

→ Series 420



■ MATERIAL



■ SPECIFICATION



■ SUITABLE FOR

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

■ EXAMPLES OF USE

For the protection of:

- pressure tanks and -systems for neutral / non-neutral vapours, gases and liquids
- steam boilers and steam plants

Please observe plant-specific regulations and use of appropriate valve version and sealing material.

- chemical plants, biogas plants
- process technology
- desalination plants
- process equipment construction and medical technology
- shipbuilding industry and marine equipment
- secondary areas in the food-, beverage-, pharmaceutical- and cosmetics-industries
- offshore-applications
- general applications with screwed pipe connections

**Safety valves are set and sealed at the factory.**

■ APPROVALS

TÜV-Type test approval 2069	D/G, F, F/K/S <sup>1</sup>
EC type examination	S/G, L, F/K/S <sup>1</sup>
KGS	G
TR ZU 032/2013 - TR ZU 010/2011	D/G (S/G), F (L), F/K/S <sup>1</sup>
<b>Requirements</b>	
AD 2000 Data sheet A2	DIN EN ISO 4126-1
TRD 421	PED 2014/68/EU
TRB 801 No. 22 and No. 23 <sup>1</sup>	KGS AA 319

**Classification society**

DNVGL	DNVGL
Lloyd's Register EMEA	LR EMEA
American Bureau of Shipping	ABS
Bureau Veritas	BV
Russian Maritime Register of Shipping	RS

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Stainless steel	1.4404	316 L
Outlet body	Stainless steel	1.4404	316 L
Internal parts	Stainless steel	1.4404	316 L
Spring	Stainless steel	1.4310	302
Metallic bellows (optional)	Stainless steel	1.4571	316 Ti
PTFE-bellows (optional)	PTFE	PTFE	PTFE

<sup>1</sup>only for versions with bellows

<b>t</b>	gastight version of spring housing	for neutral and non-neutral media without counter pressure. The environment is protected from being affected by the medium.
<b>tb</b>	gastight version with bellows	for neutral and non-neutral media. spring and moving parts as the environment are protected from being affected by the medium. Version of bellows depend on set pressure: <b>DN8:</b> 0,5 to 9 bar PTFE bellows; 9,1 to 50 bar stainless steel bellows <b>DN10:</b> 0,5 to 7 bar PTFE bellows; 7,1 to 50 bar stainless steel bellows

#### ■ MEDIUM

<b>GF</b>	gaseous and liquid	Air, vapours, gases, liquids and - depending on seal - also for steam Only for steam boilers < 10l and $d_0$ minimum 6mm, i.e. only DN10 usable.
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#### ■ TYPE OF LIFTING MECHANISM

<b>L</b>	Lifting lever
<b>0</b>	without lifting device

#### ■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN		8			10		
Inlet		1/4" (8)	SV (8mm)	SV (10mm)	3/8" (10)	SV (10mm)	SV (12mm)
Outlet	3/8" (10)	■	■	■	■	■	■
	SV (12mm)	■	■	■	■	■	■

#### ■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

<b>m / f</b>	Standard	Male thread BSP-P / Female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1
<b>SV / f</b>		Cutting ring threaded connection / female thread BSP-P	EN ISO 8434-1 / DIN EN ISO 228-1
<b>SV / SV</b>		Cutting ring threaded connection / Cutting ring threaded connection	EN ISO 8434-1 / EN ISO 8434-1

#### ■ SEALS

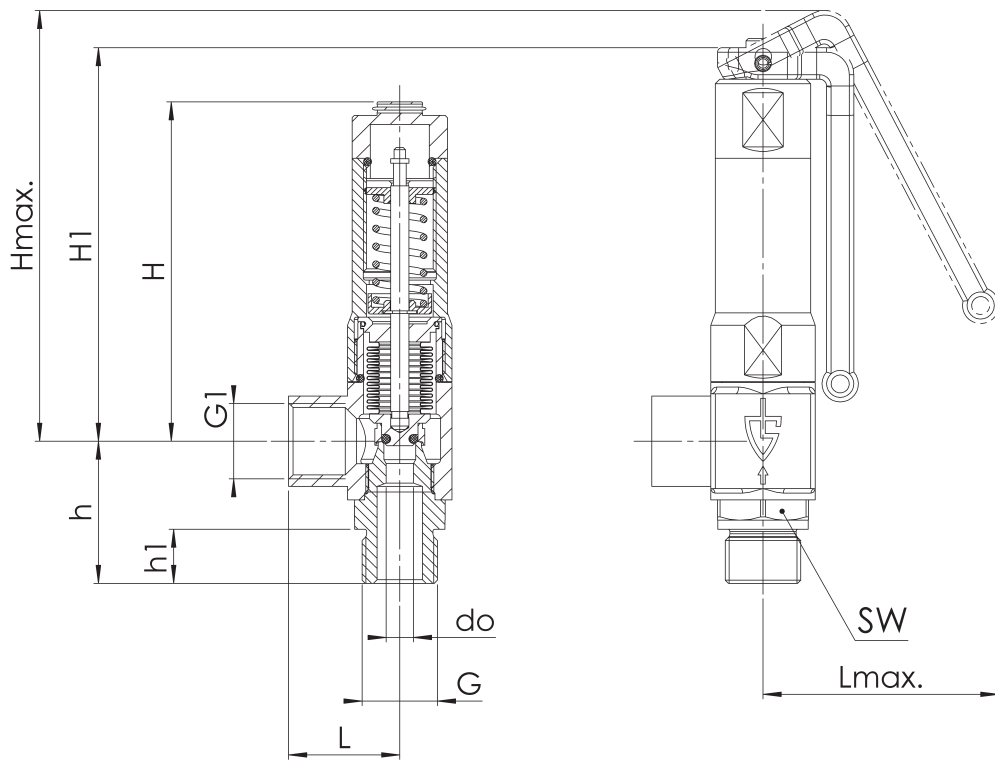
<b>EPDM</b>	Ethylene propylene diene	Elastomere moulded seal with metallic support	-40°C to +170°C
<b>FKM</b>	Fluorcarbon	Elastomere moulded seal with metallic support	-20°C to +200°C
<b>FFKM</b>	Perfluorinated rubber	Elastomere moulded seal with metallic support	-10°C to +260°C

