

→ Series 810



■ SUITABLE FOR

Air, gases and vapours neutral



■ EXAMPLES OF USE

For the protection of:

- pressure tanks and
 - pressure systems
- for air and other neutral, non-poisonous and non-flammable gases which can be freely discharged into the environment. Please observe plant-specific regulations and use of appropriate valve version and sealing material.

- compressors
- pressure booster plants air-side
- paint spray shops
- pneumatic control units
- transport- and railway applications

Safety valves are set and sealed at the factory.

■ APPROVALS

TÜV Type test approval 2055	D/G
ASME	G (DN 8 – DN 25)
CRN	G (DN 8 – DN 25)
EC type examination	S/G
TSG ZF001-2006	D/G (S/G) (DN 8 – DN 25)
KGS	G
TR ZU 032/2013 - TR ZU 010/2011	D/G (S/G) (DN 8 – DN 25)
Type approval Deutsche Bahn	
Requirements	
AD 2000 Data sheet A2 DIN EN ISO 4126-1 PED 2014/68/EU	ASME-Code Sec. VIII Div. 1 KGS AA 319

Classification society (DN 8 – DN 25)	
DNVGL	DNVGL
Lloyd's Register EMEA	LR EMEA
Bureau Veritas	BV
American Bureau of Shipping	ABS
Russian Maritime Register of Shipping	RS
Registro Italiano Navale	RINA



■ MATERIAL



■ SPECIFICATION



1/4" – 2"



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



0,2 – 50 bar

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Brass	CW617N	CW617N
Outlet body	Brass	CW617N	CW617N
Internal parts	Brass	CW617N	CW617N
Spring	Stainless steel	1.4568	631

s	Standard	cylindrical form, atmospheric discharge, for air and similar neutral, non-toxic and non-flammable gases that can be freely discharged into the atmosphere.
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■ MEDIUM

G	gaseous	Air and similar neutral gases
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■ TYPE OF LIFTING MECHANISM

K	Standard with twist-type lifting mechanism	
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■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	8	10	15	20	25	32	40	50
Inlet	1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Atmospheric discharge via outlet apertures	■	■	■	■	■	■	■	■

■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

m / -	Standard	Male thread BSP-P / -	DIN EN ISO 228-1 / -
BSP-Tm / -		Male thread BSP-T / -	DIN EN 10226, ISO 7-1 / -
NPT-m / -		Male thread NPT-m / -	ANSI B1.20.1 / -

■ SEALS

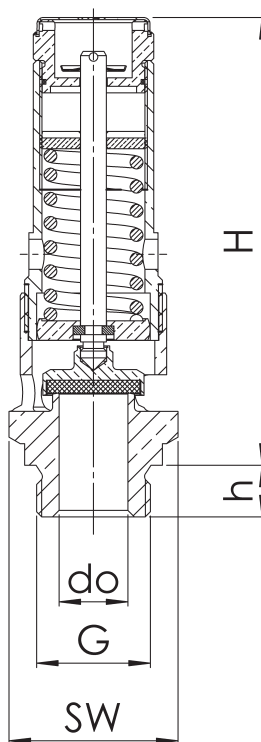
FKM	Fluorocarbon	Elastomere flat seal 0,2 – 25 bar	-20°C to +200°C
PTFE	Polytetrafluoroethylene	Flat seal 25,1 – 50 bar	-60°C to +225°C
PTFE	Polytetrafluoroethylene	Flat seal 0,2 – 25 bar	-60°C to +225°C

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 810: Connection, installation dimensions, ranges of adjustment												
Nominal diameter	DN	8	10		15		20		25	32	40	50
Connection DIN EN ISO 228	G	1/4" (8)	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	H	60	65	78	66	79	94	104	111	133	164	171
	h	10	10	10	12	12	12	12	14	20	22	24
	SW	19	24	24	27	27	34	34	41	50	60	68
Coefficients of flow ISO 4126-1	α_w / K_d^1	0,77	0,79		0,8		0,79		0,77	0,69	0,72	0,73
Coefficients of flow ASME-Code Sec. VIII Div. 1	(90%) K_d	0,758	0,758		0,758		0,758		0,758	-/-	-/-	-/-
	do	7,5	10	10	11	11	16	16	20	25	32	40
Weight	kg	0,1	0,14	0,16	0,17	0,19	0,35	0,4	0,6	0,97	1,85	2,45
Range of adjustment	bar	0,2-50	0,2-9	9,1-50	0,2-7	7,1-50	0,2-9	9,1-50	0,2-50	0,2-16	0,2-16	0,2-16
Range of adjustment ASME	psi	15-725	15-130	131-725	15-102	103-725	15-130	131-725	15-725			

