

**Description:**

- standard safety valve
- angular shape
- metal sealing
- spring-loaded
- male-female thread acc. to ISO228
- seal cap prevents unauthorized changing of set pressure
- cone liftable
- with gas tight cap
- TÜV certified

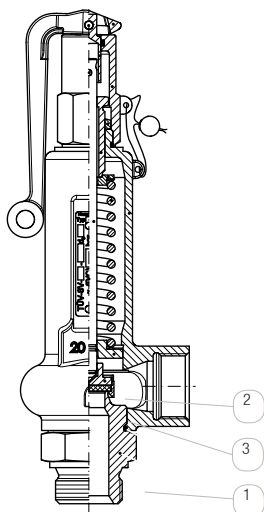
Range of application:

- 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 sealing system
- temperature range medium:
type P: -10°C up to +280°C
type O: -60°C up to +280°C
optionally: -200°C up to +280°C

Comments:

Threads according to EN 228: It describes the threaded connection of a parallel male thread with a parallel female thread and is marked with "G".

More **soft sealings** on request. **Outlet enlargements** also available on request.

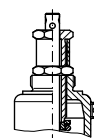


pos.	part	stainless steel V2A		stainless steel V4A		options	
1	body	1.4104 / 0.7043	P	1.4571 (O)	O		
2	interior	1.4571 (O)	O	1.4571 (O)	O		
3	sealing	metallic	M	metallic	M	EPDM	E
						FKM	V
						PTFE	T

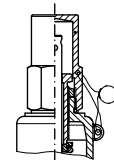
For details about the order code see "Order information". An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

options:

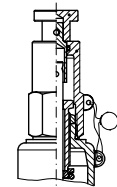
- LH: lifting lever
- LK: gas-tight with lifting button
- TH: high / low temperatures -200°C up to +280°C



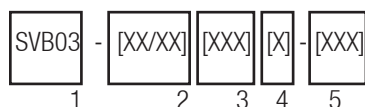
locking sleeve on request



gas-tight cap



gas-tight with lifting button

**Order information:**

1: type: SVB03

5: options (see "options")

2: connection size (see table):

- inlet: 03-07
- outlet: 04-06

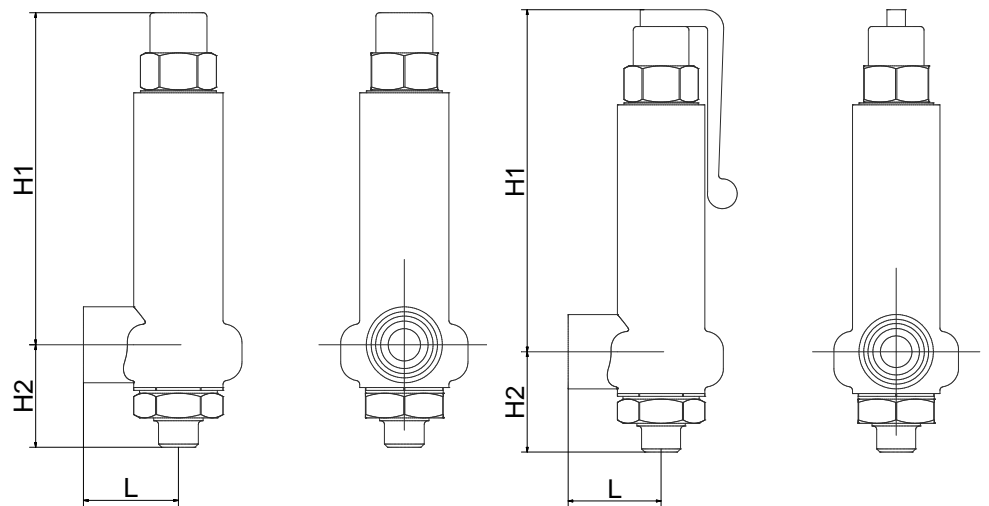
3: materials:

- 1. digit: body material and 2. digit interior
P=stainless steel V2A
O=stainless steel V4A
- 3. digit: sealing M0metallic (standard)
E=EPDM
V=FKM
T=PTFE

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

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!



