

→ 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



■ 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

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

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

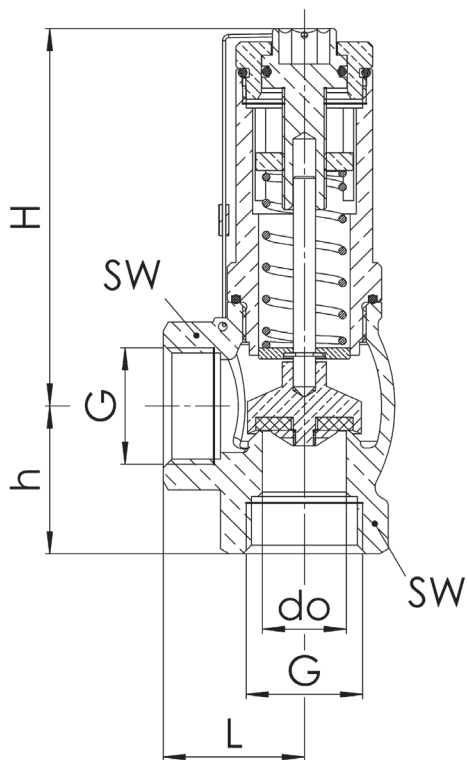
NBR	Nitrile rubber (standard)	Elastomere flat seal 0,2 – 12 bar	–30°C to +130°C
FKM	Fluorocarbon	Elastomere flat seal 0,2 – 12 bar	–20°C to +200°C
EPDM	Ethylene propylene diene	Elastomere flat seal 0,2 – 12 bar	–50°C to +150°C
PTFE	Polytetrafluoroethylene	Flat seal 0,5 – 12 bar	–60°C to +225°C
If the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

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

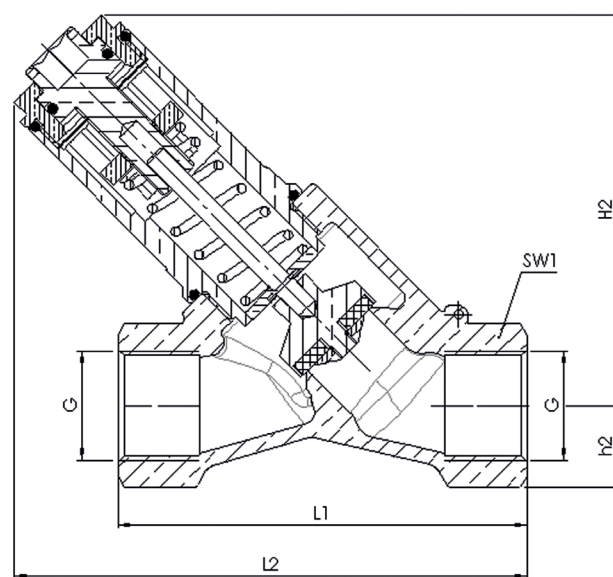
Series 617: Connection, installation dimensions, ranges of adjustment								
Nominal diameter	DN	10	15	20	25	32	40	50
Connection DIN EN ISO 228	G	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet DIN EN ISO 228	G	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	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

Version: 617t



Version: 617yt



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	☐	S85	Auxiliary seals made of PTFE*	☐
S24	Auxiliary seals made of EPDM	☐			☐
S48	Set-pressure tamper-proof by means of a sealing cap*	☐			☐

*only possible for nominal sizes DN10, DN15, DN20 and DN25.

■ PROPERTIES

GOX	Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process	☐	P03	Galvanically nickel-plated finish	☐
P01	Oil- and grease-free production	☐	P04	Chrome-plated finish	☐
P02	Chemically nickel-plated finish	☐			☐

■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	☐	C06	ATEX evaluation acc. to 2014/34/EU	☐
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	☐	C10	Certificate of oil- and grease free production	☐
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	☐	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	☐
C05	Sealing material Manufacturer certification (FDA, USP 3, 3-A,...), Please indicate description of certificate:	☐			☐

■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	☐	AK1	Det Norske Veritas (DNV) type approval	☐
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	☐	AK2	Lloyd's Register (LR) type approval	☐
		☐	AK3	American Bureau of Shipping (ABS) type approval	☐
		☐	AK4	Bureau Veritas (BV) type approval	☐
		☐	AK5	Russian Maritime Register of Shipping (RMRS) type approval	☐
		☐	AK6	Registro Italiano Navale (RINA) type approval	☐
		☐	AL	Individual inspection by notified body inspector – (body to be indicated):	☐

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]														
	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12															
Pressure range bar	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12	0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12															
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		
	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	0,5 - 2,5	2-12		0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12		0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12		0,2 - 0,8	2-8	12-20
Pressure range bar	0,5 - 2,5	2-12		0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12		0,2 - 0,8	2-8	12-20	0,5 - 2,5	2-12		0,2 - 0,8	2-8	12-20	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		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		