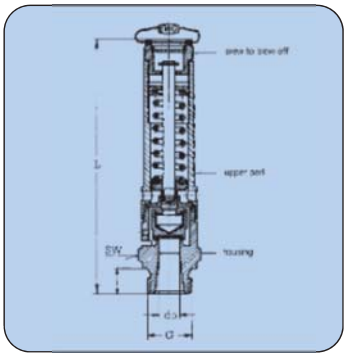
Component-Tested Safety Valves DN8

Safety Valves

Safety valves serve to blow out non-poisonous and non-flammable gases into the atmosphere in order to protect pressure tanks against overpressure.
Please note: Only safety valves that have been set and sealed with lead (plumbed) by us can be delivered with the component symbols, it is thus absolutely necessary to indicate the setting pressure in bar. To test their proper functioning, safety valves can be relieved by turning the knurled (thumb) screw to the left. The bearing surfaces and conical seals can be cleaned of impurities by unscrewing the entire upper part - **without** changing the pressure setting.
Repairs may only be carried out by the manufacturer.



Thread W	Dimensions [mm] L	i	SW	do	Set pressure bar	Order No.
G 1/4	85	10	20	8	1,0 - 1,5	351.221
G 1/4	85	10	20	8	1,5 - 2,0	351.222
G 1/4	85	10	20	8	2,0 - 3,0	351.223
G 1/4	85	10	20	8	3,0 - 5,0	351.224
G 1/4	85	10	20	8	5,0 - 7,0	351.225
G 1/4	85	10	20	8	7,0 - 9,0	351.226
G 1/4	85	10	20	8	9,0 - 15,0	351.227
G 1/4	90	10	20	8	15,0 - 20,0	351.421
G 1/4	90	10	20	8	20,0 - 27,0	351.422
G 1/4	90	10	20	8	27,0 - 40,0	351.423
G 3/8	85	10	20	8	1,0 - 1,5	351.241
G 3/8	85	10	20	8	1,5 - 2,0	351.242
G 3/8	85	10	20	8	2,0 - 3,0	351.243
G 3/8	85	10	20	8	3,0 - 5,0	351.244
G 3/8	85	10	20	8	5,0 - 7,0	351.245
G 3/8	85	10	20	8	7,0 - 9,0	351.246
G 3/8	85	10	20	8	9,0 - 15,0	351.247
G 3/8	90	10	20	8	15,0 - 20,0	351.441
G 3/8	90	10	20	8	20,0 - 27,0	351.442
G 3/8	90	10	20	8	27,0 - 40,0	351.443
G 1/2	87	12	24	8	1,0 - 1,5	351.251
G 1/2	87	12	24	8	1,5 - 2,0	351.252
G 1/2	87	12	24	8	2,0 - 3,0	351.253
G 1/2	87	12	24	8	3,0 - 5,0	351.254
G 1/2	87	12	24	8	5,0 - 7,0	351.255
G 1/2	87	12	24	8	7,0 - 9,0	351.256
G 1/2	87	12	24	8	9,0 - 15,0	351.257
G 1/2	92	12	24	8	15,0 - 20,0	351.451
G 1/2	92	12	24	8	20,0 - 27,0	351.452
G 1/2	92	12	24	8	27,0 - 40,0	351.453

Technical Data

Connection thread	G 1/4, G 3/8, G 1/2
Max. operating pressure	40 bar (PN 40)
Operating temperature	-10 °C up to +180 °C
Setting range	1 up to 40 bar (10 steps)
Opening pressure difference	< 10 %
Closing pressure difference	< 10 % (under 3 bar ≤ 0,3 bar)
Built-in position	vertical
Material	brass
Seal	FKM (viton)
Leading	aluminum
Locking torque	13 Nm

Important: The supply connection to the safety valve should not be < DN8, the pressure drop in the supply connection not > 3 %.

Component symbols

CE0685 SV 02 2 8 D/G 0,32 P

- P — Pressure setting (bar)
- 0,32 — Flow factor
- D/G — suitable for gases and vapors
- 8 — narrowest flow diameter (mm)
- 2 — Component number
- 02 — Year of approval
- SV — Safety valve
- CE0685 — German Technical Inspection
  In this case: DEKRA

Exhaust Capacity Air

The exhaust capacities indicated in the table are the minimum values reached when air pressure is raised by 10 % above the set pressure.

Set pressure bar	exhaust flow capacity (normal condition) m³/h	l/min
1	23,5	394
2	35,5	592
4	59	985
6	63	1380
8	106	1773
10	130	2168
12	154	2562
14	177	2957
16	201	3350
18	225	3745
20	248	4138
22	272	4533
25	307	5124
30	367	6110
35	426	7095
40	485	8080

Intermediate values can be interpolated.

Definitions

Set pressure = start-to-leak pressure	Beginning of **audible** leaking	
Opening pressure	Valve completely open, maximum blow-off / deflation	
Closing pressure	Valve is closed and sealed (tight)	
Opening pressure difference	Difference between start-to-leak pressure and opening pressure	
Closing pressure difference	Difference between start-to-leak pressure and closing pressure	
For example:	Set pressure	12,0 bar
	Opening pressure (+10 %)	13,2 bar
	Closing pressure (-10 %)	10,8 bar