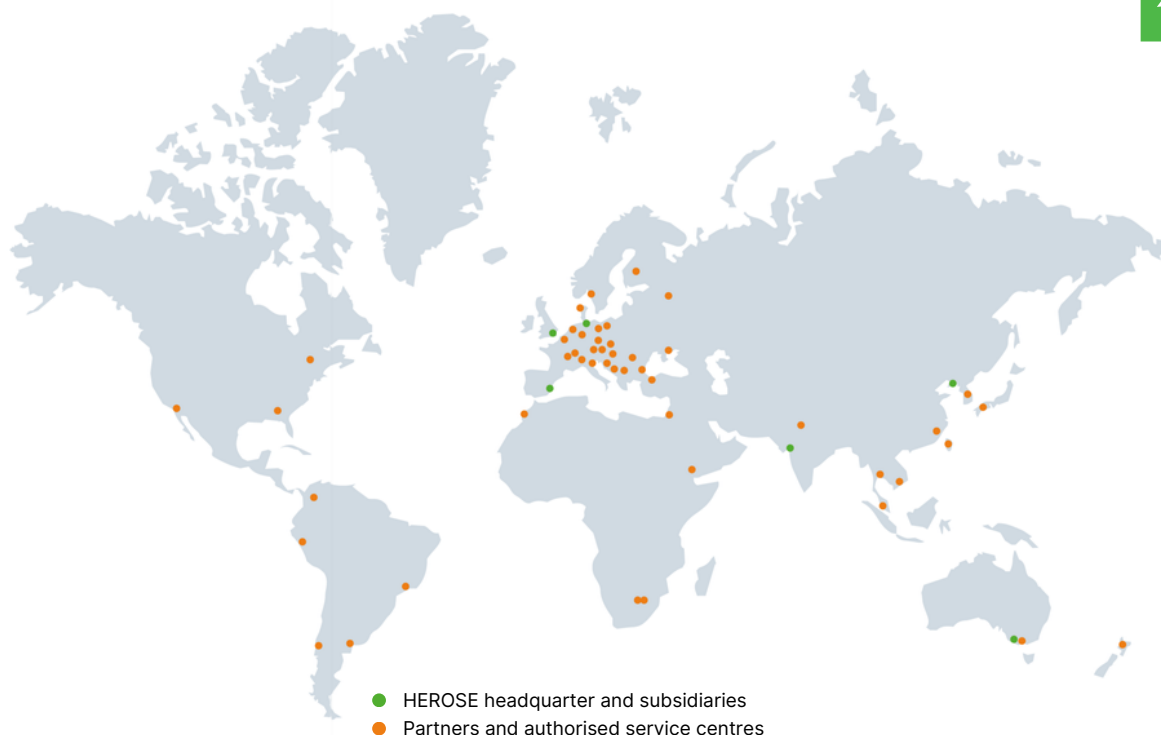


**INDUSTRY
2024**

Safety Valves and DIN EN Standard
Valves for Industrial Applications





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VALVES BUILT TO ENDURE

PERFECT PRODUCTS FOR THE HIGHEST REQUIREMENTS

HEROSE is one of Europe's leading manufacturers of valves for industrial applications. For almost 150 years we have developed, produced and sold valves for cryogenic technology and pressure vessel construction and set standards for the safe handling of technical gases, vapours and liquids. With a production volume of more than 550,000 valves per year, we are one of the most experienced suppliers in our sector. Our products are in successful use throughout the world.

Our partners in industry and business expect us to supply reliable valves, which meet the high demands of the future. They also expect a sound company and continuous product development from their business partners. These values form the foundation of the HEROSE company philosophy.



The company headquarters in Bad Oldesloe – progressive thinking on 11,000 square metres.



In regular workshops, we train our customers and communicate our theoretical and practical knowledge.





HEROSE supplies to more than 80 countries and has subsidiaries and agencies e.g. in Australia, China, the United Kingdom, India and Spain.



With a network of authorised service partners, we undertake maintenance and repair work on HEROSE products.

QUALITY IS THE BASIS FOR RELIABILITY



Ultimate safety is the aim of our development and production. This is especially when the safety of people is at stake.

Because of this, we test the reliability of our products in especially extreme situations. This is the reason that the HEROSE Type 06219 free discharge safety valve is used in many high speed trains. It secures the pressure between the compressor and the pressure reservoir against impermissible excess in the braking system.



COMPRESSED AIR

Fixed or mobile compressed air supplies are provided by compressors. HEROSE safety valves secure systems up to 500 bar and offer our customers a solution for a wide variety of applications.

- Compressors
- Industrial plants
- Municipal vehicles
- Brake systems

STEAM

Liquids can be separated by the use of heat in distillation processes. An important criterion is the surface finish of the materials which are used. Depending on the application, HEROSE uses stainless steel springs and the option of valves with nickel plating.

- Special sealing materials
- Distillation plants
- Sterilisers/fermenters
- Autoclaves



LIQUIDS

Seawater desalination plants are used, among other places, on cruise ships, to produce drinking and operating water. HEROSE safety valves are produced in seawater-resistant bronze and can therefore be used for a wide variety of applications.

- Waste water treatment
- Seawater desalination plants
- Fire extinguisher systems



POWDER AND GRAINS

In Europe, silo trailers for the transportation of powdery and granular goods are highly successful. One of the reasons for this success is the HEROSE safety valve for securing the pneumatic discharge. Thanks to its robustness, the valve also operates perfectly under extreme conditions of use.

- Food industry
- Animal feeds
- Wood
- Cement



Safety and Overflow Valves

Overview of Products



Abbreviations: in column Medium - type tested for
S = Steams, **G** = Gases, **L** = Liquids

Threaded Safety Valves with discharge holes, spring loaded

Type	Orifice d ₀	Inlet	Medium	Temperature	Set pressure range	Approval TÜV-SV	ASME	Page
06205	7.0 - 20.0	Male thread 1/4" up to 1-1/4"	S/G	-20°C - +160°C 253K - 433K	0.2 - 43.0 bar 2.9 - 623.6 PSI	1090		15/16
06C02	8.0 - 18.0	Male thread 1/4" up to 1"	S/G	-40°C - +200°C 233K - 473K	0.2 - 50.0 bar 2.9 - 725.0 PSI	1090		17/18
06216, 06217	12.0 - 40.0	Male thread 1/2" up to 2"	S/G	-40°C - +200°C 233K - 473K	0.2 - 30.0 bar 2.9 - 435.1 PSI	1090	✓	19/20
06216, 06217	12.0 - 40.0	Male thread 1/2" up to 2"	S/G	-30°C - +130°C 243K - 403K	0.2 - 30.0 bar 2.9 - 435.1 PSI	1090	✓	21/22
55177		1/2" up to 2"	S/G	-30°C - +130°C 243K - 403K	0.2 - 30.0 bar 2.9 - 435.1 PSI	1090		25
06218, 06219	12.5	Male thread 1/4" up to 3/4"	S/G	-60°C - +150°C 213K - 423K	3.0 - 17.0 bar 43.5 - 246.5 PSI	1090		27/28
20XX	24.0 - 48.0	1" up to 2"	S/G	-196°C - +250°C 77K - 523K	0.3 - 6.0 bar 4.3 - 87.0 PSI	-		29/30
21XX	8.0 - 32.0	1/4" up to 1-1/2"	S/G	-196°C - +250°C 77K - 523K	0.3 - 47.0 bar 4.3 - 681.6 PSI	-	✓	31-34
06C01	24.0 - 48.0	Male thread 1" up to 2"	L/Gr/P	-40°C - +200°C 233K - 473K	0.5 - 6.0 bar 7.2 - 87.0 PSI	948		35/36
06505	24.0 - 48.0	Male thread 1" up to 2"	L/Gr/P	-40°C - +200°C 233K - 473K	0.5 - 6.0 bar 7.2 - 87.0 PSI	948		37/38
06506	24.0 - 31.0	Male thread 1" up to 1-1/2"	L/Gr/P	-40°C - +200°C 233K - 473K	0.5 - 6.0 bar 7.2 - 87.0 PSI	948		39/40
23XX	24.0 - 48.0	1" up to 2"	L/Gr/P	-196°C - +250°C 77K - 523K	0.5 - 6.0 bar 7.2 - 87.0 PSI	-		41/42

Threaded Safety Valves, angle type, spring loaded

Type	Orifice d ₀	Inlet	Medium	Temperature	Set pressure range	Approval TÜV-SV	ASME	Page
06370	12.0 - 28.0	Female thread 1/2" up to 2"	L	-10°C - +110°C 263K - 383K	1.0 - 16.0 bar 14.5 - 232.0 PSI	749		43/44
06372	15.0	Female thread 3/4"	S/G	-10°C - +120°C 263K - 393K	0.5 - 1.0 bar 7.2 - 14.5 PSI	749		45/46
06376	12.0 - 15.0	Female thread 1/2" up to 3/4"	L	-10°C - +110°C 263K - 383K	1.0 - 16.0 bar 14.5 - 232.0 PSI	749		47/48
06380	12.0 - 28.0	Female thread 1/2" up to 2"	S/G	-10°C - +185°C 263K - 458K	0.2 - 20.0 bar 2.9 - 290.0 PSI	749		49/50
06602	12.5	Female thread 1/2"	S/G	-10°C - +130°C 263K - 403K	1.2 - 1.3 bar 17.4 - 18.8 PSI	1080		51/52
06603	12.5	Female thread 1/2"	S/G	-10°C - +180°C 263K - 453K	0.2 - 5.0 bar 2.9 - 72.5 PSI	1080		53/54
06395	15.0 - 28.0	Female thread 1/2" up to 1-1/4"	S/G	-50°C - +225°C 263K - 498K	0.5 - 25.0 bar 7.2 - 362.6 PSI	910		55-58
06395	15.0 - 28.0	Male thread 1/2" up to 1-1/4"	S/G	-50°C - +225°C 263K - 498K	0.5 - 25.0 bar 7.2 - 362.6 PSI	910		59-64



Threaded Safety Valves, angle type, spring loaded

Type	Orifice d ₀	Inlet	Medium	Temperature	Set pressure range	Approval TÜV- ASME SV		Page
06810, 06815	6.0 - 10.0	Male thread 1/2" up to 3/4"	S/G/L	-270°C - +400°C 3K - 673K	0.5 - 550.0 bar 7.2 - 7977.0 PSI	1130		65-72
06820	6.0	Male thread 3/4"	S/G/L	-270°C - +400°C 3K - 673K	30.0 - 550.0 bar 435.1 - 7977.0 PSI	1130		73/74
06850, 06855	10.0 - 18.0	Male thread 1/2" up to 1-1/2"	S/G/L	-270°C - +400°C 3K - 673K	0.2 - 250.0 bar 2.9 - 3625.7 PSI	1130		75-83
50051.0004	7.0	Male thread 1/2"	S/G/L	-10°C - +160°C 263K - 403K	6.0 - 15.0 bar 87.0 - 217.5 PSI			85/86
50051.0011	7.0	Male thread 3/8"	S/G	-10°C - +160°C 263K - 403K	1.5 - 5.0 bar 21.8 - 72.5 PSI	1009		87/88
22XX	7.0 - 15.0	3/8" up to 1/2"	S/G	-196°C - +250°C 77K - 523K	0.5 - 30.0 bar 7.2 - 435.1 PSI	-		89/90
24XX	12.0 - 15.0	3/8" up to 3/4"	S/G	-196°C - +250°C 77K - 523K	0.5 - 15.0 bar 7.2 - 217.5 PSI	-		91/92
25XX	12.0 - 15.0	3/8" up to 3/4"	S/G	-196°C - +250°C 77K - 523K	0.5 - 15.0 bar 7.2 - 217.5 PSI	-		93/94
06310	9.0 - 17.5	Male thread 3/4" up to 1"	S/G/L	-10°C - +450°C 263K - 723K	0.2 - 250.0 bar 2.9 - 3625.7 PSI	909	✓	95/96
06311	9.0 - 17.5	Male thread 3/4" up to 1"	S/G/L	-200°C - +400°C 73K - 673K	0.2 - 250.0 bar 2.9 - 3625.7 PSI	909	✓	97/98
06315	10.0	Male thread 1/2" up to 3/4"	S/G/L	-10°C - +220°C 263K - 493K	0.1 - 180.0 bar 1.5 - 2610.7 PSI	980	✓	99/100
06316	6.0 - 10.0	Male thread 1/2" up to 3/4"	S/G/L	-270°C - +280°C 3K - 553K	0.1 - 330.0 bar 1.5 - 4786.2 PSI	980	✓	101/102
06317	6.0 - 20.0	Male thread 3/8" up to 1-1/4"	S/G/L	-60°C - +280°C 213K - 553K	0.1 - 500.0 bar 1.5 - 7251.9 PSI	847/878		103/104
06318	8.0 - 20.0	Male thread 3/8" up to 1-1/4"	S/G/L	-10°C - +280°C 263K - 553K	0.1 - 200.0 bar 1.5 - 2900.6 PSI	847/878		105/106
06319	8.0 - 20.0	Male thread 3/8" up to 1-1/4"	S/G/L	-200°C - +280°C 73K - 553K	0.1 - 200.0 bar 1.5 - 2900.6 PSI	847/878		107/108



Flanged Safety Valves, angle type, spring loaded

Type	Orifice d ₀	Inlet	Medium	Temperature	Set pressure range	Approval TÜV-SV	ASME	Page
06120, 06121	12.0 - 60.0	DN15-DN100, PN16	S/G/L	-10°C - +200°C 263K - 473K	0.2 - 16.0 bar 2.9 - 232.0 PSI	577		109/110
06125, 06126	12.0 - 74.0	DN15-DN125, PN40	S/G/L	-10°C - +350°C 263K - 623K	0.2 - 40.0 bar 2.9 - 580.0 PSI	577		111/112
06127	12.0 - 60.0	DN15-DN100, PN40	S/G/L	-270°C - +450°C 3K - 723K	0.2 - 40.0 bar 2.9 - 580.0 PSI	577		113/114
06340, 06341	23.0 - 125.0	DN25-DN150, PN16	S/G/L	-10°C - +300°C 263K - 573K	0.2 - 16.0 bar 2.9 - 232.0 PSI	576		115/116
06345, 06346	23.0 - 125.0	DN25-DN150, PN40	S/G/L	-10°C - +300°C 263K - 573K	0.2 - 40.0 bar 2.9 - 580.0 PSI	576	✓	117/118
06347	23.0 - 125.0	DN25-DN150, PN40	S/G/L	-270°C - +400°C 3K - 673K	0.2 - 40.0 bar 2.9 - 580.0 PSI	576	✓	119/120

Threaded Overflow Valves, angle type, spring loaded

Type	Orifice d ₀	Inlet	Medium	Temperature	Set pressure range	Approval TÜV-SV	ASME	Page
06195	12.0 - 28.0	Female thread 1/2" up to 2"	S/G/L	-10°C - +165°C 263K - 438K	0.2 - 25.0 bar 2.9 - 362.6 PSI			121/122
06196	12.0 - 28.0	Female thread 1/2" up to 2"	S/G/L	-10°C - +185°C 263K - 458K	0.2 - 25.0 bar 2.9 - 362.6 PSI			123/124
06198	12.0 - 28.0	Female thread 1/2" up to 2"	S/G	-10°C - +185°C 263K - 458K	2.0 - 25.0 bar 29.0 - 362.6 PSI			125/126
06321	8.0 - 27.0	Female thread 3/8" up to 1-1/2"	S/G/L	-10°C - +280°C 263K - 553K	0.1 - 200.0 bar 1.5 - 2900.6 PSI			127/128
06322	8.0 - 27.0	Female thread 3/8" up to 1-1/2"	S/G/L	-60°C - +280°C 213K - 553K	0.1 - 250.0 bar 1.5 - 3625.7 PSI			129/130



Globe Valves

Type	Nominal size	Connections	Working pressure	Temperature	Page
01021	DN8-DN50	Thread type G	max. PN16	-10°C - +160°C 263K - 433K	133
03021	DN20 - DN50	Flanged	max. PN16	-10°C - +160°C 263K - 433K	134
03050	DN25 - DN150	Flanged	max. PN16	-10°C - +225°C 263K - 489K	135
03080	DN15 - DN150	Flanged	max. PN16	-10°C - +225°C 263K - 489K	136
03090	DN15 - DN150	Flanged	max. PN40	-10°C - +400°C 263K - 673K	137

Gate Valves

Type	Nominal size	Connections	Working pressure	Temperature	Page
09010	DN15 - DN50	Thread type G	max. PN16	-10°C - +200°C 263K - 473K	138
09012	DN15 - DN50	Thread type G	max. PN16	-10°C - +180°C 263K - 453K	139
09061	DN20 - DN80	Flanged	max. PN16	-10°C - +200°C 263K - 473K	140
09420	DN25 - DN100	Flanged	max. PN16	-25°C - +120°C 248K - 393K	141
09420	DN25 - DN100	Flanged	max. PN16	-25°C - +120°C 248K - 393K	142

Angle Valves

Type	Nominal size	Connections	Working pressure	Temperature	Page
01131	DN15 - DN50	Thread type G	max. PN16	-10°C - +185°C 263K - 458K	143

Needle Valves

Type	Nominal size	Connections	Working pressure	Temperature	Page
04010	DN8 - DN32	Thread type G	max. PN40	-10°C - +100°C 263K - 373K	144

Self Closing Globe Valves

Type	Nominal size	Connections	Working pressure	Temperature	Page
01028	DN15 - DN25	Thread type G	max. PN16	-10°C - +165°C 263K - 438K	145

DIN EN Valves for Industrial Use

Overview of Products



Control Valves

Type	Nominal size	Connections	Working pressure	Temperature	Page
04020	DN10 - DN50	Thread type G	max. PN16	-10°C - +160°C 263K - 433K	146
04041	DN15 - DN50	Flanged	max. PN16	-10°C - +160°C 263K - 433K	147

Check Valves

Type	Nominal size	Connections	Working pressure	Temperature	Page
05011, 05012	DN10 - DN50	Thread type G	max. PN16	-10°C - +160°C 263K - 433K	148
05083	DN20 - DN50	Flanged	max. PN16	-10°C - +160°C 263K - 433K	149
05110	DN15 - DN150	Flanged	max. PN16	-10°C - +225°C 263K - 498K	150
05115	DN15 - DN150	Flanged	max. PN40	-10°C - +400°C 263K - 673K	151
05040	DN15 - DN65	Thread type G	max. PN16	-10°C - +160°C 263K - 433K	152
05338	DN15 - DN100		max. PN40	-200°C - +500°C 73K - 773K	153

Pressure Reducing Valves

Type	Nominal size	Connections	Inlet pressure	Outlet pressure	Working pressure	Temperature	Page
08010	DN8 - DN50	Thread type G	max. 25 bar	1,5-8,0 bar		-10°C - +75°C 263K - 348K	154
08011	DN8 - DN50	Thread type G	max. 40 bar	1,5-20,0 bar		-10°C - +75°C 263K - 348K	155
08012	DN8 - DN50	Thread type G	max. 25 bar	0,2-2,0 bar		-10°C - +75°C 263K - 348K	156
08015	DN8 - DN50	Thread type G	max. 40 bar	1,0-10,0 bar		-10°C - +70°C 263K - 343K	157
08023	DN15 - DN50	Union type connection	max. 25 bar	1,0-8,0 bar		-10°C - +95°C 263K - 368K	158

Strainers

Type	Nominal size	Connections	Inlet pressure	Outlet pressure	Working pressure	Temperature	Page
08180, 08181	DN8 - DN50	Thread type G			max. PN16	-10°C - +200°C 263K - 473K	159
08161	DN15 - DN150	Flanged			max. PN16	-10°C - +200°C 263K - 473K	160
08170	DN15 - DN150	Flanged			max. PN40	-10°C - +400°C 263K - 673K	161



Safety and Overflow Valves for General Industrial Use



Open discharge safety valve installed on a silo trailer application

Safety Valves

Type 06205



**Safety Valves, brass,
type tested TÜV-SV.1090 S/G**

Standard safety valve
with FPM or PTFE valve seal, open bonnet,
with discharge holes, with lifting device
Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 06205.X.0000 with FPM seal (0.2 up to 35.0 bar)
Part No. 06205.X.0300 with PTFE seal (35.0 up to 43.0 bar)

Available options - on request only:

- stainless steel spring - material 1.4571
- external parts nickel plated
- stainless steel protection cap for D₀₇ and D₀₁₂ (up to 3.5 bar)
- EPDM seal up to +150°C / +302°F (423K)

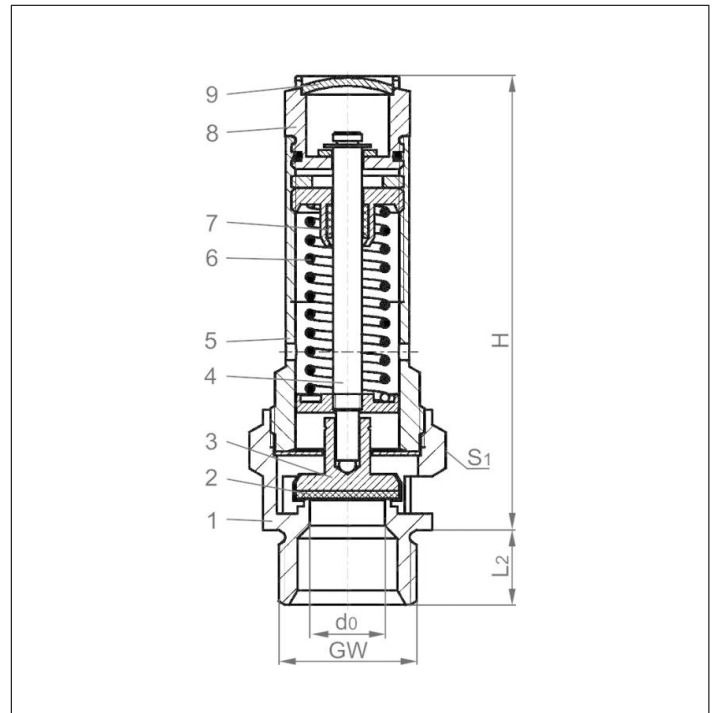
Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air and similar gases.

Working temperature: -20°C / -4°F (253K) up to +160°C / +320°F (433K), size d₀₇ suitable for horizontal installation



Materials	DIN EN	ASME/ASTM
1 Body	CW614N	B 249 UNS C38500
2 Valve seal	FPM (Viton)	
3 Disc	CW614N	B 249 UNS C38500
4 Stem	CW614N	B 249 UNS C38500
5 Bonnet	CW614N	B 249 UNS C38500
6 Spring	1.1200	A 227
7 Stem guide	PTFE	
8 Lifting device	CW614N	B 249 UNS C38500
9 Closing cap	CW507L	B 36 UNS C26800



Type 06205	Technical data							
Nominal size	GW	1/4	3/8	1/2	1/2	3/4	1	1-1/4
Orifice	d ₀	7	7	7	12	15	18	20
Dimension code	.X.	0200	0300	0704	0400	0600	1000	1200
Set pressure range	bar	0.4-43	0.4-43	0.4-43	0.2-22	0.2-16	0.2-18	0.2-16
Height	H	60	60	67	78	92	110	125
Length	L ₂	10	10	12	12	15	18	20
Wrench size across flats	S ₁	21	21	24	27	32	41	48
Weight	ca. kg	0.07	0.07	0.17	0.17	0.27	0.48	0.75
Coeff. of discharge from 3.0 bar	α _w	0.60	0.60	0.60	0.47	0.63	0.63	0.63

Dimensions in mm.

Safety Valves

Type 06205



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/4, 3/8 & 1/2	1/2	3/4	1	1-1/4
	d ₀ (mm)	7.0	12.0	15.0	18.0	20.0
A ₀ (mm ²)	38.48	113.1	176.7	254.5	314.2	
Medium	Air					
0.2		-	30	60	87	107
0.4		19	42	85	122	151
0.6		24	52	105	151	186
0.8		28	61	124	179	221
1.0		32	70	142	205	253
2.0		51	114	240	345	426
3.0		68	157	328	472	583
4.0		85	196	411	592	731
5.0		103	237	496	714	882
6.0		120	277	580	835	1031
7.0		138	317	664	956	1180
8.0		155	358	750	1080	1333
9.0		173	398	834	1201	1482
10.0		191	439	920	1324	1635
11.0		206	475	994	1432	1768
12.0		226	519	1088	1567	1934
14.0		261	600	1256	1809	2234
16.0		296	680	1425	2052	2533
18.0		330	761	-	2294	-
20.0		369	849	-	-	-
22.0		404	930	-	-	-
25.0		457	-	-	-	-
27.0		492	-	-	-	-
30.0		550	-	-	-	-
32.0		586	-	-	-	-
34.0		621	-	-	-	-
36.0		657	-	-	-	-
38.0		693	-	-	-	-
40.0		735	-	-	-	-
42.0		770	-	-	-	-
43.0		788	-	-	-	-

Safety Valves

Type 06C02



**Safety Valves, brass or stainless steel,
type tested TÜV-SV.1090 S/G**

Standard safety valve
with FPM valve seal, open bonnet,
free discharge with lifting device
Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 06C02.A001.X - brass

Part No. 06C02.A002.X - stainless steel

Available options - on request only:

- Inlet NPT male thread
- EPDM cone sealing (-40°C / -40°F up to +150°C / 320°F)



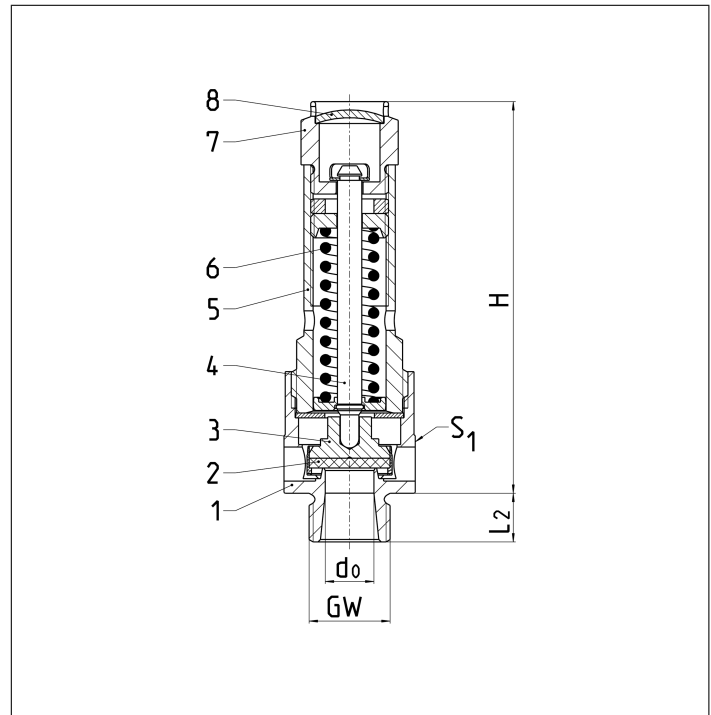
Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air and similar gases.

Working temperature with FPM sealing: -20°C / -4°F (253K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASME/ASTM
1 Body	CW614N	B 249 UNS C38500
2 Valve seal	FPM (Viton)	
3 Disc	CW614N	B 249 UNS C38500
4 Stem	1.4301	SS304
5 Bonnet	CW614N	B 249 UNS C38500
6 Spring	1.4571/1.1200	SS316L/A 227
7 Lifting device	CW614N	B 249 UNS C38500
8 Closing cap	CW507L	B 36 UNS C26800

Materials	DIN EN	ASME/ASTM
1 Body	1.4404	SS316L
2 Valve seal	FPM (Viton)	
3 Disc	1.4404	SS316L
4 Stem	1.4301	SS304
5 Bonnet	1.4404	SS316L
6 Spring	1.4571/1.1200	SS316L/A 227
7 Lifting device	1.4401	SS316
8 Closing cap	1.4401	SS316



Type 06C02	Technical data									
	GW	1/4	3/8	1/2	3/8	1/2	3/4	3/4	1	
Nominal size										
Orifice	d ₀	8	8	8	10	10	10	15	18	
Set pressure range	bar	0.2-50	0.2-50	0.2-50	0.2-42	0.2-42	0.2-42	0.2-16	0.2-20	
Height	H	78	78	78	81	81	81	92	110	
Length	L ₂	10	10	12	10	12	15	15	18	
Wrench size across flats	S ₁	21	21	27	27	27	32	32	41	
Weight	ca. kg	0.14	0.15	0.18	0.18	0.20	0.25	0.31	0.53	
Coeff. of discharge from 3.0 bar*	α _w	0.70	0.70	0.70	0.61	0.61	0.61	0.60	0.60	

Dimensions in mm. * Below 3 bar the coefficient may be lower. Please pay attention to the capacity chart.

Safety Valves

Type 06C02



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/4, 3/8 & 1/2	3/8, 1/2, 3/4	3/4	1
	d_0 (mm)	8,0	10,0	15,0	18,0
	A_0 (mm ²)	50,24	78,5	176,7	254,5
	Medium	Air			
0.2		20	24	55	83
0.4		28	35	80	120
0.6		35	44	101	151
0.8		42	51	120	179
1.0		48	59	137	205
2.0		76	98	228	334
3.0		104	141	312	450
4.0		130	177	392	564
5.0		157	213	472	680
6.0		183	250	552	795
7.0		210	286	632	910
8.0		237	323	714	1028
9.0		263	359	794	1143
10.0		291	396	876	1261
12.0		344	468	1036	1492
14.0		397	541	1197	1723
16.0		450	613	1357	1954
18.0		504	686	-	2185
20.0		562	765	-	2439
22.0		616	838	-	-
24.0		670	912	-	-
26.0		723	985	-	-
28.0		777	1058	-	-
30.0		839	1142	-	-
32.0		893	1216	-	-
34.0		947	1289	-	-
36.0		1001	1363	-	-
38.0		1056	1437	-	-
40.0		1119	1524	-	-
42.0		1174	1599	-	-
45.0		1256	-	-	-
50.0		1405	-	-	-

Safety Valves

Type 06216, Type 06217



Safety Valves, brass,
type tested TÜV-SV.1090 S/G

Standard safety valve
with FPM valve seal, open bonnet, with discharge holes
Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 06216.X.0000

Part No. 06217.X.0000

with lifting device

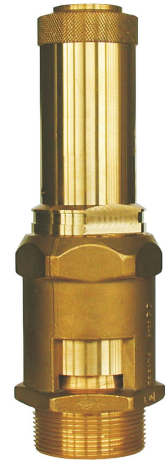
Available options - on request only:

- discharge holes with protection cap
- (working temperature: -30°C / -22°F (243K) up to +130°C / +266°F (403K))
- stainless steel spring - material 1.4571
- external parts nickel plated

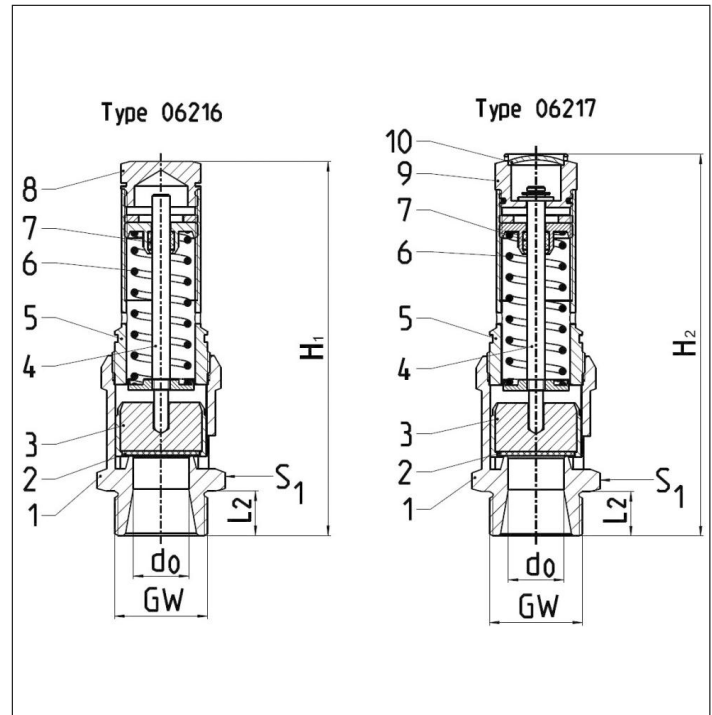
Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air and similar gases.

Working temperature: -40°C / -40°F (233K) up to +200°C / +392°F (473K), suitable for horizontal installation



Materials	DIN EN	ASME/ASTM
1 Body	CW617N	B 283 UNS C37700
2 Valve seal	FPM	(Viton-GLT)
3 Disc	CW614N	B 455 UNS C38500
4 Stem	CW614N	B 455 UNS C38500
5 Bonnet	CW614N	B 455 UNS C38500
6 Spring	1.1200	A 227
7 Stem guide	PTFE	
8 Cap	CW614N	B 455 UNS C38500
9 Lifting device	CW614N	B 455 UNS C38500
10 Closing cap	CW507L	B 36 UNS C26800



Type 06216, Type 06217	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Orifice	d ₀	12	15	20	25	32	40
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Set pressure range	bar	0.2-25	0.2-30	0.2-30	0.2-22	0.2-16	0.2-12
Height	H ₁	103	122	149	169	198	224
Height	H ₂	107	126	150	172	200	228
Length	L ₂	14	16	18	20	22	25
Wrench size across flats	S ₁	27	32	41	50	55	70
Weight	ca. kg	0.25	0.41	0.72	1.23	1.73	3.09
Coeff. of discharge from 3.0 bar	α _w	0.83	0.83	0.73	0.71	0.69	0.66
Coeff. of discharge from 3.0 bar	rated slope	2.59	4.10	6.79	10.15	16.50	24.80

Dimensions in mm.

Safety Valves

Type 06216, Type 06217



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1-1/2	2
	d ₀ (mm) A ₀ (mm ²) Medium	12.0 113.1	15.0 176.7	20.0 314.2	25.0 490.9	32.0 804.2	40.0 1256.6
Air in m ³ /h							
0.2		49	78	128	194	317	436
0.5		83	133	211	309	518	712
1.0		124	196	308	459	776	1085
2.0		201	317	495	752	1215	1760
3.0		276	432	675	1026	1634	2442
4.0		347	542	847	1288	2051	3065
5.0		418	654	1022	1553	2473	3696
6.0		489	764	1194	1815	2890	4320
7.0		560	874	1367	2077	3308	4944
8.0		632	988	1544	2347	3737	5585
9.0		703	1098	1717	2610	4156	6211
10.0		775	1212	1894	2879	4584	6851
11.0		846	1322	2068	3142	5003	7478
12.0		917	1433	2241	3406	5423	8105
14.0		1059	1655	2588	3933	6263	-
16.0		1201	1877	2935	4460	7102	-
18.0		1343	2099	3282	4988	-	-
20.0		1500	2343	3664	5567	-	-
22.0		1643	2567	4014	6100	-	-
25.0		1858	2903	4539	-	-	-
26.0		-	3015	4714	-	-	-
28.0		-	3239	5064	-	-	-
30.0		-	3496	5466	-	-	-

Set pressure in psig	GW	1/2	3/4	1	1-1/4	1-1/2	2
	d ₀ (inch) A ₀ (in ²) Medium	0.472 0.175	0.591 0.274	0.787 0.487	0.984 0.761	1.260 1.247	1.575 1.948
Air in SCFM							
15		85	134	222	332	540	811
20		98	155	256	383	622	935
30		124	196	324	484	787	1183
40		152	241	399	596	969	1456
50		181	286	473	707	1150	1729
60		209	331	548	819	1332	2001
70		238	376	623	931	1513	2274
80		266	421	697	1042	1695	2547
90		294	466	772	1154	1876	2820
100		323	511	847	1266	2058	3093
110		351	556	921	1377	2239	3365
120		380	601	996	1489	2421	3638
130		408	647	1071	1601	2602	3911
140		437	692	1145	1712	2784	4184
150		465	737	1220	1824	2965	4457
160		494	782	1295	1936	3147	4729
170		522	827	1370	2047	3328	5002
180		551	872	1444	2159	3510	-
190		579	917	1519	2271	3691	-
200		608	962	1594	2382	3873	-
210		636	1007	1668	2494	4054	-
220		665	1052	1743	2606	4236	-
230		693	1098	1818	2717	4417	-
240		722	1143	1892	2829	-	-
250		750	1188	1967	2940	-	-
260		779	1233	2042	3052	-	-
270		807	1278	2116	3164	-	-
280		836	1323	2191	3275	-	-
290		864	1368	2266	3387	-	-
300		893	1413	2341	3499	-	-
315		936	1481	2453	3666	-	-
330		978	1549	2565	-	-	-
350		1035	1639	2714	-	-	-
360		1064	1684	2789	-	-	-
375		-	1752	2901	-	-	-
400		-	1864	3087	-	-	-
425		-	1977	3274	-	-	-
435		-	2022	3349	-	-	-

Safety Valves

Type 06216, Type 06217 with protection cap



Safety Valves, brass,
type tested TÜV-SV.1090 S/G

Standard safety valve
with FPM valve seal, open bonnet, with discharge holes
Inlet: male thread type G (BSPP) acc. to ISO 228/1

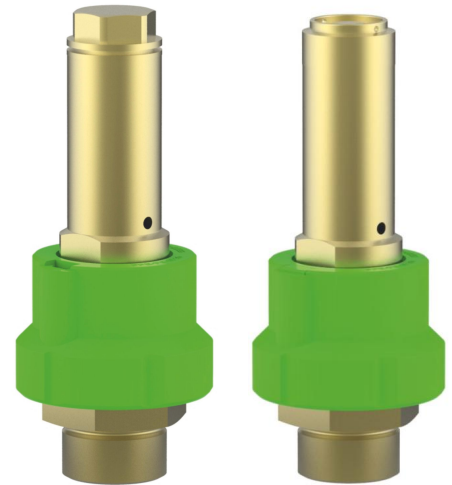
Part No. 06216.X.0001

Part No. 06217.X.0001

with lifting device and protection cap (polycarbonate)

Available options - on request only:

- stainless steel spring - material 1.4571
- external parts nickel plated

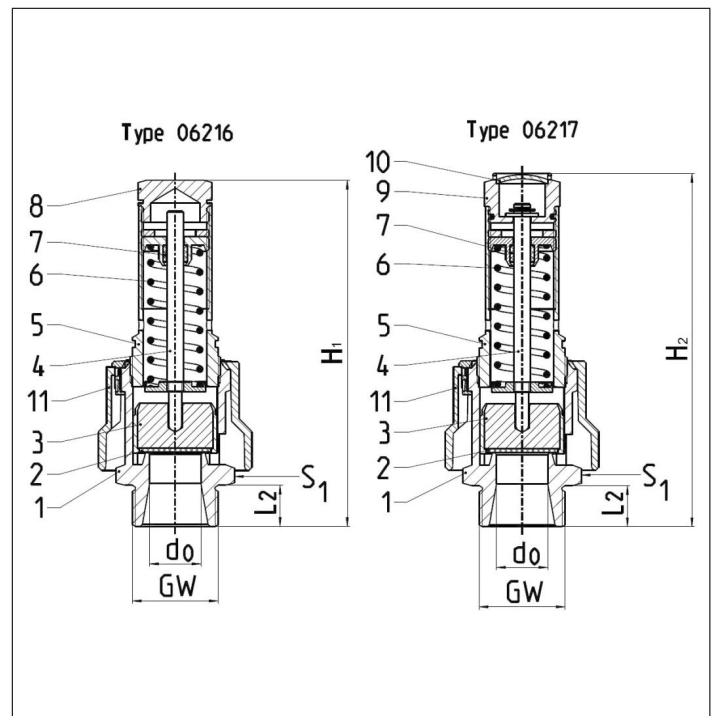


Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air and similar gases.

Working temperature: -30°C / -22°F (243K) up to +130°C / +266°F (403K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Body	CW617N	B 283 UNS C37700
2 Valve seal	FPM (Viton-GLT)	
3 Disc	CW614N	B 455 UNS C38500
4 Stem	CW614N	B 455 UNS C38500
5 Bonnet	CW614N	B 455 UNS C38500
6 Spring	1.1200	A 227
7 Stem guide	PTFE	
8 Cap	CW614N	B 455 UNS C38500
9 Lifting device	CW614N	B 455 UNS C38500
10 Closing cap	CW507L	B 36 UNS C26800
11 Protection cap		



Type 06216, Type 06217	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Orifice	d ₀	12	15	20	25	32	40
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Set pressure range	bar	0.2-25	0.2-30	0.2-30	0.2-22	0.2-16	0.2-12
Height	H ₁	103	122	149	169	198	224
Height	H ₂	107	126	150	172	200	228
Length	L ₂	14	16	18	20	22	25
Diameter	D	41.4	49.0	62.5	74.8	86.0	109.0
Wrench size across flats	S ₁	27	32	41	50	55	70
Weight	ca. kg	0.25	0.41	0.72	1.23	1.73	3.09
Coeff. of discharge from 3.0 bar	α _w	0.83	0.83	0.73	0.71	0.69	0.66
Coeff. of discharge from 3.0 bar	rated slope	2.59	4.10	6.79	10.15	16.50	24.80

Dimensions in mm.

