

ASME safety relief valves

33551/33651

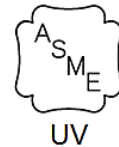
Code Section VIII – Division 1

Description

Safety relief valves are used in the beverage and food processing industries, as well as in the chemical-pharmaceutical industry.

Safety relief valves:

- protection of pressurized systems against overpressure
- are suitable for liquids and gases
- may be used for the intended purpose only
- are certified acc. to ASME Code; UV Stamp and capacity tested by NB



Valve types

Type	Fluids	Lifting manual	Lifting pneumatic	Seals EPDM / FKM	Proximity switch	Heating cartridge
33551	F/G	X		X / ⊗	(⊗)	⊗
33651	F/G		X	X / ⊗	⊗	⊗

Liquids (F), Air/Gases (G),

⊗ optional



Valve data

Type	ASME safety relief valve
Type of functioning	Opens with pressure/closes with spring force
Performance test	National Board NB
Approval	ASME Section VIII – Division 1, UV-Stamp

Product range

Materials	Stainless steel 316 L/1.4404
Seals	EPDM, FKM (FDA proof)
Surface	≤ 0.8 μm

Other parts

Materials	Stainless steel 304 L, 1.4307
Seals	EPDM
Surface	precision-turned, matte

Production

Fluids (nontoxic)	Liquids/gases
Operating pressure	15/145 psi, 1.03 – 10 bar
Temperature	-4/302°F, -20/ 150°C
Connection	70/100 psi, 5/7 bar

