

→ Series 461



■ 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
- 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

Safety valves are set and sealed at the factory.

■ APPROVALS

TÜV-Type test approval 2061	D/G, F
EC type examination	S/G, L
TSG ZF001-2006	D/G (S/G), F (L)
TR ZU 032/2013 - TR ZU 010/2011	D/G (S/G), F (L)

Requirements

AD 2000 Data sheet A2  
TRD 421  
DIN EN ISO 4126-1  
PED 2014/68/EU

Classification society

Germanischer Lloyd	GL
Lloyd's Register EMEA	LR EMEA
American Bureau of Shipping	ABS
Det Norske Veritas	DNV
Russian Maritime Register of Shipping	RS



■ MATERIAL



■ SPECIFICATION



1/4" – 1/2"



– 60°C to + 225°C  
depending on version



0,5 – 70 bar

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Stainless steel	1.4404	316 L
Outlet body	Stainless steel	1.4408	CF8M
Internal parts	Stainless steel	1.4404	316 L
Spring	Stainless steel	1.4310	302

### ■ VALVE VERSION

<b>s</b>	Standard, non-gastight version of the spring housing	for neutral media without counter pressure.
<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.

### ■ MEDIUM

<b>G</b>	gaseous	Air, vapours, gases and steam
<b>F</b>	liquid	The temperature of the medium under atmospheric pressure must not reach boiling point
<b>GF</b>	gaseous and liquid	Air, vapours, gases, steam and liquids

### ■ TYPE OF LIFTING MECHANISM

<b>K</b>	Standard with twist-type lifting mechanism
<b>L</b>	Lifting lever
<b>O</b>	without lifting device, standard for gastight versions

### ■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN		8	10	15
Inlet		1/4" (8)	3/8" (10)	1/2" (15)
Outlet	1/2" (15)	■	■	■

### ■ 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
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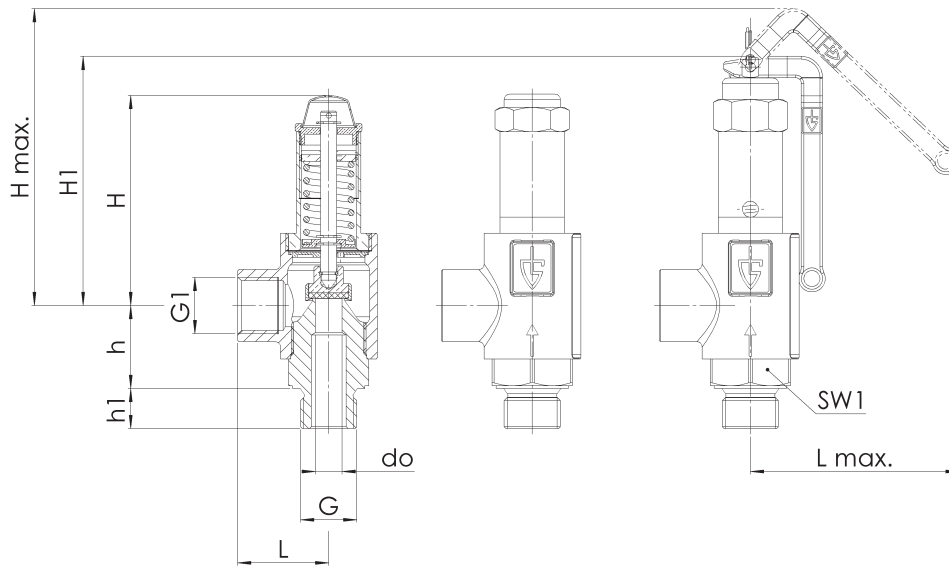
### ■ SEALS

<b>PTFE</b>	Polytetrafluoroethylene	Flat seal up to 22 bar	-60°C to +225°C
<b>PTFE+Kohle</b>	Polytetrafluoroethylene + carbon	Flat seal from 22,1 bar	-60°C to +225°C

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 461: Connection, installation dimensions, ranges of adjustment					
Nominal diameter	DN	8	10	15	
Connection DIN EN ISO 228	G	1/4" (8)	3/8" (10)	1/2" (15)	1/2" (15)
Outlet DIN EN ISO 228	G1	1/2" (15)	1/2" (15)	1/2" (15)	1/2" (15)
Installation dimensions in mm	L	34	34	34	34
	Lmax	78	78	78	78
	H	79	79	79	133
	H1	93	93	93	150
	Hmax	111	111	111	168
	h	31	31	31	31
	h1	12	12	15	15
	SW	30	30	30	30
Weight	kg	0,5	0,5	0,6	1
Range of adjustment	bar	0,5-70	0,5-70	0,5-50	50,1-70

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



■ 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				
461	t	G	O	8	m	f	8	15	PTFE		12,3	2
461					m	f		15				
461					m	f		15				
461					m	f		15				

In this table you can configure a valve according to your individual requirements (similar to the *example* shown, which should be deleted before you enter your own data). Please complete the table by hand using the abbreviations in this datasheet and then fax it to: +49(0)7141.4889488  
Please do not forget to add your personal data so that our sales team can contact you.