Safety Valves

Type 06216, Type 06217 with protection cap



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1-1/2	2
	d ₀ (mm) A ₀ (mm ²) Medium	12.0 113.1	15.0 176.7	20.0 314.2	25.0 490.9	32.0 804.2	40.0 1256.6
Air in m ³ /h							
0.2		49	78	128	194	317	436
0.5		83	133	211	309	518	712
1.0		124	196	308	459	776	1085
2.0		201	317	495	752	1215	1760
3.0		276	432	675	1026	1634	2442
4.0		347	542	847	1288	2051	3065
5.0		418	654	1022	1553	2473	3696
6.0		489	764	1194	1815	2890	4320
7.0		560	874	1367	2077	3308	4944
8.0		632	988	1544	2347	3737	5585
9.0		703	1098	1717	2610	4156	6211
10.0		775	1212	1894	2879	4584	6851
11.0		846	1322	2068	3142	5003	7478
12.0		917	1433	2241	3406	5423	8105
14.0		1059	1655	2588	3933	6263	-
16.0		1201	1877	2935	4460	7102	-
18.0		1343	2099	3282	4988	-	-
20.0		1500	2343	3664	5567	-	-
22.0		1643	2567	4014	6100	-	-
25.0		1858	2903	4539	-	-	-
26.0		-	3015	4714	-	-	-
28.0		-	3239	5064	-	-	-
30.0		-	3496	5466	-	-	-

Set pressure in psig	GW	1/2	3/4	1	1-1/4	1-1/2	2
	d ₀ (inch) A ₀ (in ²) Medium	0.472 0.175	0.591 0.274	0.787 0.487	0.984 0.761	1.260 1.247	1.575 1.948
Air in SCFM							
15		85	134	222	332	540	811
20		98	155	256	383	622	935
30		124	196	324	484	787	1183
40		152	241	399	596	969	1456
50		181	286	473	707	1150	1729
60		209	331	548	819	1332	2001
70		238	376	623	931	1513	2274
80		266	421	697	1042	1695	2547
90		294	466	772	1154	1876	2820
100		323	511	847	1266	2058	3093
110		351	556	921	1377	2239	3365
120		380	601	996	1489	2421	3638
130		408	647	1071	1601	2602	3911
140		437	692	1145	1712	2784	4184
150		465	737	1220	1824	2965	4457
160		494	782	1295	1936	3147	4729
170		522	827	1370	2047	3328	5002
180		551	872	1444	2159	3510	-
190		579	917	1519	2271	3691	-
200		608	962	1594	2382	3873	-
210		636	1007	1668	2494	4054	-
220		665	1052	1743	2606	4236	-
230		693	1098	1818	2717	4417	-
240		722	1143	1892	2829	-	-
250		750	1188	1967	2940	-	-
260		779	1233	2042	3052	-	-
270		807	1278	2116	3164	-	-
280		836	1323	2191	3275	-	-
290		864	1368	2266	3387	-	-
300		893	1413	2341	3499	-	-
315		936	1481	2453	3666	-	-
330		978	1549	2565	-	-	-
350		1035	1639	2714	-	-	-
360		1064	1684	2789	-	-	-
375		-	1752	2901	-	-	-
400		-	1864	3087	-	-	-
425		-	1977	3274	-	-	-
435		-	2022	3349	-	-	-

Safety Valves

Type 06217



**Safety Valves, brass,
type tested ASME Code Section VIII**

Standard safety valve
with FPM valve seal, open bonnet, with discharge holes
Inlet: male thread NPT acc. to ANSI B 1.20.1

Part No. 06217.X.5010
with Pull-Ring

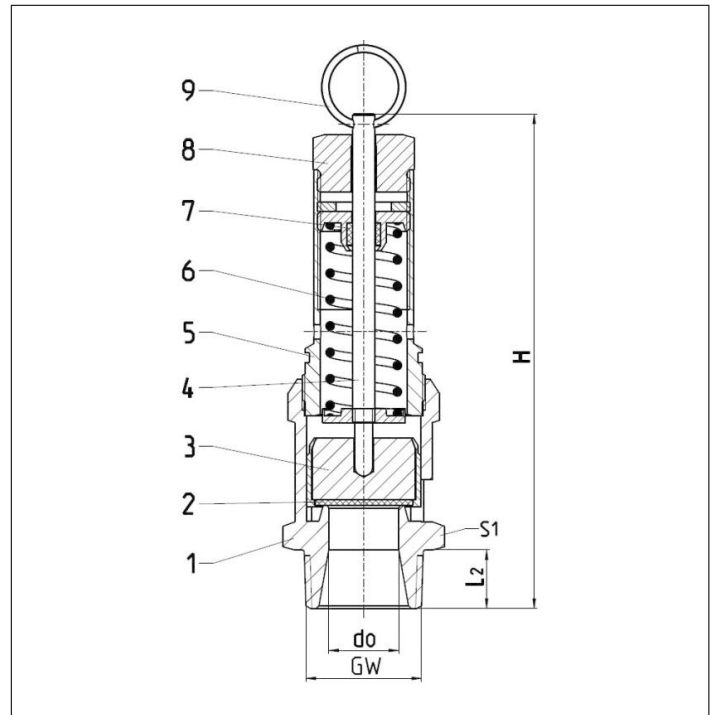
- Available options - on request only:
- discharge holes with protection cap
 - stainless steel spring - material 1.4571
 - external parts nickel plated



Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air and similar gases.
Working temperature: -40°C / -40°F (233K) up to +200°C / +392°F (473K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Body	CW617N	B 283 UNS C37700
2 Valve seal	FPM (Viton-GLT)	
3 Disc	CW614N	B 455 UNS C38500
4 Stem	CW614N	B 455 UNS C38500
5 Bonnet	CW614N	B 455 UNS C38500
6 Spring	1.1200	A 227
7 Stem guide	PTFE	
8 Cap	CW614N	B 455 UNS C38500
9 Pull-Ring	Steel	



Type 06217	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Orifice d_0	inch	0.472	0.591	0.787	0.984	1.260	1.575
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Set pressure range	psi	15-362	15-435	15-279	15-179	15-111	15-71
Height H	inch	4.291	5.118	6.260	6.930	8.110	9.114
Length L_2	inch	0.551	0.630	0.709	0.787	0.866	0.984
Wrench size across flats S_1	inch	1.063	1.260	1.614	1.969	2.165	2.756
Weight	lb	0.551	0.904	1.587	2.712	3.814	6.812
Coeff. of discharge from 44 psi	rated slope	2.59	4.10	6.79	10.15	16.50	24.80

Safety Valves

Type 06217



Discharge capacities

Medium:

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Calculation of discharge capacity acc. to ASME Code Sec. VIII.

Set pressure in psig	GW	1/2	3/4	1	1-1/4	1-1/2	2
	d_0 (inch)	0.472	0.591	0.787	0.984	1.260	1.575
	A_0 (in ²)	0.175	0.274	0.487	0.761	1.247	1.948
Medium							
Air in SCFM							
15		85	134	222	332	540	811
20		98	155	256	383	622	935
30		124	196	324	484	787	1183
40		152	241	399	596	969	1456
50		181	286	473	707	1150	1729
60		209	331	548	819	1332	2001
70		238	376	623	931	1513	2274
80		266	421	697	1042	1695	-
90		294	466	772	1154	1876	-
100		323	511	847	1266	2058	-
110		351	556	921	1377	2239	-
120		380	601	996	1489	-	-
130		408	647	1071	1601	-	-
140		437	692	1145	1712	-	-
150		465	737	1220	1824	-	-
160		494	782	1295	1936	-	-
170		522	827	1370	2047	-	-
180		551	872	1444	-	-	-
190		579	917	1519	-	-	-
200		608	962	1594	-	-	-
210		636	1007	1668	-	-	-
220		665	1052	1743	-	-	-
230		693	1098	1818	-	-	-
240		722	1143	1892	-	-	-
250		750	1188	1967	-	-	-
260		779	1233	2042	-	-	-
270		807	1278	2116	-	-	-
280		836	1323	-	-	-	-
290		864	1368	-	-	-	-
300		893	1413	-	-	-	-
315		936	1481	-	-	-	-
330		978	1549	-	-	-	-
350		1035	1639	-	-	-	-
360		1064	1684	-	-	-	-
375		-	1752	-	-	-	-
400		-	1864	-	-	-	-
425		-	1977	-	-	-	-
435		-	2022	-	-	-	-

Safety Valves

Type 55177 - Protection cap



for Safety valves type 06216, 06217

Valve protection cap made of polycarbonate (PC)
Valveoutlet completely surrounded - for environmental
and personal protection against sudden blowing off
Conformable for the types 06216, 06217 (with discharge hole)

Temperature: -30°C/ -22°F (243K) bis +130°C/ +266°F (403K)

Part-No. 55177.0087.0874G

for nominal size 1/2"

Part-No. 55177.0088.0874G

for nominal size 3/4"

Part-No. 55177.0089.0874G

for nominal size 1"

Part-No. 55177.0090.0874G

for nominal size 1-1/4"

Part-No. 55177.0091.0874G

for nominal size 1-1/2"

Part-No. 55177.0092.0874G

for nominal size 2"





Safety Valves

Type 06218, Type 06219



Safety Valves, brass,
type tested TÜV-SV.1090. S/G

Full lift safety valve
with PTFE O-Ring valve seal,
open bonnet, with discharge holes
Inlet: male thread type G (BSPP) acc. to ISO 228/1

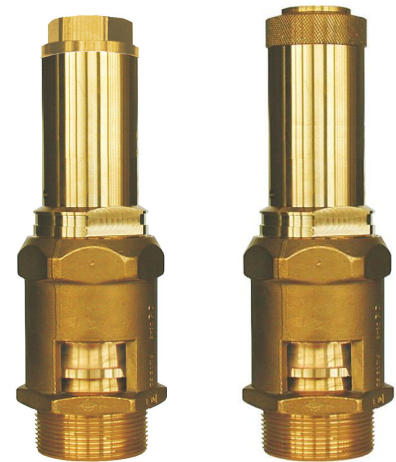
Part No. 06218.0600.0000

Part No. 06219.0600.0000

with lifting device

Available options - on request only:

- external parts nickel plated

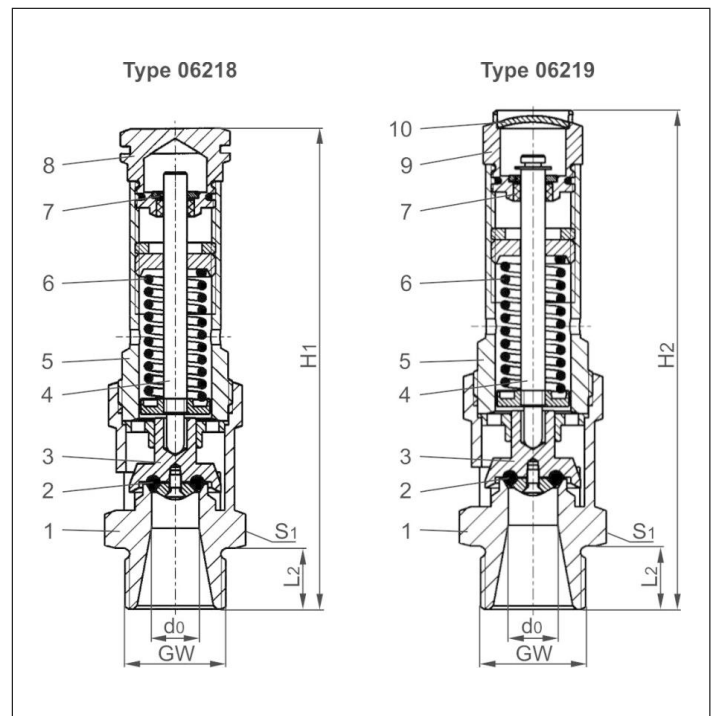


Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for air and similar gases.

Working temperature: -60°C / -76°F (213K) up to +150°C / +302°F (423K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Body	CW617N	EN 12165
2 Valve seal	PTFE O-Ring	
3 Disc	CW614N	EN 12164
4 Stem	CW614N	EN 12164
5 Bonnet	CW614N	EN 12164
6 Spring	1.4571	A 313 Grade 316Ti
7 Stem guide	PTFE	
8 Cap	CW614N	EN 12164
9 Lifting device	CW614N	EN 12164
10 Closing cap	CW507L	B 36 UNS C26800



Type 06218 & 06219	Technical data	
Nominal size	GW	3/4
Orifice	d ₀	12.5
Set pressure range	bar	3.5-17.0
Height	H ₁	121.5
Height	H ₂	126
Length	L ₂	16
Wrench size across flats	S ₁	32
Weight	ca. kg	0.40
Coeff. of discharge	α _w	0.75

Dimensions in mm.

Safety Valves

Type 06218, Type 06219



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	3/4
	d_0 (mm)	12.5
	A_0 (mm ²)	122.7
Medium		
0.5		-
1.0		-
2.0		-
3.0		-
3.5		305
4.0		340
5.0		410
6.0		479
7.0		548
8.0		619
9.0		689
10.0		760
11.0		829
12.0		899
13.0		969
14.0		10389
15.0		1108
16.0		1177
17.0		1247
18.0		-
20.0		-
22.0		-

Safety Valves

Type 20XX



Safety Valves, brass, S/G

Standard safety valve
with FKM-, VMQ-, NBR-, EPDM- or PTFE-seal, open bonnet,
with diaphragm for protection of the spring, with lifting device
with discharge holes

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Also available in stainless steel

Part No. 20XX

Applications:

Provided as safety device for protection against excessive pressure in stationary
and moveable gas cylinders and pressure vessels. Approved for saturated steam, air and similar gases.

Working temperature:

FKM: -20°C / -4°F (253K) up to +200°C / 392 °F (473K)

NBR: -30°C / -22°F (243K) up to +120°C / 248°F (393K)

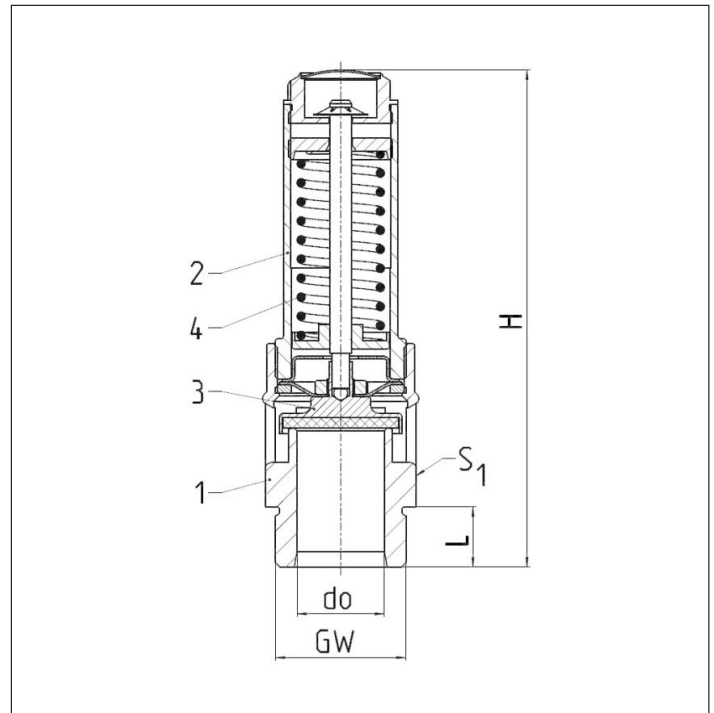
VMQ: -50°C / -58°F (223K) up to +200°C / 392°F (473K)

EPDM: -50°C / -58°F (223K) up to +150°C / 302°F (423K)

PTFE: -196°C / -320°F (77K) up to +250°C / 482°F (523K)



Materials	DIN EN	ASME/ASTM
1 Inlet body	CW614N	B 249 UNS C38500
2 Bonnet	CW614N	B 249 UNS C38500
3 Inner parts	CW612N	B 249 UNS C38500
4 Spring	1.4571	A 313 Grade 316Ti



Type 20XX	Technical data			
Dimension code	20XX	2024	2032	2048
Nominal size	GW	1	1 1/2 / 1 1/4	2
Orifice	d ₀	24	32	48
Set pressure range	bar	0.5-6	0.5-6	0.5-6
Height	H	145-160	160	210-230
Length	L ₂	18	22	24
Wrench size across flats	S ₁	50-55	55	85

Dimensions in mm.

Safety Valves

Type 20XX



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.

Set pressure in bar (g)	Type	2024	2032	2048
	d ₀ (mm)	24.0	32.0	48.0
	A ₀ (mm ²)	452.4	804.2	1809.6
Medium				
Air in m ³ /h				
0.5		308	380	1062
0.6		330	407	1137
0.8		374	461	1288
1.0		418	755	1439
1.5		528	953	1816
2.0		637	1187	2193
2.5		747	1391	2570
3.0		856	1595	2947
3.5		966	1800	3323
4.0		1075	2004	3700
4.5		1185	2208	4077
5.0		1294	2412	4454
5.5		1404	2616	4831
6.0		1513	2820	5208

Safety Valves

Type 21XX



Safety Valves, brass, S/G

Standard safety valve
with FKM-, VMQ-, EPDM- or PTFE-seal, open bonnet,
with discharge holes, with lifting device
Inlet: male thread type G / M / NPT

Also available in stainless steel

Part No. 21XX

Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for saturated steam, air and similar gases.

Working temperature:

FKM: -20°C / -4°F (253K) up to +200°C / 392 °F (473K)

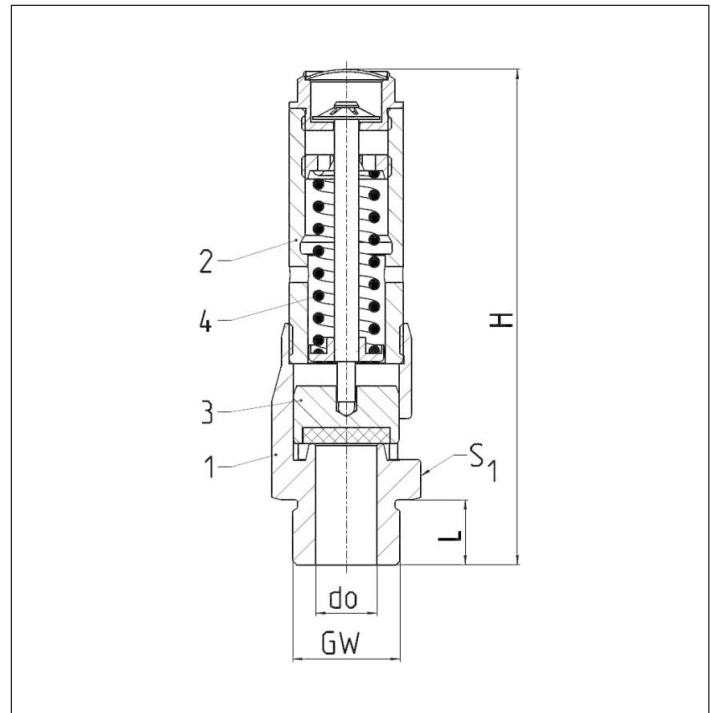
VMQ: -50°C / -58°F (223K) up to +200°C / 392°F (473K)

EPDM: -50°C / -58°F (223K) up to +150°C / 302°F (423K)

PTFE: -196°C / -320°F (77K) up to +250°C / 482°F (523K)



Materials	DIN EN	ASME/ASTM
1 Inlet body	CW614N	B 249 UNS C38500
2 Bonnet	CW614N	B 249 UNS C38500
3 Inner parts	CW614N	B 249 UNS C38500
4 Spring	1.4310	A 313 Grade 301



Type 21XX	Technical data							
Dimension code	21XX	2108	2110	2115	2120	2125	2132*	
Nominal size	GW	1/4 / 3/8 / 1/2	3/8 / 1/2 / 3/4	1/2 / 3/4	1 / 1 1/4	1 / 1 1/4 / 1 1/2	1 1/4 / 1 1/2	
Orifice	d ₀	8	10	15	20	25	32	
Set pressure range	bar	0.3-47	1.7-42	1.4-30	0.5-30	0.5-30	0.5-12.6	
Height	H	72-88 / 72-88 / 73-90	72-89 / 74-91 / 74-91	108-123	143-145	199	157	
Length	L ₂	10 / 10 / 12	10 / 12 / 12	16	18 / 20-31	18 / 20 / 22-34	22	
Wrench size across flats	S ₁	22-24 / 22-24 / 27	22 / 27 / 30	32	41 / 41-47	50 / 50 / 50-55	55	

Dimensions in mm. *Type 2132 is not approved acc. to ASME Code Section VIII.

Safety Valves

Type 21XX



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.

Set pressure in bar (g)	Type	2108	2110	2115	2120	2125	2132
	d ₀ (mm) A ₀ (mm ²) Medium	8.0 50.27	10.0 78.54	15.0 176.7	20.0 314.2	25.0 490.9	32.0 804.2
Air in m ³ /h							
0.5		40	46	128	255	345	778
1.0		55	67	174	346	468	995
2.0		83	107	330	563	892	1206
3.0		112	148	443	757	1198	1620
4.0		141	190	557	951	1505	2035
5.0		169	232	670	1145	1811	2449
6.0		198	275	784	1338	2118	2863
7.0		226	318	898	1532	2425	3278
8.0		255	362	1011	1726	2731	3692
9.0		284	406	1124	1920	3038	4107
10.0		313	450	1238	2114	3345	4521
12.0		371	539	1465	2501	3958	5350
14.0		428	629	1692	2889	4571	-
16.0		485	720	1919	3276	5184	-
18.0		543	811	2146	3664	5798	-
20.0		601	903	2373	4051	6411	-
22.0		659	995	2600	4439	7024	-
24.0		716	1088	2827	4827	7637	-
26.0		774	1182	3054	5214	8251	-
28.0		832	1276	3281	5602	8864	-
30.0		889	1370	3508	5989	9477	-
34.0		1000	1541	-	-	-	-
38.0		1115	1742	-	-	-	-
42.0		1229	1943	-	-	-	-
47.0		1379	-	-	-	-	-

Set pressure in psig	Type	2108	2110	2115	2120	2125
	d ₀ (inch) A ₀ (in ²) Medium	0.315 0.078	0.394 0.121	0.591 0.273	0.787 0.487	0.984 0.760
Air in SCFM						
14.5		32	40	103	204	276
29.0		49	63	195	332	526
43.5		66	87	261	447	707
58.0		83	112	329	561	888
72.5		100	132	395	676	1068
87.0		117	162	463	789	1250
101.5		133	188	530	904	1431
116.0		150	214	596	1018	1611
130.5		168	240	666	1133	1792
145.0		185	266	730	1247	1974
174.0		219	318	864	1476	2335
217.6		269	397	1065	1819	2878
261.1		320	478	1266	2162	3421
304.6		371	555	1467	2505	3963
348.1		422	642	1668	2848	4506
391.6		460	727	1863	3191	5049
435.1		525	808	2070	3534	5591
522.1		624	975	-	-	-
609.1		725	1146	-	-	-
681.6		814	-	-	-	-

Safety Valves

Type 21XX



Safety Valves, stainless steel, S/G

Standard safety valve
with FKM-, VMQ-, EPDM- or PTFE-seal, open bonnet,
with discharge holes, with lifting device
Inlet: male thread type G / M / NPT

Part No. 21XX

Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders and pressure vessels. Approved for saturated steam, air and similar gases.

Working temperature:

FKM: -20°C / -4°F (253K) up to +200°C / 392 °F (473K)

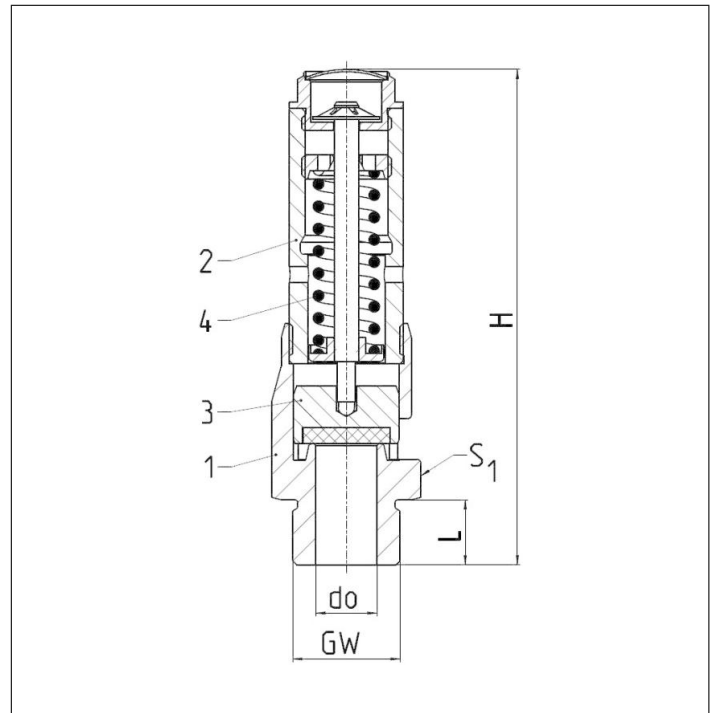
VMQ: -50°C / -58°F (223K) up to +200°C / 392°F (473K)

EPDM: -50°C / -58°F (223K) up to +150°C / 302°F (423K)

PTFE: -196°C / -320°F (77K) up to +250°C / 482°F (523K)



Materials	DIN EN	ASME/ASTM
1 Inlet body	1.4404	SS316L
2 Bonnet	1.4408	SS316/CF8M
3 Inner parts	1.4301	SS304
4 Spring	1.4310	A 313 Grade 301



Type 21XX	Technical data					
Dimension code	21XX	2108	2110	2115	2120	2125
Nominal size	GW	1/4 / 3/8 / 1/2	3/8 / 1/2 / 3/4	1/2 / 3/4	1 / 1 1/4	1 / 1 1/4 / 1 1/2
Orifice	d ₀	8	10	15	20	25
Set pressure range	bar	0.3-47	1.7-42	1.4-30	0.5-30	0.5-30
Height	H	72-88 / 72-88 / 73-90	72-89 / 74-91 / 74-91	108-123	143-145	199
Length	L ₂	10 / 10 / 12	10 / 12 / 12	16	18 / 20-31	18 / 20 / 22-34
Wrench size across flats	S ₁	22-24 / 22-24 / 27	22 / 27 / 30	32	41 / 41-47	50 / 50 / 50-55

Dimensions in mm.

Safety Valves

Type 21XX



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.

Set pressure in bar (g)	Type	2108	2110	2115	2120	2125
	d ₀ (mm) A ₀ (mm ²) Medium	8.0 50.27	10.0 78.54	15.0 176.7	20.0 314.2	25.0 490.9
Air in m ³ /h						
0.5		40	46	128	255	345
1.0		55	67	174	346	468
2.0		83	107	330	563	892
3.0		112	148	443	757	1198
4.0		141	190	557	951	1505
5.0		169	232	670	1145	1811
6.0		198	275	784	1338	2118
7.0		226	318	898	1532	2425
8.0		255	362	1011	1726	2731
9.0		284	406	1124	1920	3038
10.0		313	450	1238	2114	3345
12.0		371	539	1465	2501	3958
14.0		428	629	1692	2889	4571
16.0		485	720	1919	3276	5184
18.0		543	811	2146	3664	5798
20.0		601	903	2373	4051	6411
22.0		659	995	2600	4439	7024
24.0		716	1088	2827	4827	7637
26.0		774	1182	3054	5214	8251
28.0		832	1276	3281	5602	8864
30.0		889	1370	3508	5989	9477
34.0		1000	1541	-	-	-
38.0		1115	1742	-	-	-
42.0		1229	1943	-	-	-
47.0		1379	-	-	-	-

Set pressure in psig	Type	2108	2110	2115	2120	2125
	d ₀ (inch) A ₀ (in ²) Medium	0.315 0.078	0.394 0.121	0.591 0.273	0.787 0.487	0.984 0.760
Air in SCFM						
14.5		32	40	103	204	276
29.0		49	63	195	332	526
43.5		66	87	261	447	707
58.0		83	112	329	561	888
72.5		100	132	395	676	1068
87.0		117	162	463	789	1250
101.5		133	188	530	904	1431
116.0		150	214	596	1018	1611
130.5		168	240	666	1133	1792
145.0		185	266	730	1247	1974
174.0		219	318	864	1476	2335
217.6		269	397	1065	1819	2878
261.1		320	478	1266	2162	3421
304.6		371	555	1467	2505	3963
348.1		422	642	1668	2848	4506
391.6		460	727	1863	3191	5049
435.1		525	808	2070	3534	5591
522.1		624	975	-	-	-
609.1		725	1146	-	-	-
681.6		814	-	-	-	-

Safety Valves

Type 06C01



**Safety Valves, brass (A001),
type tested TÜV-SV.948 Liquid/ Granular/ Powder**

Standard safety valve
with FPM valve seal, closed bonnet,
with diaphragm for protection of the spring, with lifting device,
discharge holes with protection cap
Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 06C01.A001.X - Material brass

Part No. 06C01.A002.X - Material stainless steel

Available options:

- short version (height 160 mm) d_0 25 up to 3 bar made of stainless steel



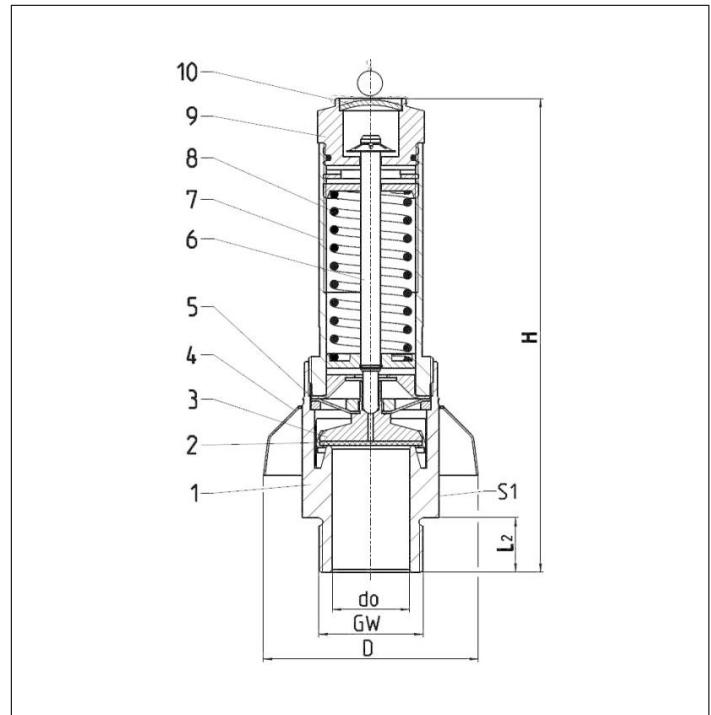
Applications:

Provided as safety device for protection against excessive pressure in the gas phase
in vehicle containers and pressure vessels. Approved for liquid, granular and powdery goods.

Working temperature: $-40^{\circ}\text{C} / -40^{\circ}\text{F} (233\text{K})$ up to $+200^{\circ}\text{C} / +392^{\circ}\text{F} (473\text{K})$, suitable for horizontal installation (d_0 25 up to d_0 48)

Materials	DIN EN	ASME/ASTM
1 Body	CW614N	B 249 UNS C38500
1 Body	CW617N	B 283 UNS C37700
2 Valve seal	FPM (Viton-GLT)	
3 Disc	CW614N	B 249 UNS C38500
4 Protection cap	1.4301	A 240 Grade 304
5 Diaphragm	Silicon	
6 Stem	1.4301	A 240 Grade 304
7 Bonnet	CW614N	B 249 UNS C38500
8 Spring	1.4571	A 313 Grade 316Ti
9 Lifting device	CW614N	B 249 UNS C38500
10 Closing cap	CW507L	B 36 UNS C26800

Materials	DIN EN	ASME/ASTM
1 Body	1.4408	A 351 CF8M
2 Valve seal	FPM (Viton-GLT)	
3 Disc	1.4401	A 479 Grade 316
4 Protection cap	1.4301	A 479 Grade 304
5 Diaphragm	Silicon	
6 Stem	1.4401	B 479 Grade 316
7 Bonnet	1.4401	B 479 Grade 316
8 Spring	1.4571	A 313 Grade 316Ti
9 Lifting device	1.4401	B 479 Grade 316
10 Closing cap	1.4401	B 479 Grade 316



Type 06C01	Technical data				
Nominal size	GW	1	1-1/4	1-1/2	2
Orifice	d_0	25	31	31	48
Set pressure range	bar	0.5-6.0	0.5-6.0	0.5-6.0	0.5-3.5
Height	H	186	191	191	232
Length	L_2	18	22	22	25
Protection cap diameter	D	86	86	86	114
Wrench size across flats	S_1	55	55	55	85
Weight	ca. kg	1.65	1.58	1.58	4.6
Coeff. of discharge from 3.0 bar	α_w	0.68	0.68	0.68	0.55
Series A001: Material brass		x	x	x	x
Series A002: Material stainless steel		x	x	x	-

Dimensions in mm.

Safety Valves

Type 06C01



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	max α _w (Kdr)	0.68	0.68	0.55
	GW	1	1-1/4 & 1-1/2	2
	d ₀ (mm)	25.0	31.0	48.0
	A ₀ (mm ²)	491	755	1810
0.5		294	436	987
0.6		325	482	946
0.7		355	536	1032
0.8		383	579	1116
0.9		411	631	1196
1.0		438	674	1277
1.2		493	760	1432
1.4		550	849	1593
1.6		605	941	1761
1.8		657	1031	1937
2.0		709	1124	2106
2.2		762	1200	2264
2.4		816	1277	2424
2.6		870	1354	2588
2.8		925	1431	2755
3.0		983	1511	2931
3.2		1033	1588	3080
3.4		1083	1665	3230
3.5		1108	1629	3304
3.6		1133	1666	3379
3.8		1183	1739	3528
4.0		1234	1813	3678
4.2		1284	1887	-
4.4		1334	1960	-
4.5		1359	1997	-
4.6		1384	2034	-
4.8		1434	2108	-
5.0		1487	2186	-
5.2		1538	2260	-
5.4		1588	2334	-
5.6		1638	2408	-
5.8		1688	2481	-
6.0		1739	2555	-

Safety Valves

Type 06505



**Safety Valves, brass,
type tested TÜV-SV.948 Liquid/ Granular/ Powder**

Standard safety valve
with FPM valve seal, closed bonnet,
with diaphragm for protection of the spring, with lifting device,
discharge holes with protection cap
Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 06505.X.1000

Available options - on request only:
· external parts nickel plated

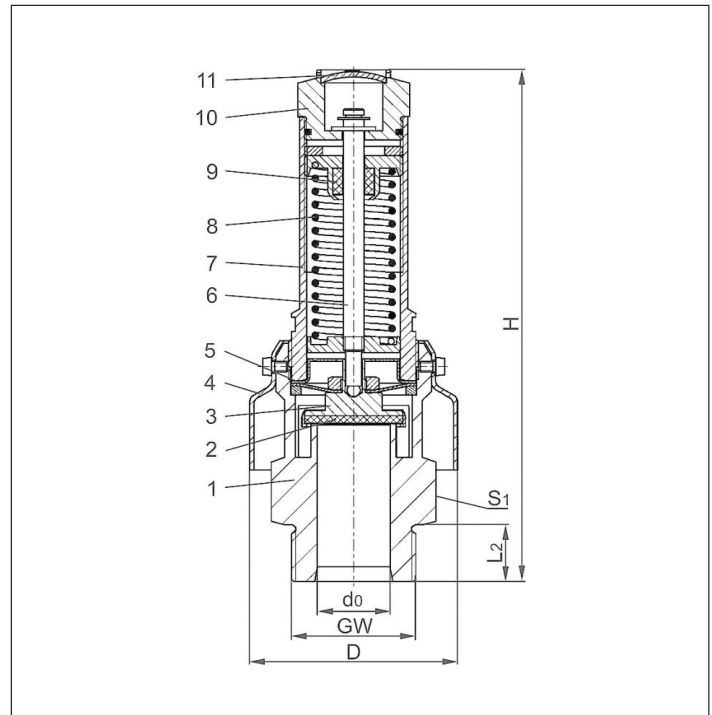


Applications:

Provided as safety device for protection against excessive pressure in vehicle containers and pressure vessels. Approved for liquid, granular and powdery goods.

Working temperature: -40°C / -40°F (233K) up to +200°C / +392°F (473K), suitable for horizontal installation (D₀ 24 up to D₀ 31)

Materials	DIN EN	ASME/ASTM
1 Body	CW617N	B 283 UNS C37700
2 Valve seal	FPM (Viton-GLT)	
3 Disc	CW614N	B 249 UNS C38500
4 Protection cap	1.4301	A 240 Grade 304
5 Diaphragm	Silicon	
6 Stem	CW614N	B 249 UNS C38500
7 Bonnet	CW614N	B 249 UNS C38500
8 Spring	1.4571	A 313 Grade 316Ti
9 Stem guide	PTFE	
10 Lifting device	CW614N	B 249 UNS C38500
11 Closing cap	CW507L	B 36 UNS C26800



Type 06505	Technical data						
Nominal size	GW	1	1-1/4	1-1/2	1-1/4	1-1/2	2
Orifice	d ₀	24	28	28	31	31	48
Dimension code	.X.	1000	2812	2814	3112	3114	2000
Set pressure range	bar	0.5-6.0	0.5-4.5	0.5-4.5	0.5-6.0	0.5-6.0	0.5-3.5
Height	H	194	198	198	191	191	232
Length	L ₂	18	22	22	22	22	25
Protection cap diameter	D	80	80	80	80	80	115
Wrench size across flats	S ₁	55	55	55	55	55	85
Weight	ca. kg	1.75	1.85	1.90	2.00	2.30	4.5
Coeff. of discharge from 3.0 bar	α _w	0.62	0.58	0.58	0.68	0.68	0.52
Coeff. of discharge from 3.5 bar	α _w	-	-	-	0.65	0.65	-
Coeff. of discharge from 4.5 bar	α _w	0.57	-	-	-	-	-

Dimensions in mm.

Safety Valves

Type 06505



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1	1-1/4 & 1-1/2	1-1/4 & 1-1/2	2
	d ₀ (mm)	24.0	28.0	31.0	48.0
	A ₀ (mm ²)	452.4	615.8	754.8	1810.0
	Medium	Air			
0.5		237	297	436	835
0.6		268	327	482	950
0.7		299	354	536	1063
0.8		330	392	579	1153
0.9		354	422	631	1241
1.0		373	449	674	1250
1.2		414	509	760	1390
1.4		456	578	849	1532
1.6		504	640	941	1675
1.8		553	703	1031	1863
2.0		604	768	1124	2060
2.2		647	826	1200	2243
2.4		691	884	1277	2432
2.6		734	942	1354	2578
2.8		776	996	1431	2725
3.0		819	1052	1511	2877
3.2		861	1105	1588	3024
3.4		903	1159	1665	3171
3.5		924	1186	1704	3244
3.6		945	1213	1743	-
3.8		986	1266	1820	-
4.0		1028	1320	1897	-
4.2		1070	1373	1974	-
4.4		1112	1427	2051	-
4.5		1133	1454	2089	-
4.6		1153	-	2128	-
4.8		1195	-	2205	-
5.0		1240	-	2287	-
5.2		1282	-	2364	-
5.4		1323	-	2441	-
5.6		1365	-	2519	-
5.8		1407	-	2596	-
6.0		1449	-	2673	-

Safety Valves

Type 06506



**Safety Valves, stainless steel,
type tested TÜV-SV.948. Liquid/ Granular/ Powder**

Standard safety valve
with FPM valve seal, closed bonnet,
with diaphragm for protection of the spring, with lifting device,
discharge holes with protection cap
Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 06506.X.1000

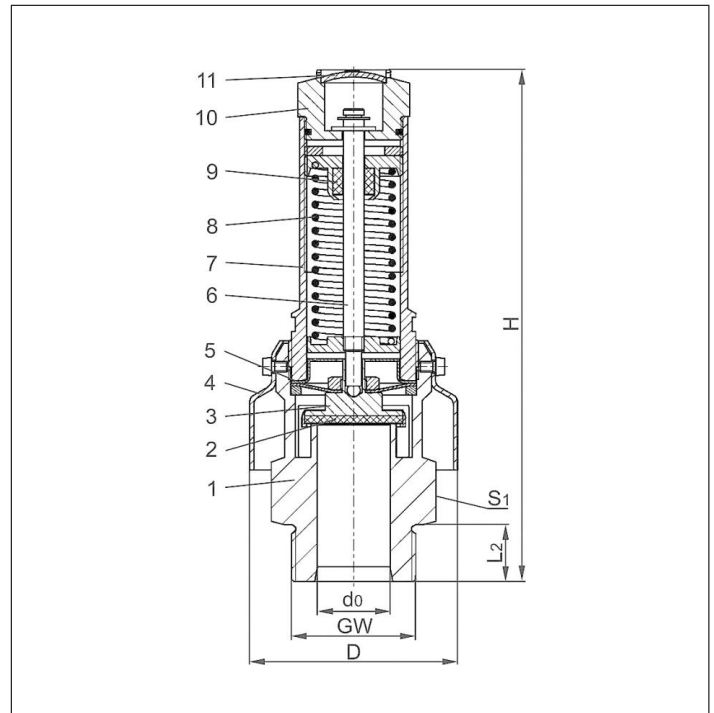


Applications:

Provided as safety device for protection against excessive pressure in vehicle containers and pressure vessels. Approved for liquid, granular and powdery goods.

Working temperature: -40°C / -40°F (233K) up to +200°C / +392°F (473K), suitable for horizontal installation (D₀ 24 up to D₀ 31)

Materials	DIN EN	ASME/ASTM
1 Body	1.4408	A 351 CF8M
2 Valve seal	FPM (Viton-GLT)	
3 Disc	1.4401	A 479 Grade 316
4 Protection cap	1.4301	A 479 Grade 304
5 Diaphragm	Silicon	
6 Stem	1.4401	A 479 Grade 316
7 Bonnet	1.4401	A 479 Grade 316
8 Spring	1.4571	A 313 Grade 316Ti
9 Stem guide	PTFE	
10 Lifting device	1.4401	A 479 Grade 316
11 Closing cap	1.4401	A 479 Grade 316



Type 06506	Technical data			
Nominal size	GW	1	1-1/4	1-1/2
Orifice	d ₀	24	31	31
Dimension code	.X.	1000	3112	3114
Set pressure range	bar	0.5-6.0	0.5-6.0	0.5-6.0
Height	H	194	191	191
Length	L ₂	18	22	22
Protection cap diameter	D	80	80	80
Wrench size across flats	S ₁	55	55	55
Weight	ca. kg	1.75	2.00	2.30
Coeff. of discharge from 3.0 bar	α _w	0.62	0.68	0.68
Coeff. of discharge from 3.5 bar	α _w	-	0.65	0.65
Coeff. of discharge from 4.5 bar	α _w	0.57	-	-

Dimensions in mm.

Safety Valves

Type 06506



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1	1-1/4 & 1-1/2
	d ₀ (mm)	24.0	31.0
	A ₀ (mm ²)	452.4	754.8
	Medium	Air	
0.5		237	436
0.6		268	482
0.7		299	536
0.8		330	579
0.9		354	631
1.0		373	674
1.2		414	760
1.4		456	849
1.6		504	941
1.8		553	1031
2.0		604	1124
2.2		649	1200
2.4		694	1277
2.6		740	1354
2.8		782	1431
3.0		826	1511
3.2		868	1588
3.4		910	1665
3.5		931	1629
3.6		952	1666
3.8		994	1739
4.0		1037	1813
4.2		1079	1887
4.4		1121	1960
4.5		1050	1997
4.6		1069	2034
4.8		1108	2108
5.0		1149	2186
5.2		1188	2260
5.4		1227	2334
5.6		1265	2408
5.8		1304	2481
6.0		1343	2555

Safety Valves

Type 23XX



Safety Valves, brass, F/K/S

Standard safety valve
with FKM-, VMQ-, EPDM- or PTFE-seal, closed bonnet,
with diaphragm for protection of the spring, with lifting device,
discharge holes with protection cap
Inlet: male thread type G (BSPP) acc. to ISO 22871

Also available in stainless steel

Part No. 23XX

Applications:

Provided as safety device for protection against excessive pressure in vehicle containers and pressure vessels. Approved for liquid, granular and powdery goods.

