parts and the environment are protected from being affected by the medium.
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Parts which are difficult to clean in the guide, the spring housing and the spindle / disc combination are protected against soiling by stainless steel bellows

Valves can be delivered unset within a pressure range or set and sealed at the factory.
Can be adjusted by hand wheel under operating conditions without medium escaping into the environment.

■ MEDIUM

GF	gaseous and liquid	Air, vapours, gases, liquids and - depending on safety valve version and seal - also for steam
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■ TYPE OF LIFTING MECHANISM

K	Standard with twist-type lifting mechanism
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■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter		20									
Connection type		Clamp connection						Threaded ferrule connection			
		DIN 11864-3 / DIN 11853-3			DIN 32676			DIN 11864-1 / DIN 11853-1		DIN 11851	
Inlet		DN 20	DN 25	DN 32	DN 20	DN 25	DN 32	DN 20	DN 25	DN 20	DN 25
Outlet	DN 25	■	■	■	■	■	■	■	■	■	■
	DN 32	■	■	■	■	■	■				

■ TYPE OF CONNECTION INLET / OUTLET Special connections

A / A	Standard	Aseptic collar clamp connection / Aseptic collar clamp connection	DIN 11864-3 / DIN 11864-3 DIN 11853-3 / DIN 11853-3	Pipe Standard DIN 11850
KLSDIN / KLSIDIN		Clamp connection / Clamp connection	DIN 32676 / DIN 32676	Pipe Standard DIN 11850
N / N		Aseptic-Threaded ferrule connection A/ Aseptic-Threaded ferrule connection A	DIN 11864-1 / DIN 11864-1 DIN 11853-1 / DIN 11853-1	Pipe Standard DIN 11850
GSDIN / GSDIN		Threaded ferrule connection / Threaded ferrule connection	DIN 11851 / DIN 11851	Pipe Standard DIN 11850

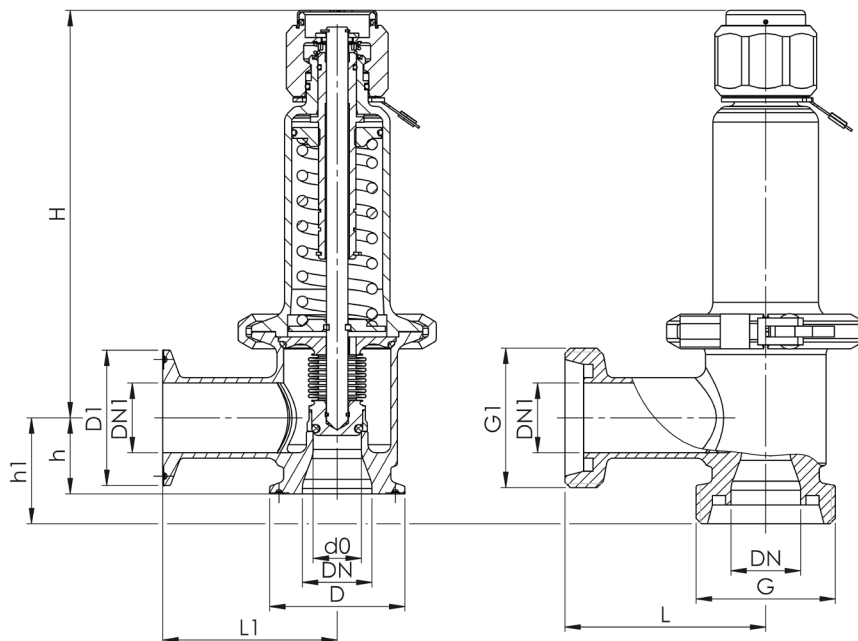
■ SEALS

FKM	Fluorcarbon	Elastomere moulded seal	FDA, USP, 3-A, ADI-free	-20°C to +200°C
EPDM	Ethylene propylene diene	Elastomere moulded seal	FDA	-40°C to +170°C

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series Hygienic 400.5: Connection, installation dimensions, ranges of adjustment							
Nominal diameter	DN	20			20		
Connection		Aseptic collar clamp connection DIN 11864-3 / DIN 11853-1 Clamp connection DIN 32676			Aseptic-Threaded ferrule connection A DIN 11864-1 / DIN 11853-1 Threaded ferrule connection DIN 11851		
Inlet	DN	20	25	32	20	25	
	G	-	-	-	20 (Rd 44 x 1/6")	25 (Rd 52 x 1/6")	
Outlet	DN1	25, 32	25, 32	32	25	25	
	G1	-	-	-	25 (Rd 52 x 1/6")	25 (Rd 52 x 1/6")	
Installation dimensions in mm	L	-	-	-	75	75	
	L1	65	65	65	-	-	
	H	145	145	145	145	145	
	h	29	29	29	-	-	
	h1	-	-	-	40	40	
	D	34	50,5	50,5	-	-	
	D1	50,5	50,5	50,5	-	-	
	do	18	18	18	18	18	
	Weight	kg	1,3	1,3	1,3	1,4	1,4
	Set pressure	bar	0,4-16	0,4-16	0,4-16	0,4-16	0,4-16
	Range of adjustment	bar	0,4 - 1,5	0,4 - 1,5	0,4 - 1,5	0,4 - 1,5	0,4 - 1,5
1,5 - 4,5			1,5 - 4,5	1,5 - 4,5	1,5 - 4,5	1,5 - 4,5	
4,5 - 7			4,5 - 7	4,5 - 7	4,5 - 7	4,5 - 7	
7 - 10			7 - 10	7 - 10	7 - 10	7 - 10	
10 - 14			10 - 14	10 - 14	10 - 14	10 - 14	
14 - 16			14 - 16	14 - 16	14 - 16	14 - 16	