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 420: Connection, installation dimensions, ranges of adjustment			
Nominal diameter	DN	8	10
Connection DIN EN ISO 228	G	1/4" (8)	3/8" (10)
Outlet DIN EN ISO 228	G1	3/8" (10)	3/8" (10)
Installation dimensions in mm	L	25	25
	Lmax	45	45
	H	75	75
	H1	87	87
	Hmax	93	93
	h	32	32
	h1	12	12
Weight	kg	0,31 / 0,36*	0,23 / 0,28*
	SW	20	20
Range of adjustment	do	4,5	6
	bar	0,5-50	0,5-50

\* Weight indications for valve with lever

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series 420 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
420	<i>tb</i>	GF	<i>L</i>	<i>8</i>	<i>m</i>	<i>f</i>	<i>8</i>	<i>10</i>	FFKM		5,5	2
420	<i>t</i>	GF	<i>O</i>	<i>10</i>	<i>SV</i>	<i>f</i>	<i>10mm</i>	<i>10</i>	EPDM		22	1
420		GF										
420		GF										

■ PROPERTIES

<b>GOX</b>	Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process	<input type="checkbox"/>	<input type="checkbox"/>
<b>P01</b>	Oil- and grease-free production	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

■ CERTIFICATES / APPROVALS

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

■ ADMISSIONS / ACCREDITATIONS

<b>AA1</b>	EC Type examination acc. to Directive 2014/68/EU	<input type="checkbox"/>	<b>AK1</b>	DNV-GL (DNVGL) type approval	<input type="checkbox"/>
<b>AA2</b>	TÜV component test acc. to VdTÜV specification sheet SV 100	<input type="checkbox"/>	<b>AK2</b>	Lloyd's Register (LR) type approval	<input type="checkbox"/>
<b>AA4</b>	EAC - certificate/declaration with passport for the valve and laser marking of the valve	<input type="checkbox"/>	<b>AK3</b>	American Bureau of Shipping (ABS) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	<b>AK4</b>	Bureau Veritas (BV) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	<b>AK5</b>	Russian Maritime Register of Shipping (RMRS) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	<b>AK6</b>	Registro Italiano Navale (RINA) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	<b>AL</b>	Individual inspection by notified body inspector – (body to be indicated): _____	<input type="checkbox"/>

■ ENQUIRY

Copy and send to: [order@goetze-armaturen.de](mailto:order@goetze-armaturen.de).

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

Series 420: Blowing-off rates at 10% above set pressure									
Nominal diameter DN		8			10				
Set pressure bar		I	II	III	I	II	III		
Air I	0,5	11	-	0,35	16	13	0,65		
	1	15	-	0,48	24	19	0,88		
	Nm³/h	1,5	20	-	0,58	32	25	1,07	
Steam II	2	24	-	0,67	40	32	1,24		
	2,5	28	-	0,75	47	37	1,38		
	kg/h	3	33	-	0,82	55	43	1,52	
Water III	3,5	37	-	0,89	62	48	1,64		
	m³/h	4	41	-	0,95	69	53	1,75	
	4,5	45	-	1,01	76	58	1,86		
	5	49	-	1,06	83	64	1,96		
	5,5	53	-	1,12	90	69	2,05		
	6	58	-	1,16	96	74	2,14		
	6,5	62	-	1,21	103	79	2,23		
	7	66	-	1,26	110	85	2,32		
	7,5	70	-	1,30	117	90	2,40		
	8	74	-	1,35	124	95	2,48		
	8,5	78	-	1,39	131	100	2,55		
	9	83	-	1,43	138	105	2,63		
	9,5	87	-	1,47	145	111	2,70		
	10	91	-	1,50	152	116	2,77		
	11	99	-	1,58	166	126	2,90		
	12	108	-	1,65	180	136	3,03		
	13	116	-	1,71	194	147	3,16		
	14	124	-	1,78	208	157	3,28		
	15	133	-	1,84	222	167	3,39		
	16	141	-	1,90	236	178	3,50		
	17	149	-	1,96	250	188	3,61		
	18	158	-	2,02	264	198	3,71		
	19	166	-	2,07	278	208	3,82		
	20	174	-	2,13	292	218	3,92		
	21	183	-	2,18	306	229	4,01		
	22	191	-	2,23	320	239	4,11		
	23	199	-	2,28	334	249	4,20		
24	208	-	2,33	348	260	4,29			
25	216	-	2,38	362	270	4,38			
26	224	-	2,43	376	280	4,46			
27	233	-	2,47	390	291	4,55			
28	241	-	2,52	404	301	4,63			
29	249	-	2,56	418	312	4,72			
30	258	-	2,60	432	321	4,80			
32	274	-	2,69	460	342	4,95			
34	291	-	2,77	488	363	5,11			
36	308	-	2,85	515	384	5,25			
38	324	-	2,93	543	404	5,40			
40	341	-	3,01	571	425	5,54			
42	358	-	3,08	599	446	5,67			
44	374	-	3,15	627	467	5,81			
46	391	-	3,23	655	488	5,94			
48	408	-	3,30	683	509	6,07			
50	424	-	3,36	711	530	6,19			