

Pressure Control Valves

Safety Valves SV 29L

Threaded Valve for High Pressures



Technical Data

Connection DN	15 - 25
Connection G	3/8A - 1A
Nominal Pressure PN	40 - 400
Set Pressure	93 - 365 bar
Temperature	280 °C
Medium	liquids, gases, steam

Description

Safety valves are the ultimate protection device for tanks and pipelines. They prevent pressure limits being exceeded once all automatic control and monitoring equipment has failed.

SV 29L is a spring-loaded normal safety valve with threaded connection and closed spring cap for high response pressures. Component testing for connection sizes for gases up to 365 bar, for steam and liquids up to 180 bar.

Normal safety valves initially open proportionally up to a pressure rise of 10 %. This initial phase is followed by the full opening of the valve, allowing a large flow of medium.

Especially in the case of liquids, the wide proportional range results in a continuous operation.

Pressure rise:

above 1 bar set pressure:10 % up to required valve lift;
below 1 bar set pressure:0.1 bar.

Options

- » Special connections: ANSI flanges, NPT, other connections on request
- » Special versions on request

Operating instructions, know how and safety instructions must be observed. The pressure has always been indicated as overpressure. We reserve the right to alter technical specifications without notice.



Available Versions

H2	without lifting device, gastight cap
H4	with lifting device, gastight cap

Combinable Body Versions

outlet body				
G	1/2	3/4	1	
DN	15	20	25	
inlet body				
G	3/8A	1/2A	3/4A	1A
DN	15	20	25	

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Materials		
Temperature	220 °C	280 °C
Inlet Body	1.4104*, 1.4404 stellite	1.4404 stellite
Outlet Body	1.4104	1.4404
Cap	1.0718	1.4404
Spindle	1.4571	1.4571
Spring Plate	1.4404	1.4404
Adjusting Screw	1.4104	1.4404
Spring	1.4310	1.4310

*only connection sizes G3/8, G1/2 and G3/4 with a seat diameter d_0 10

Dimensions [mm] Male End Connection				
G Inlet	3/8 A	1/2 A	3/4 A	1 A
A	30	30	37	37
B	33	33	33	36
C	229	231	233	238
D	12	14	16	18

Weights [kg] Male End Connection			
G 1/8	G 1/2	G 3/4	G 1
1,4	1,4	2,1	2,1

Dimensions [mm] Flange Connection				
PN	size	nominal diameter DN		
		15	20	25
40	A	100	100	100
	B	100	100	100
	C	263	263	263
160	A	100	100	100
	B	103	103	103
	C	287	287	287

Other pressure rates on request. The outlet dimension b can differ at special combinations of nominal diameter and pressure range if flanged connections are used at the inlet and outlet. Special dimensions are possible.

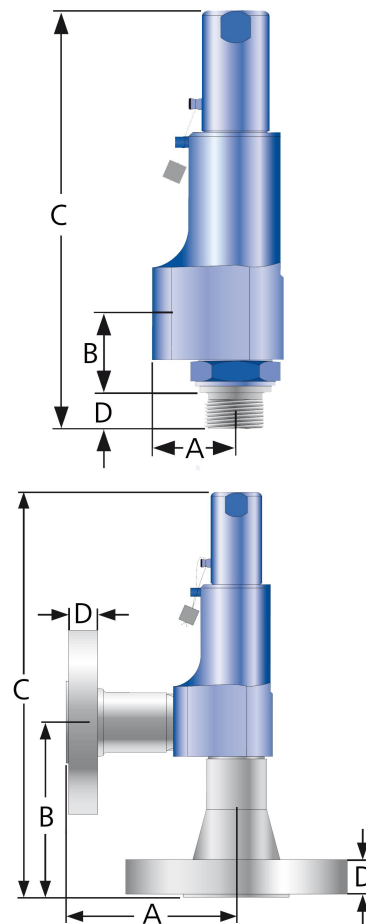
Weights [kg] Flange Connection	
to calculate the total weight please use the following formular: $m_N + m_F$ (inlet) + m_F (outlet)	
net weight m_N [kg] (without inlet and outlet flanges)	2,4

Flange Dimensions D [mm] and Weights m_F [kg]				
PN	size	nominal diameter DN		
		15	20	25
40	D	18	20	22
	m_F	0,8	1,1	1,3
100	D	-	22	-
	m_F	-	1,3	-
160	D	22	-	26
	m_F	1,2	-	2,6
250	D	28	-	30
	m_F	2,5	-	3,5
320	D	28	-	36
	m_F	2,5	-	5
400	D	30	-	40
	m_F	3,6	-	7,5

Customs Tariff Number
84814010

Special designs on request.
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Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.

Dimensional Drawing



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Flow Rate				
seat[mm]	set pressure[bar]	saturated steam[kg/h]	air [Nm ³ /h]	water [m ³ /h]
d _o 6	100	2451	2969	14,7
	110	2735	3263	15,4
	120	3032	3557	16,1
	130	3345	3851	16,7
	140	3688	3851	17,4
	150	4044	4439	18
	160	4445	4734	18,5
	170	4880	5028	19,1
	180	5401	5322	19,7
d _o 10	190	-	2911	-
	200	-	3064	-
	210	-	3216	-
	220	-	3369	-
	230	-	3521	-
	240	-	3674	-
	250	-	3826	-
	260	-	3979	-
	270	-	4131	-
	280	-	4284	-
	290	-	4436	-
	300	-	4589	-
	310	-	4741	-
	320	-	4894	-
	330	-	5046	-
	340	-	5199	-
	350	-	5351	-
	360	-	5504	-
	370	-	5656	-
	380	-	5809	-

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