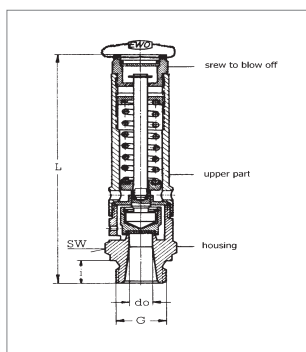




## Component-tested safety valves DN8

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.



Connection threads 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

### 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 conditioning)	
	[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.

### Locking torques

Connection threads	Max. locking torques
G 1/4	15 Nm
G 3/8	25 Nm
G 1/2	35 Nm

### Technical data

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

**Important: The supply connection to the safety valve should not be < DN6, the pressure drop in the supply connection not > 3%.**

### Definitions

Set pressure (start-to-leak):	beginning of <i>audible</i> leaking
Opening pressure:	valve completely open, max. 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	12,0bar
	opening pressure (+10%)	13,2bar
	closing pressure (-10%)	10,8bar

### Component symbols

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

—	pressure setting (bar)
—	flow factor
—	suitable for gases and vapors
—	narrowest flow diameter (mm)
—	component number
—	year of approval
—	safety valve
—	German technical inspection in this case: DEKRA

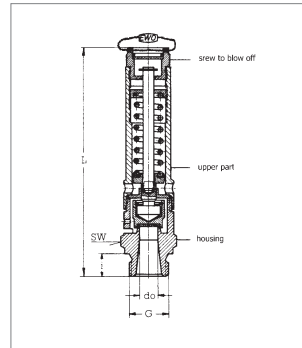


## Component-tested safety valves DN 10

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.

Connection threads	Dimensions [mm]				Set pressure [bar]	Order No.
	W	L	i	SW		
G <sup>1/2</sup>	120	12	27	10	2,0 - 3,6	351.261
					3,6 - 5,0	351.262
					5,0 - 7,0	351.263
					7,0 - 8,5	351.264
					8,5 - 11,5	351.265
					11,5 - 16,0	351.266
					16,0 - 22,0	351.267
G <sup>3/4</sup>	120	12	30	10	2,0 - 3,6	351.271
					3,6 - 5,0	351.272
					5,0 - 7,0	351.273
					7,0 - 8,5	351.274
					8,5 - 11,5	351.275
					11,5 - 16,0	351.276
					16,0 - 22,0	351.277



### Technical data

Connection thread	G <sup>1/2</sup> , G <sup>3/4</sup>
Operating temperature	-10°C up to +180°C
Setting range	2 up to 22 bar (7 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 (valve installation)	13 Nm

**Important: The supply connection to the safety valve should not be < DN6, the pressure drop in the supply connection not > 3%.**

### Definitions

Set pressure (start-to-leak):	beginning of <i>audible</i> leaking
Opening pressure:	valve completely open, max. 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

### Component symbols

CE0685	SV	02	1	10	D/G	0,43	P	
								pressure setting (bar)
								flow factor
								suitable for gases and vapors
								narrowest flow diameter (mm)
								component number
								year of approval
								safety valve
								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 conditioning)	
	[m³/h]	[l/min]
2	74,5	1242
4	124	2068
6	174	2895
8	223	3722
10	273	4548
12	323	5377
14	372	6203
16	422	7032
18	471	7858
20	521	8685
22	571	9513

Intermediate values can be interpolated.