¹Coefficients of flow for blow-off pressures for blow-off pressures > 4,0 bar. For lower pressures refer to values in the capacity table.

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
810	s	G	K	10	m	–	10	–	FKM	11,5	50	
810	s	G	K			–		–				
810	s	G	K			–		–				
810	s	G	K			–		–				

■ PROPERTIES

GOX	Especially for gaseous O ₂ 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	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)	<input type="checkbox"/>	C07	SIL evaluation relating to IEC 61508-2	<input type="checkbox"/>
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	<input type="checkbox"/>	C09	Seat tightness test with helium, leak detection method under vacuum incl. Factory Inspection Certificate 3.1 acc. to DIN EN 10204	<input type="checkbox"/>
C04	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)	<input type="checkbox"/>	C10	Certificate of oil- and grease free production	<input type="checkbox"/>
C05	Manufacturer certification (FDA, USP 3, 3-A, ...), Please indicate description of certificate:	<input type="checkbox"/>	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	<input type="checkbox"/>

■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	<input type="checkbox"/>	AK1	DNV-GL (DNVGL) type approval	<input type="checkbox"/>
AA2	TÜV component test acc. to VdTÜV specification sheet SV 100	<input type="checkbox"/>	AK2	Lloyd's Register (LR) type approval	<input type="checkbox"/>
AA3	Certification acc. to ASME Boiler and Pressure Vessel Code, Section VIII.Div 1 (ASME)	<input type="checkbox"/>	AK3	American Bureau of Shipping (ABS) type approval	<input type="checkbox"/>
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	<input type="checkbox"/>	AK4	Bureau Veritas (BV) type approval	<input type="checkbox"/>
AA5	Manufacture License of Special Equipment People's Republic of China (ML)	<input type="checkbox"/>	AK5	Russian Maritime Register of Shipping (RMRS) type approval	<input type="checkbox"/>
AA6	Certification acc. to. Korean Gas Safety Corporation (KGS) ³	<input type="checkbox"/>	AK6	Registro Italiano Navale (RINA) type approval	<input type="checkbox"/>
AA7	Registration according to Canadian Registration Number (CRN) ⁴	<input type="checkbox"/>	AL	Individual inspection by notified body inspector – (body to be indicated):	<input type="checkbox"/>
AA8	Certification according to "Deutsche Bahn"	<input type="checkbox"/>			<input type="checkbox"/>

³KGS only in combination with ASME | ⁴CRN only in combination with ASME

■ ENQUIRY

Copy and send to: order@goetze-armaturen.de.

Order form easily to be found online under the section for each series.

