

# Safety Valves

## Type 06810, Type 06815



**Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. D/G/F**

Standard safety valve  
metal to metal seated, "cleaned and degreased for oxygen service"  
closed bonnet, gastight cap or lifting device  
Inlet: male thread type G (BSPP) acc. to ISO 228/1  
Outlet: female thread type G (BSPP) acc. to ISO 228/1

**Part No. 06810.X.000000M (Pmax 16.0 bar)**

**Part No. 06810.X.000000H (Pmax 550.0 bar) stellited version**  
with gastight cap

**Part No. 06815.X.000000M (Pmax 16.0 bar)**

**Part No. 06815.X.000000H (Pmax 300.0 bar) stellited version**  
with lifting device

Available options - on request only:

· Flange-, NPT- or Tri-Clamp connection for in- and outlet

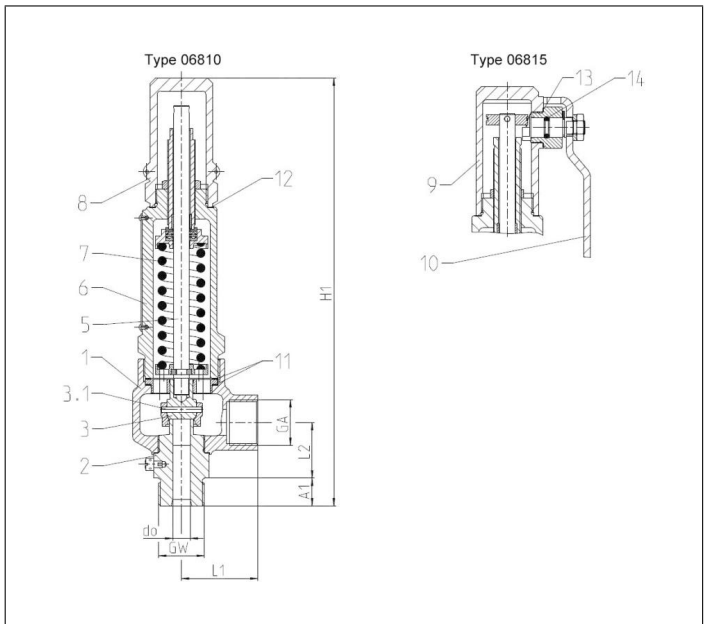


### Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases, vapours and liquids. Working temperature: -270°C / -454°F (3K) up to +400°C / +752°F (673K)

Pressure-temperature must be observed, suitable for horizontal installation from 20 bar up to 300 bar

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF 8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4408	A 351 CF8M
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4408	A 351 CF8M
9 Lifting cap	1.4408	A 351 CF8M
10 Lever	1.4301	A 276 Grade 304
Spare Parts		
2 Inlet body	1.4571	316Ti
3 Disc	1.4571	316Ti
3.1 Split pin	1.4310	301
11 Gasket	Graphite	
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



**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 06810, 06815	Technical data							
<b>Nominal size</b>	<b>GW</b>	<b>1/2</b>	<b>1/2</b>	<b>3/4</b>	<b>3/4</b>	<b>1/2</b>	<b>1/2</b>	<b>3/4</b>
Orifice	d <sub>0</sub>	6.0	6.0	6.0	6.0	10.0	10.0	10.0
Dimension code	.X.	0622	0623	0632	0633	1022	1023	1033
Set pressure range	bar	180-300	180-300	180-550	180-550	0.5-180	0.5-180	0.5-180
Outlet	GA	1/2	3/4	1/2	3/4	1/2	3/4	3/4
Height	H <sub>1</sub>	245	245	247	247	245	245	245
Length	L <sub>1</sub>	44	44	44	44	44	44	44
Length	L <sub>2</sub>	29	29	29	29	29	29	29
Length	A <sub>1</sub>	14	14	16	16	14	14	16
Weight 06810	ca. kg	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Weight 06815	ca. kg	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Coeff. of discharge gases, vapours	α <sub>w</sub>	0.52	0.52	0.52	0.52	0.5	0.5	0.5
Coeff. of discharge fluids	α <sub>w</sub>	0.42	0.42	0.42	0.42	0.5	0.5	0.5

Dimensions in mm.

