

**Description:**

- standard safety valve
- angular shape
- metal sealing
- spring-loaded
- flanges acc. to EN1092-1 or ANSI
- inlet: PN16-PN63
- outlet: PN16-PN40
- cone liftable
- with gas-tight cap
- TÜV certified

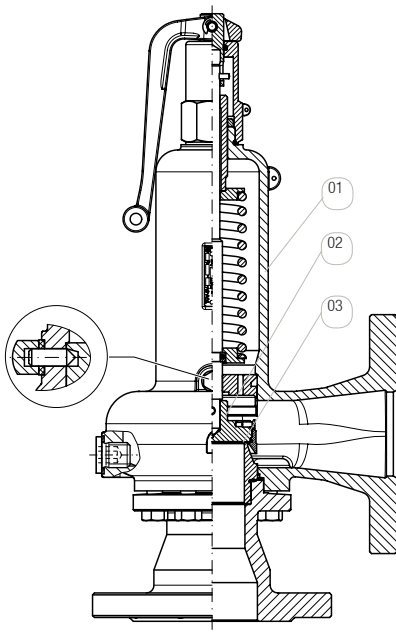
Range of application:

- Protection of systems from exceeding a defined maximum pressure
- steam, gases and fluids
- reaction pressure is set by the manufacturer
- max. permitted medium temperature depending on the design: steel (J/K): -10°C up to +280°C
-10°C up to +350°C from DN32
stainless steel (O): -60°C up to +280°C
-60°C up to + 350°C from DN32

Comments:

More **soft sealings** on request.

outlet enlargements on request, see also type SVF23.

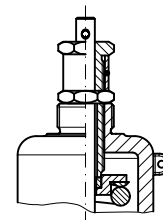


picture with lifting lever (option -LH)

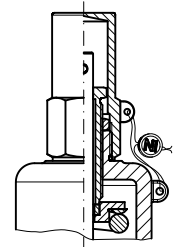
pos.	part	steel / cast steel		stainless steel	options		
1	body	1.0460 / 0.7043 (DN15-DN25)	J	1.4571	0		
		1.0619 / 1.0619 (from DN32)	K				
2	interior	1.4571	O	1.4571	0		
3	sealing	metallic	M	metallic	M	EPDM	E
						FKM	V
						PTFE	T

options:

- LH: lifting lever
- LK: gas-tight with lifting button
- TH: high / low temperatures -200°C up to +280°C

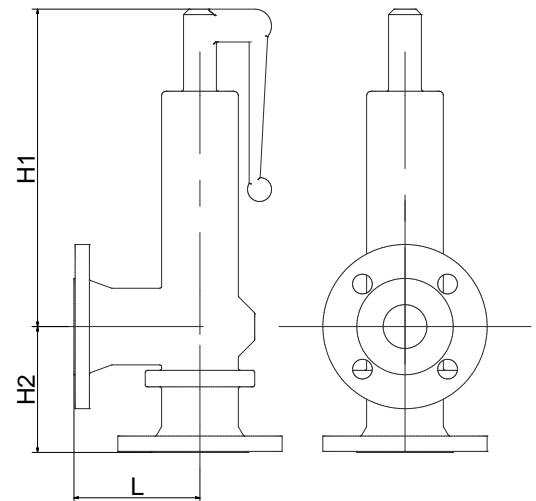


locking sleeve on request



gas-tight cap

For details about the order code see "Order information". An overview of the complete material code you can find at the beginning of each product section of the product catalogue.



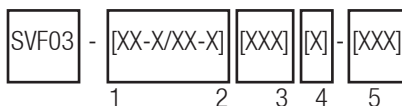
* The reaction pressure is the gauge pressure at which a direct-loaded safety valve begins to open under operating conditions.