Working temperature:

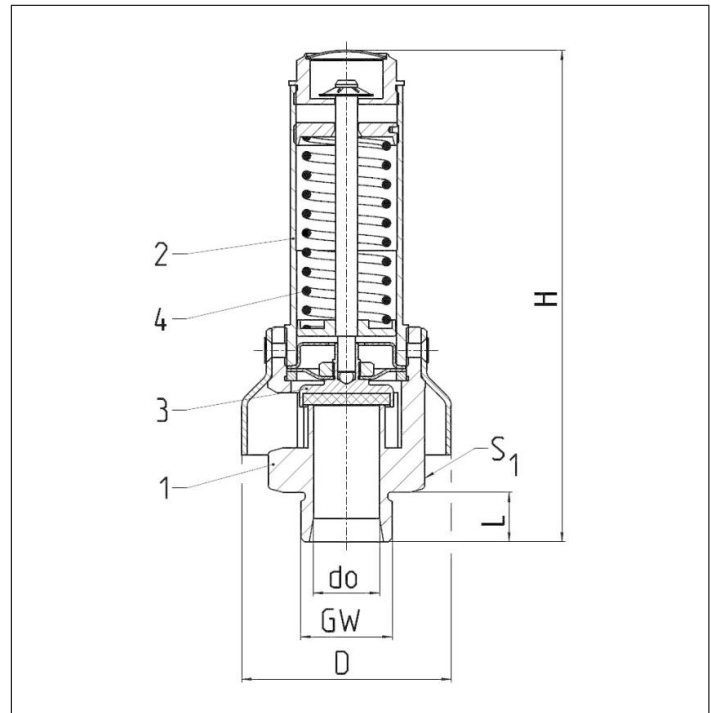
FKM: -20°C / -4°F (253K) up to +200°C / 392 °F (473K)

VMQ: -50°C / -58°F (223K) up to +200°C / 392°F (473K)

EPDM: -50°C / -58°F (223K) up to +150°C / 302°F (423K)

PTFE: -196°C / -320°F (77K) up to +250°C / 482°F (523K)

Materials	DIN EN	ASME/ASTM
1 Inlet body	CW614N	B 249 UNS C38500
2 Bonnet	CW614N	B 249 UNS C38500
3 Inner parts	CW612N	B 249 UNS C38500
4 Spring	1.4571	A 313 Grade 316Ti



Type 23XX	Technical data			
Dimension code	23XX	2324	2332	2348
Nominal size	GW	1	1 1/4 / 1 1/2	2
Orifice	d ₀	24	32	48
Set pressure range	bar	0.5-6	0.5-6	0.5-6
Height	H	145-163	142-160	210-230
Length	L ₂	18	22	25
Wrench size across flats	S ₁	50	55	85
Ø-Protection cap	mm	76	76	120

Dimensions in mm.

Safety Valves

Type 23XX



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1.

Set pressure in bar (g)	Type	2324	2332	2348
	d ₀ (mm)	24.0	32.0	48.0
	A ₀ (mm ²)	452.4	804.3	1809.6
	Medium	Air in m ³ /h		
0.5		308	380	1062
0.6		330	407	1137
0.8		374	461	1288
1.0		418	755	1439
1.5		528	953	1816
2.0		637	1187	2193
2.5		747	1391	2570
3.0		856	1595	2947
3.5		966	1800	3323
4.0		1075	2004	3700
4.5		1185	2208	4077
5.0		1294	2412	4454
5.5		1404	2616	4831
6.0		1513	2820	5208

Safety Valves

Type 06370



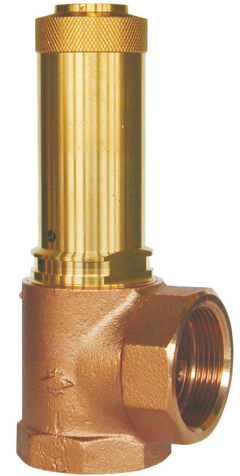
Safety Valves, angle type, bronze, type tested TÜV-SV.749. L

Standard safety valve
with soft valve seal for fluids, open bonnet,
with diaphragm for protection of the spring, with lifting device
In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06370.X.0000 with NBR valve seal

Part No. 06370.X.0700 with FPM valve seal

Pressure range in bar:	NBR	FPM		NBR	FPM
Nom. size 1/2":	1.0 - 11.0	1.0 - 16.0	Nom. size 3/4":	1.0 - 10.5	1.0 - 16.0
Nom. size 1":	1.0 - 10.0	1.0 - 16.0	Nom. size 1-1/4":	1.0 - 9.0	1.0 - 16.0
Nom. size 1-1/2":	1.0 - 8.5	1.0 - 16.0	Nom. size 2":	1.0 - 9.0	1.0 - 16.0



Available options - on request only:

- stainless steel spring - material 1.4571
- external parts nickel plated

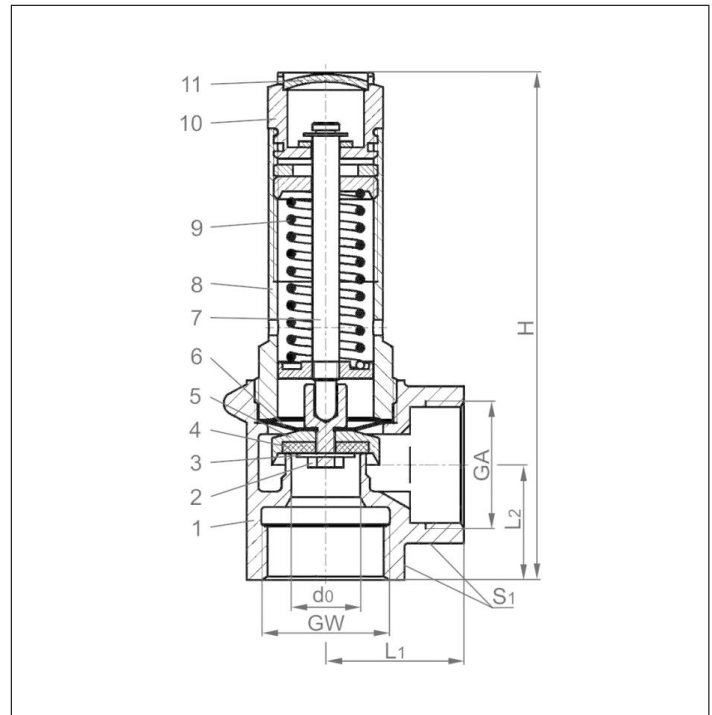
Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels.

Approved for non-adhesive fluids, which are not vaporized during blow off.

Working temperature: -10°C / +14°F (263K) up to +110°C / +230°F (383K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Disc nut	CW614N	B 249 UNS C38500
3 Plate	CW507L	B 36 UNS C26800
4 Valve seal	NBR or FPM	
5 Disc	CW614N	B 249 UNS C38500
6 Diaphragm	NBR	
7 Stem	CW614N	B 249 UNS C38500
8 Bonnet	CW614N	B 249 UNS C38500
9 Spring	1.1200	A 227
10 Lifting device	CW614N	B 249 UNS C38500
11 Closing cap	CW507L	B 36 UNS C26800



Type 06370	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Orifice	d ₀	12	15	18	20	24	28
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Set pressure range	bar	1.0-16	1.0-16	1.0-16	1.0-16	1.0-16	1.0-16
Outlet	GA	1/2	3/4	1	1-1/4	1-1/2	2
Height	H	92	111	132	152	175	200
Length	L ₁	25	30	36	40	48	56
Length	L ₂	20	25	30	35	40	48
Wrench size across flats	S ₁	27	32	41	50	58	70
Weight	ca. kg	0.24	0.40	0.70	1.07	1.65	2.65
Coeff. of discharge	α _w	0.20	0.25	0.31	0.39	0.42	0.38

Dimensions in mm.

Safety Valves

Type 06370



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1-1/2	2
	d_0 (mm)	12.0	15.0	18.0	20.0	24.0	28.0
	A_0 (mm ²)	113.1	176.7	254.5	314.2	452.4	615.8
	Medium	Water					
1.0		1208	2359	4212	6543	10146	12495
2.0		1708	3336	5957	9253	14349	17670
3.0		2092	4086	7296	11332	17573	21641
4.0		2416	4718	8425	13085	20292	24989
5.0		2701	5275	9419	14630	22687	27939
6.0		2959	5779	10318	16026	24853	30606
7.0		3196	6242	11145	17310	26844	33058
8.0		3416	6673	11915	18505	28697	35340
9.0		3624	7077	12637	19628	30438	37484
10.0		3820	7460	13321	20689	32085	39512
12.0		4184	8172	14592	22664	35147	43283
14.0		4519	8827	15761	24480	37963	46751
16.0		4831	9436	16850	26170	40584	49979

Safety Valves

Type 06372

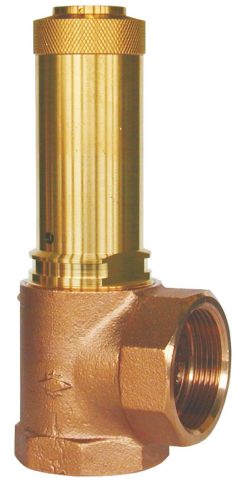


Safety Valves, angle type, bronze, type tested TÜV-SV.749. S/G

Standard safety valve
with soft valve seal for saturated steam, air and similar gases, open bonnet,
with diaphragm for protection of the spring, with lifting device
In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06372.X.0040

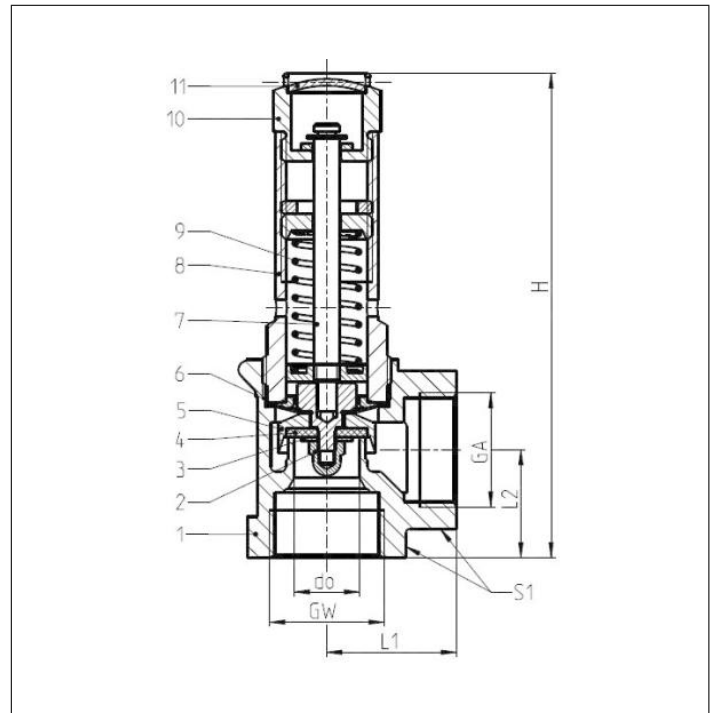
with FPM valve seal (PTFE coated)



Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers.
Working temperature: -10°C / +14°F (263K) up to +120°C / +230°F (393K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Body	CC480K	C90700
2 Disc nut	CW614N	B 249 UNS C38500
3 Plate	CW507L	B 36 UNS C26800
4 Valve seal	FPM (PTFE coated)	
5 Disc	CW614N	B 249 UNS C38500
6 Diaphragm	NBR	
7 Stem	CW614N	B 249 UNS C38500
8 Bonnet	CW614N	B 249 UNS C38500
9 Spring	1.4571	A 313 Grade 316Ti
10 Lifting device	CW614N	B 249 UNS C38500
11 Closing cap	CW507L	B 36 UNS C26800



Type 06372	Technical data		
Nominal size	GW	3/4	1
Orifice	d ₀	15	18
Dimension code	.X.	0600	1000
Set pressure range	bar	0.5-1.0	0.4-1.0
Outlet	GA	3/4	1
Height	H	111	132
Length	L ₁	30	36
Length	L ₂	25	30
Wrench size across flats	S ₁	32	41
Weight	ca. kg	0.40	0.70
Coeff. of discharge	α _w	0.25	0.40

Dimensions in mm.

Safety Valves

Type 06372



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated Steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	3/4		1	
	d_0 (mm)	15.0		18.0	
	A_0 (mm ²)	176.7		254.5	
	Medium	A	B	A	B
0.4	-	-	72	84	
0.5	39	46	80	96	
0.6	42	52	87	106	
0.7	46	57	94	116	
0.8	50	62	101	126	
0.9	52	65	107	136	
1.0	54	69	116	147	

Safety Valves

Type 06376



Safety Valves, angle type, bronze, type tested TÜV-SV.749. L

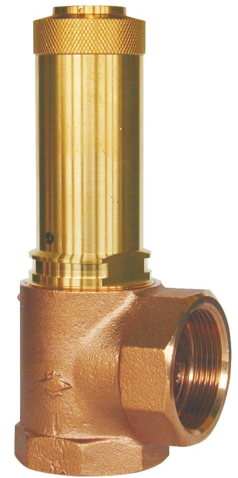
Standard safety valve
with soft valve seal for fluids, open bonnet,
with diaphragm for protection of the spring, with lifting device
In- and Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06376.0400.0000

with NBR valve seal (pressure range 1.0 - 16.0 bar)

Part No. 06376.0400.0700

with FPM valve seal (pressure range 1.0 - 16.0 bar)



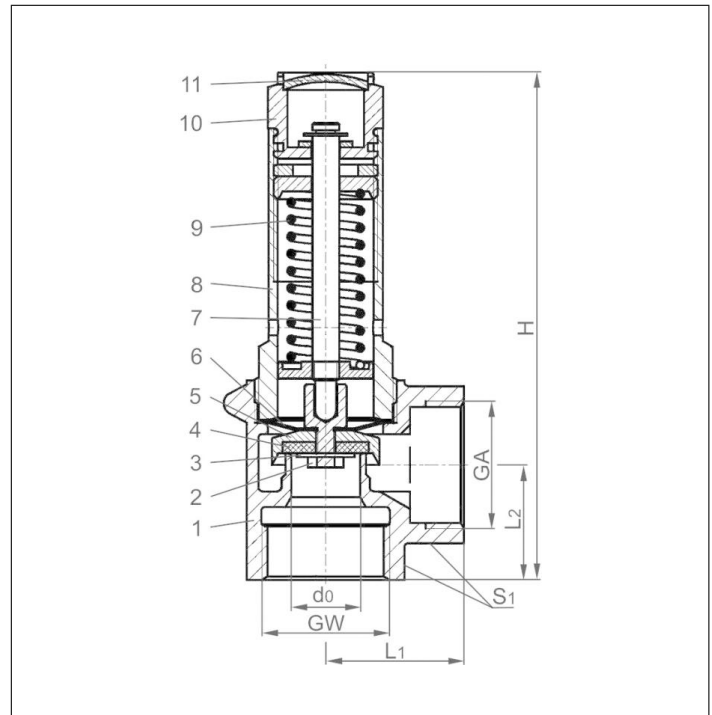
Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels.

Approved for non-toxic, non-inflammable fluids - medium contact parts are seawater resistant.

Working temperature: -10°C / +14°F (263K) up to +110°C / +230°F (383K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Body	CC480K	C90700
2 Disc nut	1.4571/A4	similar A 194
3 Plate	Copper	
4 Valve seal	NBR	
5 Disc	CW452K	B 159 UNS C51900
6 Diaphragm	NBR	
7 Stem	CW614N	B 249 UNS C38500
8 Bonnet	CW614N	B 249 UNS C38500
9 Spring	1.4571	A 313 Grade 316Ti
10 Lifting device	CW614N	B 249 UNS C38500
11 Closing cap	CW507L	B 36 UNS C26800



Type 06376	Technical data	
Nominal size	GW	1/2
Orifice	d_0	12
Set pressure range	bar	1.0-16
Outlet	GA	1/2
Height	H	92
Length	L_1	25
Length	L_2	20
Wrench size across flats	S_1	27
Weight	ca. kg	0.24
Coefficient of discharge	α_w	0.20

Dimensions in mm.

Safety Valves

Type 06376



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2
	d_0 (mm)	12.0
	A_0 (mm ²)	113.1
	Medium	Water
1.0		1208
2.0		1708
3.0		2092
4.0		2416
5.0		2701
6.0		2959
7.0		3196
8.0		3416
9.0		3624
10.0		3820
12.0		4184
14.0		4519
16.0		4831

Safety Valves

Type 06380



Safety Valves, angle type, bronze, type tested TÜV-SV.749. S/G

Standard safety valve
with soft valve seal, open bonnet, with lifting device
In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06380.X.0000

with FPM valve seal for air and similar gases
Working temperature: -10°C / +14°F (263K) up to +185°C / +365°F (458K)

Part No. 06380.X.0300

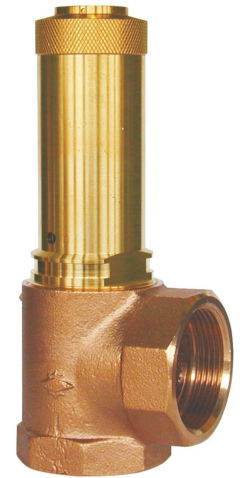
with PTFE valve seal for air and similar gases
and saturated steam from 2.0 bar (1/2" suitable for horizontal installation)
Working temperature: -10°C / +14°F (263K) up to +225°C / +437°F (498K)

Part No. 06380.X.0600

with EPDM valve seal for air and similar gases
and steam from 0.2 up to 8 bar. (saturated steam only up to 3.7 bar)
Working temperature: -10°C / +14°F (263K) up to +150°C / +302°F (423K)

Available options - on request only:

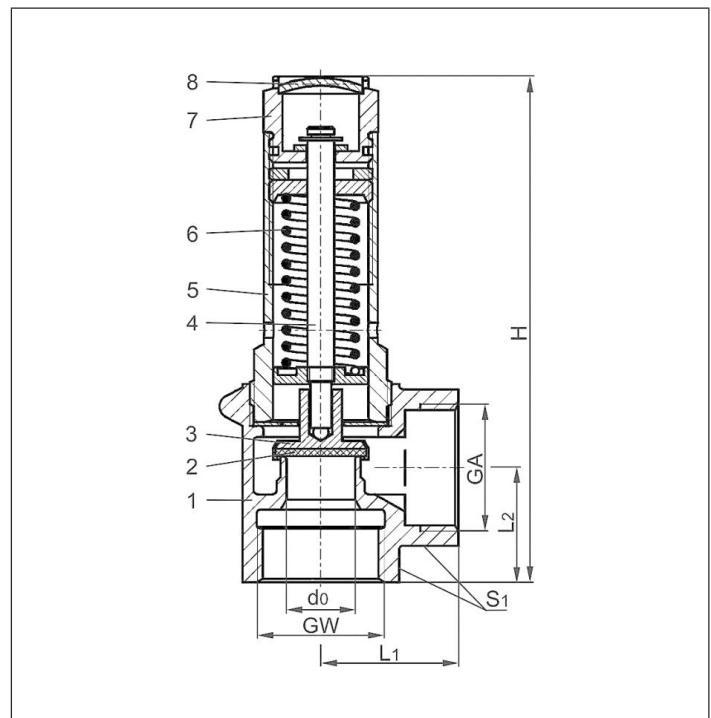
- stainless steel spring - material 1.4571, external parts nickel plated
- male inlet connection



Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels.

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	FPM, PTFE or EPDM	
3 Disc	CW614N	B 249 UNS C38500
4 Stem	CW614N	B 249 UNS C38500
5 Bonnet	CW614N	B 249 UNS C38500
6 Spring	1.1200	A 227
7 Lifting device	CW614N	B 249 UNS C38500
8 Closing cap	CW507L	B 36 UNS C26800



Type 06380	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Orifice	d ₀	12	15	18	20	24	28
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Set pressure range FPM seal	bar	0.2-20	0.2-20	0.2-20	0.2-20	0.2-16	0.2-16
Set pressure range PTFE seal	bar	0.2-20	0.5-20	0.2-20	0.4-20	0.2-16	1.0-16
Set pressure range EPDM seal	bar	0.2-8	0.2-8	0.2-9	0.2-9	0.2-8	0.2-8
Outlet	GA	1/2	3/4	1	1-1/4	1-1/2	2
Height	H	99	111	132	152	175	200
Length	L ₁	25	30	36	40	48	56
Length	L ₂	22	25	30	35	40	48
Wrench size across flats	S ₁	27	32	41	50	58	70
Weight	ca. kg	0.24	0.40	0.70	1.07	1.65	2.65
Coeff. of discharge from 3.0 bar	α _w	0.47	0.37	0.52	0.57	0.52	0.50

Dimensions in mm.

Safety Valves

Type 06380



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1-1/2	2	1/2	3/4	1	1-1/4	1-1/2	2
	d ₀ (mm)	12.0	15.0	18.0	20.0	24.0	28.0	12.0	15.0	18.0	20.0	24.0	28.0
	A ₀ (mm ²)	113.1	176.7	254.5	314.2	452.4	615.8	113.1	176.7	254.5	314.2	452.2	615.8
	Medium	Air						Saturated steam					
0.2		28	38	69	96	123	159	27	36	65	90	116	150
0.4		41	55	101	138	180	237	35	47	87	118	154	203
0.5		46	61	115	155	204	271	39	51	96	129	171	227
1.0		68	89	172	231	306	408	54	70	136	182	242	322
2.0		114	141	284	392	505	660	90	111	223	308	397	519
3.0		157	193	390	527	693	907	122	150	304	412	541	708
4.0		196	242	489	662	869	1138	153	188	380	514	675	884
5.0		237	291	590	798	1048	1372	183	225	455	616	809	1058
6.0		277	341	689	933	1225	1604	213	262	530	717	941	1232
7.0		317	390	789	1067	1402	1835	243	298	604	817	1073	1405
8.0		358	440	891	1206	1584	2073	272	335	678	917	1205	1577
9.0		398	490	991	1341	1762	2306	302	371	751	1017	1335	1748
10.0		439	540	1093	1479	1943	2543	331	407	824	1116	1466	1918
12.0		519	639	1293	1750	2299	3009	390	480	971	1313	1725	2258
14.0		600	738	1493	2021	2655	3475	448	552	1116	1511	1984	2597
16.0		680	837	1693	2292	3011	3940	507	623	1262	1707	2243	2936
18.0		761	936	1894	2563	-	-	564	695	1407	1904	-	-
20.0		849	1044	2114	2861	-	-	624	767	1553	2101	-	-

Safety Valves

Type 06602



Safety Valves, angle type, bronze, type tested TÜV-SV.1080. S/G

Standard safety valve
with O-ring valve seal,
closed bonnet, with lifting device,
with enlarged outlet
In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06602.1204.0000

Available options - on request only:

- external parts nickel plated

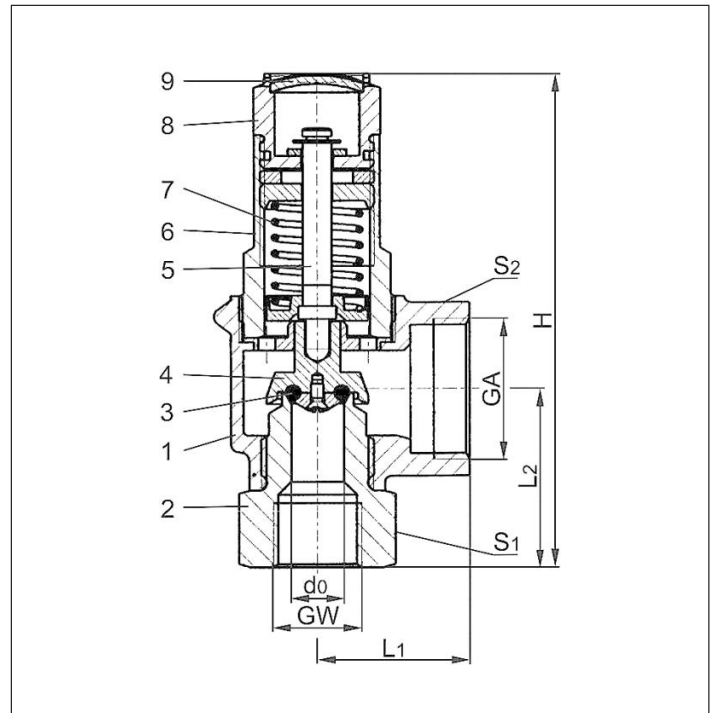


Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers. Approved for non-toxic gases, vapours and for saturated steam.

Working temperature: -10°C / +14°F (263K) up to +180°C / +356°F (453K)

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	CW614N	B 111 UNS C28000
3 O-ring	EPDM	
4 Disc	CW614N	B 249 UNS C38500
5 Stem	CW614N	B 249 UNS C38500
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Lifting device	CW614N	B 249 UNS C38500
9 Closing cap	CW507L	B 36 UNS C26800



Type 06602	Technical data	
Nominal size	GW	1/2
Orifice	d_0	12.5
Set pressure range	bar	1.2-1.3
Outlet	GA	1
Height	H	117
Length	L_1	36
Length	L_2	42
Wrench size across flats	S_1	32
Wrench size across flats	S_2	41
Weight	ca. kg	0.65
Coefficient of discharge	α_w	0.74

Dimensions in mm.

Safety Valves

Type 06602



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	1/2
	d_0 (mm)	12.5	12.5
	A_0 (mm ²)	122.7	122.7
	Medium	Air	Saturated steam
1.2		144	114
1.3		151	119

Safety Valves

Type 06603



Safety Valves, angle type, bronze, type tested TÜV-SV.1080. S/G

Standard safety valve
with O-ring valve seal,
closed bonnet, with lifting device,
with enlarged outlet
In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06603.1204.0000

Available options - on request only:

- external parts nickel plated



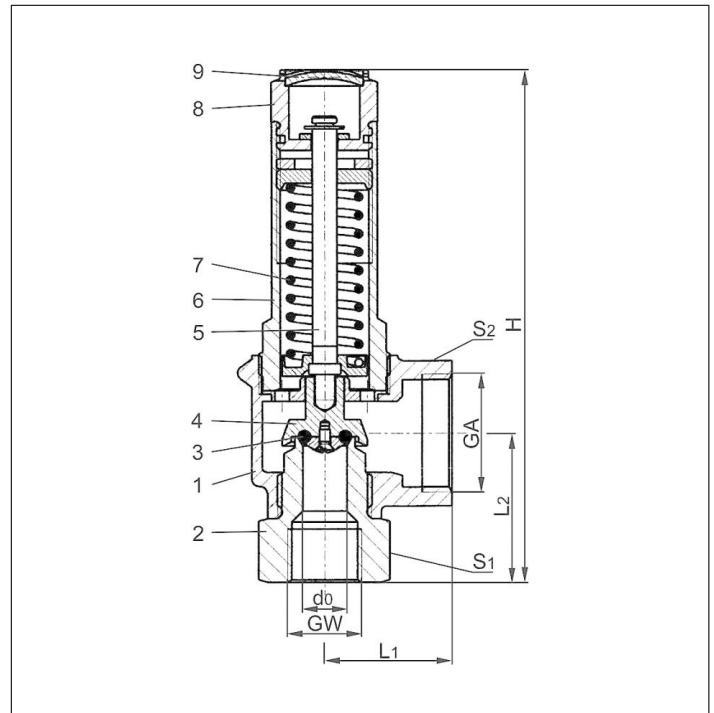
Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers. Approved for non-toxic gases, vapours and for saturated steam.

Working temperature: -10°C / +14°F (263K) up to +180°C / +356°F (453K)

For saturated steam use only up to 3 bar and +130°C / +266°F (403K)

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	CW614N	B 111 UNS C28000
3 O-ring	EPDM	
4 Disc	CW614N	B 249 UNS C38500
5 Stem	CW614N	B 249 UNS C38500
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Lifting device	CW614N	B 249 UNS C38500
9 Closing cap	CW507L	B 36 UNS C26800



Type 06603	Technical data	
Nominal size	GW	1/2
Orifice	d_0	12.5
Set pressure range	bar	0.2-5
Outlet	GA	1
Height	H	145
Length	L_1	36
Length	L_2	42
Wrench size across flats	S_1	32
Wrench size across flats	S_2	41
Weight	ca. kg	0.7
Coeff. of discharge from 3.0 bar	α_w	0.74

Dimensions in mm.

Safety Valves

Type 06603



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/2	1/2
	d ₀ (mm)	12.5	12.5
	A ₀ (mm ²)	122.7	122.7
	Medium	Air	Saturated steam
0.2		51	48
0.5		80	67
1.0		120	95
1.5		160	126
2.0		196	154
2.5		231	181
3.0		267	209
3.5		301	-
4.0		336	-
4.5		370	-
5.0		405	-

Safety Valves

Type 06395



Safety Valves, angle type, bronze, type tested TÜV-SV.910. S/G

Standard safety valve

open bonnet, with lifting device and enlarged outlet

In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06395.X.0000

metal to metal seated for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +225°C / +437°F (498K)

Part No. 06395.X.0500

with PTFE/carbon filled valve seal for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +185°C / +365°F (458K)

Part No. 06395.X.0600

with EPDM valve seal for saturated steam, air and similar gases

Working temperature: -40°C / -40°F (233K) up to +150°C / +302°F (423K)

Available options - on request only:

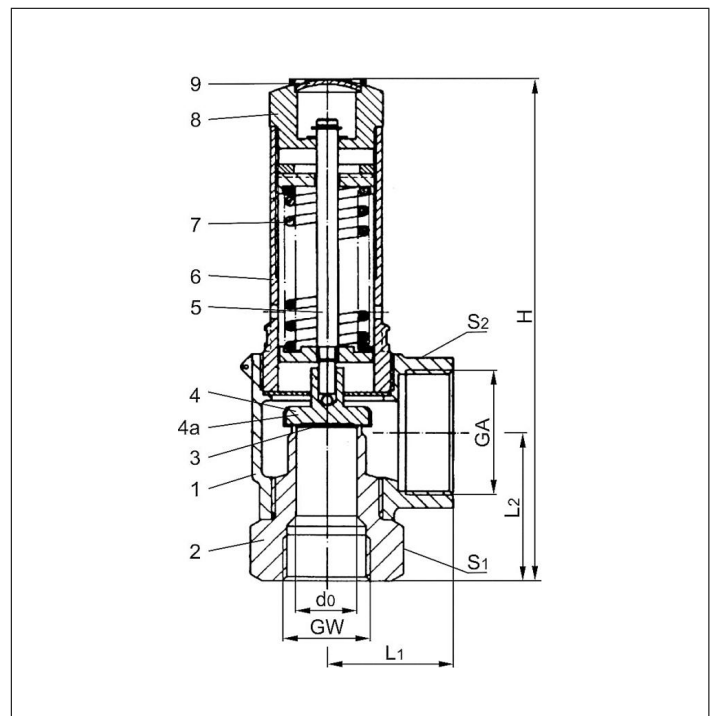
- stainless steel inlet body - material 1.4571
- external parts nickel plated



Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers.

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	CW614N	B 111 UNS C28000
3 Valve seal	PTFE/Carbon filled or EPDM	
4 Disc metal seated	1.4541	A 276 Grade 321
4a Disc soft seated	CW614N	B 249 UNS C38500
5 Stem	CW614N	B 249 UNS C38500
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Lifting device	CW614N	B 249 UNS C38500
9 Closing cap	CW507L	B 36 UNS C26800



Type 06395	Technical data				
Nominal size	GW	1/2	3/4	1	1-1/4
Orifice	d ₀	15	18	23	28
Dimension code	.X.	0400	0600	1000	1200
Set pressure range metal seated	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range PTFE seal	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range EPDM seal	bar	0.5-3	0.5-3	0.5-3	0.5-3
Outlet	GA	1	1-1/4	1-1/2	2
Height	H	144	166	195	222
Length	L ₁	36	50	48	58
Length	L ₂	41	48	58	68
Wrench size across flats	S ₁	32	41	50	55
Wrench size across flats	S ₂	41	50	58	70
Weight	ca. kg	0.75	1.25	1.85	3.0
Coeff. of discharge from 3.0 bar	α _w	0.64	0.58	0.57	0.66

Dimensions in mm.

Safety Valves

Type 06395



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1/2	3/4	1	1-1/4
	d_0 (mm)	15.0	18.0	23.0	28.0	15.0	18.0	23.0	28.0
	A_0 (mm ²)	176.7	254.5	415.5	615.5	176.7	254.5	415.5	615.5
Medium	Air					Saturated steam			
0.5		93	131	205	336	77	109	171	281
1.0		142	198	317	523	113	156	251	414
2.0		236	317	509	863	186	250	400	678
3.0		333	435	697	1197	260	339	544	934
4.0		418	545	875	1502	325	424	680	1166
5.0		504	658	1055	1811	389	507	814	1397
6.0		589	769	1233	2117	453	591	948	1626
7.0		674	880	1412	2422	516	673	1080	1854
8.0		762	994	1595	2737	579	756	1213	2081
9.0		847	1105	1773	3043	642	838	1344	2307
10.0		934	1219	1956	3357	705	920	1476	2532
12.0		1105	1442	2314	3972	830	1083	1737	2981
14.0		1276	1666	2673	-	954	1245	1998	-
16.0		1447	1889	3031	-	1078	1407	2258	-
18.0		1619	2112	3389	-	1203	1570	2518	-
20.0		1807	2358	3783	-	1327	1732	2779	-
22.0		1979	2583	4145	-	1452	1895	3040	-
24.0		2152	2809	4506	-	1577	2058	3302	-
25.0		2238	2921	4687	-	1639	2139	3433	-

Safety Valves

Type 06395



Safety Valves, angle type, bronze, type tested TÜV-SV.910. S/G

Standard safety valve

open bonnet, with lifting device and enlarged outlet

In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06395.X.0080

metal to metal seated for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +225°C / +437°F (498K)

Part No. 06395.X.0580

with PTFE/carbon filled valve seal for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +185°C / +365°F (458K)

Part No. 06395.X.0680

with EPDM valve seal for saturated steam, air and similar gases

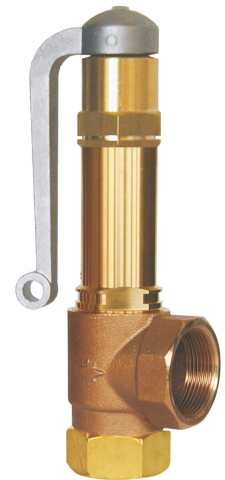
Working temperature: -40°C / -40°F (233K) up to +150°C / +302°F (423K)

Available options - on request only:

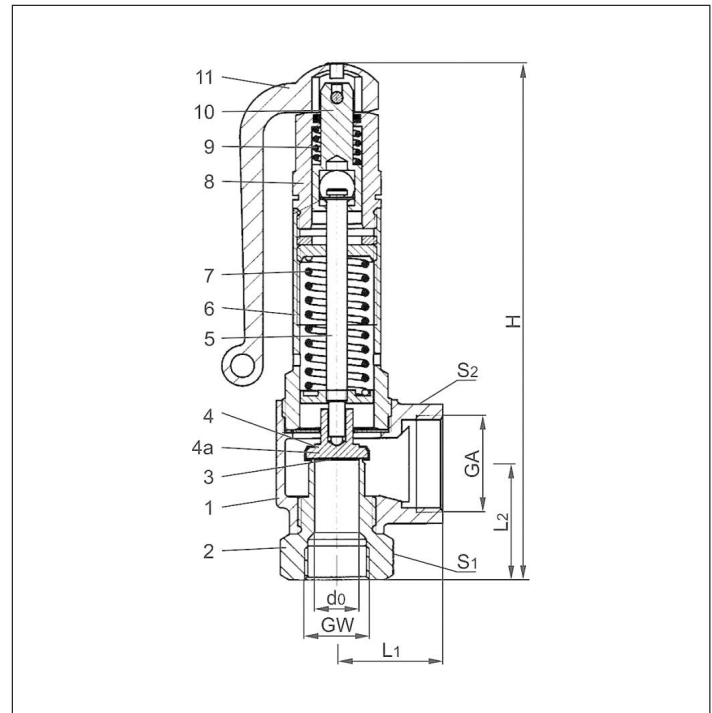
- stainless steel inlet body - material 1.4571
- external parts nickel plated

Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers.



Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	CW614N	B 111 UNS C28000
3 Valve seal	PTFE/Carbon filled or EPDM	
4 Disc metal seated	1.4541	A 276 Grade 321
4a Disc soft seated	CW614N	B 249 UNS C38500
5 Stem	CW614N	B 249 UNS C38500
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Lifting cap	CW614N	B 249 UNS C38500
9 Lifting spring	1.4571	A 313 Grade 316Ti
10 Lifting stem	CW614N	B 249 UNS C38500
11 Lever	1.4408	A 351 CF8M



Type 06395	Technical data				
Nominal size	GW	1/2	3/4	1	1-1/4
Orifice	d ₀	15	18	23	28
Dimension code	.X.	0400	0600	1000	1200
Set pressure range metal seated	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range PTFE seal	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range EPDM seal	bar	0.5-3	0.5-7	0.5-4.6	0.5-6
Outlet	GA	1	1-1/4	1-1/2	2
Height	H	180	200	245	270
Length	L ₁	36	50	48	58
Length	L ₂	41	48	58	68
Wrench size across flats	S ₁	32	41	50	55
Wrench size across flats	S ₂	41	50	58	70
Weight	ca. kg	0.95	1.45	2.4	3.7
Coeff. of discharge from 3.0 bar	α _w	0.64	0.58	0.57	0.66

Dimensions in mm.

Safety Valves

Type 06395



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1/2	3/4	1	1-1/4
	d_0 (mm)	15.0	18.0	23.0	28.0	15.0	18.0	23.0	28.0
	A_0 (mm ²)	176.7	254.5	415.5	615.5	176.7	254.5	415.5	615.5
Medium	Air					Saturated steam			
0.5		93	131	205	336	77	109	171	281
1.0		142	198	317	523	113	156	251	414
2.0		236	317	509	863	186	250	400	678
3.0		333	435	697	1197	260	339	544	934
4.0		418	545	875	1502	325	424	680	1166
5.0		504	658	1055	1811	389	507	814	1397
6.0		589	769	1233	2117	453	591	948	1626
7.0		674	880	1412	2422	516	673	1080	1854
8.0		762	994	1595	2737	579	756	1213	2081
9.0		847	1105	1773	3043	642	838	1344	2307
10.0		934	1219	1956	3357	705	920	1476	2532
12.0		1105	1442	2314	3972	830	1083	1737	2981
14.0		1276	1666	2673	-	954	1245	1998	-
16.0		1447	1889	3031	-	1078	1407	2258	-
18.0		1619	2112	3389	-	1203	1570	2518	-
20.0		1807	2358	3783	-	1327	1732	2779	-
22.0		1979	2583	4145	-	1452	1895	3040	-
24.0		2152	2809	4506	-	1577	2058	3302	-
25.0		2238	2921	4687	-	1639	2139	3433	-

Safety Valves

Type 06395



Safety Valves, angle type, bronze, type tested TÜV-SV.910. S/G

Standard safety valve, open bonnet, with lifting device and enlarged outlet

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06395.X.2000 (Inlet: male thread type G (BSPP) acc. to ISO 228/1)

metal to metal seated for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +225°C / +437°F (498K)

Part No. 06395.X.2500 (Inlet: male thread type G (BSPP) acc. to ISO 228/1)

with PTFE/carbon filled valve seal for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +185°C / +365°F (458K)

Part No. 06395.X.2600 (Inlet: male thread type G (BSPP) acc. to ISO 228/1)

with EPDM valve seal for saturated steam, air and similar gases

Working temperature: -40°C / -40°F (233K) up to +150°C / +302°F (423K)

Available options - on request only:

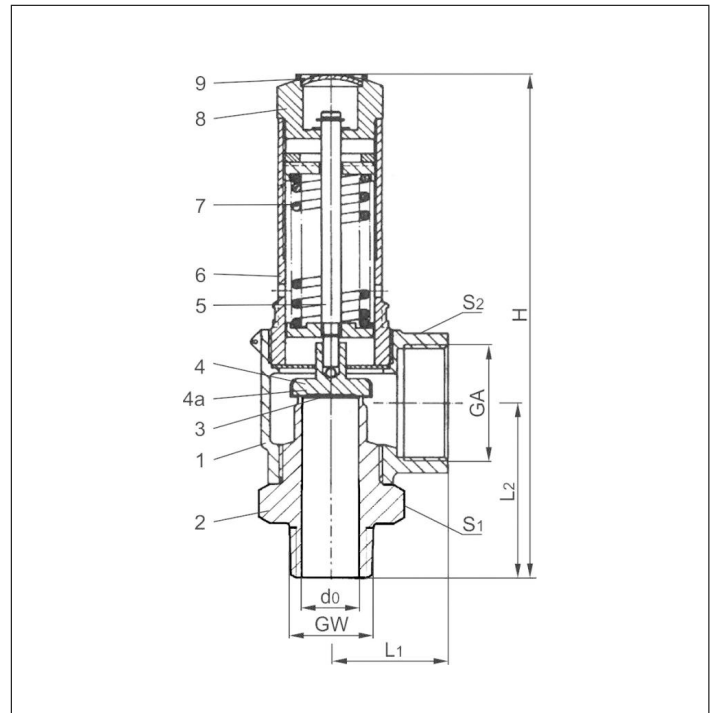
external parts nickel plated



Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers.

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	1.4301	A 276 Grade 304
3 Valve seal	PTFE/Carbon filled or EPDM	
4 Disc metal seated	1.4541	A 276 Grade 321
4a Disc soft seated	CW614N	B 249 UNS C38500
5 Stem	CW614N	B 249 UNS C38500
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Lifting device	CW614N	B 249 UNS C38500
9 Closing cap	CW507L	B 36 UNS C26800



Type 06395	Technical data				
Nominal size	GW	1/2	3/4	1	1-1/4
Orifice	d ₀	15	18	23	28
Dimension code	.X.	0400	0600	1000	1200
Set pressure range metal seated	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range PTFE seal	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range EPDM seal	bar	0.5-3	0.5-7	0.5-4.6	0.5-6
Outlet	GA	1	1-1/4	1-1/2	2
Height	H	151	177	206	236
Length	L ₁	36	50	48	58
Length	L ₂	48	59	69	82
Wrench size across flats	S ₁	32	41	50	55
Wrench size across flats	S ₂	41	50	58	70
Weight	ca. kg	0.755	1.3	1.95	3.15
Coeff. of discharge from 3.0 bar	α _w	0.64	0.58	0.57	0.66

Dimensions in mm.

Safety Valves

Type 06395



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1/2	3/4	1	1-1/4
	d_0 (mm)	15.0	18.0	23.0	28.0	15.0	18.0	23.0	28.0
	A_0 (mm ²)	176.7	254.5	415.5	615.5	176.7	254.5	415.5	615.5
Medium	Air					Saturated steam			
0.5		93	131	205	336	77	109	171	281
1.0		142	198	317	523	113	156	251	414
2.0		236	317	509	863	186	250	400	678
3.0		333	435	697	1197	260	339	544	934
4.0		418	545	875	1502	325	424	680	1166
5.0		504	658	1055	1811	389	507	814	1397
6.0		589	769	1233	2117	453	591	948	1626
7.0		674	880	1412	2422	516	673	1080	1854
8.0		762	994	1595	2737	579	756	1213	2081
9.0		847	1105	1773	3043	642	838	1344	2307
10.0		934	1219	1956	3357	705	920	1476	2532
12.0		1105	1442	2314	3972	830	1083	1737	2981
14.0		1276	1666	2673	-	954	1245	1998	-
16.0		1447	1889	3031	-	1078	1407	2258	-
18.0		1619	2112	3389	-	1203	1570	2518	-
20.0		1807	2358	3783	-	1327	1732	2779	-
22.0		1979	2583	4145	-	1452	1895	3040	-
24.0		2152	2809	4506	-	1577	2058	3302	-
25.0		2238	2921	4687	-	1639	2139	3433	-

Safety Valves

Type 06395



Safety Valves, angle type, bronze, type tested TÜV-SV.910. S/G

Standard safety valve, open bonnet, with lifting device and enlarged outlet

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06395.X.3000 (Inlet: male thread type R (BSPT) acc. to ISO 7/1)

metal to metal seated for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +225°C / +437°F (498K)

Part No. 06395.X.3500 (Inlet: male thread type R (BSPT) acc. to ISO 7/1)

with PTFE/carbon filled valve seal for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +185°C / +365°F (458K)

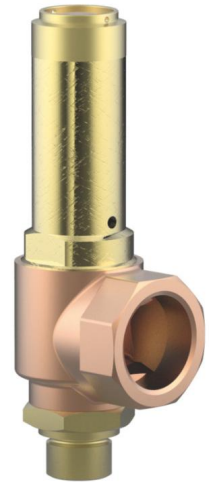
Part No. 06395.X.3600 (Inlet: male thread type R (BSPT) acc. to ISO 7/1)

with EPDM valve seal for saturated steam, air and similar gases

Working temperature: -40°C / -40°F (233K) up to +150°C / +302°F (423K)

Available options - on request only:

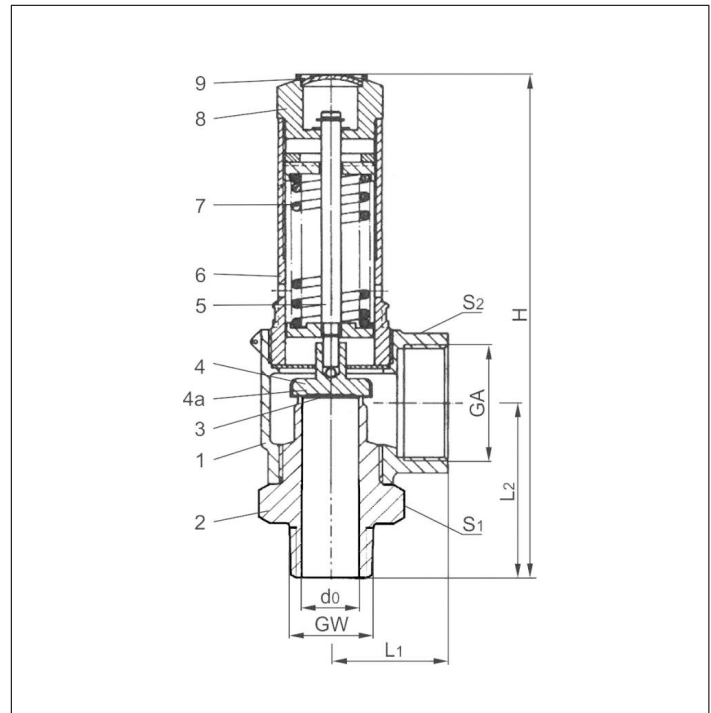
external parts nickel plated



Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers.

