

# Safety Valves

## Type 06850, Type 06855 - O-ring



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L

standard safety valve  
with O-ring valve seal, "cleaned and degreased"  
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

<b>Part No. 06850.X.000002N</b>	<b>Orifice</b>	10	14	18
<b>Part No. 06855.X.000002N</b>	<b>Pmin</b>	3.0 bar	3.0 bar	3.0 bar
with NBR O-ring valve seal	<b>Pmax</b>	15.9 bar	14.9 bar	19.9 bar
<b>Part No. 06850.X.000002F</b>	<b>Orifice</b>	10	14	18
<b>Part No. 06855.X.000002F</b>	<b>Pmin</b>	16.0 bar	15.0 bar	20.0 bar
with FKM O-ring valve seal	<b>Pmax</b>	250.0 bar	200.0 bar	110.0 bar

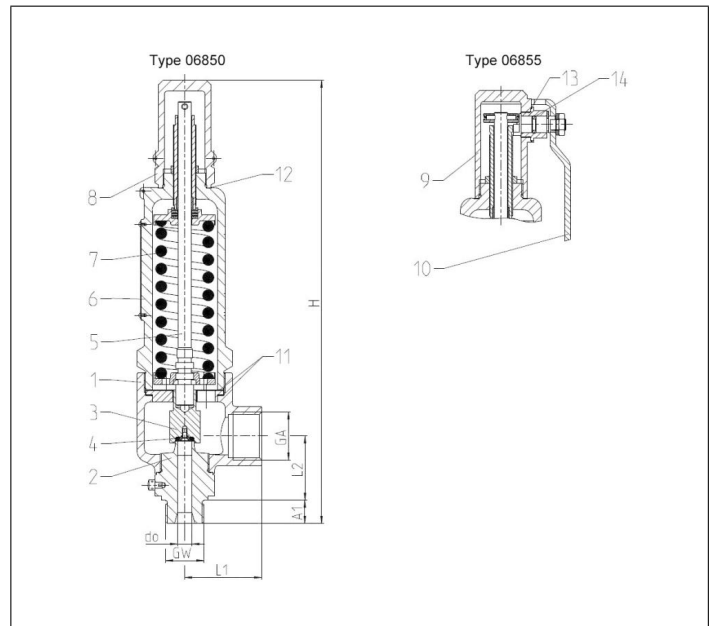


Available options - on request only:  
· Flange-, NPT- or Tri-Clamp connection for in- and outlet

### Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases and liquids. Working temperature: 0°C / 32°F (273K) up to 70°C / 158°F (343K), suitable for horizontal installation from 20 bar.

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 O-ring	NBR or 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
<b>Spare Parts</b>		
3 Complete disc	1.4571+NBR or FKM	316Ti + NBR or FKM
4 O-ring + screw	NBR or FKM	
11 Gasket	1.4404 Graphite	316L Graphite
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



Typ 06850, 06855	Technical data	Orifice									
		[mm]	10			14					
Inlet	GW		1/2	3/4	1	3/4	3/4	3/4	1	1	1
Outlet	GW		1	1	1	1	1-1/4	1-1/2	1	1-1/4	1-1/2
Dimension code	.X.		1024	1034	1044	1434	1435	1436	1444	1445	1446
Height	H		305.0	307.0	309.0	310.5	310.5	310.5	312.5	312.5	312.5
Length	L1		53.0	53.0	53.0	55.0	55.0	55.0	55.0	55.0	55.0
Length	L2		44.5	44.5	44.5	48.2	48.2	48.2	48.2	48.2	48.2
Length	A1		14.0	16.0	18.0	16.0	16.0	16.0	18.0	18.0	18.0
Weight 06850	ca. kg		3.2	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.4
Weight 06855	ca. kg		3.4	3.4	3.4	3.6	3.6	3.6	3.6	3.6	3.6
Coefficient of discharge	$\alpha_w$ S/G		0.84	0.84	0.84	0.70	0.70	0.70	0.70	0.70	0.70
Coefficient of discharge	$\alpha_w$ L		0.61	0.61	0.61	0.54	0.54	0.54	0.54	0.54	0.54
Min. set pressure	bar-g		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Max. set pressure	bar-g		250.0	250.0	250.0	200.0	200.0	200.0	200.0	200.0	200.0

Dimensions in mm.

