

→ Series 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



■ MATERIAL



■ SPECIFICATION



3/8" – 2"



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



0,2 – 20 bar

■ APPROVALS

European Pressure Equipment Directive	
TR ZU 032/2013 - TR ZU 010/2011	
Requirements	
PED 2014/68/EU	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

■ 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

Version 2023 / 06

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

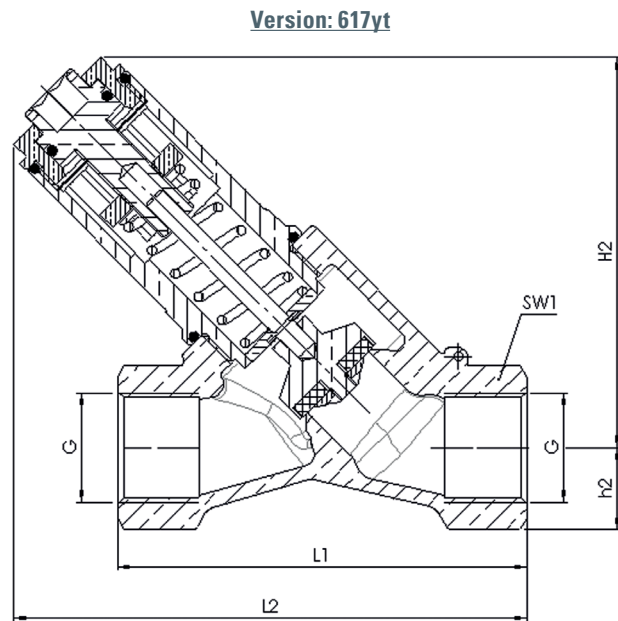
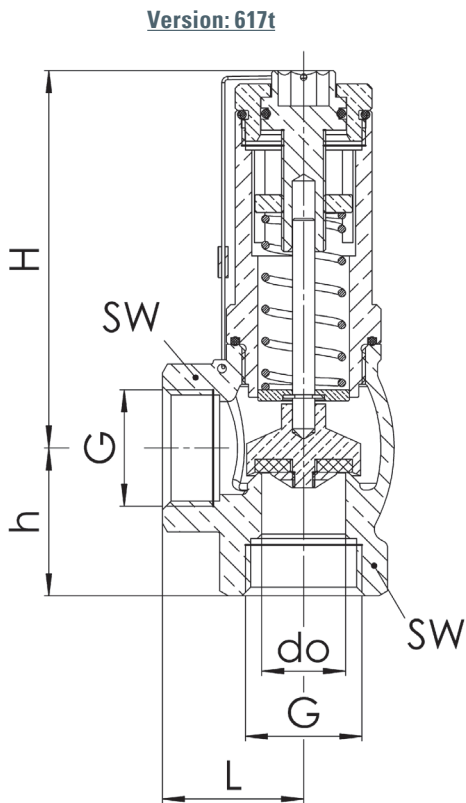
If the seat seal is made of PTFE the O-rings of the body and setting spindle seal are made of FPM.

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			
	L2	85	91	116	129			
	H	60	69	86	101	118	139	149
	h	26	30	35	41	45	51	60
	H2	64	68	89	100			
	h2	13,5	15,3	18	22,5			
	SW	24	28	34	41	52	58	70
	SW1	24	27	32	41			
	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"/>

■ PROPERTIES

GOX	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 [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]			Air [Nm³/h]		
	0,2-0,8	2-8	12-20	0,5-2,5	2-12	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-12	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-12	12-20	0,2-0,8	2-8	12-20
Set pressure bar																					
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	86	287	180	159	462	335	302	977	353	233	1104	552	426	1904	1001	788
2,5	119	68	50	202	132	89	306	197	168	495	351	311	1031	361	257	1205	564	447	1953	1082	802
3	75 51			143 95			226 188			376 322			369 272			577 481			1170 821		
4	83 62			166 101			239 213			423 341			417 311			601 527			1339 878		
5	95 80			169 105			233 242			466 361			459 352			726 566			1508 942		
6	101 90			173 111			269 250			402 380			502 397			893 597			1846 994		
7	106 96			150 118			303 257			398 391			549 437			994 764			2224 1050		
8	112 114			139 117			324 314			391 347			606 492			1113 910			2666 1123		
9	115			123			324			301			546			949			1187		
10	122			133			331			288			600			1023			1280		
11	121			138			339			274			569			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 [m³/h]			Water [m³/h]			Water [m³/h]			Water [m³/h]			Water [m³/h]			Water [m³/h]			Water [m³/h]		
	0,2-0,8	2-8	12-20	0,5-2,5	2-12	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-12	12-20	0,2-0,8	2-8	12-20	0,5-2,5	2-12	12-20	0,2-0,8	2-8	12-20
Set pressure bar																					
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	25,2	10,9	8,8	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	26,1	11,3	9,1	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			11,8 9,3			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			12,2 9,7			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			12,5 10,3			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			12,8 10,6			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			13,7 11,9			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			15,1 13,1			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 18,9		
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]		
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	0,2	0,5	0,8	0,2	0,5	0,8	0,2	0,5	0,8	0,2	0,5	0,8	0,2	0,5	0,8	0,2	0,5	0,8	0,2	0,5	0,8
0,2	18			41			138			156			468			726			1172		
0,5	22	65		47	113		156	163		172	295		531	509		757	665		1265	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	126	373	280	218	642	283	194	862	455	311	1451		
2,5	93	60	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	387		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	