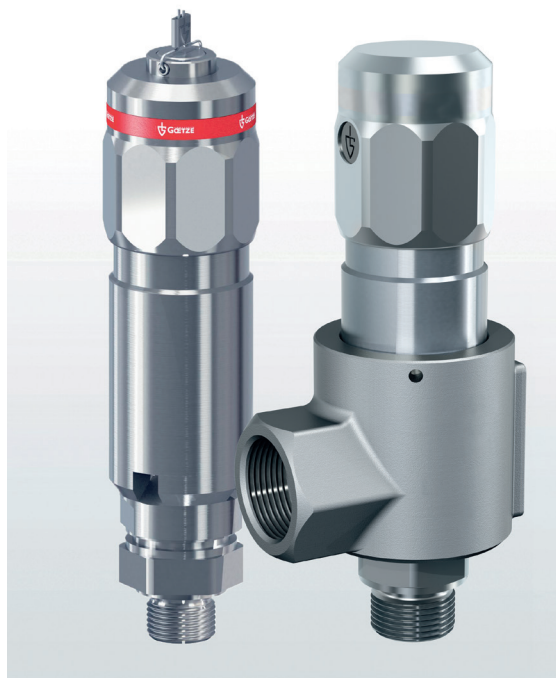


## → Series 492



### ■ SUITABLE FOR

Air, gases and vapours neutral and non-neutral



### ■ EXAMPLES OF USE

For the protection of:

- pressure tanks and
- pressure systems

for air and other neutral and non-neutral gases.

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

- high-pressure compressors
- pressure tanks
- pressure cylinder pack
- CNG-applications
- Hydrogen applications

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

### ■ APPROVALS

TÜV Type test approval 2100	D/G (Full-lift)
EU type examination	S/G
ASME	G
CRN	G
TSG ZF001-2006	D/G (S/G)
KGS	G
TR ZU 032/2013 - TR ZU 010/2011	D/G (S/G)

### Requirements

AD 2000 Data sheet A2  
DIN EN ISO 4126-1  
PED 2014/68/EU

ASME-Code Sec. VIII Div. 1  
KGS AA 319  
UK PESR 2016 No. 1105

### Classification society

DNV	DNV
Lloyd's Register EMEA	LR EMEA
American Bureau of Shipping	ABS
Bureau Veritas	BV
Russian Maritime Register of Shipping	RS
Registro Italiano Navale	RINA



### ■ MATERIAL



### ■ SPECIFICATION



1/4" – 1"



– 60°C to + 200°C



50 – 1500 bar  
depending on version

### ■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Stainless steel	1.4404	316 L
Outlet body	Stainless steel	1.4404 / 1.4408	316 L
Internal parts	Stainless steel	1.4404	316 L
Spring	Spring steel	51 Cr V4	

<b>s</b>	Standard	cylindrical form, atmospheric discharge, for air and similar neutral, non-toxic and non-flammable gases that can be freely discharged into the atmosphere.
<b>t</b>	gastight version of spring housing	for neutral and non-neutral media, not counter pressure compensated. The environment is protected from being affected by the medium. Only available for version with angled body and without lifting device.

## ■ MEDIUM

<b>G</b>	gaseous	Air and similar neutral and non-neutral gases
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## ■ TYPE OF LIFTING MECHANISM

<b>K</b>	Standard with twist-type lifting mechanism (only for DN 10 and DN 15)
<b>O</b>	without lifting device

## ■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	6				8				10				15					
<b>Inlet</b>	1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)
Atmospheric discharge via outlet apertures (up to 180 bar)										■	■	■	■	■	■	■	■	■
<b>Outlet</b>										■	■	■	■	■	■	■	■	■
1/2" (15)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3/4" (20)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1" (25)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

## ■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

<b>m / -</b>	Standard atmospheric discharge 50 – 180 bar	Male thread BSP-P / -	DIN EN ISO 228-1 / -
<b>m / f</b>	with positionable angled body 50 – 1500 bar	Male thread BSP-P / Female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1
<b>NPT-m/NPT-f</b>	with positionable angled body 50 – 1500 bar	Male thread NPT / Female thread NPT	ANSI B1.20.1 / ANSI B1.20.1
<b>ct/f</b>	with positionable angled body 50 – 1500 bar	cone & thread / Female thread BSP-P	Goetze ct / DIN EN ISO 228-1

Special connections for high pressure possible.

