Angle-type safety valve TYPE SV13

Description:

Angle type safety valves are used to protect a cloesd system, pressure tanks etc. against overpressure.

Features:

- suitable for neutral and non-neutral, liquid and gaseous media
- optional with lever
- gastight version
- TÜV-type test approval 2067 D/G, F
- EC type examination Letter S/G, L
- Safety valves are set and sealed at the factory

Connection:
3/8", 1/2", 3/4", 1"

Temperature:
-60°C up to +225°C – depending on design

Set pressure:
0,2 bar – 25,0 bar– depending on design

Materials:

Component	
Body	Stainless steel 1.4408
Internal parts	Stainless steel 1.4404
Spring	Stainless steel 1.4310

Seal:

EPDM	Ethylen propylene diene	-50°C bis +150°C
NBR	Nitrile rubber	-30°C bis +130°C
PTFE	Polytetrafluorethylene	-60°C bis +225°C (Flat seal from 0,5 bar)
FKM	Fluorcarbon	-20°C bis +200°C

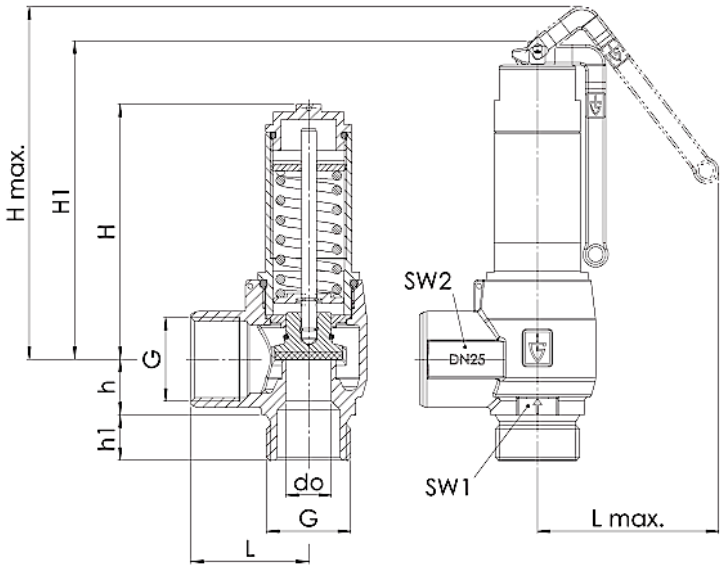
Approvals:

AD 2000 sheet A2 | DIN ISO 4126-1 | DGR 2014/68/EU | TRD 421

Dimensions:

Diameter DN	10	15	20	25
Inlet G*	3/8"	1/2"	3/4"	1"
Outlet G1*	3/8"	1/2"	3/4"	1"
L	30	26	43	47
Lmax	72	72	72	72
H	77,5	82	90,5	101
H1	98	107	117	127
H	17	19	20	22
h1	12	15	16	18
SW1	24	27	34	38
SW2	22	26	32	38
do	9	13	15	18
weight kg	0,3	0,4	0,6	0,8

* Thread / Connection acc. to DIN EN ISO 228 BSP-P



Installation and Assembly:

Spring-loaded safety valves are to be installed with the spring bonnet pointing vertically upward. To ensure a satisfactory operation of the safety valves they must be installed in such a way that the safety valve is not exposed to any impermissible static, dynamic or thermal loads. Appropriate protection devices must be applied if the medium that discharges upon actuation of the valve can lead to direct or indirect hazards to people or the environment. Always pay attention to possible fumes discharging from the relief bores in the spring bonnet.

Supply

Supply connection pieces for safety valves are to be kept as short as possible and are to be designed in such a way that there can be no pressure loss greater than max. 3% of the response pressure.

Removal of condensate discharge

In the event of possible condensate formation the pipes or the valves themselves (in flanged version) must be fitted at their lowest point with a continuously operating condensate discharge device. Hazard-free removal of the condensate or medium discharge must be ensured. The body, pipes and silencers must be protected against freezing.

Blowing-off pipe / backpressure

The blow-off pipe of the safety valves must be designed to ensure that the required mass flow can be discharged pressure-free during the blowing-off process. In safety valves with metal bellows a backpressure of up to max. 4 bar has no impact on the response pressure of the safety valve.

Operation:

The operating pressure of the plant is to be least 5% lower than the closing pres- sure of the safety valve. In this way, the valve can satisfactorily close again after blowing off. In the event of minor leaks, which may be caused by contamination between the sealing surfaces, the valve can be made to blow off through lifting, for cleaining purposes. If this does not remove the leak, the sealing surface is probably damaged and this can only be repaired at our factory or by authorized specialists. Depending on the version, lifting is either carried out by means of a knurled nut above the spring bonnet which is turned counterclockwise (afterwards the knurled nut has to be turned back to the stop) or by actuating the lifting lever on the upper part of the valve. For delivery purposes the lifting lever is blocked by means of strap which has to be removed for actuating the lifting device.