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	CW614N	B 111 UNS C28000
3 Valve seal	PTFE/Carbon filled or EPDM	
4 Disc metal seated	1.4541	A 276 Grade 321
4a Disc soft seated	CW614N	B 249 UNS C38500
5 Stem	CW614N	B 249 UNS C38500
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Lifting device	CW614N	B 249 UNS C38500
9 Closing cap	CW507L	B 36 UNS C26800



Type 06395	Technical data				
Nominal size	GW	1/2	3/4	1	1-1/4
Orifice	d ₀	15	18	23	28
Dimension code	.X.	0400	0600	1000	1200
Set pressure range metal seated	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range PTFE seal	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range EPDM seal	bar	0.5-3	0.5-7	0.5-4.6	0.5-6
Outlet	GA	1	1-1/4	1-1/2	2
Height	H	151	177	206	236
Length	L ₁	36	50	48	58
Length	L ₂	48	59	69	82
Wrench size across flats	S ₁	32	41	50	55
Wrench size across flats	S ₂	41	50	58	70
Weight	ca. kg	0.755	1.3	1.95	3.15
Coeff. of discharge from 3.0 bar	α _w	0.64	0.58	0.57	0.66

Dimensions in mm.

Safety Valves

Type 06395



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1/2	3/4	1	1-1/4
	d_0 (mm)	15.0	18.0	23.0	28.0	15.0	18.0	23.0	28.0
	A_0 (mm ²)	176.7	254.5	415.5	615.5	176.7	254.5	415.5	615.5
Medium	Air					Saturated steam			
0.5		93	131	205	336	77	109	171	281
1.0		142	198	317	523	113	156	251	414
2.0		236	317	509	863	186	250	400	678
3.0		333	435	697	1197	260	339	544	934
4.0		418	545	875	1502	325	424	680	1166
5.0		504	658	1055	1811	389	507	814	1397
6.0		589	769	1233	2117	453	591	948	1626
7.0		674	880	1412	2422	516	673	1080	1854
8.0		762	994	1595	2737	579	756	1213	2081
9.0		847	1105	1773	3043	642	838	1344	2307
10.0		934	1219	1956	3357	705	920	1476	2532
12.0		1105	1442	2314	3972	830	1083	1737	2981
14.0		1276	1666	2673	-	954	1245	1998	-
16.0		1447	1889	3031	-	1078	1407	2258	-
18.0		1619	2112	3389	-	1203	1570	2518	-
20.0		1807	2358	3783	-	1327	1732	2779	-
22.0		1979	2583	4145	-	1452	1895	3040	-
24.0		2152	2809	4506	-	1577	2058	3302	-
25.0		2238	2921	4687	-	1639	2139	3433	-

Safety Valves

Type 06395



Safety Valves, angle type, bronze, type tested TÜV-SV.910. S/G

Standard safety valve, open bonnet, with lifting device and enlarged outlet

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06395.X.2080 (Inlet: male thread type G (BSPP) acc. to ISO 228/1)

Part No. 06395.X.3080 (Inlet: male thread type R (BSPT) acc. to ISO 7/1)

metal to metal seated for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +225°C / +437°F (498K)

Part No. 06395.X.2580 (Inlet: male thread type G (BSPP) acc. to ISO 228/1)

Part No. 06395.X.3580 (Inlet: male thread type R (BSPT) acc. to ISO 7/1)

with PTFE/carbon filled valve seal for saturated steam, air and similar gases

Working temperature: -50°C / -58°F (223K) up to +185°C / +365°F (458K)

Part No. 06395.X.2680 (Inlet: male thread type G (BSPP) acc. to ISO 228/1)

Part No. 06395.X.3680 (Inlet: male thread type R (BSPT) acc. to ISO 7/1)

with EPDM valve seal for saturated steam, air and similar gases

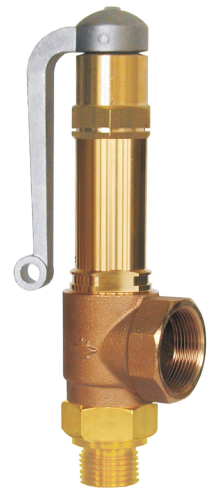
Working temperature: -40°C / -40°F (233K) up to +150°C / +302°F (423K)

Available options - on request only:

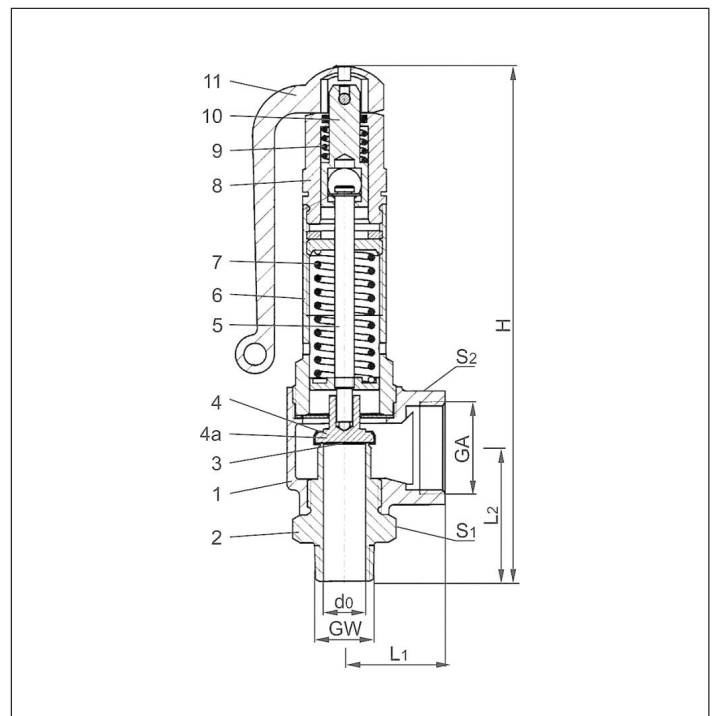
· stainless steel inlet body - material 1.4571 · external parts nickel plated

Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers.



Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	CW614N	B 111 UNS C28000
3 Valve seal	PTFE/Carbon filled or EPDM	
4 Disc metal seated	1.4541	A 276 Grade 321
4a Disc soft seated	CW614N	B 249 UNS C38500
5 Stem	CW614N	B 249 UNS C38500
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring	1.4571	A 313 Grade 316Ti
8 Lifting cap	CW614N	B 249 UNS C38500
9 Lifting spring	1.4571	A 313 Grade 316Ti
10 Lifting stem	CW614N	B 249 UNS C38500
11 Lever	1.4408	A 351 CF8M



Type 06395	Technical data				
Nominal size	GW	1/2	3/4	1	1-1/4
Orifice	d ₀	15	18	23	28
Dimension code	.X.	0400	0600	1000	1200
Set pressure range metal seated	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range PTFE seal	bar	0.5-25	0.5-25	0.5-25	0.5-12
Set pressure range EPDM seal	bar	0.5-3	0.5-7	0.5-4.6	0.5-6
Outlet	GA	1	1-1/4	1-1/2	2
Height	H	187	209	256	284
Length	L ₁	36	50	48	58
Length	L ₂	48	59	69	82
Wrench size across flats	S ₁	32	41	50	55
Wrench size across flats	S ₂	41	50	58	70
Weight	ca. kg	0.955	1.5	2.5	3.85
Coeff. of discharge from 3.0 bar	α _w	0.64	0.58	0.57	0.66

Dimensions in mm.

Safety Valves

Type 06395



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1/2	3/4	1	1-1/4
	d_0 (mm)	15.0	18.0	23.0	28.0	15.0	18.0	23.0	28.0
	A_0 (mm ²)	176.7	254.5	415.5	615.5	176.7	254.5	415.5	615.5
Medium	Air					Saturated steam			
0.5		93	131	205	336	77	109	171	281
1.0		142	198	317	523	113	156	251	414
2.0		236	317	509	863	186	250	400	678
3.0		333	435	697	1197	260	339	544	934
4.0		418	545	875	1502	325	424	680	1166
5.0		504	658	1055	1811	389	507	814	1397
6.0		589	769	1233	2117	453	591	948	1626
7.0		674	880	1412	2422	516	673	1080	1854
8.0		762	994	1595	2737	579	756	1213	2081
9.0		847	1105	1773	3043	642	838	1344	2307
10.0		934	1219	1956	3357	705	920	1476	2532
12.0		1105	1442	2314	3972	830	1083	1737	2981
14.0		1276	1666	2673	-	954	1245	1998	-
16.0		1447	1889	3031	-	1078	1407	2258	-
18.0		1619	2112	3389	-	1203	1570	2518	-
20.0		1807	2358	3783	-	1327	1732	2779	-
22.0		1979	2583	4145	-	1452	1895	3040	-
24.0		2152	2809	4506	-	1577	2058	3302	-
25.0		2238	2921	4687	-	1639	2139	3433	-

Safety Valves

Type 06810, Type 06815



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L

Standard safety valve

metal to metal seated, "cleaned and degreased for oxygen service"

closed bonnet, gastight cap or lifting device

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06810.X.000000M (Pmax 550.0 bar)

Part No. 06810.X.000000H (Pmax 550.0 bar) stellited version
with gastight cap

Part No. 06815.X.000000M (Pmax 400.0 bar)

Part No. 06815.X.000000H (Pmax 400.0 bar) stellited version
with lifting device

Available options - on request only:

· Flange-, NPT- or Tri-Clamp connection for in- and outlet

· Inlet: Cone & thread connection for d0 6mm - 9M 13/16"-16 UN or 12M 3/4" - 14NPS

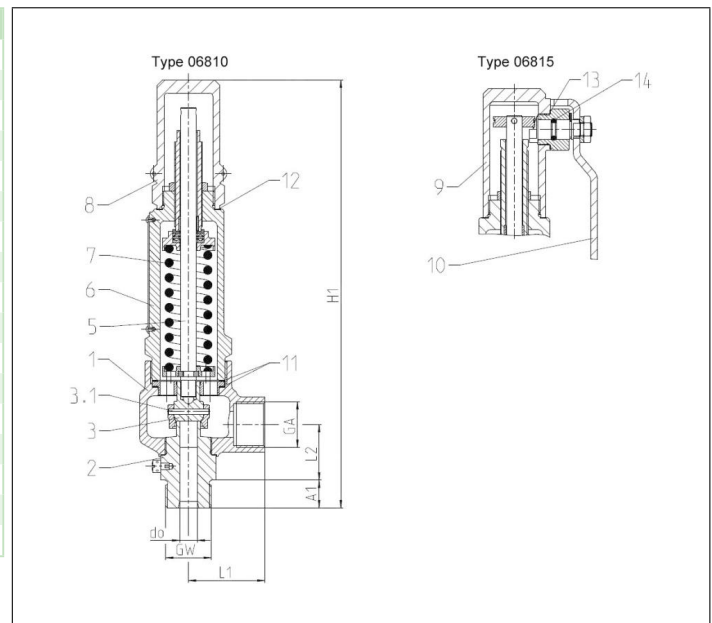


Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases, vapours and liquids. Working temperature: -270°C / -454°F (3K) up to +400°C / +752°F (673K)

Pressure-temperature must be observed, suitable for horizontal installation from 20 bar up to 300 bar

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF 8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4408	A 351 CF8M
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4408	A 351 CF8M
9 Lifting cap	1.4408	A 351 CF8M
10 Lever	1.4301	A 276 Grade 304
Spare Parts		
2 Inlet body	1.4571	316Ti
3 Disc	1.4571	316Ti
3.1 Split pin	1.4310	301
11 Gasket	Graphite	
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



Type 06810, 06815	Technical data							
Nominal size	GW	1/2	1/2	3/4	3/4	1/2	1/2	3/4
Orifice	d ₀	6.0	6.0	6.0	6.0	10.0	10.0	10.0
Dimension code	.X.	0622	0623	0632	0633	1022	1023	1033
Set pressure range	bar	30-400	30-400	30-550	30-550	0.5-180	0.5-180	0.5-180
Outlet	GA	1/2	3/4	1/2	3/4	1/2	3/4	3/4
Height	H ₁	245	245	247	247	245	245	245
Length	L ₁	44	44	44	44	44	44	44
Length	L ₂	32	32	32	32	32	32	32
Length	A ₁	14	14	16	16	14	14	16
Weight 06810	ca. kg	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Weight 06815	ca. kg	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Coeff. of discharge gases, vapours	α _w	0.52	0.52	0.52	0.52	0.5	0.5	0.5
Coeff. of discharge fluids	α _w	0.42	0.42	0.42	0.42	0.5	0.5	0.5

Dimensions in mm.

Safety Valves

Type 06810, Type 06815



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

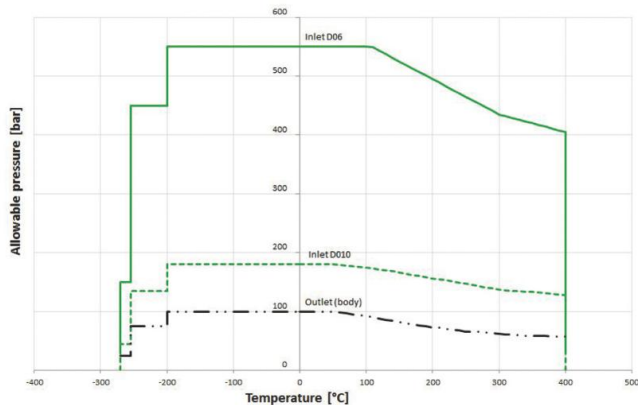
d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2			3/4		
	d_0 (mm)	6.0			6.0		
	A_0 (mm ²)	28.27			28.27		
Medium	A	B	C	A	B	C	
30.0	254	350	3473	254	350	3473	
40.0	336	468	4011	336	468	4011	
60.0	503	708	4912	503	708	4912	
80.0	670	953	5672	670	953	5672	
100.0	845	1203	6341	845	1203	6341	
120.0	1032	1451	6947	1032	1451	6947	
140.0	1230	1703	7503	1230	1703	7503	
160.0	1437	1952	8021	1437	1952	8021	
180.0	1688	2194	8508	1688	2194	8508	
200.0	2215	2429	8968	2215	2429	8968	
220.0	-	2659	9406	-	2659	9406	
240.0	-	2893	9824	-	2893	9824	
260.0	-	3133	10225	-	3133	10225	
280.0	-	3374	10611	-	3374	10611	
300.0	-	3614	10983	-	3614	10983	
320.0	-	3854	11344	-	3854	11344	
340.0	-	4094	11693	-	4094	11693	
360.0	-	4334	12032	-	4334	12032	
380.0	-	4575	12361	-	4575	12361	
400.0	-	4815	12683	-	4815	12683	
420.0	-	-	-	-	5055	12996	
440.0	-	-	-	-	5295	13302	
460.0	-	-	-	-	5535	13601	
480.0	-	-	-	-	5776	13893	
500.0	-	-	-	-	6016	14180	
520.0	-	-	-	-	6256	14460	
550.0	-	-	-	-	6616	14872	

Pressure-Temperature Rating

Maximum allowable set pressure safety valve type 0681X



Safety Valves

Type 06810, Type 06815



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2 & 3/4		
	d_0 (mm)	10.0		
	A_0 (mm ²)	78.5		
	Medium	A	B	C
0.5		33	40	1549
1.0		44	55	2097
2.0		68	86	2966
3.0		90	116	3632
4.0		113	145	4194
5.0		135	175	4689
6.0		157	205	5137
7.0		179	234	5548
8.0		201	264	5931
9.0		223	294	6291
10.0		245	324	6631
12.0		288	384	7264
14.0		331	443	7846
16.0		374	503	8388
18.0		418	562	8897
20.0		461	627	9378
25.0		569	777	10485
30.0		678	936	11486
35.0		788	1087	12406
40.0		899	1249	13262
45.0		1009	1402	14067
50.0		1120	1568	14828
60.0		1343	1890	16243
70.0		1566	2216	17545
80.0		1791	2546	18756
90.0		2020	2878	19894
100.0		2256	3212	20970
120.0		2756	3877	22971
130.0		3018	4197	23909
140.0		-	4549	24812
160.0		-	5213	26525
180.0		-	5861	28134

Safety Valves

Type 06810, Type 06815 - Sealing plate



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L

Standard safety valve
with soft valve seal, "cleaned and degreased"
closed bonnet, gastight cap or lifting device
Inlet: male thread type G (BSPP) acc. to ISO 228/1
Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06810.X.000001L (Pmax 150.0 bar)
with gastight cap

Part No. 06815.X.000001L (Pmax 150.0 bar)
with lifting device

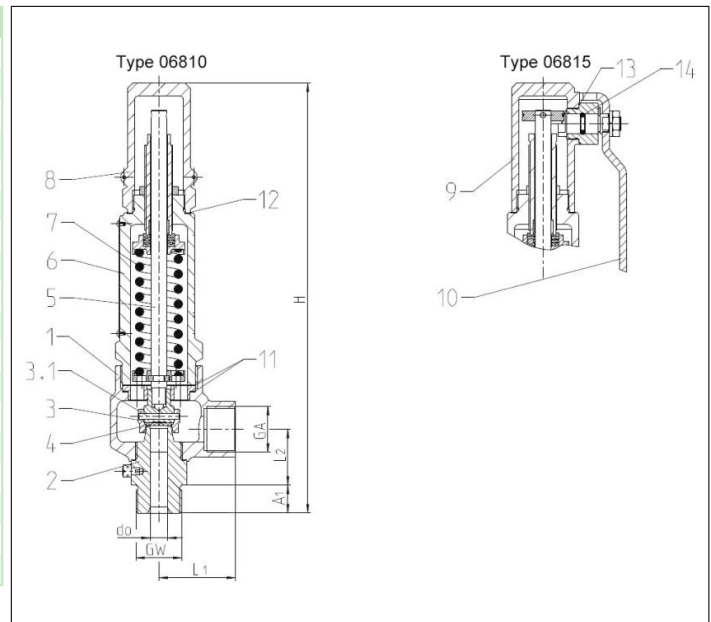
Available options - on request only:
· Flange-, NPT- or Tri-Clamp connection for in- and outlet



Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels.
Approved for gases, vapours and liquids. Working temperature: -270°C / -454°F (3K) up to +300°C / +572°F (573K)
Pressure-temperature must be observed, suitable for horizontal installation from 20 bar

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 Sealing plate	VESPEL	
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4408	A 351 CF8M
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4408	A 351 CF8M
9 Lifting cap	1.4408	A 351 CF8M
10 Lever	1.4301	A 276 Grade 304
Spare Parts		
2 Inlet body	1.4571	316Ti
3.1 Split pin	1.4571	316Ti
4 Sealing plate	VESPEL	
11 Gasket	1.4404 Graphite	316L Graphite
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



Type 06810, 06815	Technical Data			
D ₀	[mm]	10		
Inlet	GW	1/2	1/2	3/4
Outlet	GW	1/2	3/4	3/4
Dimension code	.X.	1022	1023	1033
Height	H	245.0	245.0	245.0
Length	L1	44.0	44.0	44.0
Length	L2	32.0	32.0	32.0
Length	A1	14.0	14.0	16.0
Weight 06810	ca. kg	1.8	1.8	1.8
Weight 06815	ca. kg	2.0	2.0	2.0
Coeff. of discharge	α _w S/G/L	0.50	0.50	0.50
Min. set pressure	bar-g	1.5	1.5	1.5
Max. set pressure	bar-g	150.0	150.0	150.0
Min. temperature	°C	-270	-270	-270
Max. temperature	°C	+300	+300	+300

Dimensions in mm.

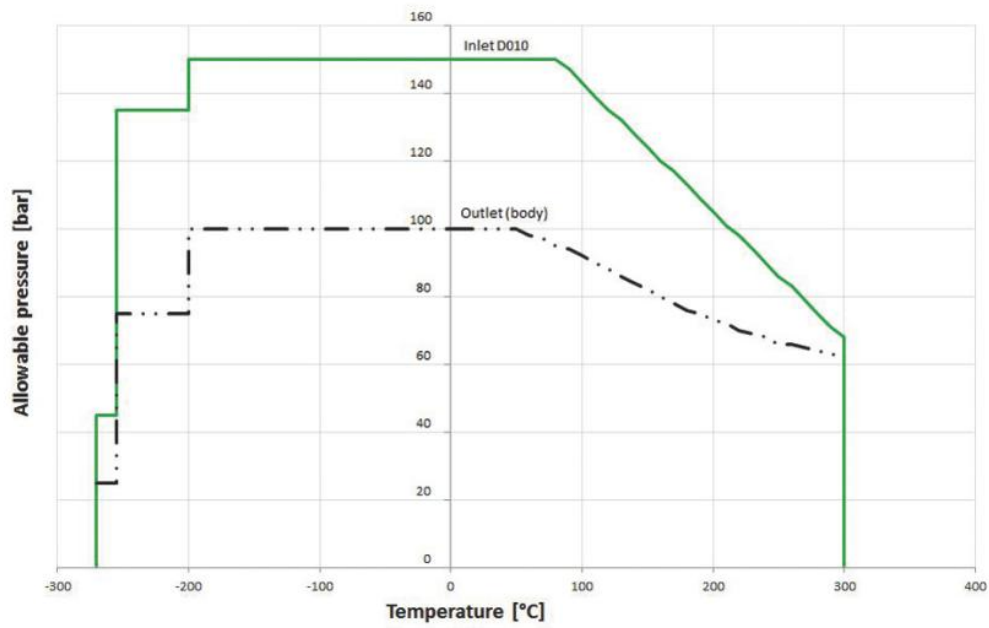
Safety Valves

Type 06810, Type 06815 - Sealing plate



Pressure-Temperature Rating

Maximum allowable set pressure safety valve type 0681X



Safety Valves

Type 06810, Type 06815 - Sealing plate



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2, 3/4 & 1		
	d_0 (mm)	10.0		
	A_0 (mm ²)	78.5		
	Medium	A	B	C
0.2	-	-	-	-
0.5	-	40	1549	
1.0	-	55	2097	
2.0	-	86	2966	
3.0	-	116	3632	
4.0	-	145	4194	
5.0	-	175	4689	
6.0	-	205	5137	
7.0	-	234	5548	
8.0	-	264	5931	
9.0	-	294	6291	
10.0	-	324	6631	
15.0	-	472	6947	
20.0	-	627	9378	
30.0	-	936	11486	
40.0	-	1249	13262	
50.0	-	1568	14828	
60.0	-	1890	16243	
65.0	-	2045	16906	
70.0	-	2216	-	
80.0	-	2546	-	
90.0	-	2878	-	
100.0	-	3212	-	
110.0	-	3544	-	
120.0	-	3877	-	
140.0	-	4549	-	
150.0	-	4872	-	

Safety Valves

Type 06810, Type 06815 - O-ring



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L

Standard safety valve
with O-ring valve seal, "cleaned and degreased"
closed bonnet, gastight cap or lifting device
Inlet: male thread type G (BSPP) acc. to ISO 228/1
Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06810.X.000002N (Pmax 15.99 bar)

Part No. 06815.X.000002N (Pmax 15.99 bar)

with NBR O-ring valve seal

Part No. 06810.X.000002F (Pmin 16.00 bar, Pmax 180.0 bar)

Part No. 06815.X.000002F (Pmin 16.00 bar, Pmax 180.0 bar)

with FKM O-ring valve seal

Available options - on request only:

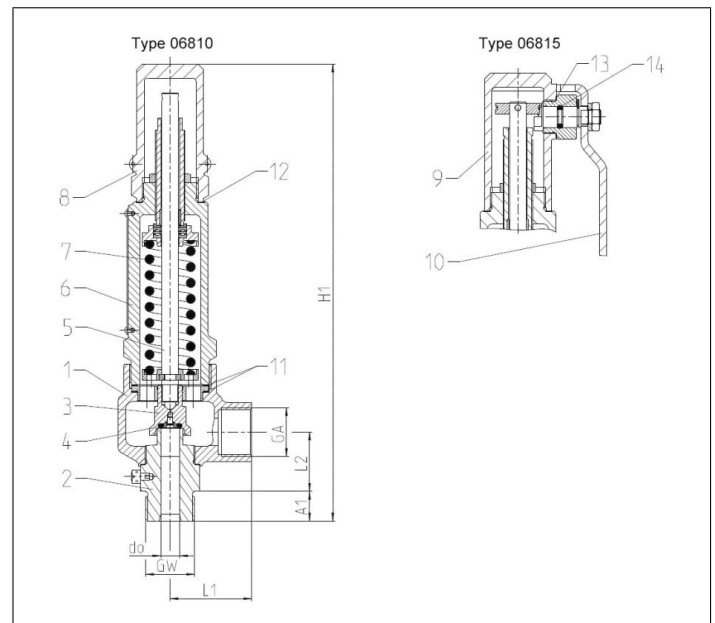
· Flange-, NPT- or Tri-Clamp connection for in- and outlet



Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases and liquids. Working temperature: 0°C / 32°F (273K) up to 70°C / 158°F (343K), suitable for horizontal installation from 20 bar.

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 O-ring	NBR or FKM	
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4408	A 351 CF8M
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4408	A 351 CF8M
9 Lifting cap	1.4408	A 351 CF8M
10 Lever	1.4301	A 276 Grade 304
Spare Parts		
3 Complete disc	1.4571+NBR or FKM	316Ti + NBR or FKM
4 O-ring + screw	NBR or FKM	
11 Gasket	1.4404 Graphite	316L Graphite
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



Type 06810, 06815	Technical Data			
D ₀	[mm]	10		
Inlet	GW	1/2	1/2	3/4
Outlet	GW	1/2	3/4	3/4
Dimension code	.X.	1022	1023	1033
Height	H1	245.0	245.0	245.0
Length	L1	44.0	44.0	44.0
Length	L2	32.0	32.0	32.0
Length	A1	14.0	14.0	16.0
Weight 06810	ca. kg	1.8	1.8	1.8
Weight 06815	ca. kg	2.0	2.0	2.0
Coeff. of discharge	α_w S/G/L	0.50	0.50	0.50
Min. set pressure	bar-g	3.0	3.0	3.0
Max. set pressure	bar-g	180.0	180.0	180.0

Dimensions in mm.

Safety Valves

Type 06810, Type 06815 - O-ring



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2, 3/4 & 1		
	d_0 (mm)	10.0		
	A_0 (mm ²)	78.5		
	Medium	A	B	C
3.0	-	116	3632	
4.0	-	145	4194	
5.0	-	175	4689	
6.0	-	205	5137	
7.0	-	234	5548	
8.0	-	264	5931	
9.0	-	294	6291	
10.0	-	324	6631	
12.0	-	384	7264	
14.0	-	443	7846	
16.0	-	503	8388	
18.0	-	562	8897	
20.0	-	627	9378	
25.0	-	777	10485	
30.0	-	936	11486	
35.0	-	1087	12406	
40.0	-	1249	13262	
45.0	-	1402	14067	
50.0	-	1568	14828	
60.0	-	1890	16243	
70.0	-	2216	17545	
80.0	-	2546	18756	
90.0	-	2878	19894	
100.0	-	3212	20970	
110.0	-	3531	21993	
120.0	-	3877	22971	
130.0	-	4197	23909	
140.0	-	4549	24812	
150.0	-	4872	25683	
160.0	-	5213	26525	
170.0	-	5537	27341	
180.0	-	5861	28134	

Safety Valves

Type 06820



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L

Standard safety valve

metal to metal seated, "cleaned and degreased for oxygen service"

closed bonnet, gastight cap

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06820.X.000000M (Pmax 550.0 bar)

Part No. 06820.X.000000H (Pmax 550.0 bar) stellited version

with gastight cap



Available options - on request only:

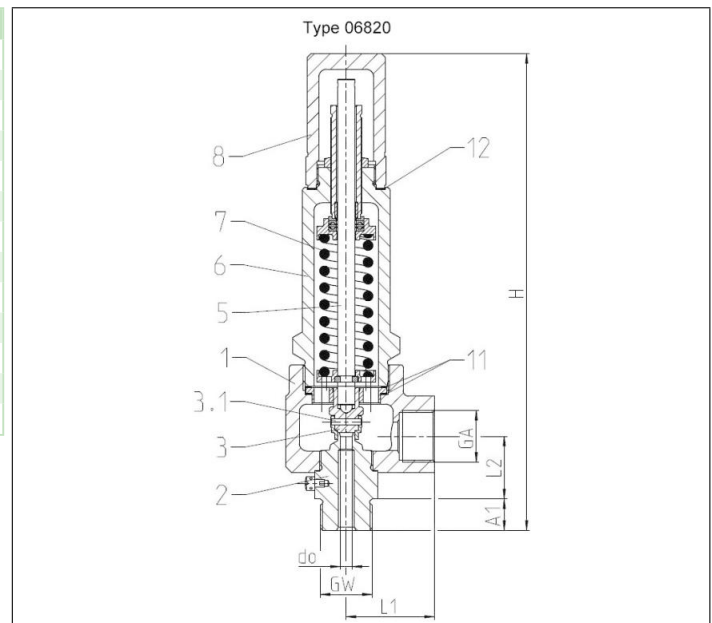
- Flange- or NPT- connection for in- and outle
- Inlet: Cone & thread connection for d0 6mm - 9M 13/16"-16 UN or 12M 3/4" - 14NPS
- Special materials such as Monel, Hastelloy or Duplex for medium wetted parts

Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases, vapours and liquids. Working temperature: -270°C / -454°F (3K) up to +400°C / +752°F (673K)

Pressure-temperature must be observed, suitable for horizontal installation up to 300 bar

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4404	A 276 Grade 316L
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4404	A 276 Grade 316L
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4404	A 276 Grade 316L
Spare Parts		
2 Inlet body	1.4571	316Ti
3 Disc	1.4571	316Ti
3.1 Split pin	1.4310	301
11 Gasket	Graphite	
12 Gasket	Graphite	



Type 06820	Technical data	
Nominal size	GW	3/4
Orifice	d ₀	6.0
Dimension code	.X.	0633
Set pressure range	bar	30-550
Outlet	GA	3/4
Height	H ₁	247
Length	L ₁	45
Length	L ₂	29
Length	A ₁	16
Weight 06820	ca. kg	2.9
Coeff. of discharge gases, vapours	α _w	0.52
Coeff. of discharge fluids	α _w	0.42

Dimensions in mm.

Safety Valves

Type 06820



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

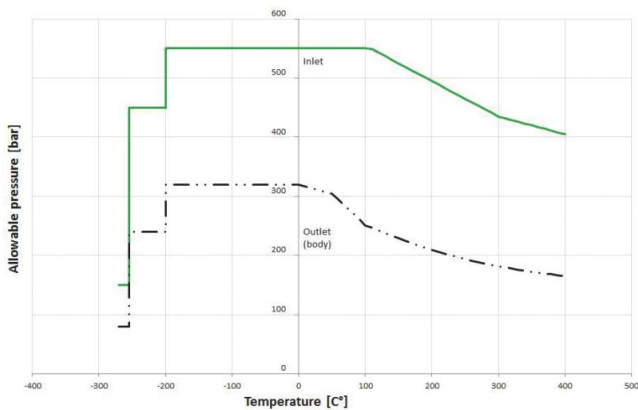
d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	3/4		
	d_0 (mm)	6.0		
	A_0 (mm ²)	28.27		
Medium	A	B	C	
30.0	254	350	3473	
40.0	336	468	4011	
60.0	503	708	4912	
80.0	670	953	5672	
100.0	845	1203	6341	
120.0	1032	1451	6947	
140.0	1230	1703	7503	
160.0	1437	1952	8021	
180.0	1688	2194	8508	
200.0	2215	2429	8968	
220.0	-	2659	9406	
240.0	-	2893	9824	
260.0	-	3133	10225	
280.0	-	3374	10611	
300.0	-	3614	10983	
320.0	-	3854	11344	
340.0	-	4094	11693	
360.0	-	4334	12032	
380.0	-	4575	12361	
400.0	-	4815	12683	
420.0	-	5055	12996	
440.0	-	5295	13302	
460.0	-	5535	13601	
480.0	-	5776	13893	
500.0	-	6016	14180	
520.0	-	6256	14460	
550.0	-	6616	14872	

Pressure-Temperature Rating

Maximum allowable set pressure safety valve type 06820



Safety Valves

Type 06850, Type 06855



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L

Standard safety valve
 metal to metal seated, "cleaned and degreased for oxygen service"
 closed bonnet, gastight cap or lifting device
 Inlet: male thread type G (BSPP) acc. to ISO 228/1
 Outlet: female thread type G (BSPP) acc. to ISO 228/1

- Part No. 06850.X.000000M (Pmax 20.0 bar)**
- Part No. 06850.X.000000H (Pmax 250.0 bar) stellited version**
with gastight cap
- Part No. 06855.X.000000M (Pmax 20.0 bar)**
- Part No. 06855.X.000000H (Pmax 250.0 bar) stellited version**
with lifting device

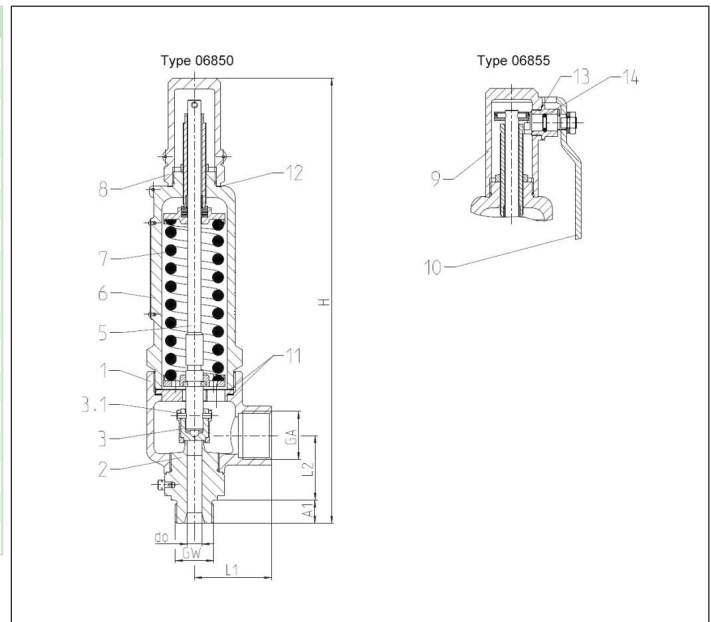


Available options - on request only:
 · Flange-, NPT- or Tri-Clamp connection for in- and outlet

Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels.
 Approved for gases, vapours and liquids. Working temperature: -270°C / -454°F (3K) up to +400°C / +752°F (673K)
 Pressure-temperature must be observed, suitable for horizontal installation from 20 bar

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4408	A 351 CF8M
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4408	A 351 CF8M
9 Lifting cap	1.4408	A 351 CF8M
10 Lever	1.4301	A 276 Grade 304
Spare Parts		
2 Inlet body	1.4571	316Ti
3 Disc	1.4571	316Ti
3.1 Split pin	1.4310	301
11 Gasket	1.4404 Graphite	316L Graphite
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



Type 06850, 06855	Technical data	Orifice									
		[mm]	10			14					
Inlet	GW	1/2	3/4	1	3/4	3/4	3/4	1	1	1	
Outlet	GW	1	1	1	1	1-1/4	1-1/2	1	1-1/4	1-1/2	
Dimension code	.X.	1024	1034	1044	1434	1435	1436	1444	1445	1446	
Height	H	305.0	307.0	309.0	310.5	310.5	310.5	312.5	312.5	312.5	
Length	L1	53.0	53.0	53.0	55.0	55.0	55.0	55.0	55.0	55.0	
Length	L2	44.5	44.5	44.5	48.2	48.2	48.2	48.2	48.2	48.2	
Length	A1	14.0	16.0	18.0	16.0	16.0	16.0	18.0	18.0	18.0	
Weight 06850	ca. kg	3.2	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.4	
Weight 06855	ca. kg	3.4	3.4	3.4	3.6	3.6	3.6	3.6	3.6	3.6	
coefficient of discharge	$\alpha_w D/G$	0.84	0.84	0.84	0.70	0.70	0.70	0.70	0.70	0.70	
coefficient of discharge	$\alpha_w F$	0.68	0.68	0.68	*	*	*	*	*	*	
Min. set pressure	bar-g	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Max. set pressure	bar-g	250.0	250.0	250.0	200.0	200.0	200.0	200.0	200.0	200.0	
Min. temperature	°C	-270	-270	-270	-270	-270	-270	-270	-270	-270	
Max. temperature	°C	+400	+400	+400	+400	+400	+400	+400	+400	+400	

Dimensions in mm. * 0.20-11.50 bar=0.50 / 11.51-74.99 bar=0.49 / 75.00-200.00 bar=0.46

Safety Valves

Type 06850, Type 06855

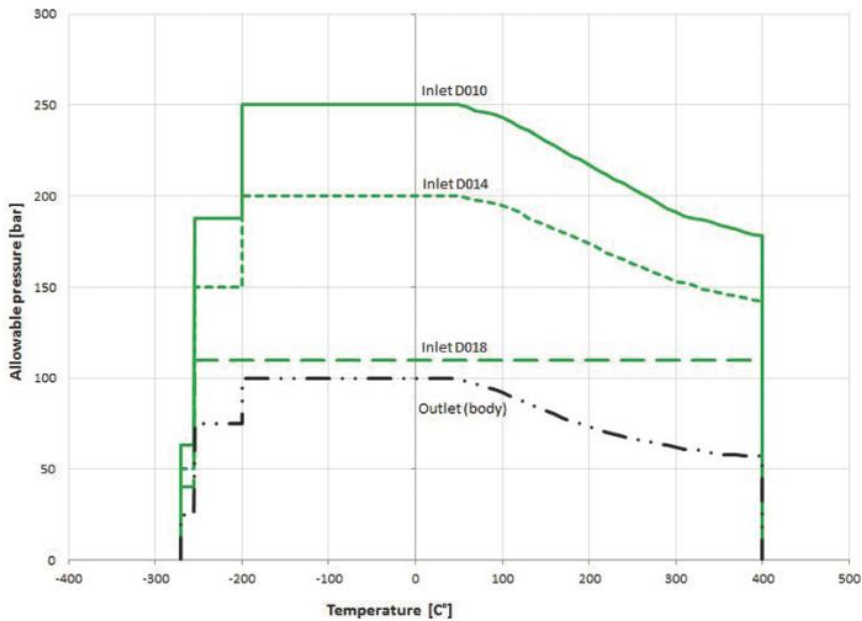


Type 06850, 06855		Technical data					
Orifice	[mm]	18					
Inlet	GW	1	1	1-1/4	1-1/4	1-1/2	1-1/2
Outlet	GW	1-1/2	2	1-1/2	2	1-1/2	2
Dimension code	.X.	1846	1847	1856	1857	1866	1867
Height	H	304.0	304.0	304.0	304.0	306.0	306.0
Length	L1	60.0	63.0	60.0	63.0	60.0	63.0
Length	L2	49.0	53.0	49.0	53.0	49.0	53.0
Length	A1	18.0	18.0	20.0	20.0	22.0	22.0
Weight 06850	ca. kg	3.9	4.1	3.9	4.1	4.0	4.2
Weight 06855	ca. kg	4.1	4.3	4.1	4.3	4.2	4.4
coefficient of discharge	$\alpha_{wD/G}$	0.76	0.76	0.76	0.76	0.76	0.76
coefficient of discharge	α_{wF}	0.50	0.50	0.50	0.50	0.50	0.50
Min. set pressure	bar-g	0.5	0.5	0.5	0.5	0.5	0.5
Max. set pressure	bar-g	110.0	110.0	110.0	110.0	110.0	110.0
Min. temperature	°C	-270	-270	-270	-270	-270	-270
Max. temperature	°C	+400	+400	+400	+400	+400	+400

Dimensions in mm.