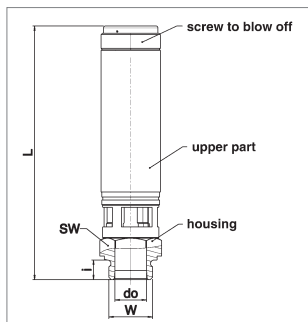
### Locking torques

Connection threads	Max. locking torques
G <sup>1/2</sup>	35 Nm
G <sup>3/4</sup>	50 Nm



## Component-tested high-performance safety valves G1 – G2

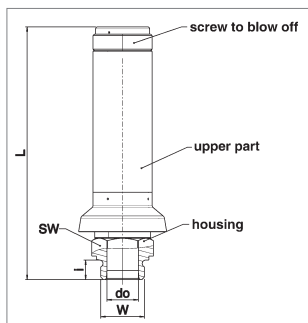
Safety valve with a very high blow-off capacity will be used for protection of pressure vessels and pressure systems for air and other neutral, non-toxic and non-combustible gases. The valves only can be supplied with a preset pressure, the desired set pressure must be specified with the order. After setting, the valves are labeled and sealed. For functional testing, the safety valve can be opened by turning the knurled screw. The bearing surfaces and seals can be cleaned from impurities by unscrewing the upper part **without** changing the pressure setting. Repairs may only be executed by the manufacturer.



### Safety valves D/G

This spring-loaded safety valve with a very high blow-off capacity will be used for protection of pressure vessels and pressure systems for air and other neutral, non-toxic and non-combustible gases.

Connection threads	W	L	i	SW	do	Set pressure [bar]	Order No.
G1	177	15	41	24	24	0,2 - 35	<b>352.00</b>
G1 1/4	215	22,5	60	32	32	0,2 - 30	<b>352.10</b>
G1 1/2	215	22,5	60	32	32	0,2 - 30	<b>352.20</b>
G2	282	26	80	48	48	0,2 - 30	<b>352.30</b>



### Safety valves F/K/S

This valves have a protective cover (stainless steel) and the spring area of the medium is separately. This design allows a usage to secure fixed pressure and vehicle tanks from dust and granular goods.

Connection threads	W	L	i	SW	do	Set pressure [bar]	Order No.
G1	177	15	41	24	24	0,2 - 6	<b>352.40</b>
G1 1/4	215	22,5	60	32	32	0,2 - 6	<b>352.50</b>
G1 1/2	215	22,5	60	32	32	0,2 - 6	<b>352.60</b>
G2	282	26	80	48	48	0,2 - 6	<b>352.70</b>

#### Options

Stainless steel - and  
NBR or PTFE seals on request!

#### Locking torques

Connection threads	Max. locking torques
G1	60Nm
G1 1/4	80Nm
G1 1/2	80Nm
G2	80Nm

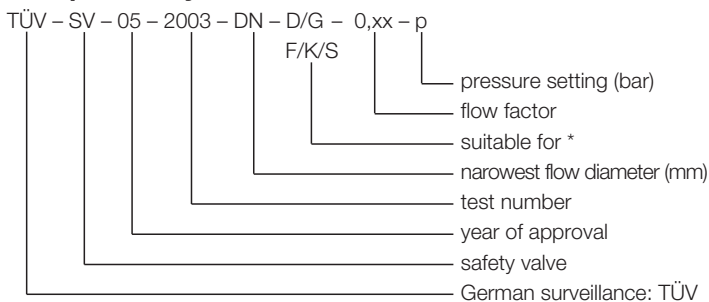
#### Technical data

<b>Connection thread</b>	G1, G1 1/4, G1 1/2, G2	
<b>Operating temperature</b>	+200°C	
<b>Setting range</b>	- model D/G	0,2 up to 30(35)bar
	- model F/K/S	0,2 up to 6bar
<b>Opening pressure difference</b>	< 10%	
<b>Closing pressure difference</b>	< 10%	
<b>Built-in position</b>	vertical, standing	
<b>Material</b>	- housing, top, internal parts	brass (stainless steel on request!)
	- seal	FKM (viton)
		(NBR or PTFE on request!)
	- spring, guard	stainless steel

#### Definitions

Set pressure (start-to-leak):	beginning of <i>audible</i> leaking
Opening pressure:	valve completely open, max. 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

#### Component symbols



\* D/G - for gases and vapors

F/K/S - for blowing air from tanks for liquid, granular or dust media

TÜV - Component certification: 2003

Power table see next side