## ■ SEALS

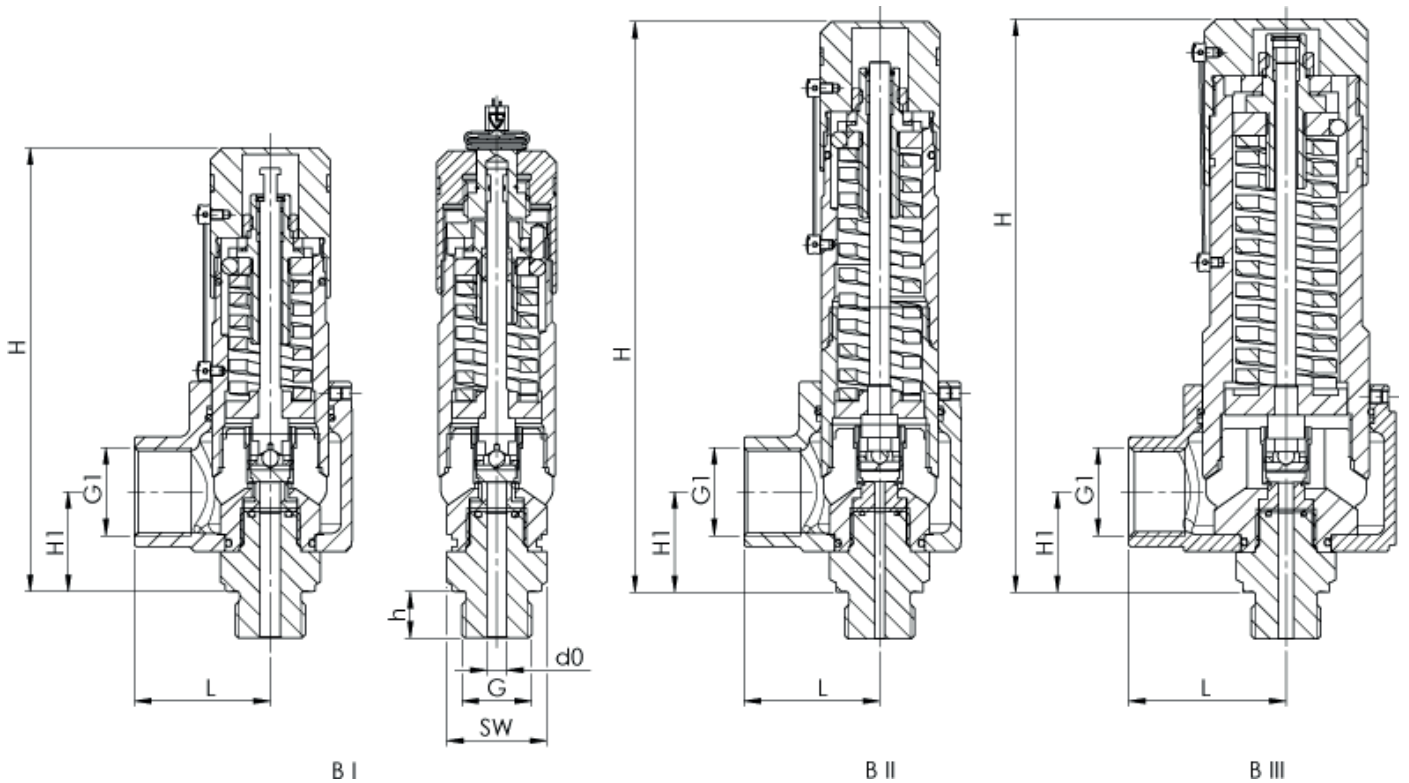
<b>MD / PAI</b>	Metal-to-metal sealing / Polyamidimide	Flat seal 50 – 630 bar (only for DN 10 and DN 15)	-60°C to +200°C
<b>MD / PEEK</b>	Metal-to-metal sealing / Polyetheretherketon	Flat seal 50 – 1500 bar	-60°C to +180°C