**for fluids up to 16bar

***for fluids up to 10bar

match code	connection [inch]		nominal size [mm]	reaction pres- sure* [bar]		L [mm]	H1 [mm]	H2 [mm]	weight [kg]
	inlet	outlet		min.	max.				
size 1:									
SVF03-52-x/52-x x0M125	DN15	DN15	12.5	0.1	40	90	268	90	4.3
SVF03-53-x/53-x x0M125	DN20	DN20	12.5	0.1	40	95	273	95	4.3
SVF03-54-x/54-x x0M160	DN25	DN25	16	0.1	40	100	278	100	4.6
SVF03-54-x/54-x x0M180	DN25	DN25	18	0.1	20	100	278	100	4.6
SVF03-55-x/55-x x0M200	DN32	DN32	20	0.1	40	105	375	105	9.6
SVF03-55-x/55-x x0M250	DN32	DN32	25	0.1	6	105	375	105	9.6
SVF03-56-x/56-x x0M250	DN40	DN40	25	0.1	40	115	385	115	10
SVF03-56-x/56-x x0M320	DN40	DN40	32	0.1	6	115	385	115	10
SVF03-57-x/57-x x0M320	DN50	DN50	32	0.05	40	125	430	125	15
SVF03-57-x/57-x x0M400	DN50	DN50	40	0.05	6.5**	125	430	125	15
SVF03-58-x/58-x x0M400	DN65	DN65	40	0.05	35	145	450	145	19.3
SVF03-58-x/58-x x0M500	DN65	DN65	50	0.05	7.5***	145	450	145	19.3
SVF03-59-x/59-x x0M500	DN80	DN80	50	0.05	25	155	620	155	36.8
SVF03-59-x/59-x x0M580	DN80	DN80	58	0.05	6	155	620	155	36.8
SVF03-60-x/60-x x0M600	DN100	DN100	60	0.05	18	175	650	175	40.5
SVF03-60-x/60-x x0M700	DN100	DN100	70	0.05	6	175	650	175	40.5

Order information:



1: type: SVF03

2: connection size (see table):

- inlet: 52-60
- outlet: 52-60
- attached is the nominal pressure of the flange:

- 1: PN16
- 2: PN25
- 3: PN40
- 4: PN64

3: materials:

- 1. digit: body material
J=steel (up to DN25)
K = cast steel (from DN32)
O = stainless steel
- 2. digit: interior
O = stainless steel
- 3. digit: sealing
M=metallic (standard)
E=EPDM
V=FKM
T=PTFE

4. nominal size in 1/10mm (see table)

5: options (see "options")

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!

SUPPLEMENT: RELIEF CAPACITY

Relief capacity at 10% pressure surge for each set pressure for each size measured with water in 10³kg/h at 20°C for fluids.

	relief capacity [10kg ³ /h] acc. to connection size and nominal size														
connection size	15/20	25		32		40		50		65		80		100	
nominal size	12.5	16	18	20	25	25	32	32	40	40	50	50	58	60	70
coefficient of discharge αd	0.32	0.29	0.22	0.34	0.24	0.32	0.23	0.28	0.23	0.23	0.21	0.33	0.29	0.3	0.28
set pressure [bar]															
0.05			1.1					4.4	5.7	5.7	8.1	12.8	15.1	16.7	21.2
0.1	0.9	1.3	1.3	2.4	2.7	3.6	4.2	5.1	6.6	6.6	9.4	14.7	17.4	19.3	24.5
0.2	1.1	1.6	1.6	3	3.3	4.4	5.2	6.3	8.1	8.1	11.5	18.1	21.3	23.6	30
0.3	1.3	1.9	1.8	3.4	3.8	5.1	6	7.2	9.3	9.3	13.3	20.8	24.6	27.3	34.7
0.4	1.4	2.1	2	3.9	4.3	5.7	6.7	8.1	10.4	10.4	14.8	23.3	27.6	30.5	38.8
0.5	1.5	2.3	2.2	4.2	4.7	6.2	7.3	8.9	11.4	11.4	16.2	25.5	30.2	33.4	42.5
1	2.1	3.1	3	5.7	6.3	8.4	9.9	12	15.4	15.4	22	34.6	40.9	45.2	57.5
1.5	2.6	3.8	3.7	7	7.7	10.3	12.1	14.7	18.9	18.9	26.9	42.3	50.1	55.4	70.4
2	3	4.4	4.2	8.1	8.9	11.9	14	17	21.8	21.8	31.1	48.9	57.8	64	81.3
2.5	3.3	4.9	4.7	9	10	13.3	15.6	19	24.4	24.4	34.8	54.7	64.6	71.5	90.9
3	3.6	5.4	5.2	9.9	10.9	14.5	17.1	20.8	26.7	26.7	38.1	59.9	70.8	78.4	99.6
3.5	3.9	5.8	5.6	10.7	11.8	15.7	18.5	22.5	28.8	28.8	41.2	64.7	76.5	84.7	107.5
4	4.2	6.2	6	11.4	12.6	16.8	19.8	24	30.8	30.8	44	69.1	81.7	90.5	115
4.5	4.4	6.6	6.3	12.1	13.4	17.8	21	25.5	32.7	32.7	46.7	73.3	86.7	96	121.9
5	4.7	7	6.7	12.8	14.1	18.8	22.1	26.9	34.5	34.5	49.2	77.3	91.4	101.2	128.5
6	5.1	7.6	7.3	14	15.4	20.6	24.2	29.4	37.8	37.8	53.9	84.7	100.1	110.8	140.8
7	5.5	8.2	7.9	15.1		22.2		31.8	40.8	40.8	58.2	91.5		119.7	
8	5.9	8.8	8.4	16.1		23.8		34	43.6	43.6	62.2	97.8		128	
9	6.3	9.3	9	17.1		25.2		36	46.3	46.3	66	103.7		135.7	
10	6.6	9.8	9.4	18		26.6		38	48.8	48.8	69.6	109.3		143.1	
12	7.3	10.8	10.3	19.8		29.1		41.6	53.4	53.4		119.7		156.7	
14	7.8	11.6	11.2	21.4		31.4		44.9	57.7	57.7		129.3		169.3	
16	8.4	12.4	11.9	22.8		33.6		48.1	61.7	61.7		138.3		181	
18	8.9	13.2	12.7	24.2		35.6		51		65.4		146.6		192	
20	9.4	13.9	13.4	25.5		37.6		53.7		69		154.6			
25	10.5	15.6		28.6		42		60.1		77.1		172.8			
30	11.5	17		31.3		46		65.8		84.4					
35	12.4	18.4		33.8		49.7		71.1		91.2					
40	13.2	19.7		36.1		53.1		76							