Name \_\_\_\_\_

First Name \_\_\_\_\_

Company \_\_\_\_\_

Telephone \_\_\_\_\_

E-Mail \_\_\_\_\_

■ CAPACITY TABLE

Series 461: Blowing-off rates at 10% above set pressure										
Nominal diameter DN		8			10			15		
Set pressure bar		I	II	III	I	II	III	I	II	III
Air I Nm <sup>3</sup> /h	0,5	6	4	0,54	24	18	0,86	44	34	1,62
	1	10	8	0,70	35	28	1,13	67	54	2,24
	1,5	14	11	0,89	46	37	1,38	91	72	2,70
Steam II kg/h	2	18	15	1,00	57	45	1,62	113	89	3,13
	2,5	22	17	1,11	68	53	1,78	132	104	3,49
	3	26	20	1,24	78	61	1,94	154	120	3,83
Water III m <sup>3</sup> /h	3,5	29	22	1,30	88	68	2,11	174	135	4,10
	4	32	25	1,40	98	76	2,24	196	152	4,40
	4,5	35	27	1,46	110	85	2,38	216	167	4,67
	5	39	30	1,51	120	93	2,48	236	182	4,91
	5,5	42	32	1,59	130	100	2,57	256	197	5,16
	6	45	35	1,67	140	108	2,67	276	213	5,40
	6,5	49	37	1,73	151	116	2,81	296	227	5,62
	7	52	40	1,78	161	123	2,89	316	242	5,86
	7,5	55	42	1,84	171	131	3,00	336	257	6,10
	8	58	45	1,92	181	138	3,08	356	272	6,32
	8,5	62	47	1,97	191	146	3,19	376	287	6,48
	9	65	49	2,00	201	153	3,29	396	302	6,70
	9,5	68	52	2,05	211	161	3,38	416	316	6,88
	10	72	54	2,11	222	168	3,46	436	331	7,07
	11	78	59	2,16	242	183	3,62	476	361	7,43
	12	85	64	2,27	262	198	3,78	516	390	7,72
	13	94	71	2,35	283	213	3,94	556	419	8,10
	14	101	76	2,43	303	228	4,08	596	449	8,37
	15	108	81	2,54	323	243	4,21	636	479	8,75
	16	114	86	2,62	344	258	4,37	676	508	9,05
	17	121	91	2,70	364	273	4,51	716	537	9,32
18	128	96	2,78	384	288	4,62	756	566	9,56	
19	135	101	2,86	420	314	4,81	796	596	9,87	
20	142	106	2,90	441	330	4,93	836	625	10,13	
21	153	114	2,97	470	351	5,05	876	655	10,38	
22	160	120	3,04	491	367	5,17	916	684	10,62	
23	167	125	3,11	513	383	5,29	956	714	10,86	
24	174	130	3,18	534	399	5,40	996	743	11,09	
25	181	135	3,25	556	415	5,51	1036	773	11,32	
26	188	-	3,31	577	-	5,62	1076	-	11,55	
27	195	-	3,37	599	-	5,73	1116	-	11,77	
28	202	-	3,43	620	-	5,83	1156	-	11,98	
29	209	-	3,50	641	-	5,94	1196	-	12,20	
30	216	-	3,56	663	-	6,04	1236	-	12,40	
32	230	-	3,67	706	-	6,24	1316	-	12,81	
34	244	-	3,79	749	-	6,43	1396	-	13,21	
36	258	-	3,89	792	-	6,62	1475	-	13,59	
38	272	-	4,00	835	-	6,80	1555	-	13,96	
40	286	-	4,11	877	-	6,97	1635	-	14,32	
42	300	-	4,21	920	-	7,15	1715	-	14,68	
44	314	-	4,31	963	-	7,31	1795	-	15,02	
46	328	-	4,40	1006	-	7,48	1875	-	15,36	
48	342	-	4,50	1049	-	7,64	1955	-	15,69	
50	355	-	4,59	1092	-	7,80	2035	-	16,01	
52	369	-	4,68	1135	-	7,95	2115	-	16,33	
54	383	-	4,77	1178	-	8,10	2195	-	16,64	
56	397	-	4,86	1221	-	8,25	2275	-	16,95	
58	411	-	4,94	1263	-	8,40	2355	-	17,25	
60	425	-	5,03	1306	-	8,54	2435	-	17,54	
62	439	-	5,11	1349	-	8,68	2515	-	17,83	
64	453	-	5,19	1392	-	8,82	2595	-	18,12	
66	467	-	5,27	1435	-	8,96	2675	-	18,40	
68	481	-	5,35	1478	-	9,09	2755	-	18,68	
70	495	-	5,43	1521	-	9,22	2835	-	18,95	