




→ Series 617

617

Overflow- / pressure control valves made of gunmetal, angled type or straight-through type with threaded connections –externally adjustable–

■ 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, non-sticking liquids

For the control of:

- systems under pressure for neutral / non-neutral gases and vapours and – depending on the sealing material – also for steam

- pump protection
- test rig construction
- process equipment construction
- shipbuilding industry and marine equipment
- de-icing technology
- mechanical engineering
- industrial applications

■ APPROVALS

European Pressure Equipment Directive

TR ZU 032/2013 - TR ZU 010/2011

Requirements

PED 2014/68/EU

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



CE EAC

■ MATERIAL



■ SPECIFICATION



3/8" – 2"



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



0,2 – 20 bar

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Gunmetal	CC499K	CC499K
Outlet body	Gunmetal	CC499K	CC499K
Internal parts	Brass	CW617N	CW617N
Spring	Stainless steel	1.4310	302

Series 617 ■ 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. Adjustable under operating conditions without medium escaping into the atmosphere.
yt	gastight version of spring housing Straight-through type body	for neutral and non-neutral media, not counter pressure compensated. The environment is protected from being affected by the medium. Adjustable under operating conditions without medium escaping into the atmosphere. Only from DN 10 to DN 32.

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 safety valve version and 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		40		50	
Inlet	3/8" (10)		1/2" (15)		3/4" (20)		1" (25)		1 1/4" (32)		1 1/2" (40)		2" (50)	
Version	t	yt	t	yt	t	yt	t	yt	t	yt	t	yt	t	yt
Outlet	3/8" (10)	■	■											
	1/2" (15)			■	■									
	3/4" (20)					■	■							
	1" (25)							■	■					
	1 1/4" (32)									■	■			
	1 1/2" (40)											■		
	2" (50)													■

■ 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
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■ SEALS

NBR	Nitrile rubber (standard)	Elastomere flat seal 0,2 – 12 bar	-30°C to +130°C
FKM	Fluorocarbon	Elastomere flat seal 0,2 – 12 bar	-20°C to +200°C
EPDM	Ethylene propylene diene	Elastomere flat seal 0,2 – 12 bar	-50°C to +150°C
PTFE	Polytetrafluoroethylene	Flat seal 0,5 – 12 bar	-60°C to +225°C

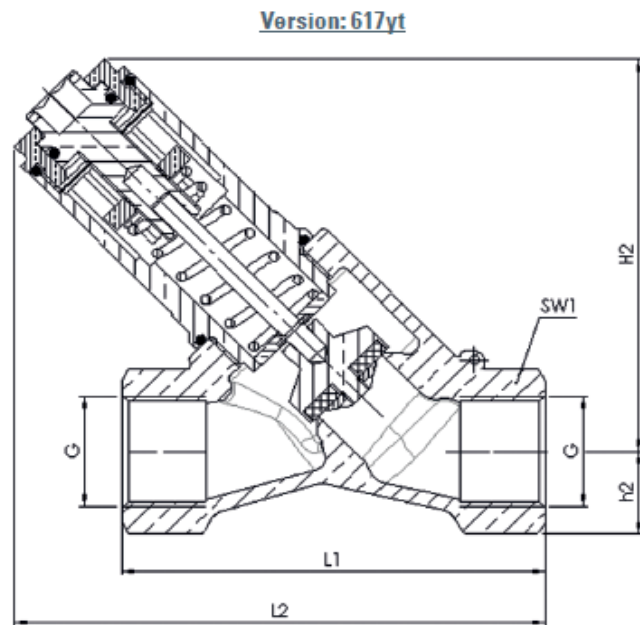
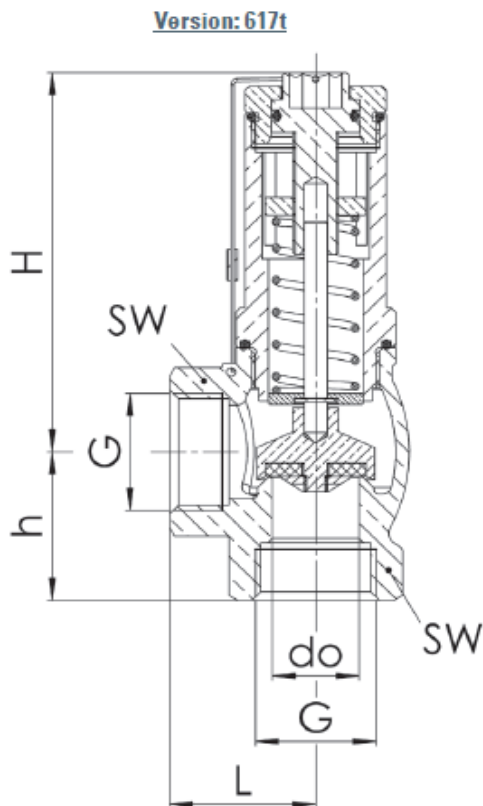
If the seat seal is made of PTFE the O-rings of the body and setting spindle seal are made of FPM.