Pressure-Temperature Rating

Maximum allowable set pressure safety valve Type 0685X



Safety Valves

Type 06850, Type 06855



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2, 3/4 & 1			3/4 & 1			1, 1-1/4 & 1-1/2		
	d_0 (mm)	10.0			14.0			18.0		
	A_0 (mm ²)	78.5			153.9			254.0		
	Medium	A	B	C	A	B	C	A	B	C
0.5		47	56	2075	81	96	3035	127	152	5018
1.0		70	88	2852	116	146	4110	191	242	6794
2.0		112	143	4033	185	236	5813	320	407	9608
3.0		152	194	4940	248	317	7119	444	570	11768
4.0		189	244	5704	309	398	8220	555	715	13588
5.0		227	294	6377	370	480	9190	665	862	15192
6.0		264	344	6986	431	561	10068	774	1007	16642
7.0		301	393	7545	492	642	10874	882	1153	17976
8.0		338	444	8066	552	726	11625	990	1302	19217
9.0		375	494	8556	612	807	12330	1098	1448	20383
10.0		411	545	9018	671	890	12997	1205	1598	21485
15.0		593	794	11045	968	1298	15600	1738	2329	26314
20.0		774	1054	12754	1264	1721	18013	2269	3089	30385
30.0		1140	1572	15620	1861	2568	22062	3341	4609	37213
40.0		1510	2099	18037	2466	3428	25475	4425	6152	42970
50.0		1882	2634	20166	3075	4302	28481	5518	7720	48042
60.0		2256	3175	22091	3685	5186	31200	6614	9308	52628
70.0		2631	3723	23861	4297	6081	33700	7712	10914	56845
80.0		3009	4277	25508	4914	6985	33821	8819	12537	60769
90.0		3394	4835	27055	5543	7898	35872	9949	14174	64456
100.0		3791	5397	28519	6191	8814	37813	11112	15820	67942
110.0		4202	5931	29911	6864	9688	39658	12319	17387	71258
120.0		4629	6513	31241	7561	10637	41422	-	-	-
140.0		5520	7642	33744	9016	12482	44741	-	-	-
160.0		6448	8758	36074	-	14305	47830	-	-	-
180.0		7575	9847	38262	-	16083	50731	-	-	-
200.0		-	10898	40332	-	17801	53475	-	-	-
220.0		-	11931	42300	-	-	-	-	-	-
240.0		-	12983	44181	-	-	-	-	-	-
250.0		-	13522	45092	-	-	-	-	-	-

Safety Valves

Type 06850, Type 06855 - Sealing plate



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. G/L

standard safety valve
 with soft valve seal, "cleaned and degreased"
 closed bonnet, gastight cap or lifting device
 Inlet: male thread type G (BSPP) acc. to ISO 228/1
 Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06850.X.000001L (Pmax 150.0 bar)
 with gastight cap

Part No. 06855.X.000001L (Pmax 150.0 bar)
 with lifting device

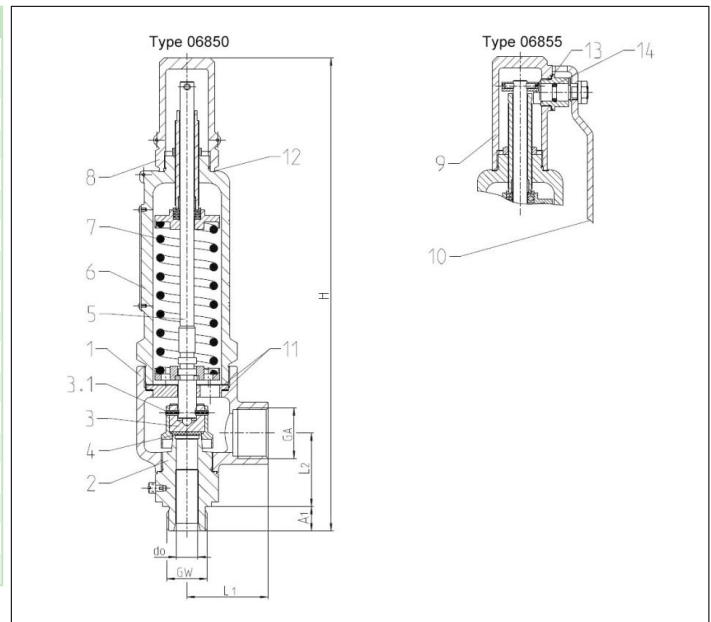
Available options - on request only:
 · Flange-, NPT- or Tri-Clamp connection for in- and outlet



Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels.
 Approved for gases and liquids. Working temperature: -270°C / -454°F (3K) up to +300°C / +572°F (573K)
 Pressure-temperature must be observed, suitable for horizontal installation from 20 bar

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 Sealing plate	VESPEL	
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4408	A 351 CF8M
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4408	A 351 CF8M
9 Lifting cap	1.4408	A 351 CF8M
10 Lever	1.4301	A 276 Grade 304
Spare Parts		
2 Inlet body	1.4571	316Ti
3.1 Split pin	1.4571	316Ti
4 Sealing plate	VESPEL	
11 Gasket	1.4404 Graphite	316L Graphite
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



Typ 06850, 06855	Technical data	Orifice								
		10			14					
Inlet	GW	1/2	3/4	1	3/4	3/4	3/4	1	1	1
Outlet	GW	1	1	1	1	1-1/4	1-1/2	1	1-1/4	1-1/2
Dimension code	.X.	1024	1034	1044	1434	1435	1436	1444	1445	1446
Height	H	305.0	307.0	309.0	310.5	310.5	310.5	312.5	312.5	312.5
Length	L1	53.0	53.0	53.0	55.0	55.0	55.0	55.0	55.0	55.0
Length	L2	44.5	44.5	44.5	48.2	48.2	48.2	48.2	48.2	48.2
Length	A1	14.0	16.0	18.0	16.0	16.0	16.0	18.0	18.0	18.0
Weight 06850	ca. kg	3.2	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.4
Weight 06855	ca. kg	3.4	3.4	3.4	3.6	3.6	3.6	3.6	3.6	3.6
Coefficient of discharge	$\alpha_w S/G$	0.84	0.84	0.84	0.70	0.70	0.70	0.70	0.70	0.70
Coefficient of discharge	$\alpha_w L$	0.68	0.68	0.68	*	*	*	*	*	*
Min. set pressure	bar-g	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Max. set pressure	bar-g	150.0	150.0	150.0	120.0	120.0	120.0	120.0	120.0	120.0
Min. temperature	°C	-270	-270	-270	-270	-270	-270	-270	-270	-270
Max. temperature	°C	+300	+300	+300	+300	+300	+300	+300	+300	+300

Dimensions in mm. * 0.20-11.50 bar=0.50 / 11.51-74.99 bar=0.49 / 75.00-120.00 bar=0.46

Safety Valves

Type 06850, Type 06855 - Sealing plate

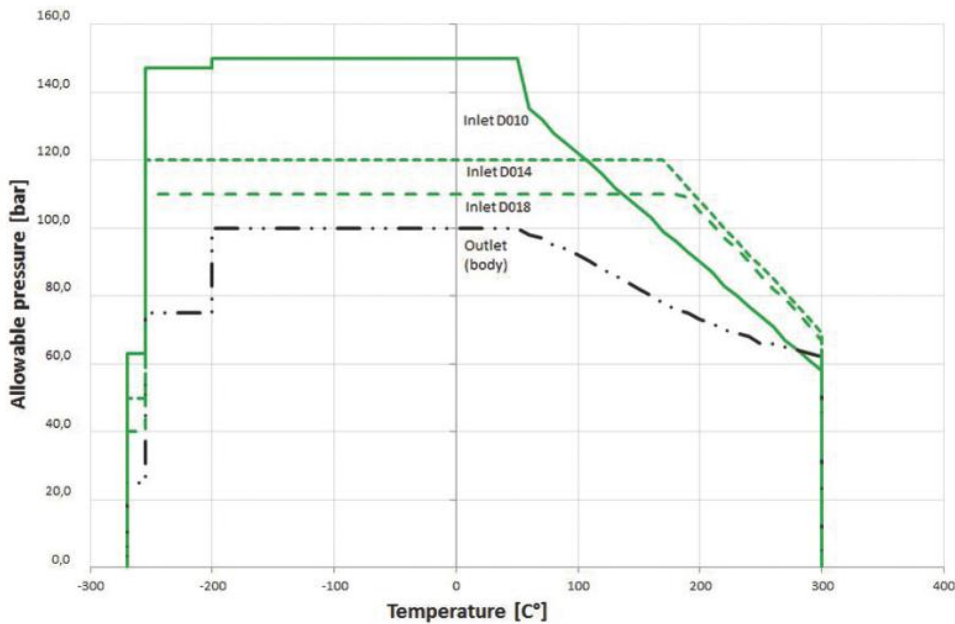


Type 06850, 06855		Technical data					
Orifice	[mm]	18					
Inlet	GW	1	1	1-1/4	1-1/4	1-1/2	1-1/2
Outlet	GW	1-1/2	2	1-1/2	2	1-1/2	2
Dimension code	.X.	1846	1847	1856	1857	1866	1867
Height	H	304.0	304.0	304.0	304.0	306.0	306.0
Length	L1	60.0	63.0	60.0	63.0	60.0	63.0
Length	L2	49.0	53.0	49.0	53.0	49.0	53.0
Length	A1	18.0	18.0	20.0	20.0	22.0	22.0
Weight 06850	ca. kg	3.9	4.1	3.9	4.1	4.0	4.2
Weight 06855	ca. kg	4.1	4.3	4.1	4.3	4.2	4.4
Coefficient of discharge	$\alpha_{wS/G}$	0.76	0.76	0.76	0.76	0.76	0.76
Coefficient of discharge	α_{wL}	0.50	0.50	0.50	0.50	0.50	0.50
Min. set pressure	bar-g	0.5	0.5	0.5	0.5	0.5	0.5
Max. set pressure	bar-g	110.0	110.0	110.0	110.0	110.0	110.0
Min. temperature	°C	-270	-270	-270	-270	-270	-270
Max. temperature	°C	+300	+300	+300	+300	+300	+300

Dimensions in mm.

Pressure-Temperature Rating

Maximum allowable set pressure safety valve Type 0685X



Safety Valves

Type 06850, Type 06855 - Sealing plate



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h*

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2, 3/4 & 1			3/4 & 1			1, 1-1/4 & 1-1/2		
	d_0 (mm)	10.0			14.0			18.0		
	A_0 (mm ²)	78.5			153.94			254.0		
	Medium	A	B	C	A	B	C	A	B	C
0.5	-	56	2075	-	96	3035	-	152	5018	
1.0	-	88	2852	-	146	4110	-	242	6794	
2.0	-	143	4033	-	236	5813	-	407	9608	
3.0	-	194	4940	-	317	7119	-	570	11768	
4.0	-	244	5704	-	398	8220	-	715	13588	
5.0	-	294	6377	-	480	9190	-	862	15192	
6.0	-	344	6986	-	561	10068	-	1007	16642	
7.0	-	393	7545	-	642	10874	-	1153	17976	
8.0	-	444	8066	-	726	11625	-	1302	19217	
9.0	-	494	8556	-	807	12330	-	1448	20383	
10.0	-	545	9018	-	890	12997	-	1598	21485	
15.0	-	794	11045	-	1297	15590	-	2328	26298	
20.0	-	1054	12754	-	1721	18013	-	3089	30385	
30.0	-	1572	15620	-	2568	22062	-	4609	37213	
40.0	-	2099	18037	-	3428	25475	-	6152	42970	
45.0	-	2355	19131	-	3847	27020	-	6904	45577	
50.0	-	2634	20166	-	4302	28481	-	7720	-	
60.0	-	3175	22091	-	5186	-	-	9308	-	
65.0	-	3436	22993	-	5612	-	-	10072	-	
70.0	-	3723	-	-	6081	-	-	10914	-	
80.0	-	4277	-	-	6985	-	-	12537	-	
90.0	-	4835	-	-	7898	-	-	14174	-	
100.0	-	5397	-	-	8814	-	-	15820	-	
110.0	-	5931	-	-	9688	-	-	17387	-	
120.0	-	6513	-	-	10637	-	-	-	-	
140.0	-	7642	-	-	-	-	-	-	-	
150.0	-	8184	-	-	-	-	-	-	-	

*not suitable for water steam!

Safety Valves

Type 06850, Type 06855 - O-ring



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.1130. S/G/L

standard safety valve

with O-ring valve seal, "cleaned and degreased"

closed bonnet, gastight cap or lifting device

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06850.X.000002N	Orifice	10	14	18
Part No. 06855.X.000002N	Pmin	3.0 bar	3.0 bar	3.0 bar
with NBR O-ring valve seal	Pmax	15.9 bar	14.9 bar	19.9 bar
Part No. 06850.X.000002F	Orifice	10	14	18
Part No. 06855.X.000002F	Pmin	16.0 bar	15.0 bar	20.0 bar
with FKM O-ring valve seal	Pmax	250.0 bar	200.0 bar	110.0 bar



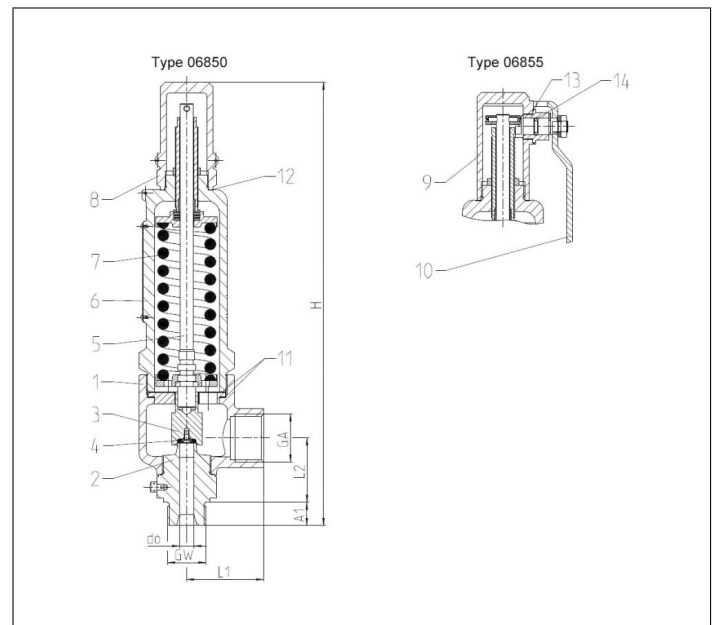
Available options - on request only:

· Flange-, NPT- or Tri-Clamp connection for in- and outlet

Applications:

Provided as safety device for protection against excessive pressure in gas cylinders and pressure vessels. Approved for gases and liquids. Working temperature: 0°C / 32°F (273K) up to 70°C / 158°F (343K), suitable for horizontal installation from 20 bar.

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF8M
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 O-ring	NBR or FKM	
5 Stem	1.4404	A 276 Grade 316L
6 Bonnet	1.4408	A 351 CF8M
7 Spring	1.4571	A 313 Grade 316Ti
8 Cap	1.4408	A 351 CF8M
9 Lifting cap	1.4408	A 351 CF8M
10 Lever	1.4301	A 276 Grade 304
Spare Parts		
3 Complete disc	1.4571+NBR or FKM	316Ti + NBR or FKM
4 O-ring + screw	NBR or FKM	
11 Gasket	1.4404 Graphite	316L Graphite
12 Gasket	PTFE	
13 Gasket	PTFE	
14 O-ring	FPM (VITON)	



Typ 06850, 06855	Technical data										
		Orifice	[mm]	10			14				18
Inlet	GW	1/2	3/4	1	3/4	3/4	3/4	1	1	1	
Outlet	GW	1	1	1	1	1-1/4	1-1/2	1	1-1/4	1-1/2	
Dimension code	.X.	1024	1034	1044	1434	1435	1436	1444	1445	1446	
Height	H	305.0	307.0	309.0	310.5	310.5	310.5	312.5	312.5	312.5	
Length	L1	53.0	53.0	53.0	55.0	55.0	55.0	55.0	55.0	55.0	
Length	L2	44.5	44.5	44.5	48.2	48.2	48.2	48.2	48.2	48.2	
Length	A1	14.0	16.0	18.0	16.0	16.0	16.0	18.0	18.0	18.0	
Weight 06850	ca. kg	3.2	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.4	
Weight 06855	ca. kg	3.4	3.4	3.4	3.6	3.6	3.6	3.6	3.6	3.6	
Coefficient of discharge	α_w S/G	0.84	0.84	0.84	0.70	0.70	0.70	0.70	0.70	0.70	
Coefficient of discharge	α_w L	0.61	0.61	0.61	0.54	0.54	0.54	0.54	0.54	0.54	
Min. set pressure	bar-g	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Max. set pressure	bar-g	250.0	250.0	250.0	200.0	200.0	200.0	200.0	200.0	200.0	

Dimensions in mm.

Safety Valves

Type 06850, Type 06855 - O-ring



Type 06850, 06855		Technical data					
Orifice	[mm]	18					
Inlet	GW	1	1	1-1/4	1-1/4	1-1/2	1-1/2
Outlet	GW	1-1/2	2	1-1/2	2	1-1/2	2
Dimension code	.X.	1846	1847	1856	1857	1866	1867
Height	H	304.0	304.0	304.0	304.0	306.0	306.0
Length	L1	60.0	63.0	60.0	63.0	60.0	63.0
Length	L2	49.0	53.0	49.0	53.0	49.0	53.0
Length	A1	18.0	18.0	20.0	20.0	22.0	22.0
Weight 06850	ca. kg	3.9	4.1	3.9	4.1	4.0	4.2
Weight 06855	ca. kg	4.1	4.3	4.1	4.3	4.2	4.4
Coefficient of discharge	$\alpha_w S/G$	0.76	0.76	0.76	0.76	0.76	0.76
Coefficient of discharge	$\alpha_w L$	0.51	0.51	0.51	0.51	0.51	0.51
Min. set pressure	bar-g	3.0	3.0	3.0	3.0	3.0	3.0
Max. set pressure	bar-g	110.0	110.0	110.0	110.0	110.0	110.0

Dimensions in mm.

Safety Valves

Type 06850, Type 06855 - O-ring



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013,25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2, 3/4 & 1			3/4 & 1			1, 1-1/4 & 1-1/2		
	d_0 (mm)	10.0			14.0			18.0		
	A_0 (mm ²)	78.5			153.94			254.0		
	Medium	A	B	C	A	B	C	A	B	C
3.0	-	194	4431	-	317	7688	-	570	12003	
4.0	-	244	5117	-	398	8878	-	715	13860	
5.0	-	294	5721	-	480	9926	-	862	15496	
6.0	-	344	6267	-	561	10873	-	1007	16975	
7.0	-	393	6769	-	642	11744	-	1153	18335	
8.0	-	444	7236	-	726	12555	-	1302	19601	
9.0	-	494	7675	-	807	13317	-	1448	20790	
10.0	-	545	8090	-	890	14037	-	1598	21915	
15.0	-	794	9908	-	1298	17192	-	2329	26840	
20.0	-	1054	11441	-	1721	19851	-	3089	30992	
30.0	-	1572	14012	-	2568	24313	-	4609	37958	
40.0	-	2099	16180	-	3428	28074	-	6152	43830	
50.0	-	2634	18090	-	4302	31388	-	7720	49003	
60.0	-	3175	19817	-	5186	34384	-	9308	53680	
70.0	-	3723	21404	-	6081	37138	-	10914	57981	
80.0	-	4277	22882	-	6985	39703	-	12537	61985	
90.0	-	4835	24270	-	7898	42111	-	14174	65745	
100.0	-	5397	25583	-	8814	44389	-	15820	69301	
110.0	-	5931	26832	-	9688	46555	-	17387	72684	
120.0	-	6513	28025	-	10637	48626	-	-	-	
140.0	-	7642	30270	-	12482	52522	-	-	-	
150.0	-	8184	31333	-	13368	54365	-	-	-	
160.0	-	8758	32360	-	14305	56148	-	-	-	
180.0	-	9847	34323	-	16083	59554	-	-	-	
200.0	-	10898	36180	-	17801	62775	-	-	-	
220.0	-	11931	37946	-	-	-	-	-	-	
240.0	-	12983	39633	-	-	-	-	-	-	
250.0	-	13522	40451	-	-	-	-	-	-	



Safety Valves

Type 50051.0004



Safety Valves, angle type, bronze
Lloyds Register Approval LR-TA 92/20011

Standard safety valve
 metal to metal seated,
 closed bonnet, with lifting device
 Inlet: male thread type G (BSPP) acc. to ISO 228/1
 Outlet: female thread type G (BSPP) acc. to ISO 228/1

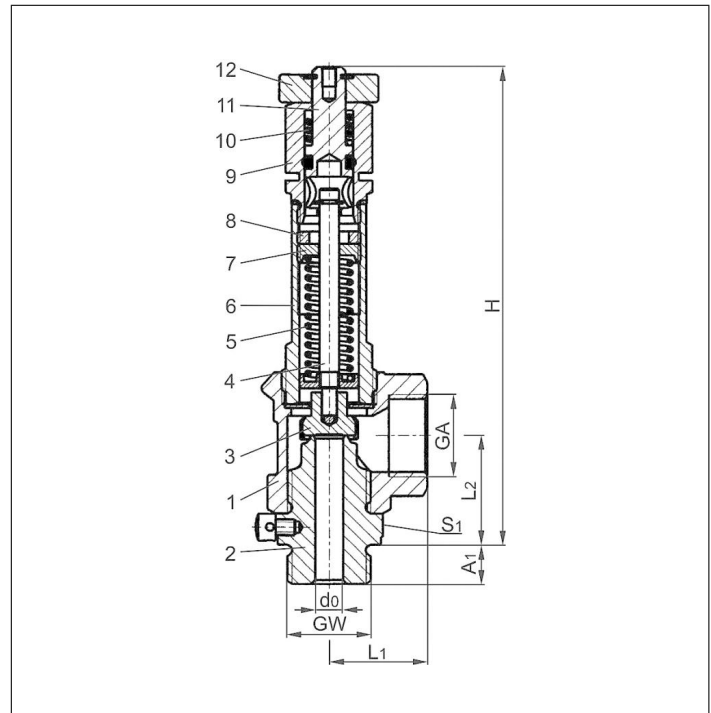
Part No. 50051.0004.0000



Applications:

Provided as safety device for protection against thermal expansion in electric or steam fired heat exchangers for vapours, gases and fluids, specific for heavy oil and lubricants (especially for ships).
 Approved for fluids, vapours and gases.
 Working temperature: -10°C / +14°F (263K) up to +160°C / +320°F (403K)

Materials	DIN EN	ASME/ASTM
1 Body	CC491K	B 62 UNS C83600
2 Inlet body	1.4301	A 276 Grade 304
3 Disc	1.4541	A 276 Grade 321
4 Stem	CW614N	B 249 UNS C38500
5 Spring	1.4571	A 313 Grade 316Ti
6 Bonnet	CW614N	B 249 UNS C38500
7 Spring clamp	CW614N	B 249 UNS C38500
8 Thread ring	CW614N	B 249 UNS C38500
9 Lifting cap	CW614N	B 249 UNS C38500
10 Lifting spring	1.4571	A 313 Grade 316Ti
11 Lifting stem	CW614N	B 249 UNS C38500
12 Lifting device	CW614N	B 249 UNS C38500



Type 50051.0004	Technical data	
Nominal size	GW	1/2
Orifice	d ₀	7
Set pressure range	bar	6.0-15.0
Outlet	GA	1/2
Height	H	122
Length	L ₁	25
Length	L ₂	28
Length	A ₁	10
Wrench size across flats	S ₁	27
Weight	ca. kg	0.38
Coefficient of discharge - gas	α _w	0.68
Coefficient of discharge - fluid	α _w	0.53

Dimensions in mm.

Safety Valves

Type 50051.0004



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2	1/2
	d_0 (mm)	7.0	7.0
	A_0 (mm ²)	38.48	38.48
Medium	Air	Water	
6.0		136	3422
7.0		155	3697
8.0		176	3952
9.0		195	4192
10.0		216	4419
11.0		235	4634
12.0		255	4840
13.0		275	5038
14.0		295	5228
15.0		315	5412

Safety Valves

Type 50051.0011



Safety Valves, angle type, brass, type tested TÜV-SV.1009. S/G

Standard safety valve
 with EPDM valve seal for vapours and gases
 open bonnet, with lifting device
 Outlet: female thread M15x1 with installed hose nozzle
 Inlet: male thread type G (BSPP) acc. to ISO 228/1

Part No. 50051.0011.0000

Available options - on request only:

- hose nozzle acc. to customer specification
- body material CW509L

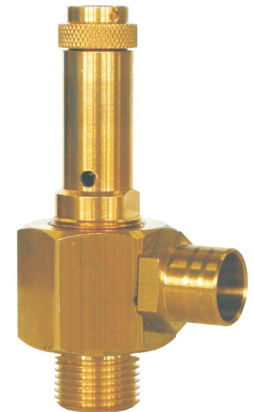
Applications:

Provided as safety device for protection against excessive pressure in pressure vessels, especially for coffee machines.

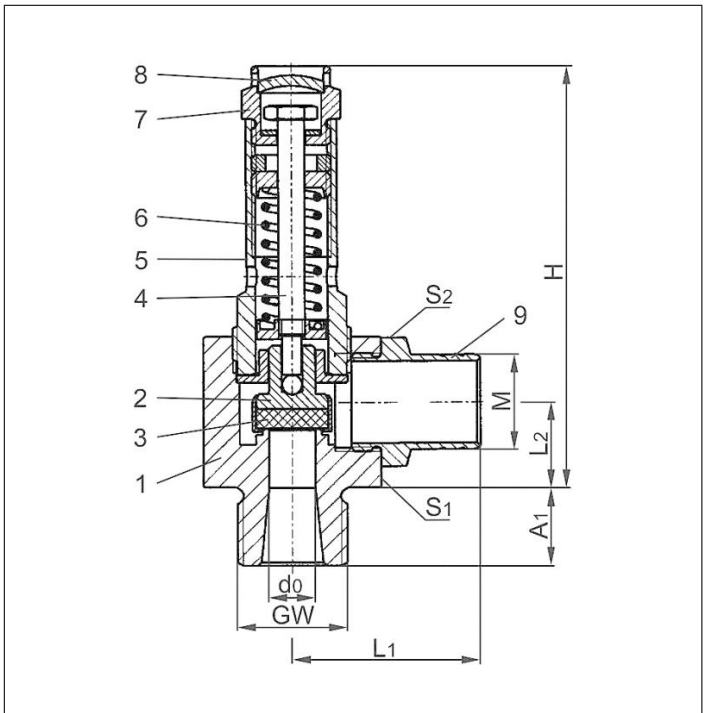
Approved for non-toxic gases and vapours.

Working temperature: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

For saturated steam use only up to 4 bar and +150°C / +302°F (423K)



Materials	DIN EN	ASME/ASTM
1 Body	CW614N	B 249 UNS C38500
2 Disc	CW614N	B 249 UNS C38500
3 Valve seal	EPDM	
4 Stem	CW614N	B 249 UNS C38500
5 Bonnet	CW614N	B 249 UNS C38500
6 Spring	1.4571	A 313 Grade 316Ti
7 Lifting device	CW614N	B 249 UNS C38500
8 Closing cap	CC507L	B 36 UNS C26800
9 Hose nozzle	CW614N	B 249 UNS C38500



Type 50051.0011	Technical data	
Nominal size	GW	3/8
Orifice	d ₀	7
Set pressure range	bar	1.5-5.0
Hose nozzle-Ø	M	14.5
Height	H	64
Length	L ₁	28.5
Length	L ₂	13
Length	A ₁	12
Wrench size across flats	S ₁	27
Wrench size across flats	S ₂	17
Weight	ca. kg	0.16
Coeff. of discharge from 2.0 bar	α _w	0.42

Dimensions in mm.

Safety Valves

Type 50051.0011



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Saturated steam in kg/h

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	3/8	3/8
	d_0 (mm)	7.0	7.0
	A_0 (mm ²)	38.48	38.48
	Medium	Air	Saturated steam
1.5		28	22
2.0		35	27
2.5		41	32
3.0		47	37
3.5		53	41
4.0		59	46
4.5		65	51
5.0		72	55

Safety Valves

Type 22XX



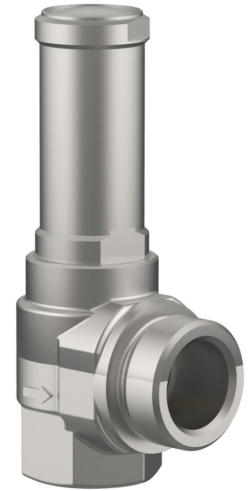
Safety Valves, angle type, stainless steel, S/G

Safety Valves, angle type, stainless steel

Standard safety valve

with FKM-, NBR-, VMQ-, EPDM- or PTFE-seal, open bonnet,
with lifting device

Inlet: male or female thread type G (BSPP) acc. to ISO 228/1



Part No. 22XX

Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers. Approved for air, saturated steam and similar neutral gases.

Working temperature:

FKM: -20°C / -4°F (253K) up to +200°C / 392 °F (473K) / up to +150°C / 302°F (423K) (for steam)

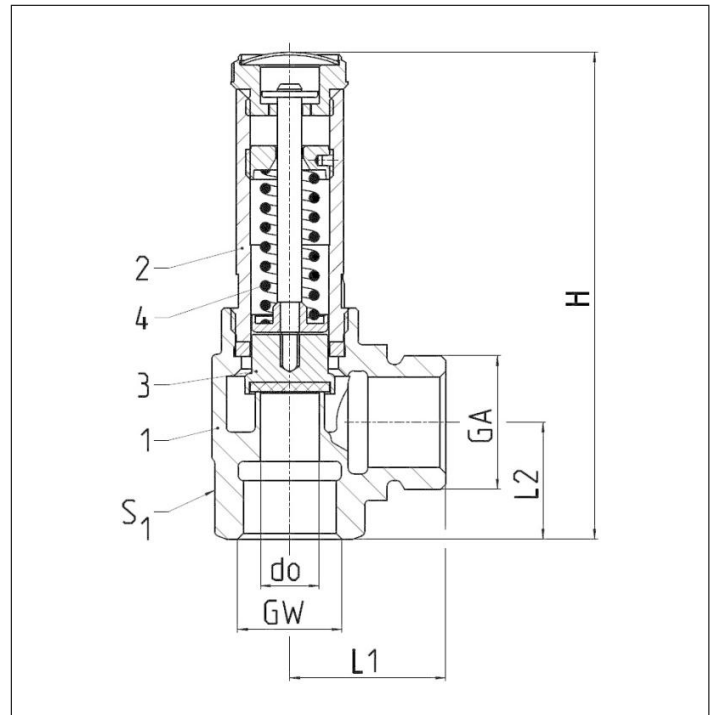
NBR: -30°C / -22°F (243K) up to +120°C / 248°F (393K)

VMQ: -50°C / -58°F (223K) up to +200°C / 392°F (473K) / up to +150°C / 302°F (423K) (for steam)

EPDM: -50°C / -58°F (223K) up to +150°C / 302°F (423K) / up to +150°C / 302°F (423K) (for steam)

PTFE: -196°C / -320°F (77K) up to +250°C / 482°F (523K) / up to +150°C / 302°F (423K) (for steam)

Materials	DIN EN	ASME/ASTM
1 Inlet body	1.4408	SS316/CF8M
2 Bonnet	1.4408	SS316/CF8M
3 Inner parts	1.4301/1.4404	SS304/SS316
4 Spring	1.4310	A 313 Grade 301



Type 22XX	Technical data						
Dimension code	22XX		2207				
Nominal size	GW	3/8 M	1/4 M	1/2 M	3/8 M	1/2 M	1/2 F
Orifice	d ₀	7	7	7	12	12	12
Set pressure range	bar	0.5-30	0.5-30	0.5-30	0.5-30	0.5-30	0.5-30
Outlet GA	GW	*1/2 F+3/4 M 1/4 F+1/2 M	*1/4 F+1/2 M	1/2 F	*1/2 F+3/4 M	*1/2 F+3/4 M/F	*1/2 F+1/2 F 1/2 F+3/4 M/F
Height	H	102	102	104	117	119 / 112	110 / 110 / 107
Length	L ₁	23 / 27	27	23	32	32 / 34	32 / 32 / 34
Length	L ₂	26	26	28	31	33 / 33	24 / 24 / 28
Wrench size across flats	S ₁	22	22	24	27 / 32	27 / 32	27

Dimensions in mm. *Two connections in one: female and male thread.

Safety Valves

Type 22XX



Type 22XX		Technical data			
Dimension code	22XX 2215				
Nominal size	GW	1/2 M	3/4 F	3/4 M	3/4 M+1/2 F
Orifice	d ₀	15	15	15	15
Set pressure range	bar	0.5-30	0.5-30	0.5-30	0.5-30
Outlet GA	GW	*1 F+ 1 1/4 M	*3/4 F+1 M/1 1/4 F 1 F+1 1/4 M	1 M	*1 F+ 1 1/4 M
Height	H	124	112	124	124
Length	L ₁	36.5	33.5 / 36.5	36.5	36.5
Length	L ₂	38	26	38	38
Wrench size across flats	S ₁	32	32 / 38	32	32

Dimensions in mm.*Two connections in one: female and male thread.

Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1.

Set pressure in bar (g)	Type	2207	2212	2215
	d ₀ (mm)	7.0	12.0	15.0
Medium	A ₀ (mm ²)	38.5	113.1	176.7
	Air in m ³ /h			
0.5		23.7	73.4	60.3
0.6		25.4	78.6	68.7
0.8		28.8	89.0	84.9
1.0		32.1	99.5	102.7
1.5		40.5	125.5	157.8
2.0		69.1	151.6	224.8
2.5		80.9	177.6	263.4
3.0		92.8	203.7	302.1
3.5		104.6	229.7	340.7
4.0		116.5	255.8	379.3
4.5		128.4	281.8	418.0
5.0		140.3	307.9	456.6
6.0		164.0	360.0	533.9
7.0		187.8	412.1	611.1
8.0		211.5	464.2	688.4
9.0		235.2	516.3	765.7
10.0		259.0	568.4	842.9
11.0		282.7	620.5	920.2
12.0		306.4	672.6	997.5
13.0		330.2	724.7	1074.7
14.0		353.9	776.8	1152.0
15.0		377.6	828.9	1229.3
16.0		401.4	881.0	1306.6
17.0		425.1	933.1	1383.8
18.0		448.9	985.2	1461.1
19.0		472.6	1037.3	1538.4
20.0		496.4	1089.4	1615.6
22.0		543.8	1193.6	1770.2
24.0		591.3	1297.8	1924.7
26.0		638.8	1402.0	2079.2
28.0		686.3	1506.2	2233.8
30.0		733.7	1610.4	2388.3

Safety Valves

Type 24XX



Safety Valves, angle type, stainless steel, S/G/F

Safety Valves, angle type, stainless steel with lifting device
 Standard safety valve
 with FKM-, NBR-, VMQ-, EPDM- or PTFE-seal, closed bonnet,
 with diaphragm for protection of the spring, with lifting device
 Inlet: male or female thread type G (BSPP) acc. to ISO 228/1

Part No. 24XX

Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers. Approved for air, saturated steam, neutral, toxic, and inflammable gases and liquids, cooling.

Working temperature:

FKM: -20°C / -4°F (253K) up to +200°C / 392 °F (473K) / up to +150°C / 302°F (423K) (for steam)

NBR: -30°C / -22°F (243K) up to +120°C / 248°F (393K)

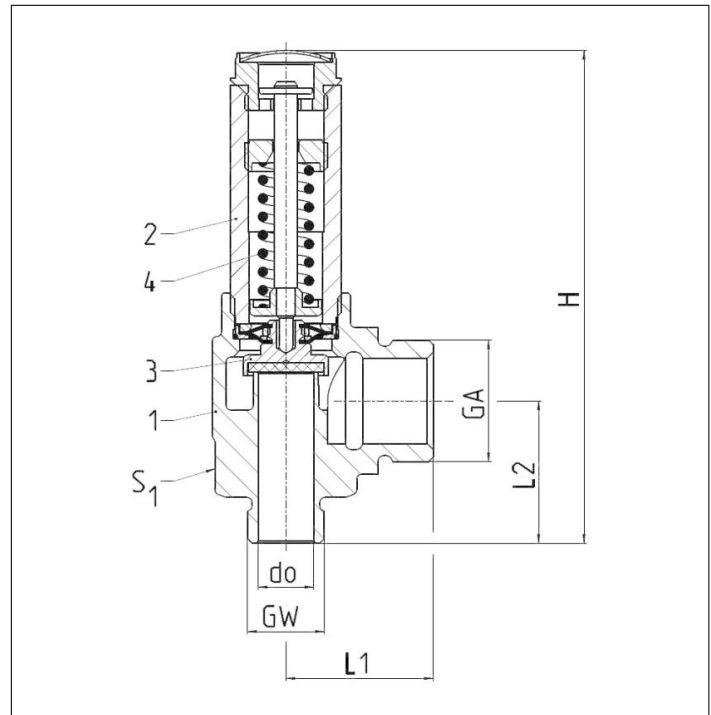
VMQ: -50°C / -58°F (223K) up to +200°C / 392°F (473K) / up to +150°C / 302°F (423K) (for steam)

EPDM: -50°C / -58°F (223K) up to +150°C / 302°F (423K) / up to +150°C / 302°F (423K) (for steam)

PTFE: -196°C / -320°F (77K) up to +250°C / 482°F (523K) / up to +150°C / 302°F (423K) (for steam)



Materials	DIN EN	ASME/ASTM
1 Inlet body	1.4408	SS316/CF8M
2 Bonnet	1.4408	SS316/CF8M
3 Inner parts	1.4301/1.4404	SS304/SS316
4 Spring	1.4310	A 313 Grade 301



Type 24XX	Technical data								
	24XX 2412			2415					
Dimension code	GW	3/8 M	1/2 M	1/2 F	1/2 M	3/4 M+1/2 F	3/4 F	3/4 M	
Nominal size	d ₀	12	12	12	15	15	15	15	
Orifice	bar	0.5-15	0.5-15	0.5-15	0.5-12	0.5-12	0.5-12	0.5-12	
Set pressure range	GW	*1/2 F+3/4 M	*1/2 F+3/4 M/F	*1/2 F+3/4 M/F/1/2 F	*1 F+1 1/4 M	*1 F+1 1/4 M	*3/4 F+1 M/F/1 1/4 M/F	1 M	
Outlet GA	H	117	119 / 112	110 / 110 / 107	124	124	112	124	
Height	L ₁	32	32 / 34	32 / 32 / 34	36.5	36.5	33.5 / 36.5 / 36.5	36.5	
Length	L ₂	31	33	24 / 24 / 28	38	38	26	26	
Length	S ₁	27 / 32	27 / 32	27	32	32	32	32	
Wrench size across flats									

Dimensions in mm. *Two connections in one: female and male thread.

Safety Valves

Type 24XX



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1.

Set pressure in bar (g)	Type	2412	2415
	d ₀ (mm)	12.0	15.0
	A ₀ (mm ²)	113.1	176.7
	Medium	Air in m ³ /h	
0.5		69.7	81.7
0.6		74.6	87.5
0.8		84.5	99.0
1.0		94.4	110.6
1.5		119.1	139.6
2.0		143.9	168.6
2.5		168.6	197.6
3.0		193.3	226.5
3.5		218.0	255.5
4.0		242.8	284.5
4.5		267.5	313.5
5.0		292.2	342.4
5.5		317.0	371.4
6.0		341.7	400.4
6.5		366.4	429.3
7.0		391.1	458.3
7.5		415.8	487.3
8.0		440.6	516.3
8.5		465.3	545.3
9.0		490.0	574.3
9.5		514.7	603.2
10.0		539.5	632.2
11.0		588.9	690.2
12.0		638.4	748.1
13.0		687.8	-
14.0		737.3	-
15.0		786.7	-

Safety Valves

Type 25XX



Safety Valves, angle type, stainless steel, S/G/F

Safety Valves, angle type, stainless steel without lifting device
 Standard safety valve
 with FKM-, NBR-, VMQ-, EPDM- or PTFE-seal, closed bonnet,
 with diaphragm for protection of the spring
 Inlet: male or female thread type G (BSPP) acc. to ISO 228/1

Part No. 25XX

Applications:

Provided as safety device for protection against excessive pressure in pressure vessels and steam boilers. Approved for air, saturated steam, neutral, toxic, and inflammable gases and liquids, cooling.

Working temperature:

FKM: -20°C / -4°F (253K) up to +200°C / 392 °F (473K) / up to +150°C / 302°F (423K) (for steam)

NBR: -30°C / -22°F (243K) up to +120°C / 248°F (393K)

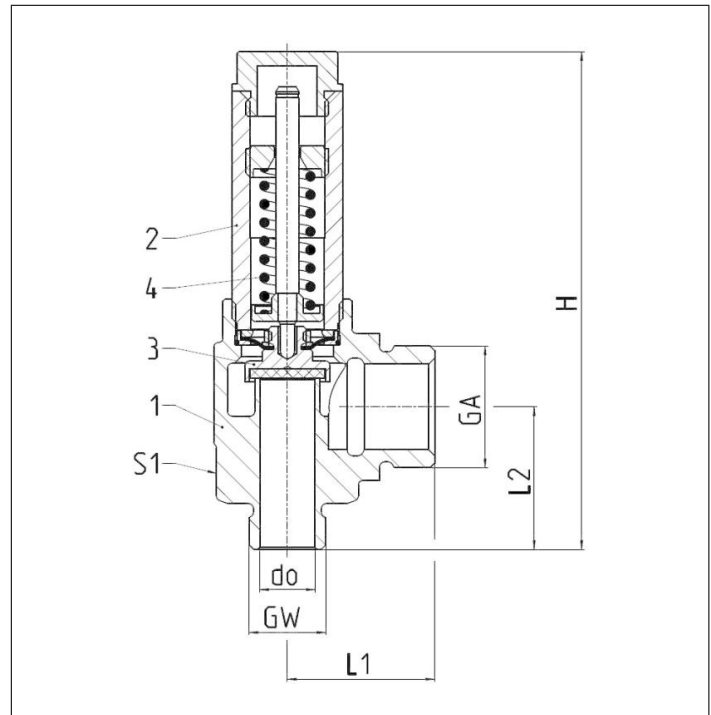
VMQ: -50°C / -58°F (223K) up to +200°C / 392°F (473K) / up to +150°C / 302°F (423K) (for steam)

EPDM: -50°C / -58°F (223K) up to +150°C / 302°F (423K) / up to +150°C / 302°F (423K) (for steam)

PTFE: -196°C / -320°F (77K) up to +250°C / 482°F (523K) / up to +150°C / 302°F (423K) (for steam)



Materials	DIN EN	ASME/ASTM
1 Inlet body	1.4408	SS316/CF8M
2 Bonnet	1.4408	SS316/CF8M
3 Inner parts	1.4301/1.4404	SS304/SS316
4 Spring	1.4310	A 313 Grade 301



Type 25XX	Technical data								
Dimension code	25XX 2512			2515					
Nominal size	GW	3/8 M	1/2 M	1/2 F	1/2 M	3/4 M+1/2 F	3/4 F	3/4 M	
Orifice	d ₀	12	12	12	15	15	15	15	
Set pressure range	bar	0.5-15	0.5-15	0.5-15	0.5-12	0.5-12	0.5-12	0.5-12	
Outlet GA	GW	*1/2 F+3/4 M	*1/2 F+3/4 M/F	*1/2 F+3/4 M/F/1/2 F	*1 F+1 1/4 M	*1 F+1 1/4 M	*3/4 F+1 M/F/1 1/4 M/F	1 M	
Height	H	117	119 / 112	110 / 110 / 107	124	124	112	124	
Length	L ₁	32	32 / 34	32 / 32 / 34	36.5	36.5	33.5 / 36.5 / 36.5	36.5	
Length	L ₂	31	33	24 / 24 / 28	38	38	26	26	
Wrench size across flats	S ₁	27 / 32	27 / 32	27	32	32	32	32	

Dimensions in mm. *Two connections in one: female and male thread.

Safety Valves

Type 25XX



Discharge capacities

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1.