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection type		Seal	Options	Set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
400.5	b	GF	K	20	A	A	25	25	FKM	MEP	1,5–4,5	2
400.5	b	GF	K	20	GSDIN	GSDIN	25	25	EPDM	–	3,5	1
400.5	b	GF	K	20								
400.5	b	GF	K	20								
400.5	b	GF	K	20								

■ PROPERTIES

GOX	Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process	<input type="checkbox"/>	<input type="checkbox"/>
P01	Oil- and grease-free production	<input type="checkbox"/>	<input type="checkbox"/>
P05	Quality of surfaces in contact with media in inlet Ra <= 0.4	<input type="checkbox"/>	<input type="checkbox"/>
P07	Electropolished surfaces	<input type="checkbox"/>	<input type="checkbox"/>

■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	<input type="checkbox"/>	C06	ATEX evaluation acc. to 2014/34/EU	<input type="checkbox"/>
C02-1	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1) for non TÜV-CE valves marking of individual serial number is required	<input type="checkbox"/>	C07	SIL evaluation relating to IEC 61508-2	<input type="checkbox"/>
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	<input type="checkbox"/>	C09	Seat tightness test with helium, leak detection method under vacuum incl. Factory Inspection Certificate 3.1 acc. to DIN EN 10204	<input type="checkbox"/>
C04	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)	<input type="checkbox"/>	C10	Certificate of oil- and grease free production	<input type="checkbox"/>
C05	Sealing material Manufacturer certification (FDA, USP 3, 3-A, ...), Please indicate description of certificate:	<input type="checkbox"/>	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	<input type="checkbox"/>

■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	<input type="checkbox"/>	AK1	DNV-GL (DNVGL) type approval	<input type="checkbox"/>
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	<input type="checkbox"/>	AK2	Lloyd's Register (LR) type approval	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	AK3	American Bureau of Shipping (ABS) type approval	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	AK4	Bureau Veritas (BV) type approval	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	AK5	Russian Maritime Register of Shipping (RMRS) type approval	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	AK6	Registro Italiano Navale (RINA) type approval	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	AL	Individual inspection by notified body inspector – (body to be indicated):	<input type="checkbox"/>

■ ENQUIRY

Copy and send to: order@goetze-armaturen.de.

Order form easily to be found online under the section for each series.

Series Hygienic 400.5: Kv values at 1 bar overpressure							
Nominal diameter	DN	20					
		Air [Nm³/h]					
Pressure range bar		0,4 - 1,5	1,5 - 4,5	4,5 - 7	7 - 10	10 - 14	14 - 16
Set pressure bar							
0,4		215					
1,0		278					
1,5		318	330				
3,0			455				
4,5			596	398			
5,7				428			
7,0				482	424		
8,5					435		
10,0					444	442	
12,0						531	
14,0						619	415
15,0							433
16,0							510

Kv values at 1 bar overpressure							
Nominal diameter	DN	20					
		Water [m³/h]					
Pressure range bar		0,4 - 1,5	1,5 - 4,5	4,5 - 7	7 - 10	10 - 14	14 - 16
Set pressure bar							
0,4		7					
1,0		7,5					
1,5		8,1	6,7				
3,0			8,2				
4,5			9,9	7,0			
5,7				8,1			
7,0				9	7,5		
8,5					8,5		
10,0					9,1	6,9	
12,0						7,4	
14,0						8,8	4,9
15,0							6,0
16,0							6,3

Kv values at 1 bar overpressure							
Nominal diameter	DN	20					
		Steam [kg/h]					
Pressure range bar		0,4 - 1,5	1,5 - 4,5	4,5 - 7	7 - 10	10 - 14	14 - 16
Set pressure bar							
0,4		163					
1,0		224					
1,5		250	195				
3,0			360				
4,5			466	306			
5,7				331			
7,0				374	325		
8,5					336		
10,0					340	336	
12,0						408	
14,0						466	317
15,0							337
16,0							380