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Valve construction

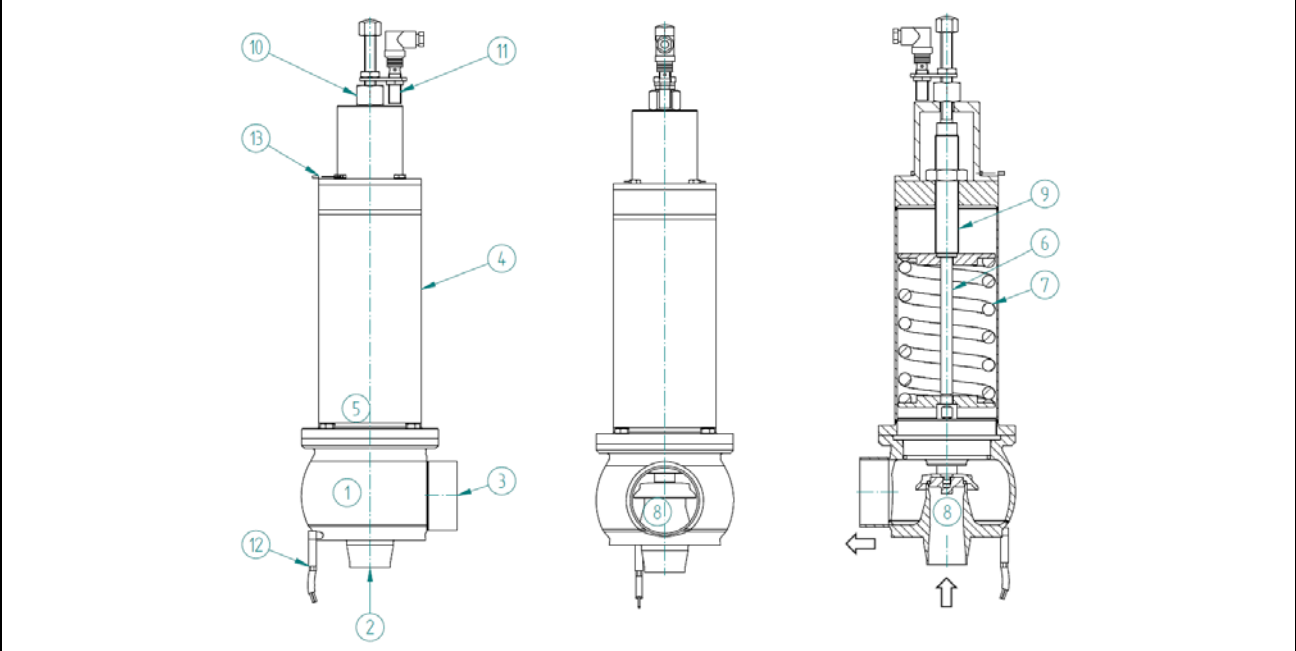


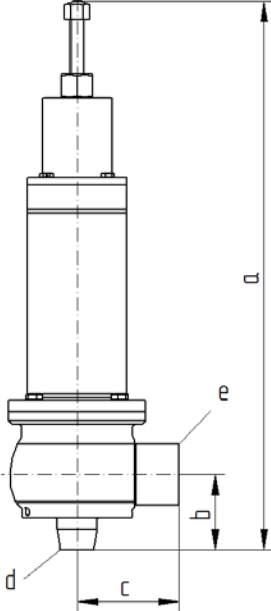
Fig. 1: Type 33551/33651

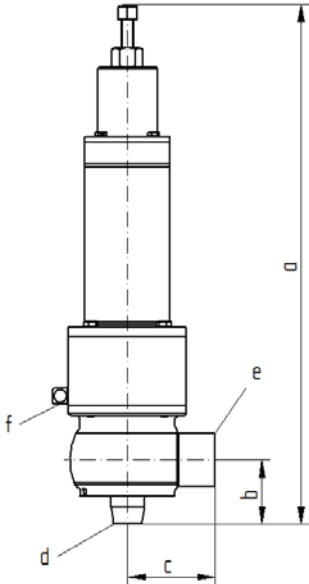
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|---|-----------------------------------|----|--------------------------|
| 1 | valve housing | 7 | pressure spring |
| 2 | valve inlet [E] – supply pipe | 8 | valve seat |
| 3 | valve outlet [A] – discharge pipe | 9 | pressure adjusting screw |
| 4 | upper valve body | 10 | lifting nut |
| 5 | pneumatic actuator | 11 | proximity switch |
| 6 | valve rod | 12 | heating cartridge |
| | | 13 | lead seal |

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Dimensions

AH-SV-33551	nominal size		a	b	c	connection d, e		weight	
	DN	NPS	[mm]	[mm]	[mm]	DN	DN	[kg]	
	25	1	466	65	88	25	50	8.0	
	40	1.5	552	73	88	40	65	13.5	
	50	2	574	88	110	50	80	15.5	
	65	2.5	679	102	127	65	100	19.0	
	80	3	771	118	143	80	125	32.5	
valve lift: max. 20 mm different connecting adapters									

AH-SV-33651	nominal size		a	b	c	connection d, e		weight	
	DN	NPS	[mm]	[mm]	[mm]	DN	DN	[kg]	
	25	1	522	65	88	25	50	13.5	
	40	1.5	602	73	88	40	65	21.0	
	50	2	623	88	110	50	80	22.5	
	65	2.5	760	102	127	65	100	35.5	
	80	3	853	118	143	80	125	52.5	
valve lift: max. 20 mm different connecting adapters f: Compressed air connection \varnothing 6/4 mm									

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Performance data

flow capacity [gpm] water

NPS	set pressure [psi-g]									
	15	30	45	60	75	90	105	120	135	145
1	38	51	63	72	81	89	96	102	108	112
1.5	96	130	159	184	206	225	243	260	276	286
2	181	245	300	347	388	425	459	490	520	539
2.5	298	403	494	570	638	699	755	807	856	887
3	431	584	715	826	923	1.012	1.093	1.168	1.239	1.284

flow capacity [scfm] air

NPS	set pressure [psi-g]									
	15	30	45	60	75	90	105	120	135	145
1	206	300	404	508	612	716	820	924	1.028	1.097
1.5	524	765	1.029	1.293	1.558	1.822	2.087	2.351	2.616	2.792
2	988	1.442	1.940	2.439	2.937	3.436	3.935	4.433	4.932	5.264
2.5	1.626	2.371	3.192	4.012	4.832	5.653	6.473	7.293	8.114	8.661
3	2.354	3.434	4.622	5.810	6.998	8.186	9.374	10.562	11.750	12.542

flow capacity [m³/h] water

DN	set pressure [bar]									
	1	2	3	4	5	6	7	8	9	10
25	9	12	14	16	18	20	22	23	25	26
40	22	30	36	42	47	51	55	59	63	65
50	41	56	68	79	88	96	104	111	118	122
65	68	92	112	130	145	159	171	183	194	201
80	98	133	162	188	210	230	248	265	281	292

flow capacity [Nm³/h] air

DN	set pressure [bar]									
	1	2	3	4	5	6	7	8	9	10
25	331	482	649	816	983	1.149	1.316	1.483	1.650	1.761
40	841	1.227	1.652	2.076	2.500	2.925	3.349	3.774	4.198	4.481
50	1.586	2.314	3.114	3.914	4.715	5.515	6.315	7.116	7.916	8.450
65	2.609	3.806	5.003	6.439	7.756	9.073	10.389	11.706	13.022	13.900
80	3.779	5.512	7.419	9.325	11.232	13.138	15.045	16.952	18.858	20.130