Set pressure in bar (g)	Type	2412	2415
	d ₀ (mm)	12.0	15.0
	A ₀ (mm ²)	113.1	176.7
	Medium	Air in m ³ /h	
0.5		69.7	81.7
0.6		74.6	87.5
0.8		84.5	99.0
1.0		94.4	110.6
1.5		119.1	139.6
2.0		143.9	168.6
2.5		168.6	197.6
3.0		193.3	226.5
3.5		218.0	255.5
4.0		242.8	284.5
4.5		267.5	313.5
5.0		292.2	342.4
5.5		317.0	371.4
6.0		341.7	400.4
6.5		366.4	429.3
7.0		391.1	458.3
7.5		415.8	487.3
8.0		440.6	516.3
8.5		465.3	545.3
9.0		490.0	574.3
9.5		514.7	603.2
10.0		539.5	632.2
11.0		588.9	690.2
12.0		638.4	748.1
13.0		687.8	-
14.0		737.3	-
15.0		786.7	-

Safety Valves

Type 06310



Safety Valves, angle type, steel casting, type tested, TÜV-SV.909. S/G/L

Full lift safety valve
 Standard safety valve for fluids
 metal to metal seated,
 closed bonnet, with lifting device
 Inlet: male thread type G (BSPP) acc. to ISO 228/1
 Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06310.X.0000

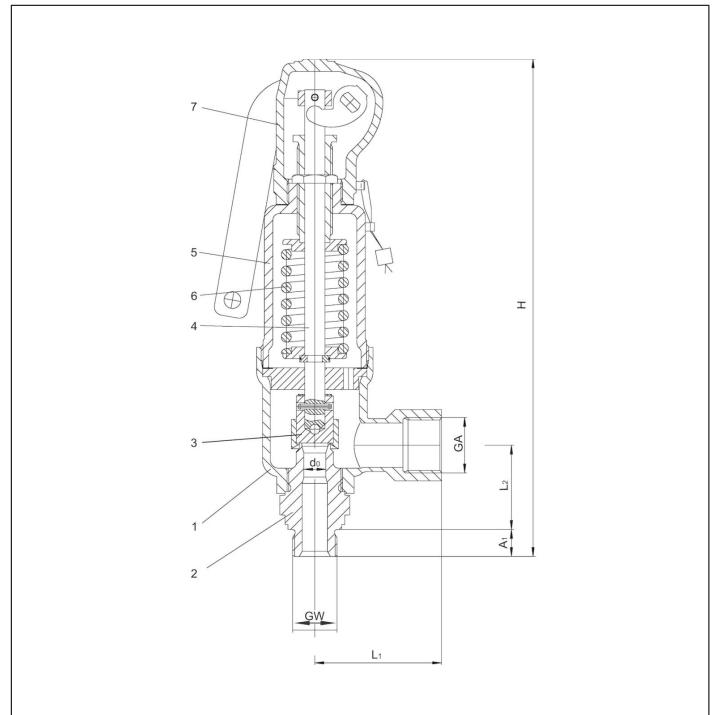
Available options - on request only:
 · Disc with soft sealing (NBR, CR, EPDM, FKM, FFKM, PCTFE, PTFE-FDA)



Applications:

Provided as safety device for protection against excessive pressure in pressure vessels.
 Approved for gases, vapours and fluids.
 Working temperatures (metal to metal seated): -10°C / +14°F (263K) up to +450°C / +842°F (723K)
 Working temperatures for discs with soft seals on request

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.0619	A 216 Grade WCB
2 Inlet body	1.4404	A 276 Grade 316L
3 Disc	1.4122	no reference
4 Stem	1.4021	A 276 Grade 420
5 Bonnet	1.0619	A 216 Grade WCB
6 Spring	1.4310	A 313 Grade 301
7 Lifting device	0.7040	A 536-87 Gr. 60-40-18



Type 06310	Technical data			
Nominal size	GW	3/4	3/4	1
Orifice	d_0	9	13	17.5
Dimension code	.X.	0906	1306	1710
Set pressure saturated steam	bar	1.5-200	0.2-200	0.2-100
Set pressure air and fluids	bar	1.5-250	0.2-200	0.2-100
Outlet	GA	1	1	1-1/2
Height	H	280	280	281
Length	L_1	50	50	54
Length	L_2	75	75	75
Length	A_1	16	16	18
Weight	ca. kg	2.6	2.6	3.0
Coeff. of discharge gases, vapours	α_w	0.83	0.81	0.79
Coeff. of discharge fluids	α_w	0.61	0.53	0.52

Dimensions in mm.

Safety Valves

Type 06310



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	3/4			3/4			1		
	d_0 (mm)	9			13			17.5		
	A_0 (mm ²)	63.6			133.0			241.0		
	Medium	A	B	C	A	B	C	A	B	C
0.2	-	-	-	53	61	1960	85	98	3480	
0.5	-	-	-	84	98	2770	134	157	4930	
1.0	-	-	-	120	143	3750	200	238	6670	
2.0	93	113	2930	190	229	5310	331	400	9440	
3.0	127	155	3590	258	316	6500	456	558	11600	
4.0	158	195	4140	322	396	7510	569	700	13300	
5.0	189	234	4630	386	477	8390	681	842	14900	
6.0	220	274	5070	449	557	9190	793	985	16300	
8.0	282	353	5860	573	718	10600	1013	1269	18900	
10.0	343	432	6550	699	879	11900	1235	1554	21100	
15.0	496	629	8020	1009	1281	14500	1783	2264	25800	
20.0	650	827	9260	1323	1685	16800	2338	2977	29800	
25.0	802	1025	10400	1632	2087	18800	2885	3688	33400	
30.0	957	1223	11300	1949	2490	20600	3445	4401	36500	
40.0	1268	1618	13100	2582	3295	23700	4562	5824	42200	
50.0	1588	2014	14600	3234	4101	26500	5715	7247	47200	
60.0	1910	2409	16000	3889	4906	29100	6874	8671	51700	
80.0	2583	3201	18500	5259	6517	33600	9294	11518	59700	
100.0	3296	3992	20700	6711	8127	37500	11862	14364	66700	
150.0	5438	5969	25400	11072	12153	46000	-	-	-	
200.0	8989	7947	29300	-	16181	53100	-	-	-	
250.0	-	9924	32700	-	-	-	-	-	-	

Safety Valves

Type 06311



**Safety Valves, angle type, stainless steel,
type tested, TÜV-SV.909. S/G/L**

Full lift safety valve
Standard safety valve for fluids
metal to metal seated,
closed bonnet, with lifting device
Inlet: male thread type G (BSPP) acc. to ISO 228/1
Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06311.X.0000

Available options - on request only:

- Disc with soft sealing (NBR, CR, EPDM, FKM, FFKM, PCTFE, PTFE-FDA)



Applications:

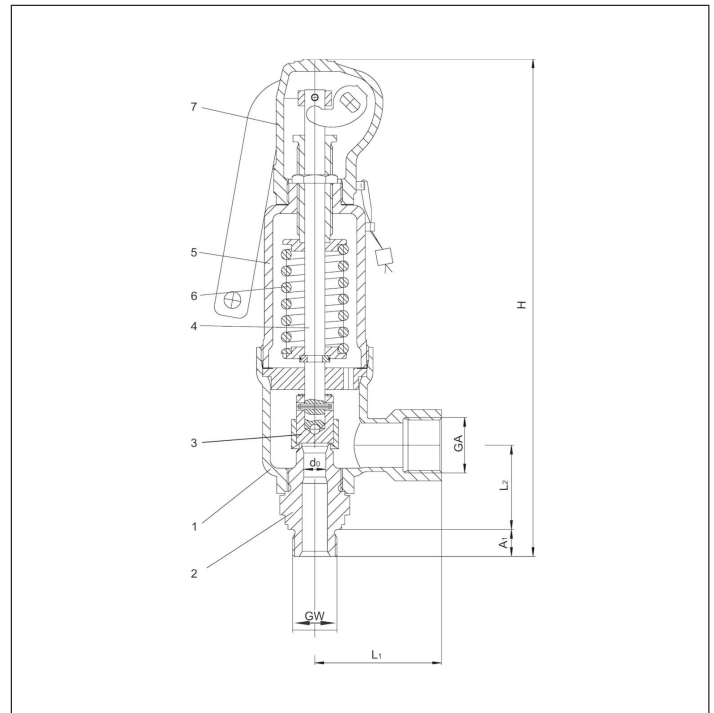
Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures (metal to metal seated): -200°C / -328°F (73K) up to +400°C / +752°F (673K)

Working temperatures for discs with soft seals on request

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4408	A 351 CF 8M
2 Inlet body	1.4404	A 276 Grade 316L
3 Disc	1.4404	A 276 Grade 316L
4 Stem	1.4404	A 276 Grade 316L
5 Bonnet	1.4408	A 351 CF 8M
6 Spring	1.4310	A 313 Grade 301
7 Lifting cap	1.4408	A 351 CF 8M



Type 06311	Technical data			
Nominal size	GW	3/4	3/4	1
Orifice	d ₀	9	13	17.5
Dimension code	.X.	0906	1306	1710
Set pressure saturated steam	bar	1.5-200	0.2-200	0.2-100
Set pressure air and fluids	bar	1.5-250	0.2-200	0.2-100
Outlet	GA	1	1	1-1/2
Height	H	280	280	281
Length	L ₁	50	50	54
Length	L ₂	75	75	75
Length	A ₁	16	16	18
Weight	ca. kg	2.6	2.6	3.0
Coeff. of discharge gases, vapours	α _w	0.83	0.81	0.79
Coeff. of discharge fluids	α _w	0.61	0.53	0.52

Dimensions in mm.

Safety Valves

Type 06311



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	3/4			3/4			1		
	d_0 (mm)	9			13			17.5		
	A_0 (mm ²)	63.6			133.0			241.0		
	Medium	A	B	C	A	B	C	A	B	C
0.2	-	-	-	53	61	1960	85	98	3480	
0.5	-	-	-	84	98	2770	134	157	4930	
1.0	-	-	-	120	143	3750	200	238	6670	
2.0	93	113	2930	190	229	5310	331	400	9440	
3.0	127	155	3590	258	316	6500	456	558	11600	
4.0	158	195	4140	322	396	7510	569	700	13300	
5.0	189	234	4630	386	477	8390	681	842	14900	
6.0	220	274	5070	449	557	9190	793	985	16300	
8.0	282	353	5860	573	718	10600	1013	1269	18900	
10.0	343	432	6550	699	879	11900	1235	1554	21100	
15.0	496	629	8020	1009	1281	14500	1783	2264	25800	
20.0	650	827	9260	1323	1685	16800	2338	2977	29800	
25.0	802	1025	10400	1632	2087	18800	2885	3688	33400	
30.0	957	1223	11300	1949	2490	20600	3445	4401	36500	
40.0	1268	1618	13100	2582	3295	23700	4562	5824	42200	
50.0	1588	2014	14600	3234	4101	26500	5715	7247	47200	
60.0	1910	2409	16000	3889	4906	29100	6874	8671	51700	
80.0	2583	3201	18500	5259	6517	33600	9294	11518	59700	
100.0	3296	3992	20700	6711	8127	37500	11862	14364	66700	
150.0	5438	5969	25400	11072	12153	46000	-	-	-	
200.0	8989	7947	29300	-	16181	53100	-	-	-	
250.0	-	9924	32700	-	-	-	-	-	-	

Safety Valves

Type 06315



Safety Valves, angle type, chromium steel, type tested, TÜV-SV.980. S/G/L

Standard safety valve

metal to metal seated, closed bonnet

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06315.X.N000 (0.1 - 93.0 bar)

Part No. 06315.X.L000 (93.0 - 180.0 bar)

with lifting device - head A

Part No. 06315.X.N020 (0.1 - 93.0 bar)

Part No. 06315.X.L020 (93.0 - 180.0 bar)

with gastight cap - head C

Available options - on request only:

- Threads NPT acc. to ANSI B 1.20.1
- Disc with soft sealing (NBR, CR, EPDM, FKM, FFKM, PCTFE, PTFE-FDA)



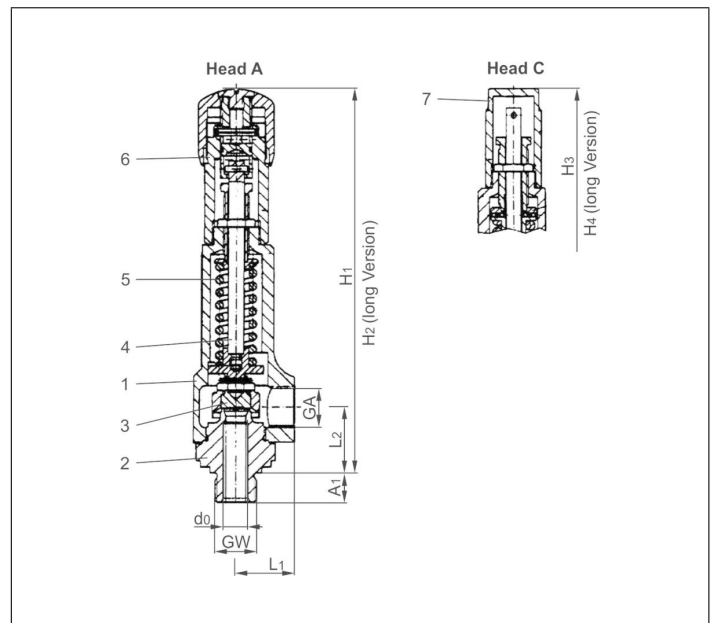
Applications:

Provided as safety device for protection against excessive pressure in pressure vessels. Approved for gases, vapours and fluids.

Working temperature (metal to metal seated): -10°C / +14°F (263K) up to +220°C / +428°F (493K)

Working temperatures for discs with soft seals on request

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4104	A 276 Grade 430F
2 Inlet body	1.4104	A 276 Grade 430F
3 Disc	1.4122	no reference
4 Stem	1.4021	A 276 Grade 420
5 Spring	1.4310	A 313 Grade 301
6 Lifting device	1.4104	A 276 Grade 430F
7 Cap	1.0718	A 108



Technical data	Type 06315.X.N000/N020		Type 06315.X.L000/L020		
		1/2	3/4	1/2	3/4
Nominal size	GW	1/2	3/4	1/2	3/4
Orifice	d ₀	10	10	10	10
Dimension code	.X.	1004	1006	1004	1006
Set pressure range	bar	0.1-93	0.1-93	93-180	93-180
Outlet	GA	1/2	1/2	1/2	1/2
Height	H ₁	195	195	-	-
Height	H ₂	-	-	216	216
Height	H ₃	180	180	-	-
Height	H ₄	-	-	191	191
Length	L ₁	30	30	30	30
Length	L ₂	33	33	33	33
Length	A ₁	15	16	15	16
Weight	ca. kg	1.2	1.2	1.4	1.4
Coeff. of discharge gases, vapours	α _w	0.50	0.50	0.50	0.50
Coeff. of discharge fluids	α _w	0.35	0.35	0.35	0.35

Dimensions in mm.

Safety Valves

Type 06315



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2 & 3/4		
	d_0 (mm)	10.0		
	A_0 (mm ²)	78.5		
	Medium	A	B	C
0.1		12	14	630
0.5		29	34	1080
1.0		43	51	1470
2.0		70	84	2070
3.0		94	115	2540
4.0		118	145	2930
5.0		141	174	3280
6.0		164	204	3590
8.0		209	262	4150
10.0		255	321	4640
15.0		369	468	5680
20.0		483	615	6560
25.0		596	762	7330
30.0		712	909	8030
40.0		943	1204	9270
50.0		1181	1498	10400
60.0		1421	1792	11400
70.0		1670	2086	12300
80.0		1921	2380	13100
100.0		2451	2969	14700
150.0		4044	4439	18000
180.0		-	5322	19700

Safety Valves

Type 06316



Safety Valves, angle type, stainless steel, type tested, TÜV-SV.980. S/G/L

Standard safety valve

metal to metal seated, closed bonnet

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06316.X.N000 (0.1 - 68.0 bar)

Part No. 06316.X.L000 (68.0 - 330.0 bar)

with lifting device - head A

Part No. 06316.X.N020 (0.1 - 68.0 bar)

Part No. 06316.X.L020 (68.0 - 330.0 bar)

with gastight cap - head C

Available options - on request only:

- Threads NPT acc. to ANSI B 1.20.1
- Disc with soft sealing (NBR, CR, EPDM, FKM, FFKM, PCTFE, PTFE-FDA)



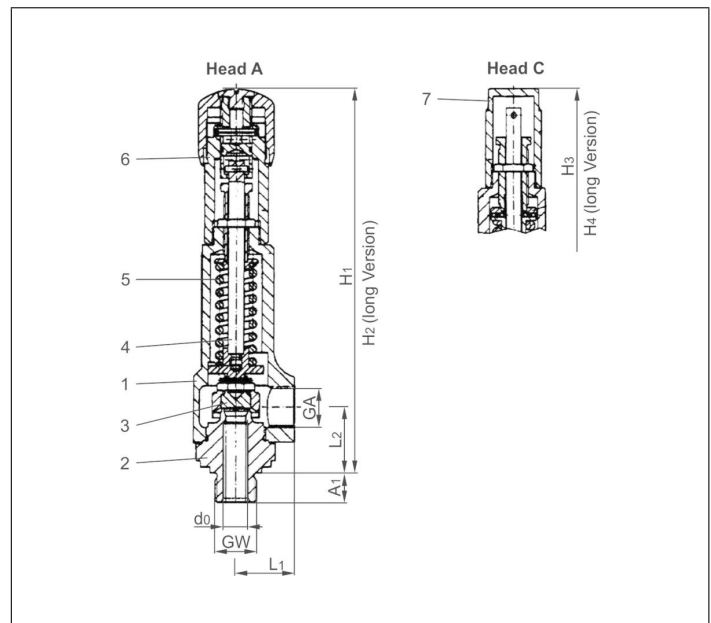
Applications:

Provided as safety device for protection against excessive pressure in pressure vessels. Approved for gases, vapours and fluids.

Working temperature (metal to metal seated, pay attention to AD-Merkblatt W10: Temperature-Pressure-Overview): -270°C / -454°F (6K) up to +280°C / +536°F (553K)

Working temperatures for discs with soft seals on request

Materials	DIN EN	ASME/ASTM
1 Outlet body	1.4404	A 276 Grade 316L
2 Inlet body	1.4404	A 276 Grade 316L
3 Disc	1.4404	A 276 Grade 316L
4 Stem	1.4404	A 276 Grade 316L
5 Spring	1.4310	A 313 Grade 301
6 Lifting device	1.4404	A 276 Grade 316L
7 Cap	1.4404	A 276 Grade 316L



Technical data	Type 06316.X.N000/N020		Type 06316.X.L000/L020				
	GW	1/2	3/4	1/2	3/4	1/2	3/4
Nominal size	GW	1/2	3/4	1/2	3/4	1/2	3/4
Orifice	d ₀	10	10	6	6	10	10
Dimension code	.X.	1004	1006	0604	0606	1004	1006
Set pressure range	bar	0.1-68	0.1-68	180-330	180-330	68-180	68-180
Outlet	GA	1/2	1/2	1/2	1/2	1/2	1/2
Height	H ₁	195	195	-	-	-	-
Height	H ₂	-	-	201	201	216	216
Height	H ₃	180	180	-	-	-	-
Height	H ₄	-	-	191	191	191	191
Length	L ₁	30	30	30	30	30	30
Length	L ₂	33	33	33	33	33	33
Length	A ₁	15	16	15	16	15	16
Weight	ca. kg	1.2	1.2	1.4	1.4	1.4	1.4
Coeff. of discharge gases, vapours	α _w	0.50	0.50	0.72	0.72	0.50	0.50
Coeff. of discharge fluids	α _w	0.35	0.35	-	-	0.35	0.35

Dimensions in mm.

Safety Valves

Type 06316



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW		1/2 & 3/4			
	d_0 (mm)	6	10			
	A_0 (mm ²)	28.3	78.5			
	Medium	B	A	B	C	
0.1	-	12	14	630		
0.5	-	29	34	1080		
1.0	-	43	51	1470		
2.0	-	70	84	2070		
3.0	-	94	115	2540		
4.0	-	118	145	2930		
5.0	-	141	174	3280		
6.0	-	164	204	3590		
8.0	-	209	262	4150		
10.0	-	255	321	4640		
15.0	-	369	468	5680		
20.0	-	483	615	6560		
25.0	-	596	762	7330		
30.0	-	712	909	8030		
40.0	-	943	1204	9270		
50.0	-	1181	1498	10400		
60.0	-	1421	1792	11400		
70.0	-	1670	2086	12300		
80.0	-	1921	2380	13100		
100.0	-	2451	2969	14700		
150.0	-	4044	4439	18000		
180.0	2759	-	5322	19700		
200.0	3064	-	-	-		
250.0	3826	-	-	-		
300.0	4589	-	-	-		
330.0	5046	-	-	-		

Safety Valves

Type 06317



Safety Valves, angle type, stainless steel,
type tested, TÜV-SV.847. S/G/L (G 3/8 - G 1/2, d₀ = 6.0 only S/G)
type tested, TÜV-SV.878. S/G/L (G 3/4 - G 1-1/4)

metal to metal seated, closed bonnet

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06317.X.0000

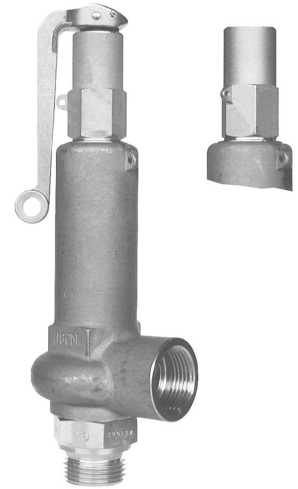
with lifting device - head A

Part No. 06317.X.0020

with gastight cap - head C

Available options - on request only:

- Disc with soft sealing (EPDM, FKM, PTFE)

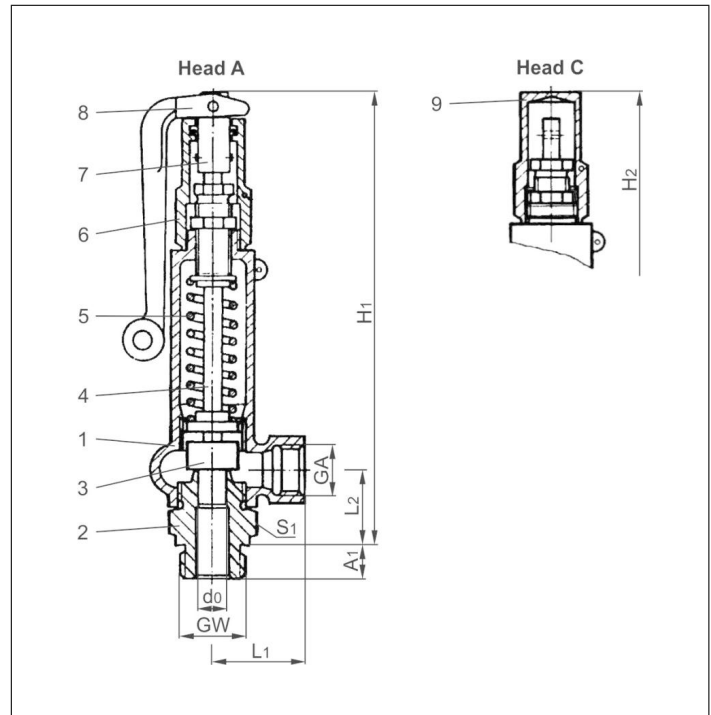


Applications:

Provided as safety device for protection against excessive pressure in pressure vessels. Approved for gases, vapours and fluids.

Working temperature: -60°C / -76°F (213K) up to +280°C / +536°F (553K)

Materials	DIN EN	ASME/ASTM
1 Body + bonnet	1.4581	A 351 CF 10MC
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 Stem	1.4571	A 276 Grade 316Ti
5 Spring	1.4310	A 313 Grade 301
6 Lifting cap	1.4581	A 351 CF 10MC
7 Lifting stem	1.4305	A 276 Grade 303
8 Lever	3.2581	no reference
9 Cap	1.4581	A 351 CF 10MC



Type 06317	Technical data										
Nominal size	GW	3/8	1/2	1/2	1/2	3/4	3/4	1	1	1-1/4	1-1/4
Orifice	d ₀	10	6	8	10	12.5	16	12.5	16	16	20
Dimension code	.X.	1003	0604	0804	1004	1206	1606	1210	1610	1612	2012
Set pressure range	bar	0.1-140	120-500	20-200	0.1-140	32-70	0.1-32	32-70	0.1-32	0.1-32	0.1-20
Outlet	GA	1/2	3/4	1/2	1/2	1	1	1	1	1	1
Height	H ₁	200	200	200	200	230	230	230	230	230	230
Height	H ₂	185	185	185	185	215	215	215	215	215	215
Length	L ₁	40	40	40	40	50	50	50	50	50	50
Length	L ₂	34	34	34	34	40	40	40	40	40	40
Length	A ₁	12	14	12	14	16	16	18	18	20	20
Wrench size across flats	S ₁	32	32	32	32	41	41	41	41	50	50
Weight	ca. kg	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.8	1.8
Coeff. of discharge gases, vapours	α _w	0.38	0.42	0.42	0.38	0.37	0.29	0.37	0.29	0.29	0.11
Coeff. of discharge fluids	α _w	0.30	-	0.30	0.30	0.29	0.23	0.29	0.23	0.23	0.08

Dimensions in mm.

Safety Valves

Type 06317



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/2				3/8 & 1/2			3/4 & 1		
	d ₀ (mm)	6				10			12.5		
	A ₀ (mm ²)	28.3				78.5			122.7		
	Medium	B	A	B	C	A	B	C	A	B	C
0.1	-	-	-	-	-	12	15	536	-	-	-
0.4	-	-	-	-	-	17	24	847	-	-	-
1.0	-	-	-	-	-	33	40	1257	-	-	-
2.0	-	-	-	-	-	51	64	1778	-	-	-
3.0	-	-	-	-	-	68	88	2177	-	-	-
4.0	-	-	-	-	-	85	110	2514	-	-	-
6.0	-	-	-	-	-	119	155	3079	-	-	-
8.0	-	-	-	-	-	152	200	3555	-	-	-
10.0	-	-	-	-	-	186	245	3975	-	-	-
20.0	-	249	333	3598	351	471	5621	-	-	-	
30.0	-	366	494	4406	518	698	6884	-	-	-	
35.0	-	425	575	4759	601	812	7436	914	1236	11232	
40.0	-	484	656	5088	684	927	7949	1040	1410	12007	
50.0	-	602	819	5688	851	1157	8888	1295	1760	13424	
60.0	-	722	983	6231	1021	1389	9736	1553	2113	14706	
70.0	-	843	1148	6730	1192	1622	10516	1814	2469	15884	
80.0	-	968	1314	7195	1368	1858	11242	-	-	-	
90.0	-	1096	1482	7632	1549	1549	11924	-	-	-	
100.0	-	1225	1650	8044	1731	1731	12569	-	-	-	
120.0	1627	1486	1991	8812	2100	2100	13769	-	-	-	
140.0	1909	1754	2337	9518	2479	2479	14872	-	-	-	
160.0	2182	-	2725	10186	-	-	-	-	-	-	
180.0	2455	-	3065	10704	-	-	-	-	-	-	
200.0	2782	-	3406	11376	-	-	-	-	-	-	
250.0	3541	-	-	-	-	-	-	-	-	-	
300.0	4332	-	-	-	-	-	-	-	-	-	
350.0	5156	-	-	-	-	-	-	-	-	-	
400.0	6019	-	-	-	-	-	-	-	-	-	
450.0	6923	-	-	-	-	-	-	-	-	-	
500.0	7873	-	-	-	-	-	-	-	-	-	

Set pressure in bar (g)	GW	3/4, 1 & 1-1/4			1-1/4		
	d ₀ (mm)	16			20		
	A ₀ (mm ²)	201.1			314.2		
	Medium	A	B	C	A	B	C
0.1	23	29	1052	13	16	572	
0.4	36	50	1663	19	27	904	
1.0	67	81	2467	39	48	1341	
2.0	100	127	3489	59	75	1896	
3.0	134	171	4273	79	102	2322	
4.0	167	215	4934	99	128	2682	
6.0	232	303	6043	138	180	3284	
8.0	298	391	6978	177	232	3792	
10.0	363	479	7801	215	284	4240	
20.0	686	920	11033	407	545	5996	
30.0	1011	1364	13512	-	-	-	
35.0	1174	1587	14595	-	-	-	

Safety Valves

Type 06318



Safety Valves, angle type, ductile casting GGG-40.3, type tested, TÜV-SV.847. S/G/L (G 3/8 - G 1/2) type tested, TÜV-SV.878. S/G/L (G 3/4 - G 1-1/4)

metal to metal seated, closed bonnet

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06318.X.0000

with lifting device - head A

Part No. 06318.X.0020

with gastight cap - head C

Available options - on request only:

- Disc with soft sealing (EPDM, FKM, PTFE)



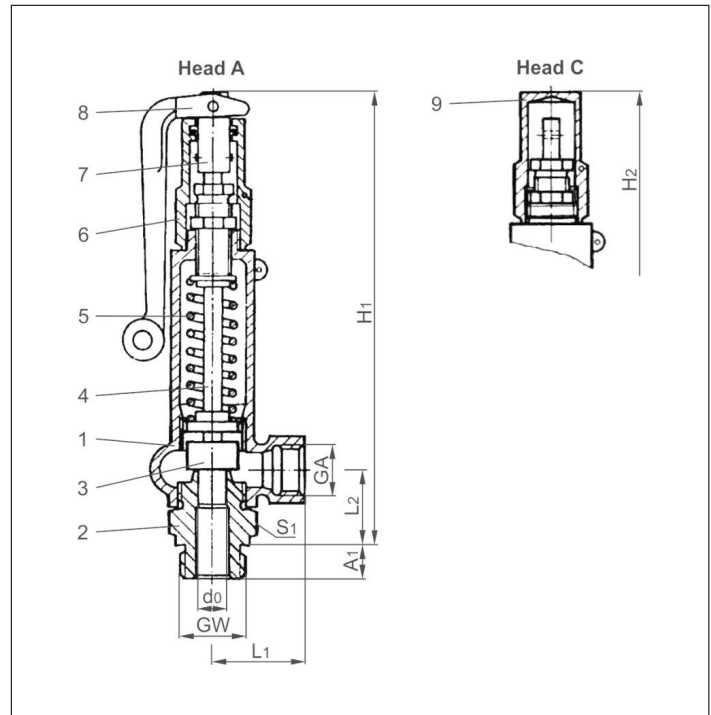
Applications:

Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -10°C / +14°F (263K) up to +280°C / +536°F (553K)

Materials	DIN EN	ASME/ASTM
1 Body + Bonnet	0.7043	A 395
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 Stem	1.4104	A 276 Grade 430F
5 Spring	1.4310	A 313 Grade 301
6 Lifting cap	1.4104	A 276 Grade 430F
7 Lifting stem	1.4305	A 276 Grade 303
8 Lever	3.2581	no reference
9 Cap	1.0718	A 108



Type 06318	Technical data										
Nominal size	GW	3/8	1/2	1/2	1/2	3/4	3/4	1	1	1-1/4	1-1/4
Orifice	d ₀	10	8	10	12.5	12.5	16	12.5	16	16	20
Dimension code	.X.	1003	0804	1004	1204	1206	1606	1210	1610	1612	2012
Set pressure range	bar	0.1-140	20-200	0.1-140	0.1-70	32-70	0.1-32	32-70	0.1-32	0.1-32	0.1-20
Outlet	GA	1/2	1/2	1/2	1/2	1	1	1	1	1	1
Height	H ₁	200	200	200	200	230	230	230	230	230	230
Height	H ₂	185	185	185	185	215	215	215	215	215	215
Length	L ₁	40	40	40	40	50	50	50	50	50	50
Length	L ₂	34	34	34	34	40	40	40	40	40	40
Length	A ₁	12	12	14	14	16	16	18	18	20	20
Wrench size across flats	S ₁	32	32	32	32	41	41	41	41	50	50
Weight	ca. kg	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.8	1.8
Coeff. of discharge gases, vapours	α _w	0.38	0.42	0.38	0.27	0.37	0.29	0.37	0.29	0.29	0.11
Coeff. of discharge fluids	α _w	0.30	0.30	0.30	0.20	0.29	0.23	0.29	0.23	0.23	0.08

Dimensions in mm.

Safety Valves

Type 06318



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/2			3/8 & 1/2			1/2			3/4 & 1		
	d ₀ (mm)	8			10			12.5			12.5		
	A ₀ (mm ²)	50.3			78.5			122.7			122.7		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.1	-	-	-	12	15	536	12	15	558	-	-	-	
0.4	-	-	-	17	24	847	19	26	883	-	-	-	
1.0	-	-	-	33	40	1257	36	44	1309	-	-	-	
2.0	-	-	-	51	64	1778	57	72	1852	-	-	-	
3.0	-	-	-	68	88	2177	76	97	2268	-	-	-	
4.0	-	-	-	85	110	2514	95	122	2619	-	-	-	
6.0	-	-	-	119	155	3079	132	172	3207	-	-	-	
8.0	-	-	-	152	200	3555	169	222	3703	-	-	-	
10.0	-	-	-	186	245	3975	207	272	4140	-	-	-	
20.0	249	333	3598	351	471	5621	390	523	5855	-	-	-	
30.0	366	494	4406	518	698	6884	575	775	7171	-	-	-	
35.0	425	575	4759	601	812	7436	667	902	7746	914	1236	11232	
40.0	484	656	5088	684	927	7949	759	1029	8280	1040	1410	12007	
50.0	602	819	5688	851	1157	8888	945	1285	9258	1295	1760	13424	
60.0	722	983	6231	1021	1389	9736	1133	1542	10141	1553	2113	14706	
70.0	843	1148	6730	1192	1622	10516	1324	1801	10954	1814	2469	15884	
80.0	968	1314	7195	1368	1858	11242	-	-	-	-	-	-	
90.0	1096	1482	7632	1549	1549	11924	-	-	-	-	-	-	
100.0	1225	1650	8044	1731	1731	12569	-	-	-	-	-	-	
120.0	1486	1991	8812	2100	2100	13769	-	-	-	-	-	-	
140.0	1754	2337	9518	2479	2479	14872	-	-	-	-	-	-	
160.0	-	2725	10186	-	-	-	-	-	-	-	-	-	
180.0	-	3065	10704	-	-	-	-	-	-	-	-	-	
200.0	-	3406	11376	-	-	-	-	-	-	-	-	-	

Set pressure in bar (g)	GW	3/4, 1 & 1-1/4			1-1/4		
	d ₀ (mm)	16			20		
	A ₀ (mm ²)	201.1			314.2		
	Medium	A	B	C	A	B	C
0.1	23	29	1052	13	16	572	
0.4	36	50	1663	19	27	904	
1.0	67	81	2467	39	48	1341	
2.0	100	127	3489	59	75	1896	
3.0	134	171	4273	79	102	2322	
4.0	167	215	4934	99	128	2682	
6.0	232	303	6043	138	180	3284	
8.0	298	391	6978	177	232	3792	
10.0	363	479	7801	215	284	4240	
20.0	686	920	11033	407	545	5996	
30.0	1011	1364	13512	-	-	-	
35.0	1174	1587	14595	-	-	-	

Safety Valves

Type 06319



**Safety Valves, angle type, stainless steel,
type tested, TÜV-SV.847. S/G/L (G 3/8 - G 1/2)
type tested, TÜV-SV.878. S/G/L (G 3/4 - G 1-1/4)**

metal to metal seated, closed bonnet
Inlet: male thread type G (BSPP) acc. to ISO 228/1
Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06319.X.0020
with gastight cap



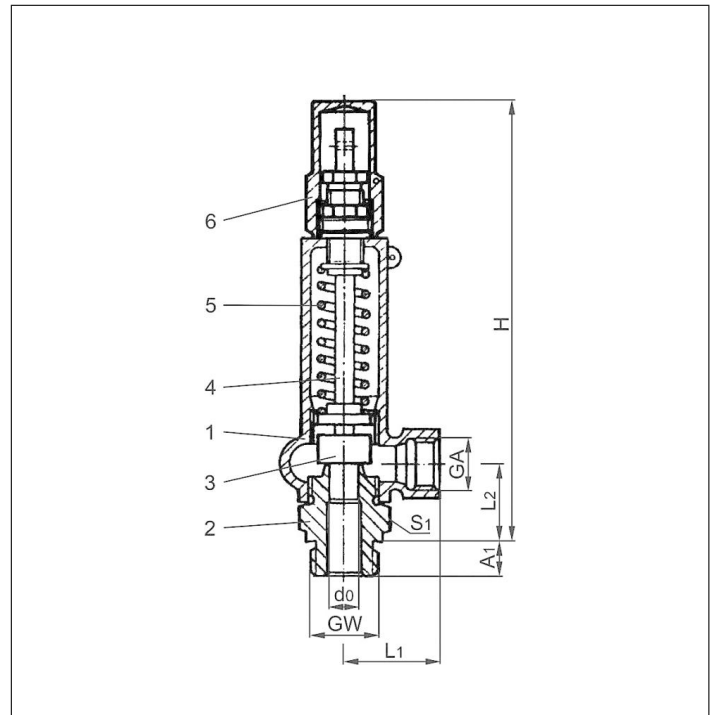
Applications:

Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -200°C / -328°F (73K) up to +280°C / +536°F (553K)

Materials	DIN EN	ASME/ASTM
1 Body + Bonnet	1.4308	A 351 CF8
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 Stem	1.4571	A 276 Grade 316Ti
5 Spring	1.4310	A 313 Grade 301
6 Cap	1.4571	A 276 Grade 316Ti



Type 06319	Technical data										
Nominal size	GW	3/8	1/2	1/2	1/2	3/4	3/4	1	1	1-1/4	1-1/4
Orifice	d ₀	10	8	10	12.5	12.5	16	12.5	16	16	20
Dimension code	.X.	1003	0804	1004	1204	1206	1606	1210	1610	1612	2012
Set pressure range	bar	0.1-140	20-200	0.1-140	0.1-70	32-70	0.1-32	32-70	0.1-32	0.1-32	0.1-20
Outlet	GA	1/2	1/2	1/2	1/2	1	1	1	1	1	1
Height	H	185	185	185	185	215	215	215	215	215	215
Length	L ₁	40	40	40	40	50	50	50	50	50	50
Length	L ₂	34	34	34	34	40	40	40	40	40	40
Length	A ₁	12	12	14	14	16	16	18	18	20	20
Wrench size across flats	S ₁	32	32	32	32	41	41	41	41	50	50
Weight	ca. kg	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.8	1.8
Coeff. of discharge gases, vapours	α _w	0.38	0.42	0.38	0.27	0.37	0.29	0.37	0.29	0.29	0.11
Coeff. of discharge fluids	α _w	0.30	0.30	0.30	0.20	0.29	0.23	0.29	0.23	0.23	0.08

Dimensions in mm.

Safety Valves

Type 06319



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	GW	1/2			3/8 & 1/2			1/2			3/4 & 1		
	d_0 (mm)	8			10			12.5			12.5		
	A_0 (mm ²)	50.3			78.5			122.7			122.7		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.1		-	-	-	12	15	536	12	15	558	-	-	-
0.4		-	-	-	17	24	847	19	26	883	-	-	-
1.0		-	-	-	33	40	1257	36	44	1309	-	-	-
2.0		-	-	-	51	64	1778	57	72	1852	-	-	-
3.0		-	-	-	68	88	2177	76	97	2268	-	-	-
4.0		-	-	-	85	110	2514	95	122	2619	-	-	-
6.0		-	-	-	119	155	3079	132	172	3207	-	-	-
8.0		-	-	-	152	200	3555	169	222	3703	-	-	-
10.0		-	-	-	186	245	3975	207	272	4140	-	-	-
20.0		249	333	3598	351	471	5621	390	523	5855	-	-	-
30.0		366	494	4406	518	698	6884	575	775	7171	-	-	-
35.0		425	575	4759	601	812	7436	667	902	7746	914	1236	11232
40.0		484	656	5088	684	927	7949	759	1029	8280	1040	1410	12007
50.0		602	819	5688	851	1157	8888	945	1285	9258	1295	1760	13424
60.0		722	983	6231	1021	1389	9736	1133	1542	10141	1553	2113	14706
70.0		843	1148	6730	1192	1622	10516	1324	1801	10954	1814	2469	15884
80.0		968	1314	7195	1368	1858	11242	-	-	-	-	-	-
90.0		1096	1482	7632	1549	1549	11924	-	-	-	-	-	-
100.0		1225	1650	8044	1731	1731	12569	-	-	-	-	-	-
120.0		1486	1991	8812	2100	2100	13769	-	-	-	-	-	-
140.0		1754	2337	9518	2479	2479	14872	-	-	-	-	-	-
160.0		-	2725	10186	-	-	-	-	-	-	-	-	-
180.0		-	3065	10704	-	-	-	-	-	-	-	-	-
200.0		-	3406	11376	-	-	-	-	-	-	-	-	-

Set pressure in bar (g)	GW	3/4, 1 & 1-1/4			1-1/4		
	d_0 (mm)	16			20		
	A_0 (mm ²)	201.1			314.2		
	Medium	A	B	C	A	B	C
0.1		23	29	1052	13	16	572
0.4		36	50	1663	19	27	904
1.0		67	81	2467	39	48	1341
2.0		100	127	3489	59	75	1896
3.0		134	171	4273	79	102	2322
4.0		167	215	4934	99	128	2682
6.0		232	303	6043	138	180	3284
8.0		298	391	6978	177	232	3792
10.0		363	479	7801	215	284	4240
20.0		686	920	11033	407	545	5996
30.0		1011	1364	13512	-	-	-
35.0		1174	1587	14595	-	-	-

Safety Valves

Type 06120, Type 06121



**Safety Valves, angle type, cast iron
type tested, TÜV-SV.577. S/G/L**

Standard safety valve
metal to metal seated, with lifting device
Flanged connection acc. to DIN EN 1092-1 PN16

Part No. 06120.X.0000

open bonnet

Part No. 06121.X.0000

closed bonnet

Available options - on request only:

- Disc with soft sealing
- Extended pressure and temperature ranges



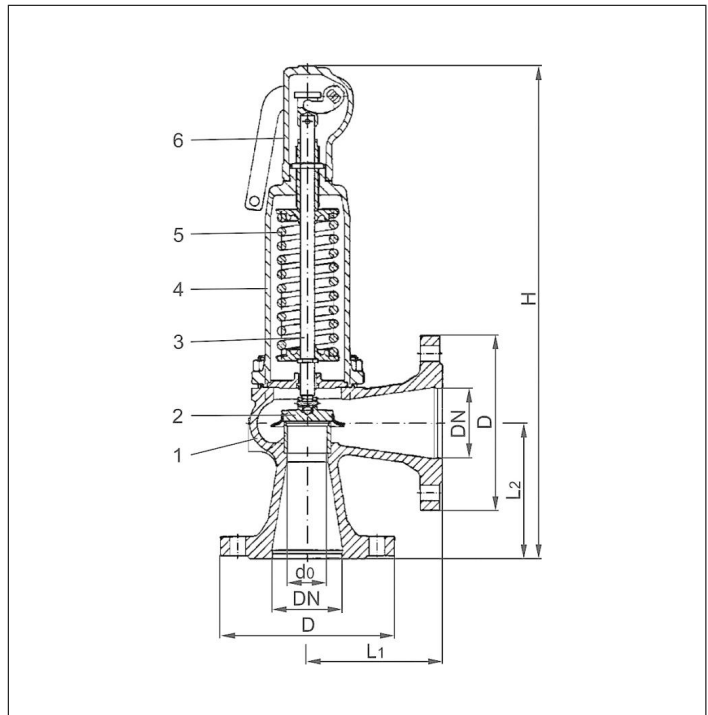
Applications:

Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -10°C / +14°F (263K) up to +200°C / +392°F (473K)

Materials	DIN EN	ASME/ASTM
1 Body	0.6025	A 48-83 Gr. 35B
2 Disc	1.4122	no reference
3 Stem	1.4021	A 276 Grade 420
4 Spring	1.1200	A 227
5 Bonnet	0.7040	A 536-87 Gr. 60-40-18
6 Lifting device	0.7040	A 536-87 Gr. 60-40-18



Type 06120, 06121	Technical data									
Nominal size	DN	15	20	25	32	40	50	65	80	100
Orifice	d ₀	12	18	18	18	23	29	37	46	60
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000
Set pressure range	bar	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16
Flange diameter	D	95	105	115	140	150	165	185	200	220
Height Type 06120	H	310	315	320	325	335	360	470	525	605
Height Type 06121	H	305	310	315	320	330	355	475	530	590
Length	L ₁	90	95	100	105	115	125	145	155	175
Length	L ₂	90	95	100	105	115	125	145	155	175
Weight	ca. kg	5.0	6.0	6.0	8.0	9.0	12.0	15.0	20.0	33.0
Coeff. of discharge gases, vapours	α _w	0.29	0.29	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Coeff. of discharge fluids	α _w	0.19	0.19	0.25	0.25	0.25	0.25	0.25	0.25	0.25

Dimensions in mm.

