

SAFETY VALVE, FLANGE DESIGN, ENLARGED OUTLET

**Description:**

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

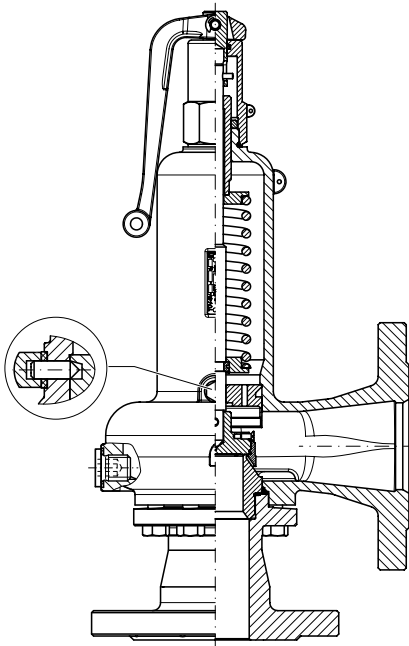
Range of application:

- 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.

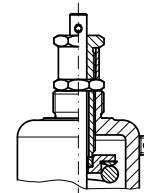
Flanges acc. to ANSI 100lbs - 600lbs (inlet) or 150lbs - 300lbs (outlet) on request.



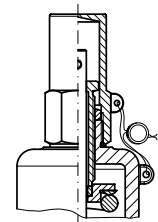
pos.	part	steel / cast steel		stainless steel		options	
1	body	1.0460 / 0.7043 (DN15-DN20)	J	1.4571	0		
		1.0469 / 1.0619 (DN25-DN50)	J				
		1.0619 / 1.0619 (DN65-DN80)	K				
2	interior	1.4571	O	1.4571	O		
3	sealing	metallic	M	metallic	M	EPDM	E
						FKM	V
						PTFE	T

options:

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

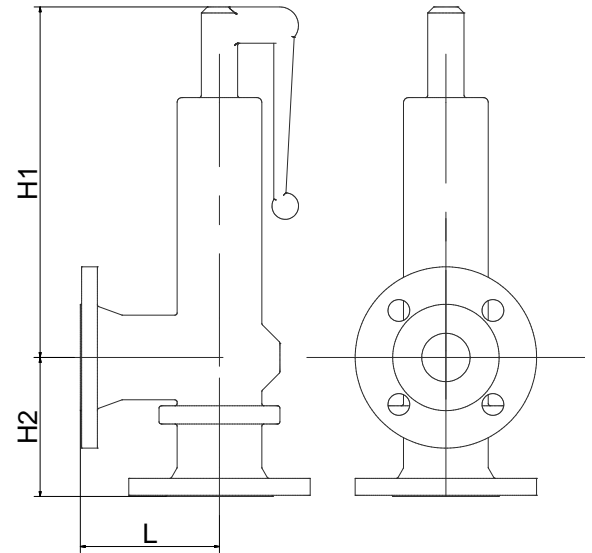


locking sleeve on request



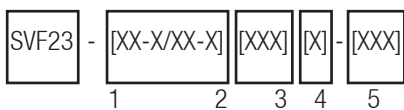
gas-tight cap

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.



match code	connection [inch]		nominal size [mm]	reaction pres- sure* [bar]		L [mm]	H1 [mm]	H2 [mm]	weight [kg]
	inlet	outlet		min.	max.				
SVF2300-53-x/54-x xOM160	DN20	DN25	16	0.1	40	100	273	95	4.5
SVF2300-53-x/54-x xOM180	DN20	DN25	18	0.1	20	100	273	95	4.6
SVF2300-54-x/55-x xOM200	DN25	DN32	20	0.1	40	105	375	105	9.6
SVF2300-55-x/56-x xOM250	DN32	DN40	25	0.1	40	115	385	115	10
SVF2300-56-x/57-x xOM320	DN40	DN50	32	0.05	40	125	430	125	15
SVF2300-57-x/58-x xOM400	DN50	DN65	40	0.05	35	145	450	145	19.3
SVF2300-58-x/59-x xOM500	DN65	DN80	50	0.05	25	155	620	155	36.8
SVF2300-59-x/60-x xOM600	DN80	DN100	60	0.05	18	175	650	175	40.5

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



Order information:

1: type: SVF23

2: connection size (see table):

- inlet: 52-59
- outlet: 53-60
- attached is the pressure range of the flange:

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

3: materials:

