

Product Specifications

Type 06810 and Type 06815



Type 06810
with gastight cap

Type 06815
with lifting device

Certifications & Quality standards

- TÜV-SV.1130.
Type tested Steam / Gas / Liquid
- ISO 228/1
Inlet, male thread type G and outlet, female thread type G (BSPP)
- **Discharge capacity**
Calculation of flow rate acc. to AD2000-Merkblatt / DIN EN ISO 4126-1



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

HEROSE Safety Valve Type 06810 and Type 06815

Safety Valves, angle type, stainless steel
Type tested, TÜV-SV.1130. Steam / Gas / Liquid

Specification highlights

- Standard safety valve
- Metal to metal seated
- Various sealing options
- 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

Applications & branches

#Gas Stations	#Pressure Vessels	#Gas Cylinders	
#Food	#Medical	#Compressed Air	#Steam
#Chemical	#General Industry	#Pharma	

Working temperature

O-Ring valve seal: 0°C (273K / +32°F) to 70°C (343K / +158°F)
Soft valve seal: -270°C (3K / -454°F) to +300°C (573K / +572°F)
Metal to metal sealed: -270°C (3K / -454°F) to +400°C (673K / +752°F)

Also suitable for horizontal installation for safety valves with set pressures between 20 to 300 bar.

Max. pressure | 06810 with gastight cap

Part No. 06810.X.000000M	(Pmax 16.0 bar) metal to metal
Part No. 06810.X.000000H	(Pmax 550.0 bar) metal to metal stellited version
Part No. 06810.X.000001L	(Pmax 150.0 bar) with Vespel soft seal
Part No. 06810.X.000002N	(Pmax 15.99 bar) with NBR O-Ring soft seal
Part No. 06810.X.000002F	(Pmax 180.0 bar) with FKM O-Ring soft seal

Max. pressure | 06815 with lifting device

Part No. 06815.X.000000M	(Pmax 16.0 bar) metal to metal
Part No. 06815.X.000000H	(Pmax 300.0 bar) metal to metal stellited version
Part No. 06815.X.000001L	(Pmax 150.0 bar) with Vespel soft seal
Part No. 06815.X.000002N	(Pmax 15.99 bar) with NBR O-Ring soft seal
Part No. 06815.X.000002F	(Pmax 180.0 bar) with FKM O-Ring soft seal

On request only

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

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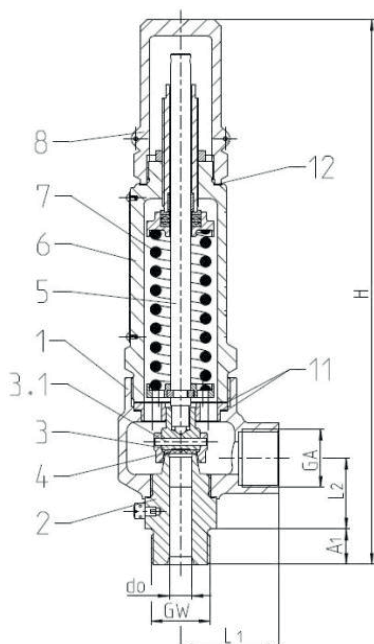
Materials and spare parts

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases, vapours and liquids.

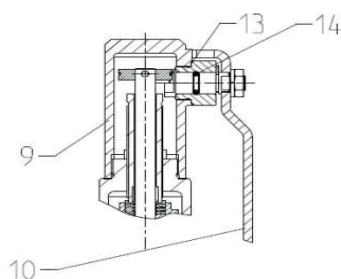
Essentials

- ! Set pressure temperature must be observed. Also suitable for horizontal installation for safety valves with set pressures between 20 to 300 bar.
- ! Valves are delivered at a set pressure, therefore when ordering please confirm set pressure.