comment:

The **set pressure** is the gauge pressure at which a direct-loaded safety valve begins to open under test conditions (atmospheric pressure).

The **reaction pressure** is the gauge pressure at which a direct-loaded safety valve begins to open under operating conditions.

SUPPLEMENT: RELIEF CAPACITY

Relief capacity at 10% pressure surge for each set pressure for each size measured with air in Nm³/h for **gases**.

	relief capacity [Nm ³ /h] acc. to connection size and nominal size														
connection size	15/20	25		32		40		50		65		80		100	
nominal size	12.5	16	18	20	25	25	32	32	40	40	50	50	58	60	70
coefficient of discharge αd	0.45	0.38	0.28	0.43	0.31	0.41	0.29	0.39	0.31	0.31	0.28	0.46	0.41	0.44	0.4
set pressure [bar]															
0.05			31					123	158	158	225	353	418	463	588
0.1	25	37	35	67	74	99	116	146	184	184	262	417	497	549	697
0.2	33	47	45	84	94	124	145	184	234	234	334	527	628	698	880
0.3	41	57	53	100	111	146	172	219	277	277	395	628	746	844	1053
0.4	47	65	61	113	126	167	195	252	318	318	450	720	855	973	1211
0.5	54	75	68	127	140	186	218	281	354	354	504	808	959	1087	1364
1	77	106	98	181	201	265	309	412	512	512	729	1193	1426	1632	2010
1.5	100	138	128	237	263	347	404	552	679	679	962	1596	1912	2195	2702
2	121	167	156	290	322	430	500	683	847	847	1195	1969	2354	2711	3345
2.5	142	196	183	344	386	510	594	804	999	999	1410	2316	2778	3190	3947
3	162	225	209	397	447	592	686	922	1145	1145	1616	2655	3184	3657	4525
3.5	183	253	236	448	504	667	773	1040	1291	1291	1822	2994	3591	4124	5103
4	204	282	263	499	562	743	861	1158	1438	1438	2029	3333	3998	4591	5681
4.5	225	311	290	549	619	818	948	1275	1584	1584	2235	3672	4404	5058	6259
5	245	339	317	600	676	894	1036	1393	1730	1730	2442	4012	4811	5526	6837
6	287	397	370	702	790	1045	1211	1629	2023	2023	2855	4691	5626	6461	7995
7	328	454	424	803		1197		1865			2316	3269	5370		7397
8	370	512	477	905		1348		2101			2610		6050		8334
9	412	569	531	1007		1500		2337			2903		6731		9271
10	453	627	585	1109		1651		2574			3197		7412		10209
12	537	742	692	1312		1955		3047			3785		8775		12086
14	620	858	800	1517		2259		3521			4373		10139		13966
16	704	973	908	1721		2564		3996			4963		11506		15848
18	787	1089	1016	1926		2869		4471			5553		12875		17733
20	871	1205	1124	2131		3174		4974			6144		14245		
25	1081	1495		2644		3939		6139			7625		17678		
30	1292	1795		3159		4707		7335			9111				
35	1503	2079		3676		5477		8536			10601				
40	1715	2373		4195		6250		9740							