*Approval only for steam and gases

**nominal size only for body type in 1.4571 (V4A)

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

match code	connection [inch]		nominal size [mm]	reaction pressure*** [bar]		L [mm]	H1 [mm]	H2 [mm]	weight [kg]
	inlet	outlet		min.	max.				
size 1:									
SVB03-03/04xOM100	3/8	1/2	10	0.1	140	40	185	34	1
SVB03-03/04xOM80	3/8	1/2	8	20	200	40	185	34	1
SVB03-03/05xOM100	3/8	3/4	10	0.1	140	40	185	34	1
SVB03-03/05xOM80	3/8	3/4	8	20	200	40	185	34	1
SVB03-04/04xOM125	1/2	1/2	12.5	0.1	70	40	185	34	1
SVB03-04/04xOM100	1/2	1/2	10	0.1	140	40	185	34	1
SVB03-04/04xOM80	1/2	1/2	8	20	200	40	185	34	1
SVB03-04/05xOM125	1/2	3/4	12.5	0.1	70	40	185	34	1
SVB03-04/05xOM100	1/2	3/4	10	0.1	140	40	185	34	1
SVB03-04/05xOM80	1/2	3/4	8	20	200	40	185	34	1
SVB03-04/05xOM60	1/2	3/4	6**	120	500	40	185	34	1
SVB03-05/04xOM160	3/4	1/2	16*	0.05	40	40	185	34	1
SVB03-05/04xOM125	3/4	1/2	12.5	0.1	70	40	185	34	1
SVB03-05/04xOM100	3/4	1/2	10	0.1	140	40	185	34	1
SVB03-05/04xOM80	3/4	1/2	8	20	200	40	185	34	1
SVB03-05/05xOM160	3/4	3/4	16*	0.05	40	40	185	34	1
SVB03-05/05xOM125	3/4	3/4	12.5	0.1	70	40	185	34	1
SVB03-05/05xOM100	3/4	3/4	10	0.1	140	40	185	34	1
SVB03-05/05xOM80	3/4	3/4	8	20	200	40	185	34	1
SVB03-05/05xOM60	3/4	3/4	6**	120	500	40	185	34	1
size 2:									
SVB03-04/06xOM125	1/2	1	12.5	0.1	70	50	215	40	1.6
SVB03-05/06xOM160	3/4	1	16,0	0.1	32	50	215	40	1.6
SVB03-05/06xOM125	3/4	1	12,5	0.1	70	50	215	40	1.6
SVB03-06/06xOM200	1/2	1	20,0	0.1	20	50	215	40	1.6
SVB03-06/06xOM160	1/2	1	16,0	0.1	32	50	215	40	1.6
SVB03-06/06xOM125	1/2	1	12,5	0.1	70	50	215	40	1.6
SVB03-07/06xOM200	1 1/4	1	20,0	0.1	20	50	215	40	1.6
SVB03-07/06xOM160	1 1/4	1	16,0	0.1	32	50	215	40	1.6

SUPPLEMENT: RELIEF CAPACITY

Relief capacity at 10% pressure surge for each set pressure for each size measured with water in kg/h for **liquids**.

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.

	relief capacity [kg/h] acc. to nominal size					
	8	10	12.5		16	20
			size 1	size 2		
coefficient of discharge αd	0.3	0.3	0.2	0.3	0.23	0.08
set pressure [bar]						
0.1		536	558.3	809.5	1051.9	571.7
0.2		656.4	683.8	991.5	1288.3	700.2
0.3		758	789.5			
0.4		847.4	882.7	1280	1663.2	903.9
0.5		928.3	967	1402.1	1822	990.2
1		1256.9	1309.3	1898.5	2466.9	1340.7
1.5		1539.4	1603.6	2325.2	3021.4	1642
2		1777.6	1851.6	2684.9	3488.8	1896.1
2.5		1987.4	2070.2			
3		2177.1	2267.8	3288.3	4272.9	2322.2
3.5		2351.5	2449.5			
4		2513.9	2618.6	3797	4933.9	2681.5
4.5		2666.4	2777.4			
5		2810.6	2927.7			
6		3078.8	3207.1	4650.3	6042.7	3284.1
7		3325.5	3464.1			
8		3555.5	3703.3	5369.7	6977.5	3792.1
9		3770.8	3927.9			
10		3974.8	4140.4	6003.5	7801.1	4239.7
12		4354.1	4535.6			
14		4703	4899			
15		4868	5070.9	7352.8	9554.4	5192.6
16		5027.7	5237.2			
18		5332.7	5554.9			
20	3597.5	5621.2	5855.4	8490.3	11032.5	5995.9
25	4022.2	6284.7	6546.5	9492.4	12334.5	
30	4406.1	6884.5	7171.3	10398.5	13512	
35	4759.1	7436.1	7745.9	11231.6	14595	
40	5087.7	7949.5	8280.8	12007.1		
45	5396.3	8431.7	8783.1	12735.4		
50	5688.2	8887.8	9258.2	13424.3		
60	6231.1	9736.1	10141.8	14705.6		
70	6730.4	10516.2	10954.4	15883.9		
80	7195.1	11242.3				
90	7631.5	11924.3				
100	8044.4	12569.3				
110	8437	13182.8				
120	8812.1	13769				
130	9172	14331.2				
140	10641.7					
150	9852.3					
175	10641.7					
200	11376.4					

SUPPLEMENT: RELIEF CAPACITY

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

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 meters** m³ acc. to DIN 1343 is the amount that is at a pressure $p_n = 1.01325$, a humidity of 0% (dry gas) and a temperature of $t_n = 0$ ° C a cubic meter.

