

Pressure relief valves made of stainless steel, angle-type, with threaded connections

→ Series 418



■ 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/-systems for neutral/ non-neutral vapours, gases and liquids
- steam boilers and steam plants if proportional opening characteristics and only small blow-off volumes are required (i.e. protection in the case of expansion due to heating-up). Please observe plant-specific regulations and use of appropriate valve version and sealing material.

- chemical plants, biogas plants
- process equipment construction
- shipbuilding industry and marine equipment
- mechanical engineering
- secondary areas in the food-, beverage-, pharmaceutical- and cosmetics- industries

■ APPROVALS

European Pressure Equipment Directive	
TR ZU 032/2013 - TR ZU 010/2011	
Requirements	
PED 2014/68/EU	
Classification society	
Germanischer Lloyd	GL
Lloyd's Register EMEA	LR EMEA
American Bureau of Shipping	ABS
Bureau Veritas	BV
Russian Maritime Register of Shipping	RS



■ MATERIAL



■ SPECIFICATION



3/8" – 1 1/4"
DN 10 – DN 32

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

0,2 – 30 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

t	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 without lifting device. Adjustable under operating conditions without medium escaping into the atmosphere.
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Complete functional cartridge available as replacement part (order code: 418 cartridge-DN..-seal) can be exchanged without removing the valve.

Valves can be delivered unset within a pressure range or set and sealed at the factory.

■ MEDIUM

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

0	without lifting device
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■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	10	15	20	25	32
Inlet	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)
Outlet	3/8" (10)	■			
	1/2" (15)		■		
	3/4" (20)			■	
	1" (25)				■
	1 1/4" (32)				■

■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

f / f	Standard	Female thread BSP-P / Female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1
m / f	On request	Male thread BSP-P / Female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1
KLSDIN / KLSDIN	On request	Clamp connection DIN / clamp connection DIN	DIN 32676 / DIN 32676

■ SEALS

NBR	Nitrile rubber (standard)	Elastomere flat seal 0,2 – 30 bar	-30°C to +130°C
EPDM	Ethylene propylene diene	Elastomere flat seal 0,2 – 30 bar	-50°C to +150°C
Against surcharge			
FKM	Fluorocarbon	Elastomere flat seal 0,2 – 30 bar	-20°C to +200°C
PTFE	Polytetrafluoroethylene	Flat seal 0,5 – 30 bar	-60°C to +225°C

If the seal is made of PTFE the O-rings of the cartridge are as standard made of FPM. FPPM possible on request against surcharge.

■ OPTIONS

Special versions on request.