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 492: Connection, installation dimensions, ranges of adjustment										
Nominal diameter	DN	6			8			10		15
Connection DIN EN ISO 228	G	1/4" (8)			1/4" (8)	1/4" (8)		1/4" (8)		
			3/8" (10)		3/8" (10)		3/8" (10)		3/8" (10)	3/8" (10)
			1/2" (15)		1/2" (15)		1/2" (15)		1/2" (15)	1/2" (15)
			3/4" (20)		3/4" (20)		3/4" (20)		3/4" (20)	3/4" (20)
			1" (25)		1" (25)		1" (25)		1" (25)	1" (25)
Outlet DIN EN ISO 228	G1'		1/2" (15)			1/2" (15)		1/2" (15)		1/2" (15)
			3/4" (20)			3/4" (20)		3/4" (20)		3/4" (20)
			1" (25)			1" (25)		1" (25)		1" (25)
Form		B II	B II	B III	B II	B III		B I		B I
Installation dimensions in mm	H	172	172	174	172	174		133		134
	H1 max	41,5	43	48	43	48		ca. 28		ca. 30
	h	12/15/16	12/15/16			12/15/16		12/15/16		12/15/16
	L max	43	43	50	43	50		43		45
	SW		27			27		27		30
	d0		3			4,5		6		9
Weight	kg	1,4	1,4	2,2	1,4	2,2		0,7		0,9
Range of adjustment	bar	150-1100	150-1150	1150-1500	100-600	600-900	600-1000	50-500	50-630	50-250
Range of adjustment ASME	psi	2175-15950	2175 - 16675	16675-21750	1450-8700	8700-13050	8700-14500	725-7250	725-9135	725-3625

<sup>1</sup>only for the version with positionable angled body and according to choice of outlet connection size

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
492	s	G	K	10	m	–	8	–	MD / PAI		70,0	5
492	t	G	O	15	m	f	15	20	MD / PAI		250,0	2
492		G			m				MD / PAI			
492		G			m				MD / PAI			

#### ■ PROPERTIES

P01	Oil- and grease-free production	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

#### ■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	<input type="checkbox"/>	C07	SIL evaluation relating to IEC 61508-2	<input type="checkbox"/>
C02	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)	<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"/>
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	<input type="checkbox"/>	C10	Certificate of oil- and grease free production	<input type="checkbox"/>
C04	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)	<input type="checkbox"/>	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	<input type="checkbox"/>
C06	ATEX evaluation acc. to 2014/34/EU	<input type="checkbox"/>			<input type="checkbox"/>

#### ■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	<input type="checkbox"/>	AK1	Det Norske Veritas (DNV) type approval	<input type="checkbox"/>
AA2	TÜV component test acc. to VdTÜV specification sheet SV 100	<input type="checkbox"/>	AK2	Lloyd's Register (LR) type approval	<input type="checkbox"/>
AA3	Certification acc. to ASME Boiler and Pressure Vessel Code, Section VIII.Div 1 (ASME)	<input type="checkbox"/>	AK3	American Bureau of Shipping (ABS) type approval	<input type="checkbox"/>
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	<input type="checkbox"/>	AK4	Bureau Veritas (BV) type approval	<input type="checkbox"/>
AA5	Manufacture License of Special Equipment People's Republic of China (ML)	<input type="checkbox"/>	AK5	Russian Maritime Register of Shipping (RMRS) type approval	<input type="checkbox"/>
AA6	Certification acc. to Korean Gas Safety Corporation (KGS) <sup>3</sup>	<input type="checkbox"/>	AK6	Registro Italiano Navale (RINA) type approval	<input type="checkbox"/>
AA7	Registration according to Canadian Registration Number (CRN) <sup>4</sup>	<input type="checkbox"/>	AL	Individual inspection by notified body inspector – (body to be indicated):	<input type="checkbox"/>
AA11	UK Type examination acc. to Directive UK PESR 2016 No. 1105	<input type="checkbox"/>			<input type="checkbox"/>

<sup>3</sup>KGS only in combination with ASME | <sup>4</sup>CRN only in combination with ASME

Series 492: Blowing-off rates at 10% above set pressure					
Nominal diameter DN		6	8	10	15
Set pressure bar					
Air Nm³/h	50			787	1867
	60			941	2233
	70			1095	2600
	80			1250	2967
	90			1404	3333
	100		841	1559	3700
	110		924	1713	4067
	120		1008	1868	4433
	130		1091	2022	4800
	140		1174	2177	5167
	150	495	1258	2331	5533
	160	528	1341	2486	5900
	170	561	1424	2640	6266
	180	593	1508	2795	6633
	190	626	1591	2949	7000
	200	659	1674	3104	7366
	210	692	1758	3258	7733
	220	725	1841	3413	8100
	230	757	1924	3567	8466
	240	790	2008	3722	8833
	250	823	2091	3876	9200
	270	889	2258	4185	
	290	954	2424	4494	
	310	1020	2591	4803	
	330	1085	2757	5112	
	350	1151	2924	5421	
	370	1217	3091	5730	
	390	1282	3257	6039	
	410	1348	3424	6348	
	430	1414	3591	6657	
	450	1479	3757	6966	
	470	1545	3924	7275	
	490	1610	4091	7584	
510	1676	4257	7893		
530	1742	4424	8202		
550	1807	4591	8511		
570	1873	4757	8820		
590	1938	4924	9129		
610	2004	5091	9438		
630	2070	5257	9747		
650	2135	5424			
700	2299	5841			
750	2463	6257			
800	2627	6674			
850	2791	7091			
900	2955	7507			
950	3119	7924			
1000	3283	8341			
1050	3447				
1100	3611				
1150	3775				
1200	3939				
1250	4103				
1300	4267				
1350	4431				
1400	4595				
1450	4759				
1500	4923				