Series 810: Blowing-off rates at 10% above set pressure									
	Nominal diameter DN	8	10	15	20	25	32	40	50
	Set pressure bar	d ₀ = 7,5 mm	d ₀ = 10 mm	d ₀ = 11 mm	d ₀ = 16 mm	d ₀ = 20 mm	d ₀ = 25 mm	d ₀ = 32 mm	d ₀ = 40 mm
Air Nm ³ /h	0,2	19	34	42	92	115	223	372	610
	0,5	32	59	75	157	190	328	547	908
	1,0	46	86	108	227	308	473	799	1307
	1,5	60	109	137	287	410	622	1051	1752
	2,0	73	133	166	346	505	759	1301	2146
	2,5	86	158	194	406	604	898	1563	2550
	3,0	100	182	223	465	702	1043	1820	2955
	3,5	112	205	251	525	797	1194	2068	3355
	4,0	125	228	280	584	890	1336	2308	3744
	4,5	138	251	308	644	980	1472	2543	4126
	5,0	151	275	337	703	1071	1608	2778	4507
	5,5	163	298	365	763	1162	1745	3013	4888
	6,0	176	321	394	822	1252	1881	3248	5270
	6,5	189	344	422	882	1343	2017	3483	5651
	7,0	202	368	451	941	1434	2153	3718	6033
	7,5	214	391	479	1001	1524	2289	3953	6414
	8,0	227	414	508	1060	1615	2425	4188	6795
	8,5	240	437	536	1120	1706	2561	4423	7177
	9,0	253	461	565	1179	1796	2697	4658	7558
	9,5	265	484	593	1239	1887	2833	4893	7939
	10,0	278	507	621	1298	1977	2969	5128	8321
	11,0	304	554	678	1417	2159	3242	5598	9084
	12,0	329	600	735	1537	2340	3514	6068	9846
	13,0	355	647	792	1656	2521	3786	6538	10609
	14,0	380	693	849	1775	2703	4058	7008	11372
	15,0	406	740	906	1894	2884	4330	7478	12134
	16,0	431	786	963	2013	3065	4603	7949	12897
	17,0	457	833	1020	2132	3246			
	18,0	482	879	1077	2251	3428			
	19,0	507	926	1134	2370	3609			
	20,0	533	972	1191	2489	3790			
	21,0	558	1019	1248	2608	3971			
	22,0	584	1065	1305	2727	4153			
	23,0	609	1112	1362	2846	4334			
24,0	635	1158	1419	2965	4515				
25,0	660	1205	1476	3084	4696				
26,0	686	1251	1533	3203	4878				
27,0	711	1298	1590	3322	5059				
28,0	737	1344	1647	3441	5240				
29,0	762	1391	1704	3560	5422				
30,0	788	1437	1761	3679	5603				
32,0	839	1530	1875	3917	5965				
34,0	890	1623	1989	4155	6328				
36,0	941	1716	2103	4393	6690				
38,0	992	1809	2217	4631	7053				
40,0	1043	1902	2331	4869	7416				
42,0	1094	1995	2445	5107	7778				
44,0	1145	2088	2558	5345	8141				
46,0	1196	2181	2672	5583	8503				
48,0	1247	2274	2786	5821	8866				
50,0	1298	2367	2900	6059	9228				

Series 810: Blowing-off rates at 10% above set pressure						
Nominal diameter DN		8	10	15	20	25
Set pressure bar psi(g)						
Air	15	31	55	67	142	221
	30	45	81	98	207	323
SCFM	40	56	99	120	254	397
	50	66	118	143	302	472
	60	77	137	165	350	546
	70	87	155	188	397	621
	87	105	187	226	478	747
	90	108	192	233	493	770
	100	119	211	255	540	844
	110	129	230	278	588	919
	120	140	248	300	636	993
	130	150	267	323	683	1068
	140	161	286	345	731	1142
	150	171	304	368	779	1217
	160	182	323	391	826	1291
	170	192	341	413	874	1366
	180	203	360	436	922	1440
	190	213	379	458	969	1515
	200	223	397	481	1017	1589
	210	234	416	503	1065	1663
	220	244	434	526	1112	1738
	230	255	453	548	1160	1812
	240	265	472	571	1208	1887
	250	276	490	593	1255	1961
	260	286	509	616	1303	2036
	270	297	528	638	1351	2110
	280	307	546	661	1398	2185
	290	318	565	683	1446	2259
	300	328	583	706	1494	2334
	320	349	621	751	1589	2483
	340	370	658	796	1684	2632
	360	391	695	841	1780	2781
	380	412	732	886	1875	2929
	400	433	770	931	1970	3078
	420	454	807	976	2066	3227
	440	475	844	1021	2161	3376
	460	496	881	1066	2256	3525
	480	517	919	1111	2351	3674
	500	538	956	1157	2447	3823
	520	559	993	1202	2542	3972
	540	580	1030	1247	2637	4121
	560	600	1067	1292	2733	4270
	580	621	1105	1337	2828	4419
	600	642	1142	1382	2923	4568
	620	663	1179	1427	3019	4717
	640	684	1216	1472	3114	4866
	660	705	1254	1517	3209	5015
	680	726	1291	1562	3305	5164
	700	747	1328	1607	3400	5313
	725	773	1375	1663	3519	5499