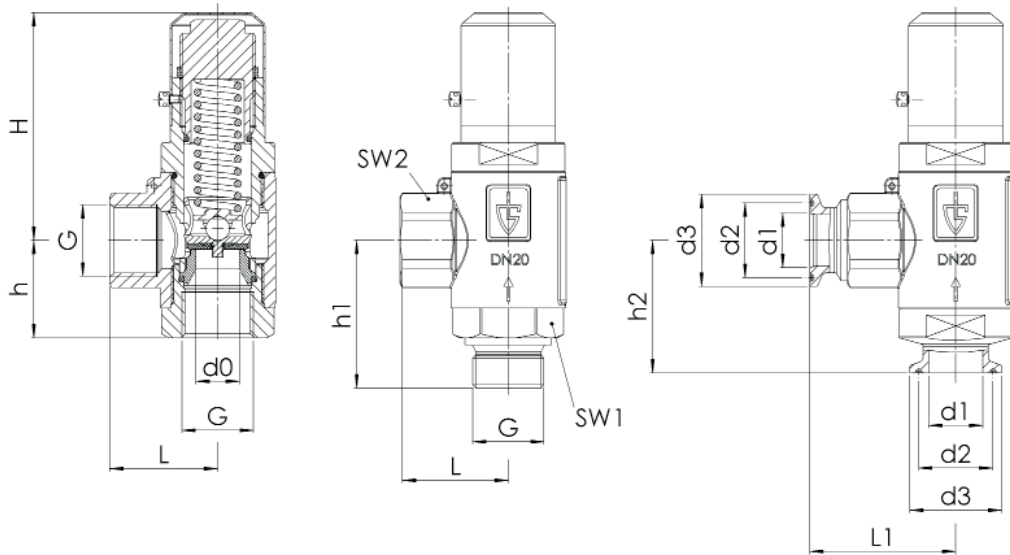
Against surcharge

O-rings of valve cartridge made of FPPM	Order code: in options FFKM
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■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 418: Connection, installation dimensions, ranges of adjustment							
Nominal diameter	DN	10	15	20	25	32	
Connection DIN EN ISO 228	G	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	
Outlet DIN EN ISO 228	G	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	
Installation dimensions in mm	L	34	34	40	50	50	
	L1	45	43,5	54	61	61	
	H	73	73	84	98	98	
	h	33	33	36	48	48	
	h1	47,5	50	54,5	69	75	
	h2	42,5	42,5	49	63	66	
	d1	10	16	20	26	32	
	d2	27,5	27,5	27,5	43,5	43,5	
	d3	34	34	34	50,5	50,5	
	SW1	30	30	36	50	50	
	SW2	28	28	32	41	50	
	do	10	14	16	25	25	
	Weight	kg	0,5	0,5	0,8	1,8	1,9
	Set pressure	bar	0,2 - 30	0,2 - 30	0,2 - 30	0,2 - 30	0,2 - 30
Range of adjustment	bar	0,2-1,2	0,2-1,2	0,2-1,2	0,2-1,2	0,2-1,2	
		1,2-3	1,2-3	1,2-3	1,2-3	1,2-3	
		2-12	2-12	2-12	2-12	2-12	
		12-30	12-30	12-30	12-30	12-30	

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Pressure range / set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
418	t	GF	0	15	f	f	15	15	NBR		2 - 12	5
418	t	GF	0	25	KLSDIN	f	25	25	PTFE	FFKM	6,5	10
418	t	GF	0									
418	t	GF	0									

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 418: Blowing-off rates at approx. 10% above set pressure																
Nominal diameter DN		10			15			20			25			32		
Set pressure bar		I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Air I	0,2	3	3	0,04	11	9	0,07	14	11	0,05	35	28	0,34	35	28	0,45
	0,5	4	3	0,06	13	11	0,11	18	14	0,14	43	34	0,53	43	34	0,72
	1	6	4	0,12	18	14	0,24	23	18	0,26	56	45	1,00	56	45	1,25
Nm ³ /h	1,5	11	9	0,15	28	22	0,29	29	23	0,38	89	70	1,53	89	70	1,68
	2	14	11	0,17	34	26	0,33	35	27	0,43	107	84	2,12	107	84	2,30
	4	23	18	0,24	57	44	0,47	59	46	0,61	180	141	3,25	180	141	3,25
Steam II	6	32	25	0,29	80	62	0,58	83	65	0,75	254	197	3,98	254	197	4,29
	8	42	32	0,34	103	80	0,66	107	83	0,87	327	254	4,60	327	254	4,95
	10	51	40	0,38	126	97	0,74	131	102	0,97	401	310	5,14	401	310	5,53
Water III	12	61	47	0,42	149	115	0,81	155	120	1,06	474	366	5,63	474	366	6,06
	14	70	54	0,45	172	132	0,88	179	138	1,15	548	423	6,08	548	423	6,55
	16	80	61	0,48	195	150	0,94	204	157	1,23	621	479	6,50	621	479	7,00
	18	89	69	0,51	218	168	1,00	228	176	1,30	695	536	6,89	695	536	7,42
	20	98	76	0,54	241	186	1,05	252	194	1,37	768	593	7,27	768	593	7,82
	22	108	83	0,56	264	204	1,10	276	213	1,44	842	649	7,62	842	649	8,21
	24	117	90	0,59	287	221	1,15	300	231	1,50	915	706	7,96	915	706	8,57
	25	122	94	0,60	298	230	1,18	312	241	1,54	952	734	8,12	952	734	8,75
	26	127	98	0,61	310	239	1,20	324	250	1,57	989	763	8,28	989	763	8,92
	28	136	105	0,63	333	257	1,24	348	268	1,62	1062	819	8,60	1062	819	9,26
	30	145	112	0,66	356	275	1,29	372	287	1,68	1136	876	8,90	1136	876	9,58