Lifting for maintenance purposes:

In the case of safety valves with a lifting device it is recommended, and in certain plant-specific cases even stipulated that the valves from time to time must be made to blow-off by lifting the seal off the seat, in order to assure the correct functioning of the safety valve. This ist why they can be made to open at the latest as from an operating pressure of ≥ 85% of the response pressure. The lifting device is not to be operated when in a pressure-free state. In steam generating equipment, testing the ease of movement of safety valves must be carried at least every 4 weeks in compliance with TRD 601. Safety valves are the ultimate safety device for the tank or system. They must be able to prevent impermissible overpressure even when all other upstream control and monitoring equipment fail. To ensure these functional characteristics safety valves require regular and recurring maintenance. The maintenance intervals are determined be the operator in dependence of the operating conditions.

Capacity table:

Media: 1 = Air Nm3/h
2 = Steam kg/h
3 = Water m3/h

Blowing-off rates at 10% above set pressure

DN	10			15			20			25		
Set pressure in bar	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
0,2	18	14	0,6	41	33	1,3	58	46	1,8	77	61	2,6
0,5	25	20	0,8	62	50	1,9	81	65	2,5	111	89	3,7
0,8	34	27	1,0	82	65	2,3	107	85	3,1	145	115	4,7
1,0	39	31	1,1	95	75	2,6	124	97	3,4	167	132	5,2
1,5	53	41	1,4	127	99	3,3	169	132	4,2	243	191	6,3
2,0	65	51	1,6	159	124	3,8	212	165	4,8	310	243	7,3
2,5	80	62	1,8	190	147	4,3	257	200	5,4	370	288	7,7
3,0	91	71	2,0	217	169	4,7	295	229	5,9	439	341	8,5
3,5	105	81	2,2	250	193	5,1	338	262	6,4	512	396	9,2
4,0	119	92	2,3	278	214	5,5	383	296	7,0	570	440	9,8
4,5	134	103	2,5	306	236	5,8	429	331	7,4	628	485	10,4
5,0	146	113	2,7	340	263	6,1	469	362	7,8	687	530	10,9
5,5	159	122	2,8	369	285	6,4	509	392	8,2	745	574	11,5
6,0	174	135	2,9	398	307	6,7	557	430	8,6	804	620	12,0
6,5	187	144	3,0	442	341	7,0	598	461	8,9	864	666	12,5
7,0	200	154	3,1	471	364	7,2	638	492	9,7	934	721	12,9
7,5	216	167	3,3	510	393	7,5	678	523	10,1	993	766	13,4
8,0	246	190	3,4	549	423	7,7	719	555	10,4	1052	812	13,8
8,5	260	200	3,6	580	447	8,0	759	586	10,7	1111	857	14,3
9,0	274	211	3,7	610	471	8,2	799	617	11,0	1170	903	14,7
9,5	287	222	3,8	641	495	8,4	840	648	11,3	1229	948	15,1
10,0	301	232	3,9	672	518	8,6	880	679	11,6	1288	994	15,5
11,0	329	254	4,1	734	566	9,1	961	741	12,2	1406	1085	16,2
12,0	357	275	4,2	795	613	9,5	1042	803	12,7	1524	1176	16,9
13,0	384	296	4,4	857	661	9,8	1122	866	13,3	1643	1267	17,6
14,0	412	318	4,6	918	708	10,2	1203	928	13,8	1761	1358	18,3
15,0	439	339	4,7	980	756	10,6	1284	990	14,3	1879	1449	18,9
16,0	467	360	4,9	1042	803	10,9	1364	1052	14,7	1997	1540	19,6
17,0	495	382	5,0	1103	851	11,3	1445	1115	15,2	2115	1632	20,2
18,0	522	403	5,2	1165	899	11,6	1526	1177	15,6	2233	1723	20,8
19,0	550	424	5,3	1226	946	11,9	1606	1239	16,0	2351	1814	21,3
20,0	577	446	5,5	1288	994	12,2	1687	1301	16,5	2469	1905	21,9
21,0	605	467	5,6	1350	1041	12,5	1768	1364	16,9	2587	1996	22,4
22,0	633	488	5,7	1411	1089	12,8	1848	1426	17,3	2705	2087	22,9
23,0	660	509	5,9	1473	1136	13,1	1929	1488	17,6	2823	2178	23,5
24,0	688	531	6,0	1534	1184	13,4	2010	1550	18,0	2942	2269	24,0
25,0	716	552	6,1	1596	1231	13,6	2090	1613	18,4	3060	2360	24,5

Article number:

Type	Lifting mechanism	Connection	Seal	Size
SV13	0 – without	0 – male thread BSP-P	01 – EPDM	02 – 3/8"
	1 – lever	1 – male thread NPT	02 – FKM	03 – 1/2"
			03 – PTFE	04 – 3/4"
			04 – NBR	05 – 1"

Example: SV13100202

SV13	**1**	**0**	**02**	**02**

Article no. SV13100202
Safety valve + internals made of stainless steel
Lifting mechanism: lever
Connection: male thread
Seal: FKM
Size: 3/8"

Image similar, subject change without notice.