## Safety Valves

### Type 06850, Type 06855 - O-ring



Type 06850, 06855		Technical data					
Orifice	[mm]	18					
Inlet	GW	1	1	1-1/4	1-1/4	1-1/2	1-1/2
Outlet	GW	1-1/2	2	1-1/2	2	1-1/2	2
Dimension code	.X.	1846	1847	1856	1857	1866	1867
Height	H	304.0	304.0	304.0	304.0	306.0	306.0
Length	L1	60.0	63.0	60.0	63.0	60.0	63.0
Length	L2	49.0	53.0	49.0	53.0	49.0	53.0
Length	A1	18.0	18.0	20.0	20.0	22.0	22.0
Weight 06850	ca. kg	3.9	4.1	3.9	4.1	4.0	4.2
Weight 06855	ca. kg	4.1	4.3	4.1	4.3	4.2	4.4
Coefficient of discharge	$\alpha_w S/G$	0.76	0.76	0.76	0.76	0.76	0.76
Coefficient of discharge	$\alpha_w L$	0.51	0.51	0.51	0.51	0.51	0.51
Min. set pressure	bar-g	3.0	3.0	3.0	3.0	3.0	3.0
Max. set pressure	bar-g	110.0	110.0	110.0	110.0	110.0	110.0

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 & 1			3/4 & 1			1, 1-1/4 & 1-1/2		
	$d_0$ (mm)	10.0			14.0			18.0		
	$A_0$ (mm <sup>2</sup> )	78.5			153.94			254.0		
	Medium	A	B	C	A	B	C	A	B	C
3.0	-	194	4431	-	317	7688	-	570	12003	
4.0	-	244	5117	-	398	8878	-	715	13860	
5.0	-	294	5721	-	480	9926	-	862	15496	
6.0	-	344	6267	-	561	10873	-	1007	16975	
7.0	-	393	6769	-	642	11744	-	1153	18335	
8.0	-	444	7236	-	726	12555	-	1302	19601	
9.0	-	494	7675	-	807	13317	-	1448	20790	
10.0	-	545	8090	-	890	14037	-	1598	21915	
15.0	-	794	9908	-	1298	17192	-	2329	26840	
20.0	-	1054	11441	-	1721	19851	-	3089	30992	
30.0	-	1572	14012	-	2568	24313	-	4609	37958	
40.0	-	2099	16180	-	3428	28074	-	6152	43830	
50.0	-	2634	18090	-	4302	31388	-	7720	49003	
60.0	-	3175	19817	-	5186	34384	-	9308	53680	
70.0	-	3723	21404	-	6081	37138	-	10914	57981	
80.0	-	4277	22882	-	6985	39703	-	12537	61985	
90.0	-	4835	24270	-	7898	42111	-	14174	65745	
100.0	-	5397	25583	-	8814	44389	-	15820	69301	
110.0	-	5931	26832	-	9688	46555	-	17387	72684	
120.0	-	6513	28025	-	10637	48626	-	-	-	
140.0	-	7642	30270	-	12482	52522	-	-	-	
150.0	-	8184	31333	-	13368	54365	-	-	-	
160.0	-	8758	32360	-	14305	56148	-	-	-	
180.0	-	9847	34323	-	16083	59554	-	-	-	
200.0	-	10898	36180	-	17801	62775	-	-	-	
220.0	-	11931	37946	-	-	-	-	-	-	
240.0	-	12983	39633	-	-	-	-	-	-	
250.0	-	13522	40451	-	-	-	-	-	-	