	relief capacity [Nm ³ /h] acc. to nominal size							
	6	8	10	12.5		16		20
				size 1	size 2	size 1	size 2	
coefficient of discharge αd	0.61	0.42	0.38	0.27	0.37	0.13	0.29	0.11
set pressure [bar]								
0.05						11		
0.1			14.8	15.4	22.4	13.9	29.1	15.8
0.2			18.4	19.3	28.6	17.3	36.9	20.7
0.3			21.5	22.8		20.1		
0.4			24.5	26	39.5	22.6	50	29.1
0.5			27.4	29	44.3	24.8	55.9	32.7
1			39.6	44.2	63.4	35.9	80.7	48.8
1.5			52.7	56.8	81.5	46.3	104.3	62.1
2			64.5	69.8	98.9	56.3	126.8	75.7
2.5			76.1	83.4		66.5		
3			87.7	97.4	133.5	76.8	171.4	101.6
3.5			98.9	109.8		86.6		
4			110.1	122.3	167.6	96.5	215.2	127.5
4.5			121.4	134.7		106.3		
5			132.6	147.2		116.1		
6			155	172.1	235.8	135.8	302.8	179.5
7			177.5	197		155.4		
8			199.9	222	304.2	175.1	390.6	231.5
9			222.4	246.9		194.8		
10			244.9	271.9	372.6	214.5	478.5	283.6
12			289.9	321.9		253.9		
14			335	372		293.4		
15			357.6	397	544	313.2	698.6	414
16			380.2	422.1		333		
18			425.4	472.3		372.6		
20		333	470.7	522.6	716.1	412.2	919.6	545
25		413.2	584.2	648.5	888.7	511.6	1141.2	
30		493.7	698	774.9	1061.9	611.3	1363.6	
35		574.5	812.2	901.7	1235.7	711.3	1587	
40		655.6	926.8	1028.9	1410	811.7		
45		736.9	1041.8	1156.6	1584.9			
50		818.5	1157.1	1284.6	1760.4			
60		982.6	1389	1542.1	2113.3			
70		1147.7	1622.5	1801.3	2468.5			
80		1314	1857.6					
90		1481.5	2094.4					
100		1650.1	2332.8					
110		1820	2572.9					
120	1626.6	1991	2814.7					
130	1767.3	2163.3	3058.2					
140	1909.1	2336.8	3303.6					
150	2051.9	2511.6						
175	2413.6	2954.4						
200	2782.2	3405.5						
250	3541.2							
300	4331.6							
350	5156.2							
400	6018.6							
450	6922.6							
500	7872.8							

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.

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.

	relief capacity [kg/h] acc. to nominal size						
	8	10	12.5		16		20
			size 1	size 2	size 1	size 2	
coefficient of discharge αd	0.42	0.38	0.27	0.37	0.13	0.29	0.11
set pressure [bar]							
0.05					8.9		
0.1		11.8	12.2	17.7	11	23.1	12.5
0.2		14	14.7	21.8	13.1	28	15.8
0.3		15.7	16.6		14.7		
0.4		17.3	18.3	27.8	15.9	35.3	20.5
0.5		18.7	19.8	30.2	16.9	38.1	22.3
1		32.7	36.5	52.4	29.7	66.8	40.4
1.5		38.8	41.8	60	34.1	76.8	45.8
2		50.9	55.1	78	44.5	100	59.7
2.5		60.1	65.8		52.5		
3		68.5	76	104.2	60	133.8	79.3
3.5		77.2	85.7		67.6		
4		85.5	94.9	130	74.9	167	99
4.5		94.2	104.5		82.5		
5		102.3	113.6		89.6		
6		119	132.1	181	104.2	232.4	137.7
7		135.8	150.8		118.9		
8		152.5	169.4	232.1	133.6	298	176.6
9		169.2	187.8		148.2		
10		186	206.5	282.9	162.9	363.3	215.3
12		219.3	243.5		192.1		
14		252.2	280.3		221.1		
15		269	298.6	409.2	235.5	525.5	311.4
16		285.5	316.9		250		
18		318.2	353.3		278.7		
20	248.5	351.2	389.9	534.4	307.6	686.2	406.7
25	307.4	434.6	482.5	661.2	380.6	849.1	
30	366.2	517.7	574.7	787.6	453.4	1011.3	
35	425	600.8	667	914	526.1	1174	
40	483.6	683.7	759	1040.1	598.8		
45	542.7	767.2	851.8	1167.2			
50	602.1	851.2	945	1295			
60	722.2	1020.9	1133.4	1553.2			
70	843.3	1192.2	1323.5	1813.8			
80	967.8	1368.1					
90	1095.7	1549					
100	1224.5	1731					
110	1354.3	1914.6					
120	1485.8	2100.4					
130	1618.9	2288.7					
140	1753.8	2479.3					
150	1896.5						