■ CAPACITY TABLE FOR TECHNICAL GASES

Series 492: Blowing-off rates at 10% above set pressure and standard conditions (1,01325bar; 0°C)

Nominal diameter DN Set pressure bar (g)	6		8		10		15	
	Hydrogen		Hydrogen		Hydrogen		Hydrogen	
	kg/h	Nm³/h	kg/h	Nm³/h	kg/h	Nm³/h	kg/h	Nm³/h
50					268	2.984	637	7.081
100			292	3.250	530	5.896	1.258	13.992
150	168	1.865	426	4.738	790	8.784	1.875	20.847
200	222	2.472	565	6.281	1.047	11.645	2.486	27.636
250	276	3.073	702	7.806	1.302	14.472	3.089	34.347
300	330	3.666	838	9.312	1.553	17.265		
350	382	4.251	971	10.799	1.801	20.021		
400	434	4.828	1.103	12.265	2.045	22.739		
450	485	5.397	1.233	13.711	2.286	25.420		
500	536	5.958	1.361	15.136	2.524	28.062		
550	586	6.511	1.488	16.541	2.758	30.666		
600	635	7.056	1.612	17.925	2.989	33.233		
650	683	7.593	1.735	19.289				
700	731	8.123	1.856	20.635				
750	778	8.645	1.975	21.961				
800	824	9.159	2.093	23.268				
850	869	9.667	2.209	24.557				
900	914	10.167	2.323	25.828				
950	959	10.661	2.436	27.083				
1000	1.003	11.149	2.547	28.321				
1050	1.046	11.629						
1100	1.089	12.104						
1150	1.131	12.573						
1200	1.172	13.036						
1250	1.214	13.494						
1300	1.254	13.945						
1350	1.294	14.392						
1400	1.334	14.834						
1450	1.373	15.271						
1500	1.412	15.703						

■ CAPACITY TABLE ASME

Series 492: Blowing-off rates at 10% above set pressure					
Nominal diameter DN		6	8	10	15
Set pressure psi					
Air SCFM	725			523	1176
	750			540	1216
	800			576	1295
	900			647	1455
	1000			717	1614
	1100			788	1773
	1200			859	1932
	1300			930	2092
	1400			1000	2251
	1450		583	1036	2331
	1500		603	1071	2410
	1600		642	1142	2570
	1700		682	1213	2729
	1800		722	1284	2888
	1900		762	1354	3047
	2000		802	1425	3207
	2100		841	1496	3366
	2175	387	871	1549	3485
	2200	392	881	1567	3525
	2300	409	921	1637	3684
	2400	427	961	1708	3844
	2500	445	1001	1779	4003
	2600	462	1041	1850	4162
	2700	480	1080	1921	4321
	2800	498	1120	1991	4481
	2900	516	1160	2062	4640
	3000	533	1200	2133	4799
	3100	551	1240	2204	4958
	3200	569	1279	2275	5118
	3300	586	1319	2345	5277
	3400	604	1359	2416	5436
	3500	622	1399	2487	5596
	3625	644	1449	2575	5795
	4000	710	1598	2841	
5000	887	1996	3549		
6000	1064	2394	4257		
7000	1241	2792	4964		
8000	1418	3191	5672		
9000	1595	3589	6380		
9135	1619	3643	6476		
10000	1772	3987			
11000	1949	4385			
12000	2126	4783			
13000	2303	5181			
14000	2480	5580			
14500	2568	5779			
15000	2657				
16000	2834				
17000	3011				
18000	3188				
19000	3365				
20000	3542				
21000	3719				
21750	3851				