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### Discharge capacities

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

Medium:

**A = Saturated steam** in kg/h

**B = Air** in m<sup>3</sup>/h at 0°C and 1013,25 mbar

**C = Water** in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

$d_0$  - orifice

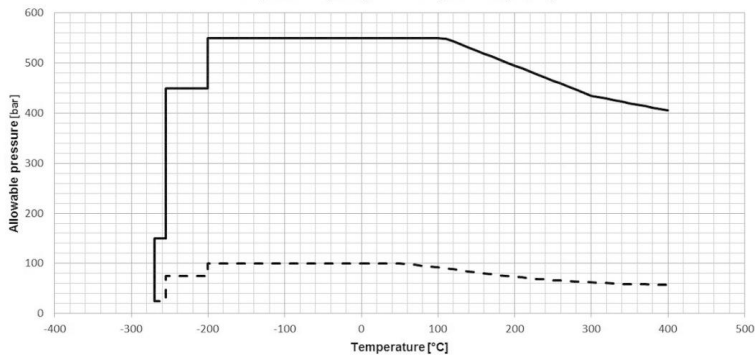
$A_0$  - flow area

Set pressure in bar (g)	GW	1/2 & 3/4		
	$d_0$ (mm)	6.0		
	$A_0$ (mm <sup>2</sup> )	28.27		
Medium	A	B	C	
180.0	-	2194	8508	
200.0	-	2429	8968	
220.0	-	2659	9406	
240.0	-	2893	9824	
260.0	-	3133	10225	
280.0	-	3374	10611	
300.0	-	3614	10983	
320.0	-	3854	11344	
340.0	-	4094	11693	
360.0	-	4334	12032	
380.0	-	4575	12361	
400.0	-	4815	12683	
420.0	-	5055	12996	
440.0	-	5295	13302	
460.0	-	5535	13601	
480.0	-	5776	13893	
500.0	-	6016	14180	
520.0	-	6256	14460	
550.0	-	6616	14872	

### Pressure-Temperature Rating

Maximum allowable working pressure  
Safety Valve Type 068XX.06

— all. pressure (inlet) - - all. pressure (outlet)



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The capacity indicated below is for a fully opened valve.

$d_0$  - orifice

$A_0$  - flow area

Set pressure in bar (g)	GW	1/2 & 3/4		
	$d_0$ (mm)	10.0		
	$A_0$ (mm <sup>2</sup> )	78.5		
Medium	A	B	C	
0.5	32	39	1548	
1.0	44	55	2096	
2.0	67	85	2965	
3.0	90	115	3632	
4.0	112	145	4193	
5.0	134	174	4688	
6.0	156	204	5136	
7.0	178	234	5548	
8.0	200	264	5931	
9.0	222	294	6290	
10.0	244	324	6631	
12.0	288	383	7264	
14.0	331	443	7846	
16.0	375	502	8387	
18.0	418	561	8896	
20.0	462	627	9377	
25.0	570	777	10484	
30.0	680	935	11485	
35.0	788	1087	12405	
40.0	897	1249	13262	
45.0	1008	1401	14066	
50.0	1118	1567	14827	
60.0	1341	1889	16243	
70.0	1562	2216	17544	
80.0	1788	2545	18755	
90.0	2013	2878	19893	
100.0	2244	3212	20969	
120.0	2723	3876	22971	
130.0	2972	4197	23909	
140.0	-	4548	24811	
160.0	-	5213	26524	
180.0	-	5861	28133	

### Pressure-Temperature Rating

Allowable operating pressure at the valve inlet and outlet  
Safety valve type 06810.10 and 06815.10