Type 06810



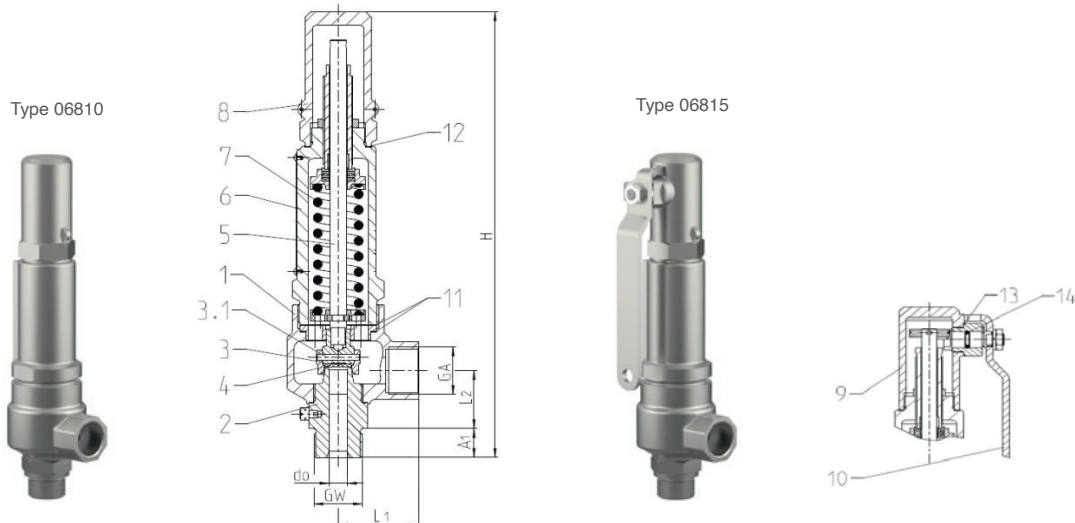
Type 06815



	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 (metal to metal seated)	1.4571	A 276 Grade 316Ti
4a	Soft sealing plate	VESPEL	
4b	Soft sealing O-ring	NBR	
4c	Soft sealing O-ring	FKM	
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	DIN EN	ASME/ASTM
2	Inlet body	1.4571	316Ti
3	Disc (metal to metal seated)	1.4571	316Ti
3.1	Split pin	1.4310	301
4a	Soft sealing plate	VESPEL	
4b	Soft sealing O-ring	NBR	
4c	Soft sealing O-ring	FKM	
11	Gasket	1.4404 / Graphite	316L Graphite
12	Gasket	PTFE	
13	Gasket	PTFE	
14	O-ring	FPM (VITON)	

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How to compose your order code?

Select from the table below: **Type number** ① + . (dot) + **Size number** ② + . (dot) + **Sealing Type number** ③
 (For example: 06810.0622.000000M)

*HEROSE made a preselection in material use, based on the Orifice and Nominal size of the inlet and outlet of the safety valves.

Type 06810 - 06815		Type number ①			Size number ②			
Dimension code	06810	0622	0623	0632	0633	1022	1023	1033
	06815							
Sealing Type ③	Sealing	Set pressure range (bar)						
Type X 000000M	metal					0.5-16	0.5-16	0.5-16
Type X 000000H	stellited	30-300	30-300	30-550	30-550	16.01-180	16.01-180	16.01-180
Type X 000001L	Vespel soft seal					0.5-150	0.5-150	0.5-150
Type X 000002N	NBR O-Ring					3-15.99	3-15.99	3-15.99
Type X 000002F	FKM O-Ring					16-180	16-180	16-180
Technical data								
Orifice	d ₀ in mm	6.0	6.0	6.0	6.0	10.0	10.0	10.0
Nominal size (inlet)	GW - BSPP female	1/2	1/2	3/4	3/4	1/2	1/2	3/4
Outlet	GA - BSPP male	1/2	3/4	1/2	3/4	1/2	3/4	3/4
Height	H in mm	245	245	247	247	245	245	245
Length	L ₁ in mm	44	44	44	44	44	44	44
Length	L ₂ in mm	32	32	32	32	32	32	32
Length	A ₁ in mm	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 fluids	α	0.42	0.42	0.42	0.42	0.5	0.5	0.5
Coeff. of discharge gases, vapours	α	0.52	0.52	0.52	0.52	0.5	0.5	0.5

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Discharge capacities

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

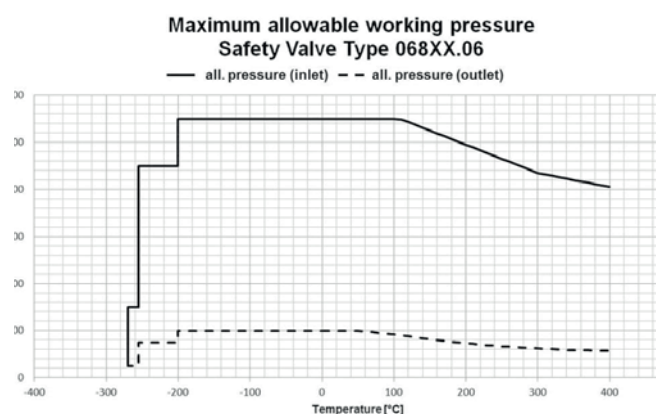
The capacity indicated below is for a fully opened valve.

Medium

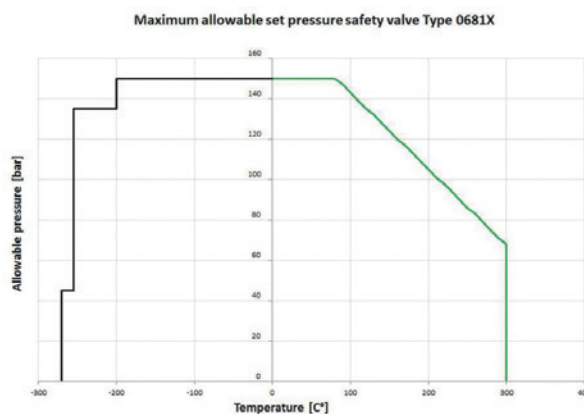
- Saturated steam in kg/h
- Air in m³/h at 0°C and 1013,25 mbar
- Water in kg/h at 20°C