PTFE	Polytetrafluoroethylene	Flat seal 12 – 20 bar	-60°C to +225°C
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NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 617: Connection, installation dimensions, ranges of adjustment								
Nominal diameter	DN	10	15	20	25	32	40	50
Connection DIN EN ISO 228	G	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet DIN EN ISO 228	G	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Installation dimensions in mm	L	27	30	33	40	45	50	60
	L1	69	72	90	95	115	/	/
	L2	85	91	116	129	151	/	/
	H	60/63	69/72	86/88,5	101/104	118/121	139/141,5	149/152
	h	26	30	35	41	45	51	60
	H2	64	68	89	100	117	/	/
	h2	13,5	15,3	18	22,5	27,5	/	/
	SW	24	28	34	41	52	58	70
	SW1	24	27	32	41	50	/	/
	do	10	13	19	25	30	38	50
Weight	kg	0,3	0,4	0,7	1,2	1,9	2,5	3,8
Set pressure	bar	0,2 - 20	0,2 - 20	0,2 - 20	0,2 - 20	0,2 - 20	0,2 - 20	0,2 - 20
Range of adjustment	bar	0,2-0,8	0,2-0,8	0,2-0,8	0,2-0,8	0,2-0,8	0,2-0,8	0,2-0,8
		0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5
		2-8	2-8	2-8	2-8	2-8	2-8	2-8
		2-12	2-12	2-12	2-12	2-12	2-12	2-12
		12-20	12-20	12-20	12-20	12-20	12-20	12-20

MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series 617 ■ 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				
617	t	GF	0	15	f	f	15	15	NBR	S48	2 - 12	10
617	yt	GF	0	25	f	f	25	25	PTFE		16,0	2
617												
617												

■ TECHNICAL FINISHES, VARIANTS, ACCESSORIES

S3	Auxiliary seals made of FFKM	<input type="checkbox"/>	S85	Auxiliary seals made of PTFE*	<input type="checkbox"/>
S24	Auxiliary seals made of EPDM	<input type="checkbox"/>			<input type="checkbox"/>
S48	Set-pressure tamper-proof by means of a sealing cap*	<input type="checkbox"/>			<input type="checkbox"/>

*only possible for nominal sizes DN10, DN16, DN20 and DN25.

■ PROPERTIES

G0X	Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process	<input type="checkbox"/>	P03	Galvanically nickel-plated finish	<input type="checkbox"/>
P01	Oil- and grease-free production	<input type="checkbox"/>	P04	Chrome-plated finish	<input type="checkbox"/>
P02	Chemically nickel-plated finish	<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"/>	C10	Certificate of oil- and grease free production	<input type="checkbox"/>
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	<input type="checkbox"/>	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	<input type="checkbox"/>
C05	Sealing material Manufacturer certification (FDA, USP 3, 3-A,...), Please indicate description of certificate:	<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"/>
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"/>	AK3	American Bureau of Shipping (ABS) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	AK4	Bureau Veritas (BV) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	AK5	Russian Maritime Register of Shipping (RMRS) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	AK6	Registro Italiano Navale (RINA) type approval	<input type="checkbox"/>
		<input type="checkbox"/>	AL	Individual inspection by notified body inspector – (body to be indicated):	<input type="checkbox"/>

