

Safety Valves

Type 06801 with bellow seal



Stainless steel bellow sealed Safety Valves, angle type, PN40, type tested TÜV-SV.1105. S/G/L orifice $d_0 = 12.5$ mm TÜV-SV.1105. only S/G

Standard safety valve,
metal to metal seated, closed bonnet
"cleaned and degreased for oxygen service"

Part No. 06801.X.0000

Inlet: male thread type G (BSPP) acc. to ISO 228/1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06801.X.2000

Inlet: male thread type R (BSPT) acc. to ISO 7/1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06801.X.5000

Inlet: male thread NPT acc. to ANSI B 1.20.1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06801.X.6000

Inlet: male thread NPT acc. to ANSI B 1.20.1, Outlet: female thread NPT acc. to ANSI B 1.20.1



Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for non-inflammable and inflammable vapours, gases and fluids.

Working temperature: -270°C / -454°F (3K) up to $+225^{\circ}\text{C}$ / $+437^{\circ}\text{F}$ (498K)

Maximum allowed back pressure: 15% of set pressure, pressure-temperature must be observed

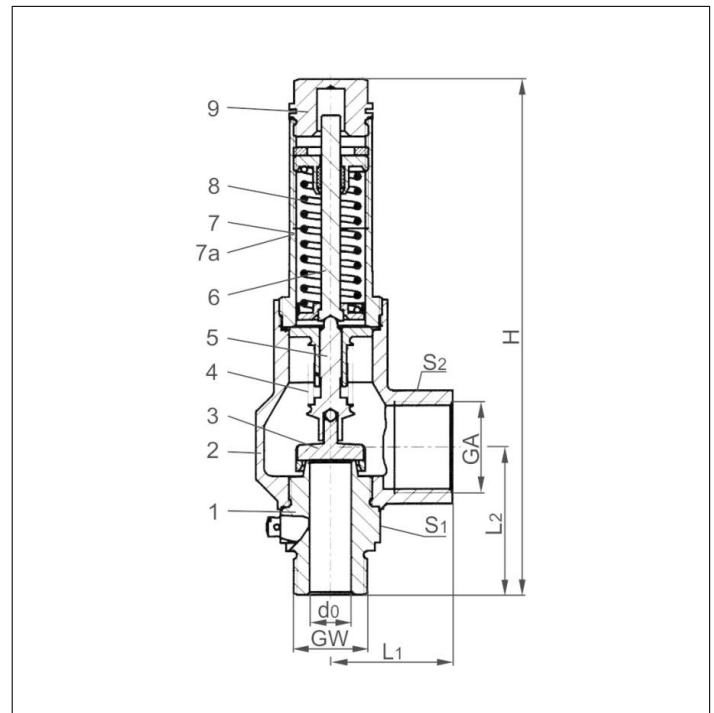
Materials	DIN EN	ASME/ASTM
1 Inlet body	1.4571	A 276 Grade 316Ti
2 Outlet body	1.4308	A 351 CF8
3 Disc	1.4541	A 276 Grade 321
4 Bellow	1.4571	A 276 Grade 316Ti
5 Bellow stem	1.4571	A 276 Grade 316Ti
6 Stem	CW453K	B 103 UNS C52100
7 Bonnet	1.4301	A 276 Grade 304
8 Spring	1.4571	A 276 Grade 316Ti
9 Cap	1.4301	A 276 Grade 304

Important:

For nominal size GW 3/4, $d_0 = 15.0$ mm the back pressure reduces the blow off performance of the safety valve (see diagram 06801-3/4).

Essential: Valves are delivered at a set pressure, therefore when ordering please confirm set pressure, medium and temperature.

Standard marking acc. to Pressure Equipment Directive 2014/68/EU (PED).



Type 06801	Technical data				
Nominal size	GW	1/2	3/4	1	1
Orifice	d_0	12.5	15	20	23
Dimension code	.X.	1204	1506	2010	2310
Set pressure range	bar	3.0-25.0	3.0-25.0	3.0-25.0	3.0-25.0
Outlet	GA	G 1	G 1	G 1-1/4	G 1-1/2
Height	H	186	190	205	255
Length	L_1	44	44	51	56
Length	L_2	52	54	63	65
Wrench size across flats	S_1	36	36	41	50
Wrench size across flats	S_2	41	41	50	55
Weight	ca. kg	1.03	1.05	1.70	2.45
Coeff. of discharge vapours, gases	α_w	0.60	0.50	0.60	0.66
Coeff. of discharge fluids	α_w	-	0.34	0.45	0.48

Dimensions in mm.

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Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Water in kg/h

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

Maximum allowed back pressure: 15% of set pressure.

For nominal size GW 3/4 the back pressure reduces the blow off performance of the safety valve (see diagram 06801-3/4).

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1	1/2	3/4	1	1	3/4	1	1
	d_0 (mm)	12.5	15.0	20.0	23.0	12.5	15.0	20.0	23.0	15.0	20.0	23.0
	A_0 (mm ²)	122.7	176.7	314.2	415.5	122.7	176.7	314.2	415.5	176.7	314.2	415.5
Medium	Air				Saturated steam				Water			
3.0		216	260	555	807	169	203	433	630	5557	13075	18445
4.0		272	326	696	1013	211	253	540	786	6417	15098	21298
5.0		328	393	839	1221	252	303	647	942	7174	16880	23812
6.0		383	460	981	1428	294	353	753	1096	7859	18491	26085
7.0		438	526	1123	1634	335	402	859	1249	8489	19973	28175
8.0		495	594	1269	1846	376	452	964	1403	9075	21352	30120
9.0		551	661	1411	2053	417	501	1069	1555	9625	22647	31947
10.0		608	729	1556	2265	458	550	1174	1708	10146	23872	33676
12.0		719	863	1842	2679	540	648	1384	2013	11114	26150	36890
14.0		830	997	2127	3094	622	746	1592	2317	12005	28246	39846
16.0		942	1130	2412	3509	703	844	1802	2621	12834	30196	42597
18.0		1053	1264	2697	3924	785	942	2010	2924	13612	32028	45181
20.0		1176	1411	3011	4380	866	1040	2219	3228	14348	33760	47625
22.0		1288	1546	3298	4799	948	1137	2427	3531	15049	35408	49949
25.0		1457	1748	3730	5427	1070	1284	2739	3985	16042	37745	53246

Diagram 06801-3/4