comment:

The **set pressure** is the gauge pressure at which a direct-loaded safety valve begins to open under test conditions (atmospheric pressure).

The **reaction pressure** is the gauge pressure at which a direct-loaded safety valve begins to open under operating conditions.

A **standard cubic meter Nm³** acc. to DIN 1343 is the amount that is one cubic meter at a pressure $p_n=1.01325$, a humidity of 0% (dry gas) and a temperature of $t_n=0^\circ\text{C}$.

SUPPLEMENT: RELIEF CAPACITY

Relief capacity at 10% pressure surge for each set pressure for each size measured with saturated steam in kg/h for gases.

	relief capacity [kg/h] acc. to connection size and nominal size														
connection size	15/20	25		32		40		50		65		80		100	
nominal size	12.5	16	18	20	25	25	32	32	40	40	50	50	58	60	70
coefficient of discharge αd	0.45	0.38	0.28	0.43	0.31	0.41	0.29	0.39	0.31	0.31	0.28	0.46	0.41	0.44	0.4
set pressure [bar]															
0.05			25					100	128	128	182	287	339	375	477
0.1	20	29	28	53	59	78	92	116	146	146	208	331	394	436	553
0.2	25	36	34	64	72	94	110	140	178	178	254	401	478	531	669
0.3	30	42	39	73	81	106	126	160	203	203	289	459	546	617	770
0.4	33	46	43	80	88	117	138	177	224	224	317	508	603	686	854
0.5	37	51	47	86	95	127	148	191	241	241	343	550	653	741	929
1	64	88	81	150	167	219	256	341	423	423	603	986	1176	1350	1663
1.5	74	102	95	174	194	256	298	406	500	500	708	1176	1409	1617	1990
2	95	132	123	229	254	340	395	539	669	669	943	1553	1858	2139	2639
2.5	112	155	144	271	305	402	468	635	788	788	1112	1827	2192	2517	3114
3	127	175	164	310	349	462	535	720	894	894	1261	2072	2485	2854	3532
3.5	143	198	184	349	394	521	603	811	1008	1008	1422	2336	2802	3218	3982
4	158	219	204	387	436	576	668	898	1116	1116	1575	2587	3103	3563	4409
4.5	174	241	225	426	480	635	736	990	1229	1229	1735	2850	3418	3925	4857
5	189	262	244	463	522	690	799	1075	1335	1335	1885	3096	3713	4265	5277
6	220	305	284	538	607	802	930	1250	1553	1553	2191	3600	4318	4959	6136
7	251	348	324	615		916		1427		1772	2501	4110		5660	
8	282	391	364	690		1029		1603		1991		4616		6358	
9	313	433	404	766		1141		1778		2208		5120		7053	
10	344	476	444	841		1254		1954		2427		5628		7752	
12	406	562	524	993		1479		2305		2863		6638		9143	
14	467	646	603	1143		1703		2654		3296		7641		10525	
16	528	731	682	1292		1925		3000		3726		8639		11899	
18	589	815	760	1440		2146		3344		4154		9630		13625	
20	650	899	839	1590		2369		3691		4585		10629			
25	804	1113		1964		2931		4568		5673		13153			
30	958	1325		2343		3491		5440		6757					
35	1112	1538		2714		4051		6314		7841					
40	1265	1750		3095		4610		7185							

comment:

The **set pressure** is the gauge pressure at which a direct-loaded safety valve begins to open under test conditions (atmospheric pressure).

The **reaction pressure** is the gauge pressure at which a direct-loaded safety valve begins to open under operating conditions.