Safety Valves

Type 06120, Type 06121



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d_0 - orifice

A_0 - flow area

Set pressure in bar (g)	DN	15			20			25 & 32			40		
	d_0 (mm)	12			18			18			23		
	A_0 (mm ²)	113.1			254.5			254.5			415.5		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.2	-	-	-	-	-	-	-	34	39	1770	55	63	2890
0.5	15	18	846	30	35	1900	63	74	2510	102	120	4090	
1.0	31	37	1146	67	80	2580	101	121	3390	165	197	5540	
2.0	57	69	1621	129	156	3650	170	206	4800	278	336	7840	
3.0	77	95	1985	177	217	4470	232	284	5880	379	463	9600	
4.0	98	120	2292	221	272	5160	290	356	6790	473	582	11100	
5.0	117	145	2563	265	327	5770	347	429	7590	566	700	12400	
6.0	136	170	2807	308	382	6320	404	501	8310	659	818	13600	
7.0	155	194	3032	350	438	6820	459	574	8980	750	936	14700	
8.0	175	219	3242	394	493	7300	516	646	9600	842	1055	15700	
9.0	194	243	3439	437	548	7740	572	718	10200	934	1173	16600	
10.0	213	268	3625	480	604	8160	629	791	10700	1026	1291	17500	
12.0	251	317	3971	566	714	8930	741	936	11800	1210	1528	19200	
14.0	289	366	4289	650	825	9650	852	1081	12700	1391	1764	20700	
16.0	327	415	4585	736	935	10300	964	1225	13600	1574	2001	22200	

Set pressure in bar (g)	DN	50			65			80			100		
	d_0 (mm)	29			37			46			60		
	A_0 (mm ²)	660.6			1075.3			1662.1			2827.8		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.2	88	101	4600	142	165	7500	220	255	11600	375	431	19700	
0.5	163	191	6510	265	311	10600	410	481	16400	697	819	27800	
1.0	263	313	8810	428	510	14300	661	788	22200	1125	1341	37700	
2.0	442	534	12500	720	870	20300	1113	1344	31300	1893	2287	53300	
3.0	603	737	15300	981	1199	24800	1517	1854	38400	2581	3153	65300	
4.0	752	925	17600	1224	1505	28700	1892	2327	44300	3218	3958	75400	
5.0	900	1113	19700	1465	1811	32100	2265	2800	49600	3853	4763	84300	
6.0	1048	1301	21600	1706	2117	35100	2636	3273	54300	4485	5568	92400	
7.0	1192	1489	23300	1940	2423	37900	2999	3746	58600	5102	6373	99800	
8.0	1339	1677	24900	2179	2729	40600	3368	4219	62700	5730	7177	107000	
9.0	1485	1865	26400	2418	3035	43000	3737	4692	66500	6358	7982	113000	
10.0	1632	2053	27900	2656	3342	45300	4105	5165	70100	6984	8787	119000	
12.0	1924	2429	30500	3132	3954	49700	4842	6111	76800	8237	10397	131000	
14.0	2211	2805	33000	3599	4566	53700	5563	7057	82900	9464	12006	141000	
16.0	2503	3181	35200	4074	5178	57400	6297	8003	88700	10714	13616	151000	

Safety Valves

Type 06125, Type 06126



**Safety Valves, angle type, cast steel
type tested, TÜV-SV.577. S/G/L**

Standard safety valve
metal to metal seated, with lifting device
Flanged connection acc. to DIN EN 1092-1 PN40

Part No. 06125.X.0000

open bonnet

Part No. 06126.X.0000

closed bonnet

Available options - on request only:

- Disc with soft sealing
- Extended pressure and temperature ranges

Applications:

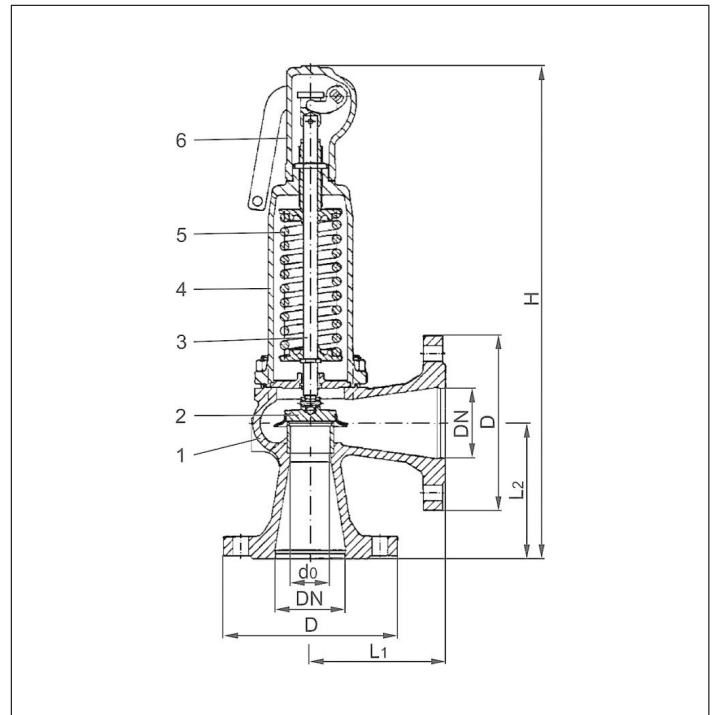
Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -85°C / -121°F (188K) up to +450°C / +842°F (723K)



Materials	DIN EN	ASME/ASTM
1 Body	1.0619	A 216 Grade WCB
2 Disc	1.4122	no reference
3 Stem	1.4021	A 276 Grade 420
4 Spring	1.1200	A 227
5 Bonnet	1.0619	A 216 Grade WCB
6 Lifting device	0.7040	A 536-87 Gr. 60-40-18



Type 06125, 06126	Technical data										
Nominal size	DN	15	20	25	32	40	50	65	80	100	125
Orifice	d ₀	12	18	18	18	23	29	37	46	60	74
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000	1250
Set pressure saturated steam	bar	0.2-32	0.2-32	0.2-32	0.2-32	0.2-32	0.2-32	0.2-32	0.2-32	0.2-30	0.2-24
Set pressure air and fluids	bar	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-35	0.2-30	0.2-32
Flange diameter	D	95	105	115	140	150	165	185	200	235	270
Height Type 06125	H	310	315	320	325	335	360	470	525	605	740
Height Type 06126	H	305	310	315	320	330	355	475	530	590	745
Length	L ₁	90	95	100	105	115	125	145	155	175	200
Length	L ₂	90	95	100	105	115	125	145	155	175	200
Weight	ca. kg	5.0	6.0	6.0	8.0	9.0	12.0	15.0	20.0	33.0	48.0
Coeff. of discharge gases, vapours	α _w	0.29	0.29	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Coeff. of discharge fluids	α _w	0.19	0.19	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

Dimensions in mm.

Safety Valves

Type 06125, Type 06126



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	DN	15			20			25 & 32			40			50		
	d ₀ (mm)	12			18			18			23			29		
	A ₀ (mm ²)	113.1			254.5			254.5			415.5			660.6		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
0.2	-	-	-	-	-	-	34	39	1770	55	63	2890	88	101	4600	
0.5	15	18	846	30	35	1900	63	74	2510	102	120	4090	163	191	6510	
1.0	31	37	1146	67	80	2580	101	121	3390	165	197	5540	263	313	8810	
2.0	57	69	1621	129	156	3650	170	206	4800	278	336	7840	442	534	12500	
3.0	77	95	1985	177	217	4470	232	284	5880	379	463	9600	603	737	15300	
4.0	98	120	2292	221	272	5160	290	356	6790	473	582	11100	752	925	17600	
5.0	117	145	2563	265	327	5770	347	429	7590	566	700	12400	900	1113	19700	
6.0	136	170	2807	308	382	6320	404	501	8310	659	818	13600	1048	1301	21600	
7.0	155	194	3032	350	438	6820	459	574	8980	750	936	14700	1192	1489	23300	
8.0	175	219	3242	394	493	7300	516	646	9600	842	1055	15700	1339	1677	24900	
9.0	194	243	3439	437	548	7740	572	718	10200	934	1173	16600	1485	1865	26400	
10.0	213	268	3625	480	604	8160	629	791	10700	1026	1291	17500	1632	2053	27900	
12.0	251	317	3971	566	714	8930	741	936	11800	1210	1528	19200	1924	2429	30500	
16.0	327	415	4585	736	935	10300	964	1225	13600	1574	2001	22200	2503	3181	35200	
20.0	403	513	5126	908	1156	11500	1190	1515	15200	1942	2474	24800	3088	3933	39400	
24.0	479	612	5615	1078	1377	12600	1412	1805	16600	2306	2947	27100	3665	4685	43200	
28.0	555	710	6065	1251	1599	13600	1639	2095	18000	2676	3420	29300	4254	5437	46600	
32.0	632	808	6484	1425	1820	14600	1867	2384	19200	3049	3893	31300	4847	6189	49800	
36.0	-	906	6877	-	2041	15500	-	2674	20400	-	4366	33200	-	6941	52900	
40.0	-	1005	7250	-	2262	16300	-	2964	21500	-	4839	35000	-	7693	55700	

Set pressure in bar (g)	DN	65			80			100			125		
	d ₀ (mm)	37			46			60			74		
	A ₀ (mm ²)	1075.3			1662.1			2827.8			4300.7		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.2	142	165	7500	220	255	11600	375	431	19700	570	660	30000	
0.5	265	311	10600	410	481	16400	697	819	27800	1060	1245	42400	
1.0	428	510	14300	661	788	22200	1125	1341	37700	1711	2039	57400	
2.0	720	870	20300	1113	1344	31300	1893	2287	53300	2880	3478	81100	
3.0	981	1199	24800	1517	1854	38400	2581	3153	65300	3926	4797	99300	
4.0	1224	1505	28700	1892	2327	44300	3218	3958	75400	4895	6021	115000	
5.0	1465	1811	32100	2265	2800	49600	3853	4763	84300	5861	7245	128000	
6.0	1706	2117	35100	2636	3273	54300	4485	5568	92400	6823	8469	140000	
7.0	1940	2423	37900	2999	3746	58600	5102	6373	99800	7761	9694	152000	
8.0	2179	2729	40600	3368	4219	62700	5730	7177	107000	8717	10918	162000	
9.0	2418	3035	43000	3737	4692	66500	6358	7982	113000	9671	12142	172000	
10.0	2656	3342	45300	4105	5165	70100	6984	8787	119000	10624	13366	181000	
12.0	3132	3954	49700	4842	6111	76800	8237	10397	131000	12530	15815	199000	
16.0	4074	5178	57400	6297	8003	88700	10714	13616	151000	16296	20711	229000	
20.0	5027	6402	64100	7770	9895	99100	13218	16835	169000	20107	25608	257000	
24.0	5967	7626	70200	9222	11788	109000	15690	20055	185000	23866	30505	281000	
28.0	6925	8851	75900	10704	13680	117000	18211	23274	200000	-	35402	304000	
32.0	7890	10075	81100	12195	15572	125000	20748	-	-	-	40299	324000	
34.0	-	10687	83600	-	16518	129000	-	-	-	-	-	-	
36.0	-	11299	86000	-	-	-	-	-	-	-	-	-	
40.0	-	12523	90700	-	-	-	-	-	-	-	-	-	

Safety Valves

Type 06127



**Safety Valves, angle type, stainless steel
type tested, TÜV-SV.577. S/G/L**

Standard safety valve
metal to metal seated, with lifting device,
closed bonnet
Flanged connection acc. to DIN EN 1092-1 PN40

Part No. 06127.X.0000

Available options - on request only:

- Disc with soft sealing
- Extended pressure and temperature ranges

Applications:

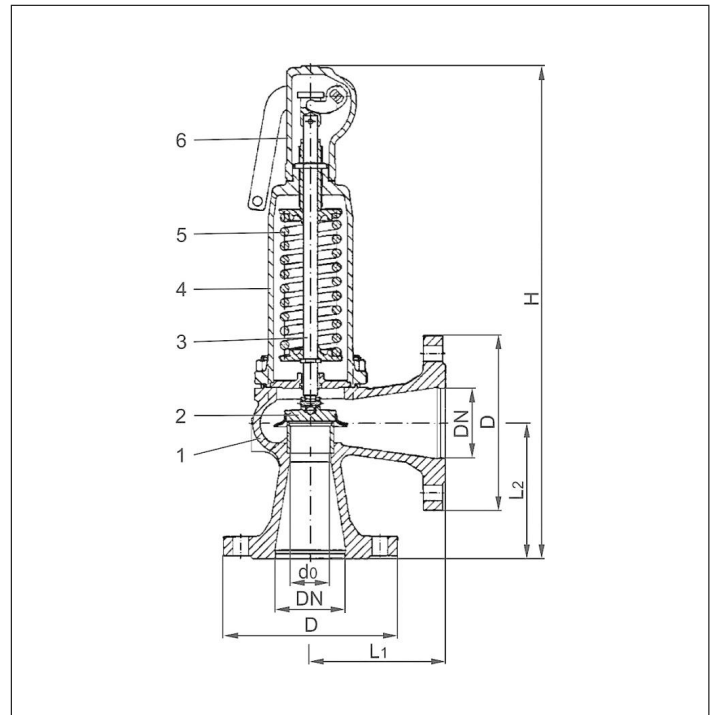
Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -270°C / -454°F (3K) up to +450°C / +842°F (723K)



Materials	DIN EN	ASME/ASTM
1 Body	1.4408	A 351 CF 8M
2 Disc	1.4404	A 276 Grade 316L
3 Stem	1.4404	A 276 Grade 316L
4 Bonnet	1.4408	A 351 CF 8M
5 Spring	1.4310	A 313 Grade 301
6 Lifting device	1.4408	A 351 CF 8M



Type 06127	Technical data									
Nominal size	DN	15	20	25	32	40	50	65	80	100
Orifice	d ₀	12	18	18	18	23	29	37	46	60
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000
Set pressure	bar	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-26	0.2-25	0.2-22
Flange diameter	D	95	105	115	140	150	165	185	200	235
Height	H	310	315	320	325	335	360	475	530	605
Length	L ₁	90	95	100	105	115	125	145	155	175
Length	L ₂	90	95	100	105	115	125	145	155	175
Weight	ca. kg	5.0	6.0	6.0	8.0	9.0	12.0	15.0	20.0	33.0
Coeff. of discharge gases, vapours	α _w	0.29	0.29	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Coeff. of discharge fluids	α _w	0.19	0.19	0.25	0.25	0.25	0.25	0.25	0.25	0.25

Dimensions in mm.

Safety Valves

Type 06127



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	DN	15			20			25 & 32			40			50		
	d ₀ (mm)	12			18			18			23			29		
	A ₀ (mm ²)	113.1			254.5			254.5			415.5			660.6		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
0.2	-	-	-	-	-	-	34	39	1770	55	63	2890	88	101	4600	
0.5	15	18	846	30	35	1900	63	74	2510	102	120	4090	163	191	6510	
1.0	31	37	1146	67	80	2580	101	121	3390	165	197	5540	263	313	8810	
2.0	57	69	1621	129	156	3650	170	206	4800	278	336	7840	442	534	12500	
3.0	77	95	1985	177	217	4470	232	284	5880	379	463	9600	603	737	15300	
4.0	98	120	2292	221	272	5160	290	356	6790	473	582	11100	752	925	17600	
5.0	117	145	2563	265	327	5770	347	429	7590	566	700	12400	900	1113	19700	
6.0	136	170	2807	308	382	6320	404	501	8310	659	818	13600	1048	1301	21600	
7.0	155	194	3032	350	438	6820	459	574	8980	750	936	14700	1192	1489	23300	
8.0	175	219	3242	394	493	7300	516	646	9600	842	1055	15700	1339	1677	24900	
9.0	194	243	3439	437	548	7740	572	718	10200	934	1173	16600	1485	1865	26400	
10.0	213	268	3625	480	604	8160	629	791	10700	1026	1291	17500	1632	2053	27900	
12.0	251	317	3971	566	714	8930	741	936	11800	1210	1528	19200	1924	2429	30500	
16.0	327	415	4585	736	935	10300	964	1225	13600	1574	2001	22200	2503	3181	35200	
20.0	403	513	5126	908	1156	11500	1190	1515	15200	1942	2474	24800	3088	3933	39400	
24.0	479	612	5615	1078	1377	12600	1412	1805	16600	2306	2947	27100	3665	4685	43200	
28.0	555	710	6065	1251	1599	13600	1639	2095	18000	2676	3420	29300	4254	5437	46600	
32.0	632	808	6484	1425	1820	14600	1867	2384	19200	3049	3893	31300	4847	6189	49800	
34.0	-	857	6684	-	1930	15000	-	2529	19800	-	4130	32300	-	6565	51400	
36.0	-	906	6877	-	2041	15500	-	2674	20400	-	4366	33200	-	6941	52900	
40.0	-	1005	7250	-	2262	16300	-	2964	21500	-	4839	35000	-	7693	55700	

Set pressure in bar (g)	DN	65			80			100		
	d ₀ (mm)	37			46			60		
	A ₀ (mm ²)	1075.3			1662.1			2827.8		
	Medium	A	B	C	A	B	C	A	B	C
0.2	142	165	7500	220	255	11600	375	431	19700	
0.5	265	311	10600	410	481	16400	697	819	27800	
1.0	428	510	14300	661	788	22200	1125	1341	37700	
2.0	720	870	20300	1113	1344	31300	1893	2287	53300	
3.0	981	1199	24800	1517	1854	38400	2581	3153	65300	
4.0	1224	1505	28700	1892	2327	44300	3218	3958	75400	
5.0	1465	1811	32100	2265	2800	49600	3853	4763	84300	
6.0	1706	2117	35100	2636	3273	54300	4485	5568	92400	
7.0	1940	2423	37900	2999	3746	58600	5102	6373	99800	
8.0	2179	2729	40600	3368	4219	62700	5730	7177	107000	
9.0	2418	3035	43000	3737	4692	66500	6358	7982	113000	
10.0	2656	3342	45300	4105	5165	70100	6984	8787	119000	
12.0	3132	3954	49700	4842	6111	76800	8237	10397	131000	
16.0	4074	5178	57400	6297	8003	88700	10714	13616	151000	
20.0	5027	6402	64100	7770	9895	99100	13218	16835	169000	
22.0	5489	7014	67300	8484	10842	104000	14434	18445	177000	
24.0	5967	7626	70200	9222	11788	109000	-	-	-	
26.0	6445	8238	73100	-	-	-	-	-	-	

Safety Valves

Type 06340, Type 06341



Safety Valves, angle type, cast iron, type tested, TÜV-SV.576. S/G/L

Full lift safety valve

Standard safety valve for fluids

metal to metal seated, with lifting device,

with enlarged outlet

Flanged connection acc. to DIN EN 1092-1 PN16

Part No. 06340.X.0000

open bonnet

Part No. 06341.X.0000

closed bonnet

Available options - on request only:

- Disc with soft sealing

Applications:

Provided as safety device for protection against excessive pressure in pressure vessels.

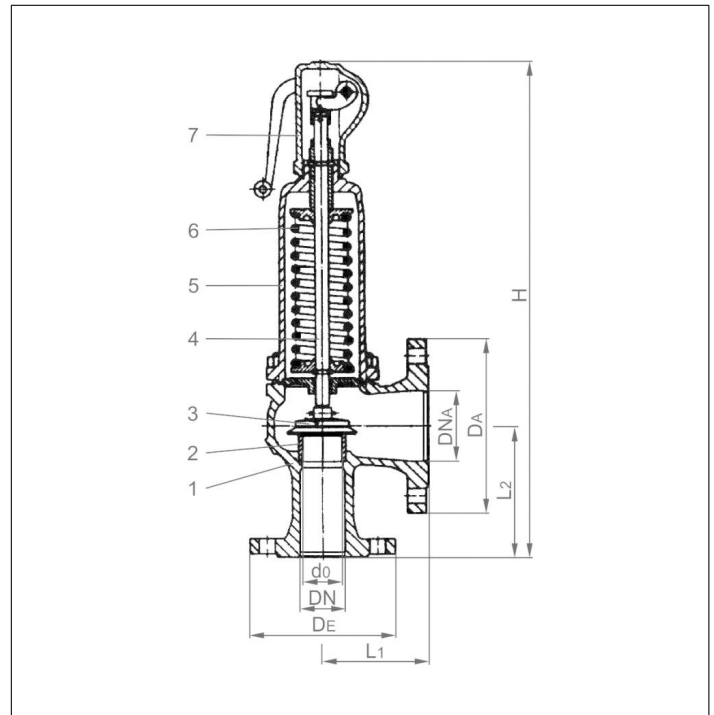
Approved for gases, vapours and fluids.

Working temperatures: -10°C / +14°F (263K) up to +200°C / +392°F (473K)

with spring in special steel up to +300°C / +572°F (573K)



Materials	DIN EN	ASME/ASTM
1 Body	0.6025	A 48-83 Gr. 35B
2 Seat	1.4404	A 276 Grade 316L
3 Disc	1.4122	no reference
4 Stem	1.4021	A 276 Grade 420
5 Spring	1.1200	A 227
6 Bonnet	0.7040	A 536-87 Gr. 60-40-18
7 Lifting device	0.7040	A 536-87 Gr. 60-40-18



Type 06340, 06341	Technical data									
Nominal size	DN	25	32	40	50	65	80	100	125	150
Outlet	DN	40	50	65	80	100	125	150	200	250
Orifice	d ₀	23	29	37	46	60	74	92	98	125
Dimension code	.X.	0250	0320	0400	0500	0650	0800	1000	1250	1500
Set pressure range	bar	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16	0.2-16
Flange diameter	D _E	115	140	150	165	185	200	220	250	285
Flange diameter	D _A	150	165	185	200	220	250	285	340	405
Height Type 06340	H	338	440	506	563	696	798	880	910	1020
Height Type 06341	H	339	446	512	569	702	801	883	913	1020
Length	L ₁	100	110	115	120	140	160	180	200	225
Length	L ₂	105	115	140	150	170	195	220	250	285
Weight	ca. kg	9.0	12.0	16.0	22.0	32.0	56.0	75.0	85.0	131.0
Coeff. of discharge gases, vapours	α _w	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Coeff. of discharge fluids	α _w	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45

Dimensions in mm.

Safety Valves

Type 06340, Type 06341



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	DN	25			32			40			50			65		
	d ₀ (mm)	23			29			37			46			60		
	A ₀ (mm ²)	415.5			660.6			1075.3			1662.1			2827.8		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
0.2		140	162	5210	223	258	8280	363	420	13500	561	649	20800	954	1105	35500
0.5		224	263	7370	356	418	11700	579	680	19100	895	1051	29500	1523	1789	50100
1.0		326	388	9970	518	617	15900	843	1004	25800	1302	1552	39900	2215	2641	67900
2.0		519	627	14100	825	996	22400	1343	1622	36500	2075	2507	56400	3531	4265	96000
3.0		699	854	17300	1111	1357	27500	1808	2209	44700	2794	3414	69100	4754	5809	118000
4.0		871	1071	19900	1385	1703	31700	2254	2773	51600	3485	4286	79800	5928	7291	136000
5.0		1043	1289	22300	1658	2050	35500	2699	3337	57700	4172	5157	89200	7097	8774	152000
6.0		1214	1507	24400	1930	2396	38800	3142	3900	63200	4856	6029	97700	8262	10257	166000
7.0		1381	1725	26400	2196	2742	42000	3574	4464	68300	5525	6900	106000	9399	11739	180000
8.0		1551	1943	28200	2466	3089	44800	4014	5028	73000	6205	7771	113000	10556	13222	192000
9.0		1721	2161	29900	2736	3435	47600	4454	5592	77400	6884	8643	120000	11712	14704	204000
10.0		1891	2379	31500	3006	3781	50100	4893	6155	81600	7562	9514	126000	12866	16187	215000
12.0		2230	2814	34600	3545	4474	54900	5770	7283	89400	8919	11257	138000	15174	19152	235000
14.0		2562	3250	37300	4073	5167	59300	6629	8411	96600	10247	13000	149000	17433	22117	254000
16.0		2900	3686	39900	4610	5859	63400	7505	9538	103000	11600	14743	160000	19735	25082	272000

Set pressure in bar (g)	DN	80			100			125			150		
	d ₀ (mm)	74			92			98			125		
	A ₀ (mm ²)	4301.4			6648.5			7543.9			12273.4		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.2		1451	1680	53900	2243	2597	83300	2545	2947	94600	4140	4794	154000
0.5		2316	2721	76300	3580	4206	118000	4062	4772	134000	6609	7764	218000
1.0		3370	4017	103000	5209	6209	160000	5910	7045	181000	9616	11461	295000
2.0		5371	6487	146000	8302	10026	226000	9420	11377	256000	15326	18509	417000
3.0		7232	8836	179000	11178	13657	276000	12683	15497	314000	20635	25212	510000
4.0		9018	11091	206000	13938	17143	319000	15816	19462	362000	25731	31647	589000
5.0		10796	13346	231000	16687	20629	357000	18934	23407	405000	30804	38082	659000
6.0		12568	15601	253000	19426	24114	391000	22042	27362	444000	35861	44516	722000
7.0		14297	17857	273000	22098	27600	422000	25074	31317	479000	40794	50951	779000
8.0		16057	20112	292000	24818	31086	451000	28161	35273	512000	45816	57386	833000
9.0		17815	22367	310000	27535	34571	479000	31244	39228	543000	50831	63821	884000
10.0		19571	24622	326000	30250	38057	505000	34324	43183	573000	55842	70255	932000
12.0		23081	29132	358000	35675	45028	553000	40480	51093	627000	65858	83125	1021000
14.0		26518	33642	386000	40987	52000	597000	46507	59003	678000	75664	95994	1102000
16.0		30020	38153	413000	46400	58971	638000	52650	66914	724000	85657	108863	1178000

Safety Valves

Type 06345, Type 06346



Safety Valves, angle type, cast steel, type tested, TÜV-SV.576. S/G/L

Full lift safety valve

Standard safety valve for fluids

metal to metal seated, with lifting device,
with enlarged outlet

Inlet: Flanged connection acc. to DIN EN 1092-1 PN40

Outlet: Flanged connection acc. to DIN EN 1092-1 PN16

Part No. 06345.X.0000

open bonnet

Part No. 06346.X.0000

closed bonnet

Available options - on request only:

· Disc with soft sealing · Extended pressure and temperature ranges

Applications:

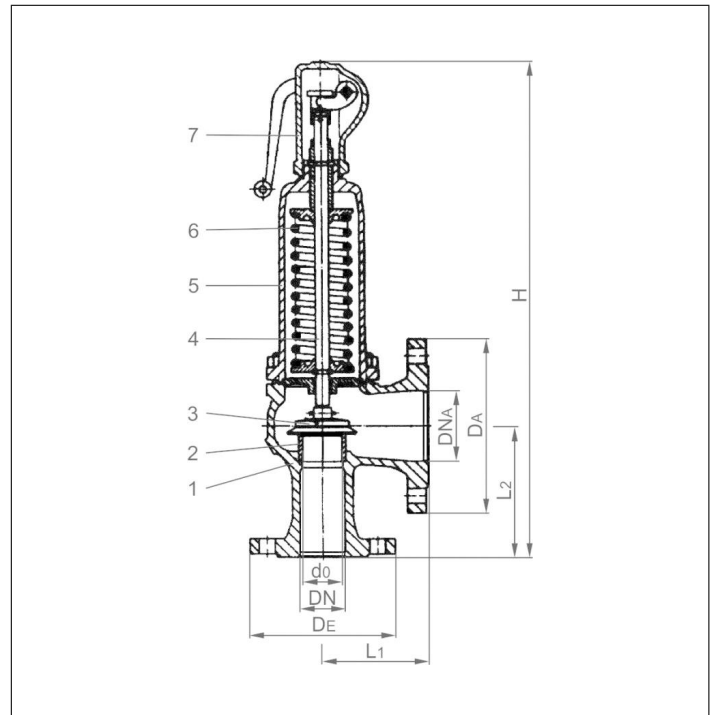
Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -85°C / -121°F (188K) up to +450°C / +842°F (723K)



Materials	DIN EN	ASME/ASTM
1 Body	1.0619	A 216 Grade WCB
2 Seat	1.4404	A 276 Grade 316L
3 Disc	1.4122	no reference
4 Stem	1.4021	A 276 Grade 420
5 Spring	1.1200	A 227
6 Bonnet	1.0619	A 216 Grade WCB
7 Lifting device	0.7040	A 536-87 Gr. 60-40-18



Type 06345, 06346	Technical data									
Nominal size	DN	25	32	40	50	65	80	100	125	150
Outlet	DN	40	50	65	80	100	125	150	200	250
Orifice	d ₀	23	29	37	46	60	74	92	98	125
Dimension code	.X.	0250	0320	0400	0500	0650	0800	1000	1250	1500
Set pressure saturated steam	bar	0.2-32	0.2-32	0.2-32	0.2-32	0.2-32	0.2-32	0.2-32	0.2-24	0.2-16
Set pressure air and fluids	bar	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-40	0.2-28	0.2-25
Flange diameter	D _E	115	140	150	165	185	200	220	250	285
Flange diameter	D _A	150	165	185	200	220	250	285	340	405
Height Type 06345	H	338	440	506	563	696	798	880	910	1020
Height Type 06346	H	339	446	512	569	702	801	883	913	1020
Length	L ₁	100	110	115	120	140	160	180	200	225
Length	L ₂	105	115	140	150	170	195	220	250	285
Weight	ca. kg	9.0	12.0	16.0	22.0	32.0	56.0	75.0	85.0	131.0
Coeff. of discharge gases, vapours	α _w	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Coeff. of discharge fluids	α _w	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45

Dimensions in mm.



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	DN	25			32			40			50			65		
	d ₀ (mm)	23			29			37			46			60		
	A ₀ (mm ²)	415.5			660.6			1075.3			1662.1			2827.8		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
0.2	140	162	5210	223	258	8280	363	420	13500	561	649	20800	954	1105	35500	
0.5	224	263	7370	356	418	11700	579	680	19100	895	1051	29500	1523	1789	50100	
1.0	326	388	9970	518	617	15900	843	1004	25800	1302	1552	39900	2215	2641	67900	
2.0	519	627	14100	825	996	22400	1343	1622	36500	2075	2507	56400	3531	4265	96000	
3.0	699	854	17300	1111	1357	27500	1808	2209	44700	2794	3414	69100	4754	5809	118000	
4.0	871	1071	19900	1385	1703	31700	2254	2773	51600	3485	4286	79800	5928	7291	136000	
5.0	1043	1289	22300	1658	2050	35500	2699	3337	57700	4172	5157	89200	7097	8774	152000	
6.0	1214	1507	24400	1930	2396	38800	3142	3900	63200	4856	6029	97700	8262	10257	166000	
7.0	1381	1725	26400	2196	2742	42000	3574	4464	68300	5525	6900	106000	9399	11739	180000	
8.0	1551	1943	28200	2466	3089	44800	4014	5028	73000	6205	7771	113000	10556	13222	192000	
9.0	1721	2161	29900	2736	3435	47600	4454	5592	77400	6884	8643	120000	11712	14704	204000	
10.0	1891	2379	31500	3006	3781	50100	4893	6155	81600	7562	9514	126000	12866	16187	215000	
12.0	2230	2814	34600	3545	4474	54900	5770	7283	89400	8919	11257	138000	15174	19152	235000	
16.0	2900	3686	39900	4610	5859	63400	7505	9538	103000	11600	14743	160000	19735	25082	272000	
20.0	3578	4557	44600	5688	7245	70900	9260	11793	115000	14312	18228	178000	24350	31012	304000	
24.0	4247	5429	48900	6752	8630	77700	10991	14048	126000	16988	21714	195000	28903	36943	333000	
28.0	4930	6300	52800	7837	10016	83900	12757	16304	137000	19718	25200	211000	33547	42873	359000	
32.0	5616	7171	56400	8929	11401	89700	14534	18559	146000	22465	28685	226000	38220	48803	384000	
34.0	5945	7607	58200	9451	12094	92500	15384	19686	151000	23779	30428	233000	40455	51768	396000	
36.0	6290	8043	59800	10000	12786	95100	16278	20814	155000	25160	32171	239000	42806	54733	407000	
40.0	6985	8914	63100	11104	14172	100000	18076	23059	163000	27939	35657	252000	47533	60663	429000	

Set pressure in bar (g)	DN	80			100			125			150		
	d ₀ (mm)	74			92			98			125		
	A ₀ (mm ²)	4301.4			6648.5			7543.9			12273.4		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.2	1451	1680	53900	2243	2597	83300	2545	2947	94600	4140	4794	154000	
0.5	2316	2721	76300	3580	4206	118000	4062	4772	134000	6609	7764	218000	
1.0	3370	4017	103000	5209	6209	160000	5910	7045	181000	9616	11461	295000	
2.0	5371	6487	146000	8302	10026	226000	9420	11377	256000	15326	18509	417000	
3.0	7232	8836	179000	11178	13657	276000	12683	15497	314000	20635	25212	510000	
4.0	9018	11091	206000	13938	17143	319000	15816	19462	362000	25731	31647	589000	
5.0	10796	13346	231000	16687	20629	357000	18934	23407	405000	30804	38082	659000	
6.0	12568	15601	253000	19426	24114	391000	22042	27362	444000	35861	44516	722000	
7.0	14297	17857	273000	22098	27600	422000	25074	31317	479000	40794	50951	779000	
8.0	16057	20112	292000	24818	31086	451000	28161	35273	512000	45816	57386	833000	
9.0	17815	22367	310000	27535	34571	479000	31244	39228	543000	50831	63821	884000	
10.0	19571	24622	326000	30250	38057	505000	34324	43183	573000	55842	70255	932000	
12.0	23081	29132	358000	35675	45028	553000	40480	51093	627000	65858	83125	1021000	
16.0	30020	38153	413000	46400	58971	638000	52650	66914	724000	85657	108863	1178000	
20.0	37039	47173	462000	57249	72913	714000	64960	82734	810000	105685	134602	1317000	
24.0	43964	56194	506000	67953	86856	782000	77106	98555	887000	125445	160341	1443000	
28.0	51029	65214	546000	78873	100799	844000	89496	114375	958000	-	-	-	
32.0	58137	74235	584000	89860	114741	-	-	-	-	-	-	-	
34.0	61537	78745	602000	95115	121713	-	-	-	-	-	-	-	
36.0	65112	83255	619000	100641	128684	-	-	-	-	-	-	-	
40.0	72303	92276	653000	111756	142626	-	-	-	-	-	-	-	

Safety Valves

Type 06347



Safety Valves, angle type, stainless steel type tested, TÜV-SV.576. S/G/L

Full lift safety valve

Standard safety valve for fluids

metal to metal seated, with lifting device,

closed bonnet, with enlarged outlet

Inlet: Flanged connection acc. to DIN EN 1092-1 PN40

Outlet: Flanged connection acc. to DIN EN 1092-1 PN16

Part No. 06347.X.0000

Available options - on request only:

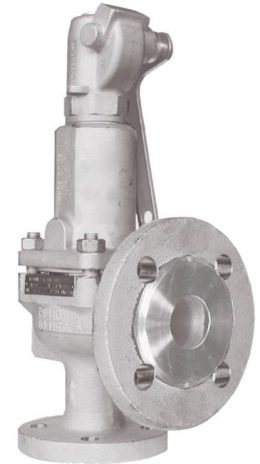
- Disc with soft sealing
- Extended pressure and temperature ranges

Applications:

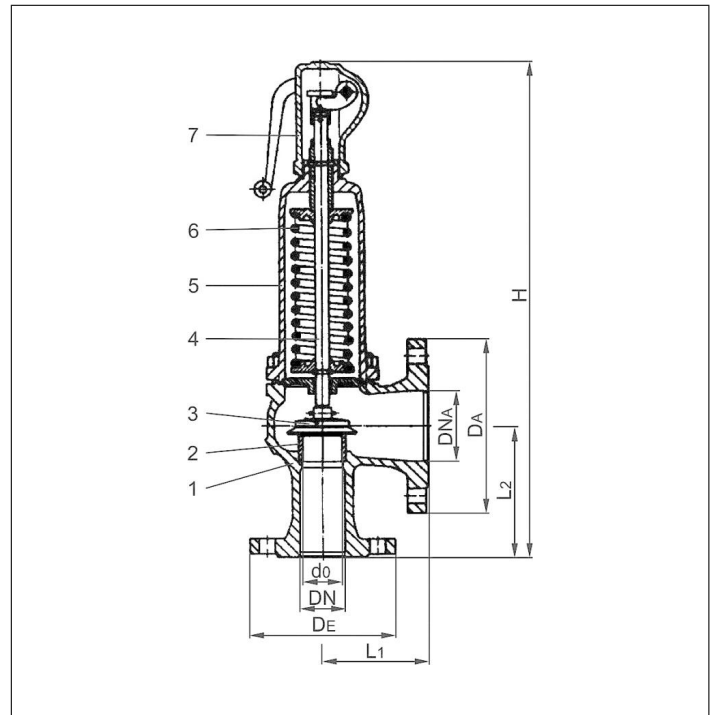
Provided as safety device for protection against excessive pressure in pressure vessels.

Approved for gases, vapours and fluids.

Working temperatures: -270°C / -454°F (3K) up to +400°C / +752°F (673K)



Materials	DIN EN	ASME/ASTM
1 Body	1.4408	A 351 CF 8M
2 Seat	1.4404	A 276 Grade 316L
3 Disc	1.4404	A 276 Grade 316L
4 Stem	1.4404	A 276 Grade 316L
5 Spring	1.4310	A 313 Grade 301
6 Bonnet	1.4408	A 351 CF 8M
7 Lifting device	1.4408	A 351 CF 8M



Type 06347	Technical data									
Nominal size	DN	25	32	40	50	65	80	100	125	150
Outlet	DN	40	50	65	80	100	125	150	200	250
Orifice	d ₀	23	29	37	46	60	74	92	98	125
Dimension code	.X.	0250	0320	0400	0500	0650	0800	1000	1250	1500
Set pressure saturated steam	bar	0.2-32	0.2-32	0.2-32	0.2-32	0.2-28	0.2-25	0.2-26	0.2-24	0.2-10
Set pressure air and fluids	bar	0.2-40	0.2-40	0.2-40	0.2-37	0.2-28	0.2-25	0.2-26	0.2-24	0.2-10
Flange diameter	D _E	115	140	150	165	185	200	220	250	285
Flange diameter	D _A	150	165	185	200	220	250	285	340	405
Height	H	339	446	512	569	702	801	883	913	1020
Length	L ₁	100	110	115	120	140	160	180	200	225
Length	L ₂	105	115	140	150	170	195	220	250	285
Weight	ca. kg	9.0	12.0	16.0	22.0	32.0	56.0	75.0	85.0	131.0
Coeff. of discharge gases, vapours	α _w	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Coeff. of discharge fluids	α _w	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45

Dimensions in mm.

Safety Valves

Type 06347



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	DN	25			32			40			50			65		
	d ₀ (mm)	23			29			37			46			60		
	A ₀ (mm ²)	415.5			660.6			1075.3			1662.1			2827.8		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
0.2	140	162	5210	223	258	8280	363	420	13500	561	649	20800	954	1105	35500	
0.5	224	263	7370	356	418	11700	579	680	19100	895	1051	29500	1523	1789	50100	
1.0	326	388	9970	518	617	15900	843	1004	25800	1302	1552	39900	2215	2641	67900	
2.0	519	627	14100	825	996	22400	1343	1622	36500	2075	2507	56400	3531	4265	96000	
3.0	699	854	17300	1111	1357	27500	1808	2209	44700	2794	3414	69100	4754	5809	118000	
4.0	871	1071	19900	1385	1703	31700	2254	2773	51600	3485	4286	79800	5928	7291	136000	
5.0	1043	1289	22300	1658	2050	35500	2699	3337	57700	4172	5157	89200	7097	8774	152000	
6.0	1214	1507	24400	1930	2396	38800	3142	3900	63200	4856	6029	97700	8262	10257	166000	
7.0	1381	1725	26400	2196	2742	42000	3574	4464	68300	5525	6900	106000	9399	11739	180000	
8.0	1551	1943	28200	2466	3089	44800	4014	5028	73000	6205	7771	113000	10556	13222	192000	
9.0	1721	2161	29900	2736	3435	47600	4454	5592	77400	6884	8643	120000	11712	14704	204000	
10.0	1891	2379	31500	3006	3781	50100	4893	6155	81600	7562	9514	126000	12866	16187	215000	
12.0	2230	2814	34600	3545	4474	54900	5770	7283	89400	8919	11257	138000	15174	19152	235000	
16.0	2900	3686	39900	4610	5859	63400	7505	9538	103000	11600	14743	160000	19735	25082	272000	
20.0	3578	4557	44600	5688	7245	70900	9260	11793	115000	14312	18228	178000	24350	31012	304000	
24.0	4247	5429	48900	6752	8630	77700	10991	14048	126000	16988	21714	195000	28903	36943	333000	
28.0	4930	6300	52800	7837	10016	83900	12757	16304	137000	19718	25200	211000	33547	42873	359000	
32.0	5616	7171	56400	8929	11401	89700	14534	18559	146000	22465	28685	226000	-	-	-	
34.0	5945	7607	58200	9451	12094	92500	15384	19686	151000	23779	30428	233000	-	-	-	
36.0	6290	8043	59800	10000	12786	95100	16278	20814	155000	25160	32171	239000	-	-	-	
40.0	6985	8914	63100	11104	14172	100000	18076	23059	163000	-	-	-	-	-	-	

Set pressure in bar (g)	DN	80			100			125			150		
	d ₀ (mm)	74			92			98			125		
	A ₀ (mm ²)	4301.4			6648.5			7543.9			12273.4		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.2	1451	1680	53900	2243	2597	83300	2545	2947	94600	4140	4794	154000	
0.5	2316	2721	76300	3580	4206	118000	4062	4772	134000	6609	7764	218000	
1.0	3370	4017	103000	5209	6209	160000	5910	7045	181000	9616	11461	295000	
2.0	5371	6487	146000	8302	10026	226000	9420	11377	256000	15326	18509	417000	
3.0	7232	8836	179000	11178	13657	276000	12683	15497	314000	20635	25212	510000	
4.0	9018	11091	206000	13938	17143	319000	15816	19462	362000	25731	31647	589000	
5.0	10796	13346	231000	16687	20629	357000	18934	23407	405000	30804	38082	659000	
6.0	12568	15601	253000	19426	24114	391000	22042	27362	444000	35861	44516	722000	
7.0	14297	17857	273000	22098	27600	422000	25074	31317	479000	40794	50951	779000	
8.0	16057	20112	292000	24818	31086	451000	28161	35273	512000	45816	57386	833000	
9.0	17815	22367	310000	27535	34571	479000	31244	39228	543000	50831	63821	884000	
10.0	19571	24622	326000	30250	38057	505000	34324	43183	573000	55842	70255	932000	
12.0	23081	29132	358000	35675	45028	553000	40480	51093	627000	-	-	-	
16.0	30020	38153	413000	46400	58971	638000	52650	66914	724000	-	-	-	
20.0	37039	47173	462000	57249	72913	714000	64960	82734	810000	-	-	-	
24.0	43964	56194	506000	67953	86856	782000	77106	98555	887000	-	-	-	
26.0	-	-	-	73405	93827	814000	-	-	-	-	-	-	

Overflow Valves

Type 06195



Overflow Valve, angle type, bronze, not type tested

with soft valve seal, closed bonnet,
In- and Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06195.X.0000

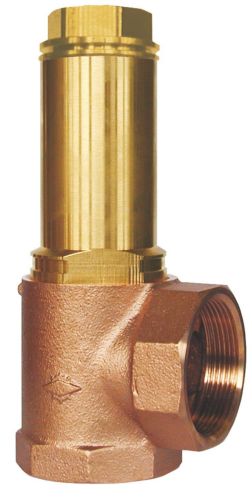
with NBR valve seal
Working temperature: -10°C / +14°F (263K) up to +110°C / +230°F (383K)

Part No. 06195.X.0700

with FPM valve seal
Working temperature: -10°C / +14°F (263K) up to +165°C / +329°F (438K)

Available options - on request only:

- stainless steel spring - material 1.4571
- external parts nickel plated

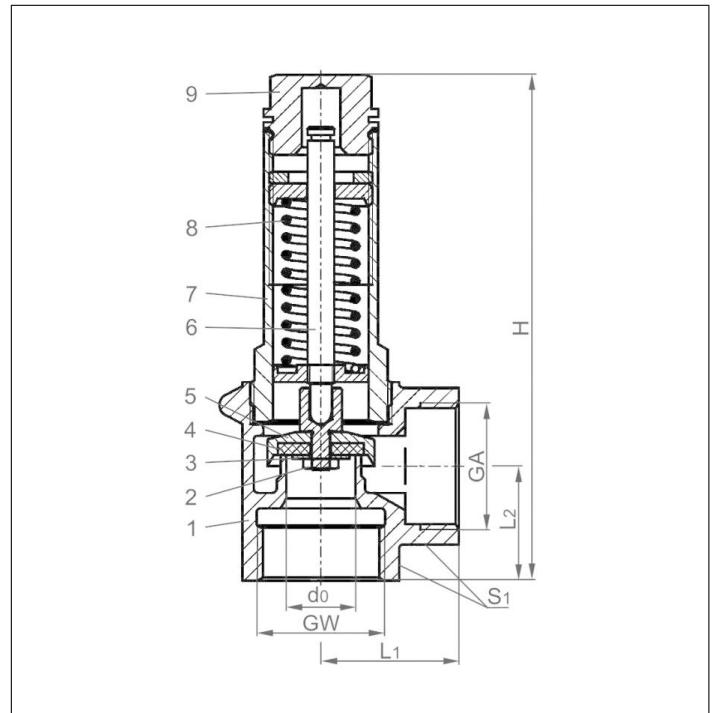


Applications:

Provided as overflow valve for protection against excessive pressure in pipe systems and pressure vessels, which are not subject to approval.