■ CAPACITY TABLE

Series 617: Kv values at 1 bar overpressure																										
Nominal diameter DN	10			15			20			25			32			40			50							
	Air [Nm ³ /h]			Air [Nm ³ /h]			Air [Nm ³ /h]			Air [Nm ³ /h]			Air [Nm ³ /h]			Air [Nm ³ /h]			Air [Nm ³ /h]							
Pressure range bar	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20					
Set pressure bar	0,5-2,5	2-12		0,2-0,8	2-8	12-20	0,5-2,5	2-8	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-8	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-8	12-20					
0,2	24			53			177			200			600			930			1500							
0,5	28	83		61	147		200	209		220	375		680	717		970	847		1620	1376						
0,8	32	90		67	153		220	220		245	384		700	771		1050	878		1740	1478						
1		95			158			228			390			808			899			1546						
1,5		101			173			257			433			901			1033			1734						
2		111	62	48		180	126	88		287	180	159		977	353	233		1104	552	426		1904	1001	788		
2,5		119	68	50		202	132	89		306	197	168		1031	361	257		1205	564	447		1953	1082	802		
3			75	51			143	95			226	188			369	272			577	481			1170	821		
4			83	62			166	101			239	213			423	341			601	527			1339	878		
5			95	80			169	105			233	242			466	361			726	566			1508	942		
6			101	90			173	111			269	250			402	380			893	597			1846	994		
7			106	96			150	118			303	257			398	391			994	764			2224	1050		
8			112	114			139	117			324	314			391	347			1113	910			2666	1123		
9				115				123			324				301				949					1187		
10				122				133			331				288				1023					1280		
11				121				138			339				274				1070					1358		
12				126	96			138	112			354	221		261	305			538	594			1095	682	1480	1237
13					109				103				206		291				625		758				1277	
14					116				94				166		282				656		834				1388	
15					120				85				140		269				687		911				1499	
16					122				76				132		257				716		987				1609	
17					124				57				115		245				737		954				1821	
18					129				56				84		233				758		922				2033	
19					134				44				50		220				779		889				2245	
20					140				36				45		208				801		851				2357	