- 1. digit: body material
J=steel (up to DN50)
K = cast steel (from DN65)
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 (inlet)	15	20		25	32	40	50	65	80	
nominal size	12.5	16	18	20	25	32	40	50	60	
coefficient of discharge αd	0.32	0.29	0.22	0.34	0.32	0.28	0.23	0.33	0.3	
set pressure [bar]										
0.05			1.1				4.4	5.7	12.8	16.7
0.1	0.9	1.3	1.3	2.4	3.6	5.1	6.6	14.7	19.3	
0.2	1.1	1.6	1.6	3	4.4	6.3	8.1	18.1	23.6	
0.3	1.3	1.9	1.8	3.4	5.1	7.2	9.3	20.8	27.3	
0.4	1.4	2.1	2	3.9	5.7	8.1	10.4	23.3	30.5	
0.5	1.5	2.3	2.2	4.2	6.2	8.9	11.4	25.5	33.4	
1	2.1	3.1	3	5.7	8.4	12	15.4	34.6	45.2	
1.5	2.6	3.8	3.7	7	10.3	14.7	18.9	42.3	55.4	
2	3	4.4	4.2	8.1	11.9	17	21.8	48.9	64	
2.5	3.3	4.9	4.7	9	13.3	19	24.4	54.7	71.5	
3	3.6	5.4	5.2	9.9	14.5	20.8	26.7	59.9	78.4	
3.5	3.9	5.8	5.6	10.7	15.7	22.5	28.8	64.7	84.7	
4	4.2	6.2	6	11.4	16.8	24	30.8	69.1	90.5	
4.5	4.4	6.6	6.3	12.1	17.8	25.5	32.7	73.3	96	
5	4.7	7	6.7	12.8	18.8	26.9	34.5	77.3	101.2	
6	5.1	7.6	7.3	14	20.6	29.4	37.8	84.7	110.8	
7	5.5	8.2	7.9	15.1	22.2	31.8	40.8	91.5	119.7	
8	5.9	8.8	8.4	16.1	23.8	34	43.6	97.8	128	
9	6.3	9.3	9	17.1	25.2	36	46.3	103.7	135.7	
10	6.6	9.8	9.4	18	26.6	38	48.8	109.3	143.1	
12	7.3	10.8	10.3	19.8	29.1	41.6	53.4	119.7	156.7	
14	7.8	11.6	11.2	21.4	31.4	44.9	57.7	129.3	169.3	
16	8.4	12.4	11.9	22.8	33.6	48.1	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 (inlet)	15	20		25	32	40	50	65	80	
nominal size	12.5	16	18	20	25	32	40	50	60	
coefficient of discharge αd	0.45	0.38	0.28	0.43	0.41	0.39	0.31	0.46	0.44	
set pressure [bar]										
0.05			31				123	158	353	463
0.1	25	37	35	67	99	146	184	417	549	
0.2	33	47	45	84	124	184	234	527	698	
0.3	41	57	53	100	146	219	277	628	844	
0.4	47	65	61	113	167	252	318	720	973	
0.5	54	75	68	127	186	281	354	808	1087	
1	77	106	98	181	265	412	512	1193	1632	
1.5	100	138	128	237	347	552	679	1596	2195	
2	121	167	156	290	430	683	847	1969	2711	
2.5	142	196	183	344	510	804	999	2316	3190	
3	162	225	209	397	592	922	1145	2655	3657	
3.5	183	253	236	448	667	1040	1291	2994	4124	
4	204	282	263	499	743	1158	1438	3333	4591	
4.5	225	311	290	549	818	1275	1584	3672	5058	
5	245	339	317	600	894	1393	1730	4012	5526	
6	287	397	370	702	1045	1629	2023	4691	6461	
7	328	454	424	803	1197	1865	2316	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 [10kg ³ /h] acc. to connection size and nominal size									
connection size (inlet)	15	20		25	32	40	50	65	80	
nominal size	12.5	16	18	20	25	32	40	50	60	
coefficient of discharge αd	0.45	0.38	0.28	0.43	0.41	0.39	0.31	0.46	0.44	
set pressure [bar]										
0.05			25				100	128	287	375
0.1	20	29	28	53	78	116	146	331	436	
0.2	25	36	34	64	94	140	178	401	531	
0.3	30	42	39	73	106	160	203	459	617	
0.4	33	46	43	80	117	177	224	508	686	
0.5	37	51	47	86	127	191	241	550	741	
1	64	88	81	150	219	341	423	986	1350	
1.5	74	102	95	174	256	406	500	1176	1617	
2	95	132	123	229	340	539	669	1553	2139	
2.5	112	155	144	271	402	635	788	1827	2517	
3	127	175	164	310	462	720	894	2072	2854	
3.5	143	198	184	349	521	811	1008	2336	3218	
4	158	219	204	387	576	898	1116	2587	3563	
4.5	174	241	225	426	635	990	1229	2850	3925	
5	189	262	244	463	690	1075	1335	3096	4265	
6	220	305	284	538	802	1250	1553	3600	4959	
7	251	348	324	615	916	1427	1772	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.