Type 06810 + 06815 - metal to metal sealing

Set pressure in bar (g)	GW 1/2			GW 3/4		
	d ₀ in mm 6.0			d ₀ in mm 6.0		
	A ₀ in mm ² 28.27			A ₀ in mm ² 28.27		
30.0	254	350	3473	254	350	3473
40.0	336	468	4011	336	468	4011
60.0	503	708	4912	503	708	4912
80.0	670	953	5672	670	953	5672
100.0	845	1203	6341	845	1203	6341
120.0	1032	1451	6947	1032	1451	6947
140.0	1230	1703	7503	1230	1703	7503
160.0	1437	1952	8021	1437	1952	8021
180.0	1688	2194	8508	1688	2194	8508
200.0	2215	2429	8968	2215	2429	8968
220.0	-	2659	9406	-	2659	9406
240.0	-	2893	9824	-	2893	9824
260.0	-	3133	10225	-	3133	10225
280.0	-	3374	10611	-	3374	10611
300.0	-	3614	10983	-	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



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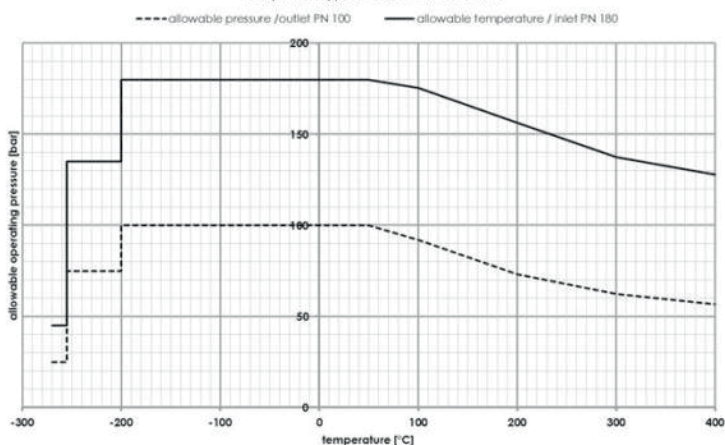
Medium

- Saturated steam in kg/h
- Air in m³/h at 0°C and 1013,25 mbar
- Water in kg/h at 20°C

Type 06810 + 06815 - metal to metal sealing

Set pressure in bar (g)	GW 1/2 & 3/4		
	d ₀ in mm 10.0		
	A ₀ in mm ² 78.5		
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

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



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The capacity indicated below is for a fully opened valve.

Medium

- Saturated steam in kg/h
- Air in m³/h at 0°C and 1013,25 mbar
- Water in kg/h at 20°C

Type 06810 + 06815 - Vespel sealing plate

Set pressure in bar (g)	GW 1/2 & 3/4		
	d ₀ in mm 10.0		
	A ₀ in mm ² 78.5		
0.2	-	-	-
0.5	-	39	1548
1.0	-	55	2096
2.0	-	85	2965
3.0	-	115	3632
4.0	-	145	4193
5.0	-	174	4688
6.0	-	204	5136
7.0	-	234	5548
8.0	-	264	5931
9.0	-	294	6290
10.0	-	324	6631
15.0	-	472	6947
20.0	-	627	9377
30.0	-	935	11485
40.0	-	1249	13262
50.0	-	1567	14827
60.0	-	1889	16243
65.0	-	2045	16906
70.0	-	2216	-
80.0	-	2545	-
90.0	-	2878	-
100.0	-	3212	-
110.0	-	3544	-
120.0	-	3876	-
140.0	-	4548	-
150.0	-	4871	-

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The capacity indicated below is for a fully opened valve.

Medium

- Saturated steam in kg/h
- Air in m³/h at 0°C and 1013,25 mbar
- Water in kg/h at 20°C

Type 06810 + 06815 - O-Ring sealing

Set pressure in bar (g)	GW 1/2 & 3/4		
	d ₀ in mm 10.0		
	A ₀ in mm ² 78.5		
3.0	-	116	3632
4.0	-	145	4194
5.0	-	175	4689
6.0	-	205	5137
7.0	-	234	5548
8.0	-	264	5931
9.0	-	294	6291
10.0	-	324	6631
12.0	-	384	7264
14.0	-	443	7846
16.0	-	503	8388
18.0	-	562	8897
20.0	-	627	9378
25.0	-	777	10485
30.0	-	936	11486
35.0	-	1087	12406
40.0	-	1249	13262
45.0	-	1402	14067
50.0	-	1568	14828
60.0	-	1890	16243
70.0	-	2216	17545
80.0	-	2546	18756
90.0	-	2878	19894
100.0	-	3212	20970
110.0	-	3531	21993
120.0	-	3877	22971
130.0	-	4197	23909
140.0	-	4549	24812
150.0	-	4872	25683
160.0	-	5213	26525
170.0	-	5537	27341
180.0	-	5861	28134