Series 617: Kv values at 1 bar overpressure																									
Nominal diameter DN	10			15			20			25			32			40			50						
	Water [m ³ /h]			Water [m ³ /h]			Water [m ³ /h]			Water [m ³ /h]			Water [m ³ /h]			Water [m ³ /h]			Water [m ³ /h]						
Pressure range bar	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20	0,2-0,8	2-8	12-20				
Set pressure bar	0,5-2,5	2-12		0,2-0,8	2-8	12-20	0,5-2,5	2-8	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-8	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-8	12-20				
0,2	2,7			4,4			5,6			6,0			18,3			29,0			41,0						
0,5	2,9	2,7		4,6	4,3		5,6	6,1		6,4	10,8		19,5	16,0		29,0	21,7		44,4	31,6					
0,8	2,9	2,8		4,9	4,5		5,6	6,3		7,1	11,5		20,0	16,4		29,0	22,6		47,0	34,0					
1		3,0			4,6			6,5			11,9			16,7			23,3			35,6					
1,5		3,2			4,8			6,7			12,6			17,5			24,0			37,7					
2		3,4	1,9	1,6		5,0	2,2	1,8		6,9	4,5	3,7		13,0	8,5	4,2		18,1	7,6	6,2		40,6	24,3	17,9	
2,5		3,7	2,2	1,7		5,2	2,1	1,8		7,3	4,8	3,8		13,7	8,9	4,3		18,9	7,5	6,2		43,0	26,2	19,4	
3			2,3	1,9			1,9	1,8			5,2	4,1			9,3	4,3			7,4	6,1			28,2	21,1	
4			2,7	2,2			1,6	1,7			5,7	4,6			10,0	4,5			7,3	6,1			31,3	24,7	
5			2,9	2,5			1,4	1,6			6,5	5,1			10,4	4,6			7,2	6,0			34,7	28,9	
6			3,4	2,8			1,3	1,5			7,1	6,1			11,0	4,7			7,0	5,9			36,3	30,1	
7			3,6	2,9			1,1	1,5			7,9	6,5			11,2	5,0			6,7	5,8			41,1	31,7	
8			3,9	3,1			1,0	1,4			8,5	7,1			11,3	5,1			6,5	5,6			47,4	34,2	
9				3,2				1,4			7,3				5,3				5,5		14,3			37,4	
10				3,4				1,4			8,3				5,5				5,3		15,7			39,3	
11				3,5				1,4			9,1				5,8				5,2		17,2			42,4	
12				3,7	1,7			1,3	0,4		9,3	2,8			5,9	2,2			5,0	6,8		17,6	10,1	43,9	16,9
13					1,4				0,4			2,4				2,2			6,5		10,3			21,2	
14					1,3				0,5			2,2			1,9				6,3		10,5			24,1	
15					1,1				0,5			1,7			1,6				6,1		10,6			25,7	
16					0,8				0,5			1,4			1,3				6,0		10,9			27,6	
17					0,6				0,5			1,1			1,1				5,8		11,0			29,3	
18					0,4				0,6			0,9			1,0				5,6		11,3			31,8	
19					0,2				0,6			0,7			0,8				5,1		11,4			34,6	
20					0,2				0,6			0,7			0,7				5,0		11,5			36,6	

■ CAPACITY TABLE

Series 617: Kv values at 1 bar overpressure

Nominal diameter DN	10			15			20			25			32			40			50											
	Steam [kg/h]			Steam [kg/h]			Steam [kg/h]			Steam [kg/h]			Steam [kg/h]			Steam [kg/h]			Steam [kg/h]											
	0,2- 0,8	2-8	12-20	0,2- 2,5	2-12	12-20	0,2- 0,8	0,5- 2,5	2-12	12-20	0,2- 0,8	0,5- 2,5	2-12	12-20	0,2- 0,8	0,5- 2,5	2-12	12-20	0,2- 0,8	0,5- 2,5	2-12									
Set pressure bar																														
0.2	18			41			138			156			468			726			1172											
0.5	22	65		47	113		156	163		172	295		531	509		757	665		1285	1100										
0.8	25	70		52	120		172	173		191	305		547	541		820	700		1359	1173										
1		74			125			181			313			553			724			1222										
1.5		81			135			200			345			615			798			1345										
2		86	53	40		143	98	73		221	144	128		373	280	218		642	283	194		862	455	311		1451				
2.5		93	80	45		157	104	79		235	161	141		384	302	244		619	301	218		940	510	349		1535	787	663		
3			66	43			111	80			171	156			309	258			297	223			506	367			884	698		
4			79	53			129	79			187	160			339	308			333	244			499	428			876	670		
5			77	66			135	82			186	176			412	322			361	283			579	455			987	740		
6			78	75			132	88			212	200			388	326			441	323			707	518			1145	859		
7			84	81			118	93			225	198			275	298			429	363			740	635			1224	816		
8			89	89			123	96			249	190			254	279			475	402			821	645			1284	916		
9				89				98				193				250				441				707				1015		
10				97				106				192				273				480				770				1002		
11				94				106				189				262				472				833				1090		
12				101	79			105	78			204	183			282	247				406	457			814	570			1179	987
13					84				68				174				189					489				610				1056
14					90				57				162				201					521				650				1125
15					95				54				123				213					552				590				1022
16					94				51				130				180					584				728				1261
17					99				46				110				142					615				768				1140
18					96				32				87				150					576				693				1399
19					101				28				61				105					604				606				1678
20					105				21				32				165					632				634				1537