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Disc nut	CW614N	B 249 UNS C38500
3 Plate	CW507L	B 36 UNS C26800
4 Valve seal	NBR or FPM	
5 Disc	CW614N	B 249 UNS C38500
6 Stem	CW614N	B 249 UNS C38500
7 Bonnet	CW614N	B 249 UNS C38500
8 Spring	1.1200	A 227
9 Cap	CW614N	B 249 UNS C38500

Not to use as equipment with safety function acc. to Pressure Equipment Directive 2014/68/EU (PED) (CE marking only from size 1-1/4).



Type 06195	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Orifice	d ₀	12	15	18	20	24	28
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Set pressure range	bar	0.5-25	0.2-20	0.5-16	0.5-16	0.2-16	0.2-16
Outlet	GA	1/2	3/4	1	1-1/4	1-1/2	2
Height	H	90	110	130	150	170	195
Length	L ₁	25	30	36	40	48	56
Length	L ₂	20	25	30	35	40	48
Wrench size across flats	S ₁	27	32	41	50	58	70
Weight	ca. kg	0.21	0.36	0.65	0.95	1.5	2.25

Dimensions in mm.

Overflow Valves

Type 06195



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Water in kg/h at 20 °C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1-1/2	2	1/2	3/4	1	1-1/4	1-1/2	2	
	d ₀ (mm)	12.0	15.0	18.0	20.0	24.0	28.0	12.0	15.0	18.0	20.0	24.0	28.0	
	A ₀ (mm ²)	113.1	176.7	254.5	314.2	452.4	615.8	113.1	176.7	254.5	314.2	452.4	615.8	
Medium	Air							Water						
0.2	-	40	-	-	123	159	-	1330	-	-	5298	6525		
0.5	47	63	117	158	208	277	1025	1881	3111	4832	7493	9227		
1.0	68	89	172	230	306	407	1389	2547	4212	6542	10146	12494		
2.0	113	139	284	386	505	660	1964	3603	5957	9252	14348	17670		
3.0	156	192	389	527	692	906	2405	4412	7296	11332	17573	21641		
4.0	196	241	488	661	869	1137	2778	5095	8424	13085	20292	24989		
5.0	236	291	589	797	1048	1371	3105	5697	9419	14629	22687	27938		
6.0	276	340	689	932	1225	1603	3402	6240	10318	16025	24852	30605		
7.0	316	389	788	1067	1402	1835	3675	6740	11145	17310	26843	33057		
8.0	357	440	891	1205	1584	2073	3928	7206	11914	18505	28697	35340		
9.0	398	489	990	1340	1761	2305	4167	7643	12637	19627	30438	37483		
10.0	439	540	1093	1479	1943	2543	4392	8056	13320	20689	32084	39511		
12.0	519	638	1293	1750	2298	3008	4811	8825	14592	22664	35146	43282		
14.0	599	737	1493	2020	2654	3474	5197	9533	15761	24480	37962	46750		
16.0	680	836	1693	2291	3010	3940	5556	10191	16849	26170	40584	49978		
18.0	760	935	-	-	-	-	5893	10809	17871	-	-	-		
20.0	849	1044	-	-	-	-	6211	11394	18838	-	-	-		
22.0	930	-	-	-	-	-	6515	-	19757	-	-	-		
25.0	1052	-	-	-	-	-	6945	-	21062	-	-	-		

Overflow Valves

Type 06196



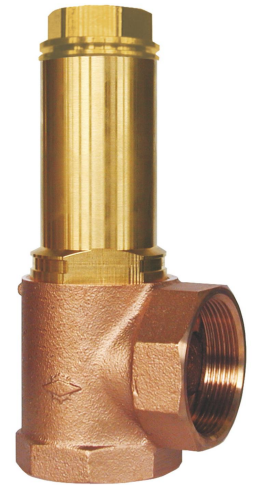
Overflow Valve, angle type, bronze, not type tested

with PTFE valve seal, closed bonnet,
In- and outlet: female thread type G (BSP) acc. to ISO 228/1

Part No. 06196.X.0000

Available options - on request only:

- stainless steel spring - material 1.4571
- external parts nickel plated



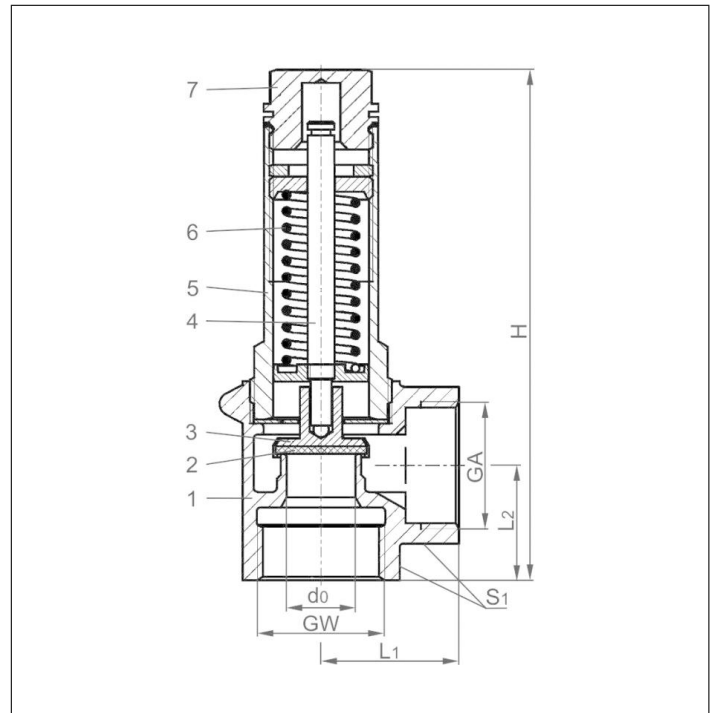
Applications:

Provided as overflow valve for protection against excessive pressure in pipe systems and pressure vessels, which are not subject to approval.

Working temperature: -10°C / +14°F (263K) up to +185°C / +365°F (458K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE	
3 Disc	CW614N	B 249 UNS C38500
4 Stem	CW614N	B 249 UNS C38500
5 Bonnet	CW614N	B 249 UNS C38500
6 Spring	1.1200	A 227
7 Cap	CW614N	B 249 UNS C38500

Not to use as equipment with safety function acc. to Pressure Equipment Directive 2014/68/EU (PED) (CE marking only from size 1-1/4).



Type 06196	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Orifice	d ₀	12	15	18	20	24	28
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Set pressure range	bar	0.2-25	0.2-20	0.2-20	0.4-16	0.2-23.5	0.2-16
Outlet	GA	1/2	3/4	1	1-1/4	1-1/2	2
Height	H	90	110	130	150	170	195
Length	L ₁	25	30	36	40	48	56
Length	L ₂	20	25	30	35	40	48
Wrench size across flats	S ₁	27	32	41	50	58	70
Weight	ca. kg	0.21	0.36	0.65	0.95	1.5	2.25

Dimensions in mm.

Overflow Valves

Type 06196



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

Water in kg/h at 20 °C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/2	3/4	1	1-1/4	1-1/2	2	1/2	3/4	1	1-1/4	1-1/2	2	
	d ₀ (mm)	12.0	15.0	18.0	20.0	24.0	28.0	12.0	15.0	18.0	20.0	24.0	28.0	
	A ₀ (mm ²)	113.1	176.7	254.5	314.2	452.4	615.8	113.1	176.7	254.5	314.2	452.4	615.8	
Medium	Air							Water						
0.2		28	40	69	-	122	159	725	1330	2199	-	5298	6525	
0.4		43	58	108	142	188	250	936	1717	2840	4411	6840	8423	
0.5		48	63	117	158	207	277	1025	1881	3111	4832	7493	9227	
1.0		68	89	172	230	306	407	1389	2547	4212	6542	10146	12494	
2.0		113	139	284	391	505	660	1964	3603	5957	9252	14348	17670	
3.0		156	192	389	527	691	906	2405	4412	7296	11332	17573	21641	
4.0		196	241	488	661	867	1137	2778	5095	8424	13085	20292	24989	
5.0		236	291	589	797	1043	1371	3105	5697	9419	14629	22687	27938	
6.0		276	340	689	932	1220	1603	3402	6240	10318	16025	24852	30605	
7.0		316	389	788	1067	1396	1835	3675	6740	11145	17310	26843	33057	
8.0		357	440	891	1205	1572	2073	3928	7206	11914	18505	28697	35340	
9.0		398	489	990	1340	1748	2305	4167	7643	12637	19627	30438	37483	
10.0		439	540	1093	1479	1925	2543	4392	8056	13320	20689	32084	39511	
12.0		519	638	1293	1750	2277	3008	4811	8825	14592	22689	35146	43282	
14.0		599	737	1493	2020	2629	3474	5197	9533	15761	24480	37962	46750	
16.0		680	836	1693	2291	2982	3940	5556	10191	16849	26170	40584	49978	
18.0		760	935	1893	-	3334	-	5893	10809	17871	-	43045	-	
20.0		849	1044	2113	-	3687	-	6211	11394	18838	-	45374	-	
22.0		930	-	-	-	4039	-	6515	-	-	-	47589	-	
23.5		991	-	-	-	4304	-	6733	-	-	-	49184	-	
25.0		1052	-	-	-	-	-	6945	-	-	-	-	-	

Overflow Valves

Type 06198



Overflow Valve, angle type, bronze, not type tested

with adjusting device,
with soft valve seal, closed bonnet,
In- and outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06198.X.0000

with PTFE valve seal
Working temperature: -10°C / +14°F (263K) up to +185°C / +365°F (458K)

Part No. 06198.X.0700

with FPM valve seal
Working temperature: -10°C / +14°F (263K) up to +165°C / +329°F (438K)

Available options - on request only:

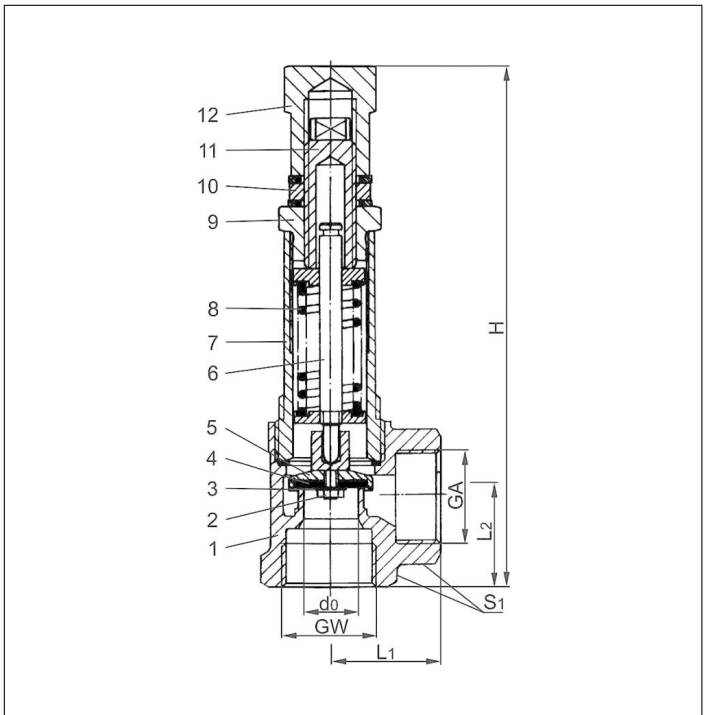
- other spring ranges acc. to customer specification
- stainless steel spring - material 1.4571
- external parts nickel plated

Applications:

Provided as overflow valve for protection against excessive pressure in pipe systems and pressure vessels, which are not subject to approval.



Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Disc nut	CW614N	B 249 UNS C38500
3 Plate	CW614N	B 249 UNS C38500
4 Valve seal	PTFE or FPM	
5 Disc	CW614N	B 249 UNS C38500
6 Stem	CW614N	B 249 UNS C38500
7 Bonnet	CW614N	B 249 UNS C38500
8 Spring	1.1200	A 227
9 Cap	CW614N	B 249 UNS C38500
10 Nut	CW614N	B 249 UNS C38500
11 Adjusting screw	CW614N	B 249 UNS C38500
12 Closing cap	CW614N	B 249 UNS C38500



Important: Adjusting ranges of springs are marked with a label on the bonnet.

Not to use as equipment with safety function acc. to Pressure Equipment Directive 2014/68/EU (PED) (No CE marking).

Type 06198	Technical data			
Nominal size	GW	1/2	3/4	1
Orifice	d ₀	12	15	18
Dimension code	.X.	0400	0600	1000
Set pressure PTFE valve seal	bar	12.0-25	2.0-25	2.0-25
Set pressure FPM valve seal	bar	0.8-25	0.1-12	5.0-12
Outlet	GA	1/2	3/4	1
Height	H	113	145	165
Length	L ₁	25	30	36
Length	L ₂	20	25	30
Wrench size across flats	S ₁	27	32	41
Weight	ca. kg	0.30	0.55	0.85

Dimensions in mm.

Overflow Valves

Type 06198



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m³/h at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	1/2	3/4	1
	d ₀ (mm)	12.0	15.0	18.0
	A ₀ (mm ²)	113.1	176.7	254.5
Medium		Air		
0.8		24	-	-
1.0		26	-	-
1.5		33	-	-
1.99		40	-	-
2.0		37	46	13
3.0		50	62	28
3.99		63	77	45
4.0		53	77	45
4.99		64	93	68
5.0		64	70	68
6.0		75	82	93
7.0		86	94	128
8.0		97	106	161
9.0		108	118	197
10.0		119	129	245
11.99		141	153	335
12.0		169	119	335
14.0		195	138	397
16.0		222	156	460
18.0		248	175	527
19.99		274	193	597
20.0		274	193	446
22.0		300	212	489
22.99		313	221	502
23.0		313	221	502
25.0		340	240	553

GW	1/2	3/4	1
Part No. spring Material 1.1200	Pressure range of springs in bar		
55341.0091.2780	0.8-1.99	-	-
55341.0092.2780	2.0-3.99	-	-
55341.0152.1780	4.0-11.99	-	-
55341.0193.2780	12.0-25.0	-	-
55341.0212.0780	-	0.1-2.6	-
55341.0194.1780	-	2.0-4.99	-
55341.0078.0780	-	5.0-11.99	-
55341.0104.1780	-	12.0-22.99	-
55341.0196.1780	-	23.0-25.0	-
55341.0217.0780	-	-	2.0-19.99
55341.0199.1780	-	-	20.0-25.0

GW	1/2	3/4	1
Part No. spring Material 1.4571	Pressure range of springs in bar		
55345.0117.1767	-	-	2.0-3.99
55345.0119.1767	-	-	4.0-9.99
55345.0234.1767	-	-	10.0-15.99
55345.0236.1767	-	-	16.0-25.0

Overflow Valves

Type 06321



Overflow Valve, angle type, ductile casting GGG-40.3, not type tested

metal to metal seated, closed bonnet,

Inlet: male thread type G (BSPP) acc. to ISO 228/1

Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06321.X.0000

with lifting device - head A

Part No. 06321.X.0020

with gastight cap - head C

Available options - on request only:

- Disc with soft sealing (EPDM, FKM, PTFE)



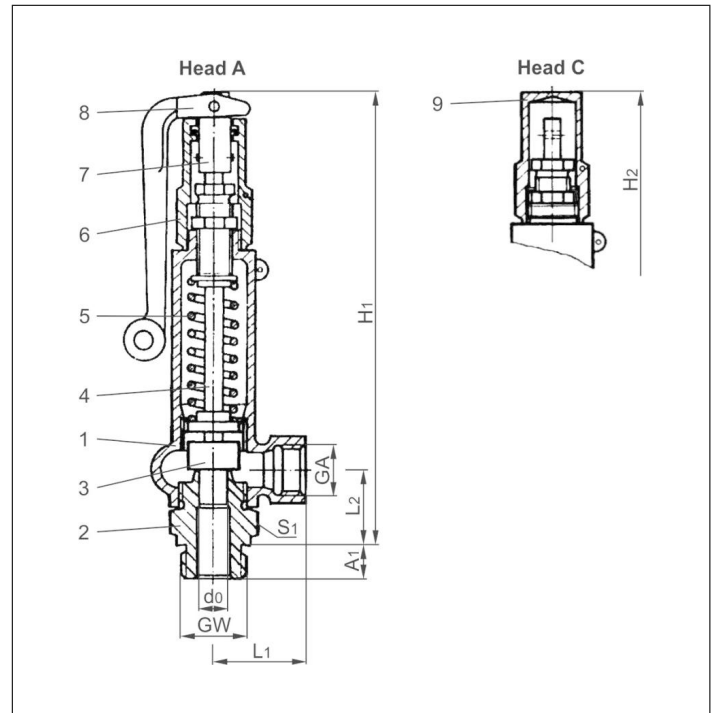
Applications:

Provided as overflow valve for protection against excessive pressure in pipe systems and pressure vessels, which are not subject to approval.

Working temperatures: -10°C / +14°F (263K) up to +280°C / +536°F (553K)

Materials	DIN EN	ASTM
1 Body + Bonnet	0.7043	A 395
2 Inlet body	1.4104	A 276 Grade 430F
3 Disc	1.4571	A 276 Grade 316Ti
4 Stem	1.4104	A 276 Grade 430F
5 Spring	1.4310	A 313 Grade 301
6 Lifting cap	1.4104	A 276 Grade 430F
7 Lifting stem	1.4305	A 276 Grade 303
8 Lever	3.2581	no reference
9 Cap	1.0718	A 108

Not to use as equipment with safety function acc. to Pressure Equipment Directive 2014/68/EU (PED) (No CE marking).



Type 06321	Technical data										
Nominal size	GW	3/8	3/8	1/2	3/4	3/4	3/4	1	1	1-1/4	1-1/2
Orifice	d ₀	8	10	12.5	8	12.5	16	12.5	16	22	27
Dimension code	.X.	0803	1003	1204	0806	1206	1606	1210	1610	2212	2714
Set pressure range	bar	50-200	0.1-140	0.1-120	50-200	50-170	0.1-90	50-170	0.1-90	0.05-55	0.05-45
Outlet	GA	1/2	1/2	1/2	1	1	1	1	1	1	1
Height	H ₁	200	200	200	200	230	230	230	230	230	230
Height	H ₂	185	185	185	185	215	215	215	215	215	215
Length	L ₁	40	40	40	40	50	50	50	50	50	50
Length	L ₂	34	34	34	34	40	40	40	40	40	40
Length	A ₁	12	12	14	16	16	16	18	18	20	20
Wrench size across flats	S ₁	32	32	32	32	41	41	41	41	41	41
Weight	ca. kg	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.8	1.8

Dimensions in mm.

Overflow Valves

Type 06321



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

Set pressure in bar (g)	GW	3/8 & 3/4			3/8			1/2, 3/4 & 1			3/4 & 1		
	d ₀ (mm)	8			10			12.5			16		
	A ₀ (mm ²)	50.3			78.5			122.7			201.1		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.1	-	-	-	-	1.8	63	-	2.9	99	-	4.6	161	
0.4	-	-	-	3.3	4.0	126	5.2	6.3	197	8.3	10.1	323	
1.0	-	-	-	5.6	7.1	200	8.9	11.2	312	14.1	17.9	511	
2.0	-	-	-	9.4	12.1	282	14.5	18.6	441	23.7	30.4	723	
3.0	-	-	-	13.3	17.2	346	20.7	26.9	540	34.0	44.0	885	
4.0	-	-	-	16.5	21.5	399	25.7	33.6	624	42.2	55.0	1020	
6.0	-	-	-	22.8	30.1	489	35.7	47.0	764	58.8	77.0	1250	
8.0	-	-	-	29.2	38.7	565	45.6	60.4	882	74.7	99.0	1440	
10.0	-	-	-	35.4	47.3	631	55.4	73.9	987	90.8	121	1610	
20.0	-	-	-	66.8	90.4	893	104	141	1390	171	231	2280	
30.0	-	-	-	114	134	1090	153	209	1710	251	342	2800	
40.0	-	-	-	130	177	1260	203	277	1970	332	453	3230	
50.0	103	141	904	162	221	1410	253	345	2200	414	565	3610	
60.0	124	169	990	194	264	1550	303	413	2420	497	676	3960	
70.0	147	197	1070	229	308	1670	358	481	2610	587	788	4280	
80.0	167	225	1140	261	351	1780	408	549	2790	668	899	4570	
90.0	189	252	1210	295	395	1890	462	617	2960	756	1010	4850	
100.0	212	280	1280	331	438	2000	517	684	3120	-	-	-	
120.0	259	335	1400	404	524	2190	632	819	3420	-	-	-	
140.0	309	390	1510	484	609	2360	756	951	3690	-	-	-	
160.0	367	443	1610	-	-	-	896	1080	3950	-	-	-	
180.0	434	496	1710	-	-	-	-	-	-	-	-	-	
200.0	517	547	1810	-	-	-	-	-	-	-	-	-	

Set pressure in bar (g)	GW	1-1/4			1-1/2		
	d ₀ (mm)	22			27		
	A ₀ (mm ²)	380.2			572.6		
	Medium	A	B	C	A	B	C
0.05	-	6.1	216	-	9.2	325	
0.1	-	8.8	305	-	13.3	460	
0.4	16.0	19.4	611	24.1	29.2	921	
1.0	27.3	34.6	966	41.1	52.1	1450	
2.0	45.6	58.5	1370	68.7	88.2	2060	
3.0	64.3	83.2	1670	96.8	125	2520	
4.0	79.8	104	1930	120	156	2910	
6.0	110	145	2370	166	219	3560	
8.0	141	187	2730	212	282	4120	
10.0	171	229	3050	258	344	4600	
20.0	323	437	4320	487	659	6510	
30.0	475	647	5290	716	975	7970	
40.0	628	857	6110	946	1290	9210	
45.0	705	963	6480	1060	1450	9770	
50.0	783	1070	6830	-	-	-	
55.0	861	1175	7160	-	-	-	

Overflow Valves

Type 06322



**Overflow Valve, angle type, stainless steel,
not type tested**

metal to metal seated, closed bonnet,

Inlet: male thread type G (BSPP) acc. to ISO 228/1

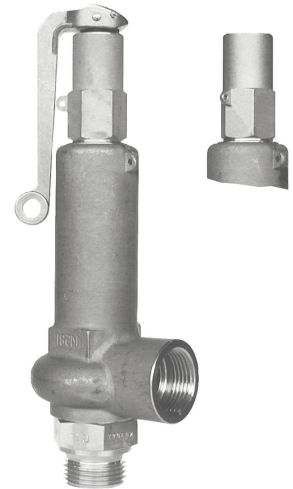
Outlet: female thread type G (BSPP) acc. to ISO 228/1

Part No. 06322.X.0000

with lifting device - head A

Part No. 06322.X.0020

with gastight cap - head C



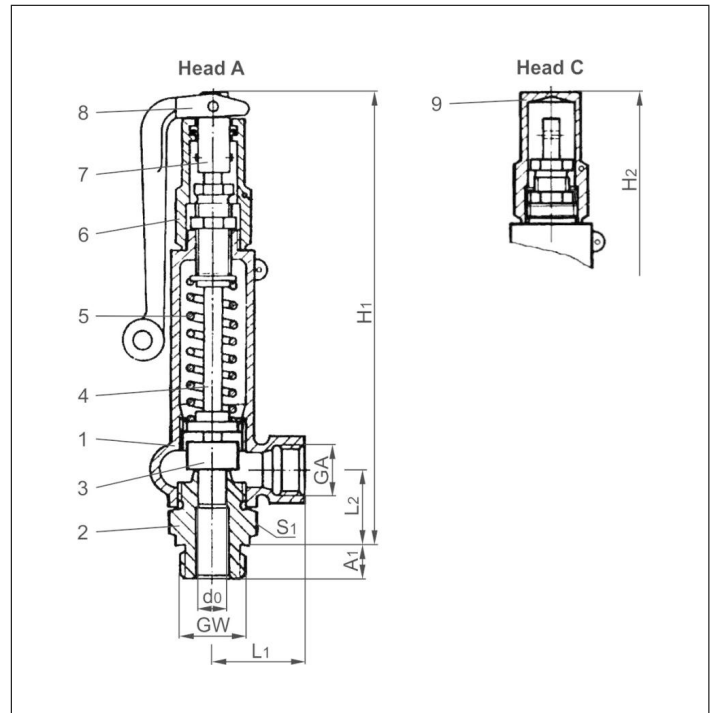
Applications:

Provided as overflow valve for protection against excessive pressure in pipe systems and pressure vessels, which are not subject to approval.

Working temperatures: -60°C / -76°F (213K) up to +280°C / +536°F (553K)

Materials	DIN EN	ASTM
1 Body + Bonnet	1.4581	A 351 CF 10MC
2 Inlet body	1.4571	A 276 Grade 316Ti
3 Disc	1.4571	A 276 Grade 316Ti
4 Stem	1.4571	A 276 Grade 316Ti
5 Spring	1.4310	A 313 Grade 301
6 Lifting cap	1.4581	A 351 CF 10MC
7 Lifting stem	1.4305	A 276 Grade 303
8 Lever	3.2581	no reference
9 Cap	1.4581	A 351 CF 10MC

Not to use as equipment with safety function acc. to Pressure Equipment Directive 2014/68/EU (PED) (No CE marking).



Type 06322	Technical data										
Nominal size	GW	3/8	3/8	1/2	3/4	3/4	3/4	1	1	1-1/4	1-1/2
Orifice	d ₀	8	10	12.5	8	12.5	16	12.5	16	22	27
Dimension code	.X.	0803	1003	1204	0806	1206	1606	1210	1610	2212	2714
Set pressure range	bar	50-250	0.1-140	0.1-120	50-250	50-170	0.1-90	50-170	0.1-90	0.05-55	0.05-45
Outlet	GA	1/2	1/2	1/2	1	1	1	1	1	1	1
Height	H ₁	200	200	200	200	230	230	230	230	230	230
Height	H ₂	185	185	185	185	215	215	215	215	215	215
Length	L ₁	40	40	40	40	50	50	50	50	50	50
Length	L ₂	34	34	34	34	40	40	40	40	40	40
Length	A ₁	12	12	14	16	16	16	18	18	20	20
Wrench size across flats	S ₁	32	32	32	32	41	41	41	41	41	41
Weight	ca. kg	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.8	1.8

Dimensions in mm.

Overflow Valves

Type 06322



Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

A = Saturated steam in kg/h

B = Air in m³/h at 0°C and 1013.25 mbar

C = Water in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d₀ - orifice

A₀ - flow area

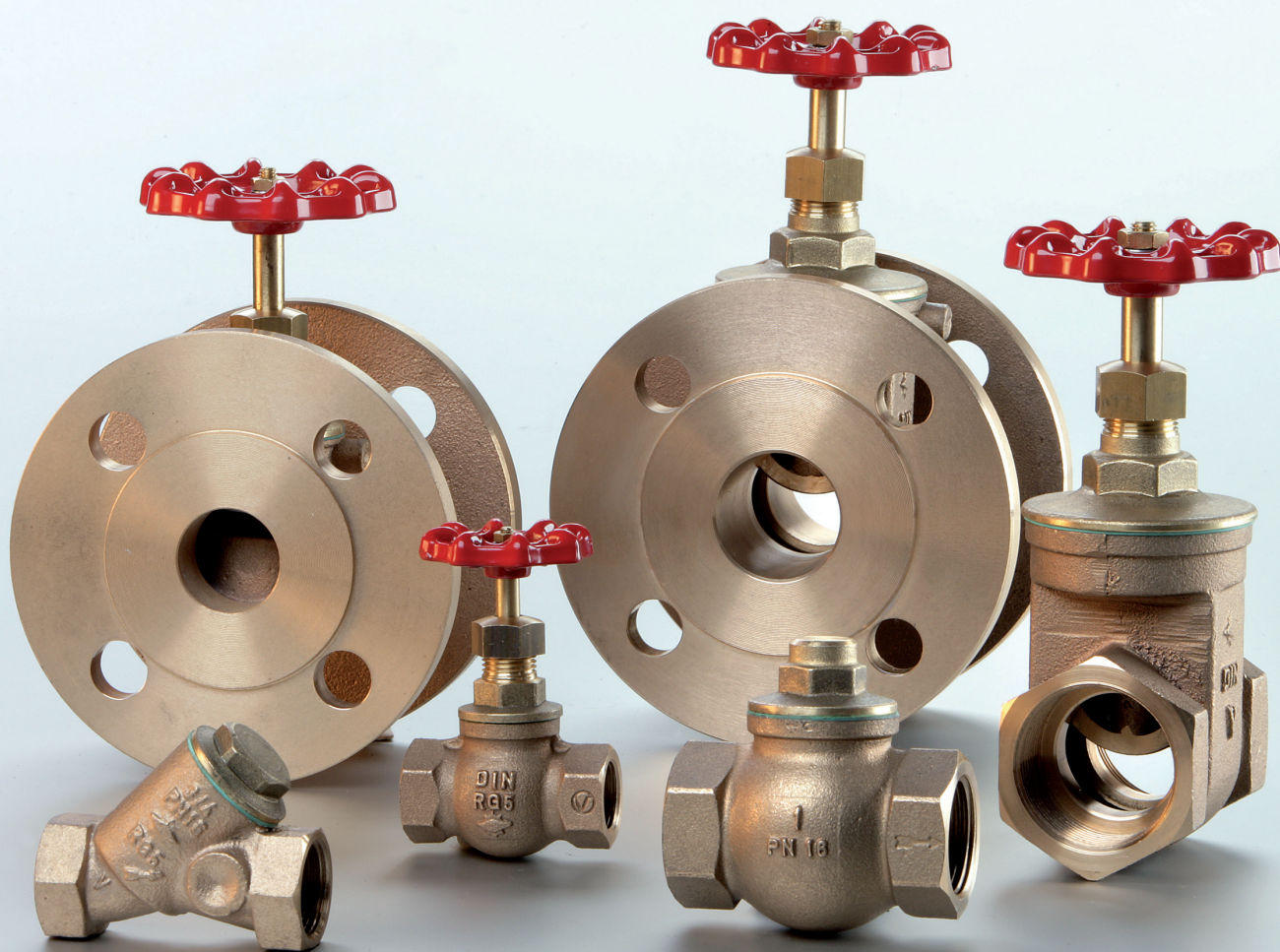
Set pressure in bar (g)	GW	3/8 & 3/4			3/8			1/2, 3/4 & 1			3/4 & 1		
	d ₀ (mm)	8			10			12.5			16		
	A ₀ (mm ²)	50.3			78.5			122.7			201.1		
	Medium	A	B	C	A	B	C	A	B	C	A	B	C
0.1	-	-	-	-	-	1.8	63	-	2.9	99	-	4.6	161
0.4	-	-	-	-	3.3	4.0	126	5.2	6.3	197	8.3	10.1	323
1.0	-	-	-	-	5.6	7.1	200	8.9	11.2	312	14.1	17.9	511
2.0	-	-	-	-	9.4	12.1	282	14.5	18.6	441	23.7	30.4	723
3.0	-	-	-	-	13.3	17.2	346	20.7	26.9	540	34.0	44.0	885
4.0	-	-	-	-	16.5	21.5	399	25.7	33.6	624	42.2	55.0	1020
6.0	-	-	-	-	22.8	30.1	489	35.7	47.0	764	58.8	77.0	1250
8.0	-	-	-	-	29.2	38.7	565	45.6	60.4	882	74.7	99.0	1440
10.0	-	-	-	-	35.4	47.3	631	55.4	73.9	987	90.8	121	1610
20.0	-	-	-	-	66.8	90.4	893	104	141	1390	171	231	2280
30.0	-	-	-	-	114	134	1090	153	209	1710	251	342	2800
40.0	-	-	-	-	130	177	1260	203	277	1970	332	453	3230
50.0	103	141	904	162	221	1410	253	345	2200	414	565	3610	
60.0	124	169	990	194	264	1550	303	413	2420	497	676	3960	
70.0	147	197	1070	229	308	1670	358	481	2610	587	788	4280	
80.0	167	225	1140	261	351	1780	408	549	2790	668	899	4570	
90.0	189	252	1210	295	395	1890	462	617	2960	756	1010	4850	
100.0	212	280	1280	331	438	2000	517	684	3120	-	-	-	
120.0	259	335	1400	404	524	2190	632	819	3420	-	-	-	
140.0	309	390	1510	484	609	2360	756	951	3690	-	-	-	
160.0	367	443	1610	-	-	-	896	1080	3950	-	-	-	
180.0	434	496	1710	-	-	-	-	-	-	-	-	-	
200.0	517	547	1810	-	-	-	-	-	-	-	-	-	
220.0	-	598	1890	-	-	-	-	-	-	-	-	-	
240.0	-	648	1980	-	-	-	-	-	-	-	-	-	
250.0	-	672	2020	-	-	-	-	-	-	-	-	-	

Set pressure in bar (g)	GW	1-1/4			1-1/2		
	d ₀ (mm)	22			27		
	A ₀ (mm ²)	380.2			572.6		
	Medium	A	B	C	A	B	C
0.05	-	6.1	216	-	9.2	325	
0.1	-	8.8	305	-	13.3	460	
0.4	16.0	19.4	611	24.1	29.2	921	
1.0	27.3	34.6	966	41.1	52.1	1450	
2.0	45.6	58.5	1370	68.7	88.2	2060	
3.0	64.3	83.2	1670	96.8	125	2520	
4.0	79.8	104	1930	120	156	2910	
6.0	110	145	2370	166	219	3560	
8.0	141	187	2730	212	282	4120	
10.0	171	229	3050	258	344	4600	
20.0	323	437	4320	487	659	6510	
30.0	475	647	5290	716	975	7970	
40.0	628	857	6110	946	1290	9210	
45.0	705	963	6480	1060	1450	9770	
50.0	783	1070	6830	-	-	-	
55.0	861	1175	7160	-	-	-	





DIN EN Standard Valves for Industrial Use



Safe standards with a multitude of applications: DIN EN valves made of gunmetal/brass

Globe Valves

Type 01021



Globe Valves, PN16, DIN 3844

Bronze body, screwed topwork in brass

Part No. 01021.X.0000

Part No. 01021.X.5000 Globe/Check Valve

Female thread type G (BSPP) acc. to ISO 228/1

Available options - on request only:

- Handwheel in plastic DIN 388-1
- Valve with safety plate in brass



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

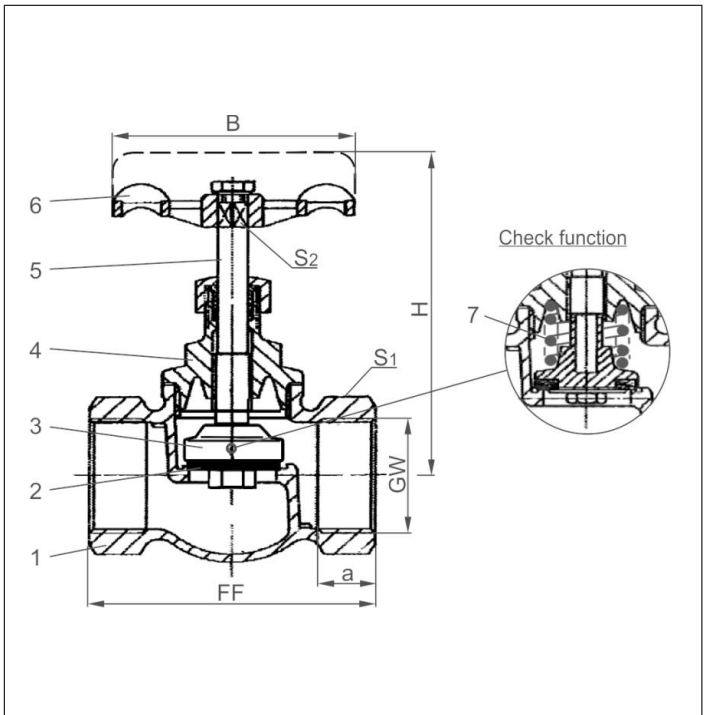
Working temperatures and pressures:

up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE	
3 Disc	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Stem	CW614N	B 283 UNS C38500
6 Handwheel	Aluminium - diecasting	
7 Spring	1.4310	A 313 Grade 301



Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 01021	Technical data									
Nominal size	GW	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	
Dimension code	.X.	0200	0300	0400	0600	1000	1200	1400	2000	
Face-to-face dimension	FF	50	50	60	70	80	95	105	130	
Height	H	75	75	85	95	105	120	130	145	
Socket depth	a	9	10	13	14	17	19	19	23	
Handwheel-Ø	B	40	40	50	60	70	80	90	110	
Wrench size across flats	S ₁	22	22	27	32	41	50	58	70	
Wrench size across flats	S ₂	4.5	4.5	5	6	7	8	9	9	
Weight	ca. kg	0.25	0.25	0.3	0.43	0.7	1.0	1.3	2.1	

Dimensions in mm.

Globe Valves

Type 03021



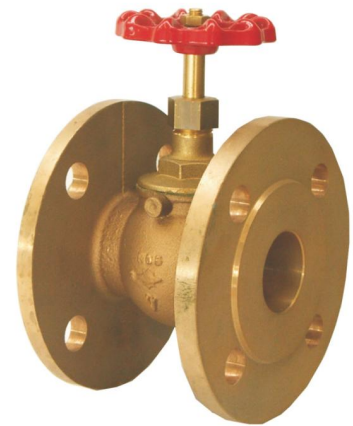
Globe Valves, PN16

Bronze body, screwed topwork in brass

Part No. 03021.X.0160

Part No. 03021.X.5160 Globe/Check Valve

Flanged connection acc. to DIN EN 1092-3 PN16



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

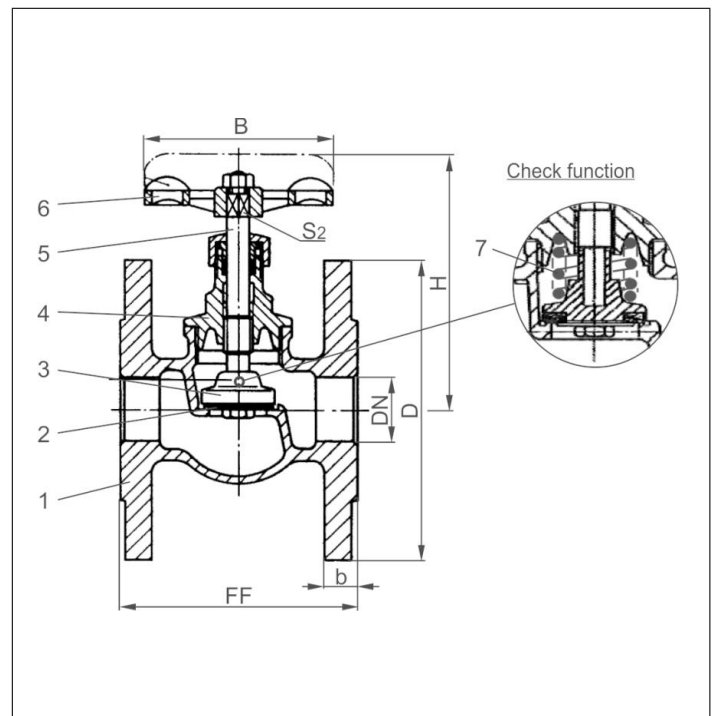
up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE	
3 Disc	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Stem	CW614N	B 283 UNS C38500
6 Handwheel	Aluminium - diecasting	
7 Spring	1.4310	A 313 Grade 301

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 03021	Technical data					
Nominal size	DN	20	25	32	40	50
Dimension code	.X.	0200	0250	0320	0400	0500
Face-to-face dimension	FF	80	90	95	110	125
Height	H	95	105	120	130	145
Flange diameter	D	105	115	140	150	165
Width of flange	b	12	12	14	14	16
Handwheel-Ø	B	60	70	80	90	110
Wrench size across flats	S ₂	6	7	8	9	9
Weight	ca. kg	1.9	2.5	3.8	4.4	6.5

Dimensions in mm.

Globe Valves

Type 03050



Globe Valves, PN16, DIN 86 260-A

Bronze body and topwork
metal to metal seated

Part No. 03050.X.0160

Flanged connection acc. to DIN EN 1092-3 PN16
face-to-face dimension acc. to DIN EN 558-1, Reihe 1

Available options - on request only:

- Disc with PTFE seal
- Valve with control disc (tapered design) and PTFE seal



Applications:

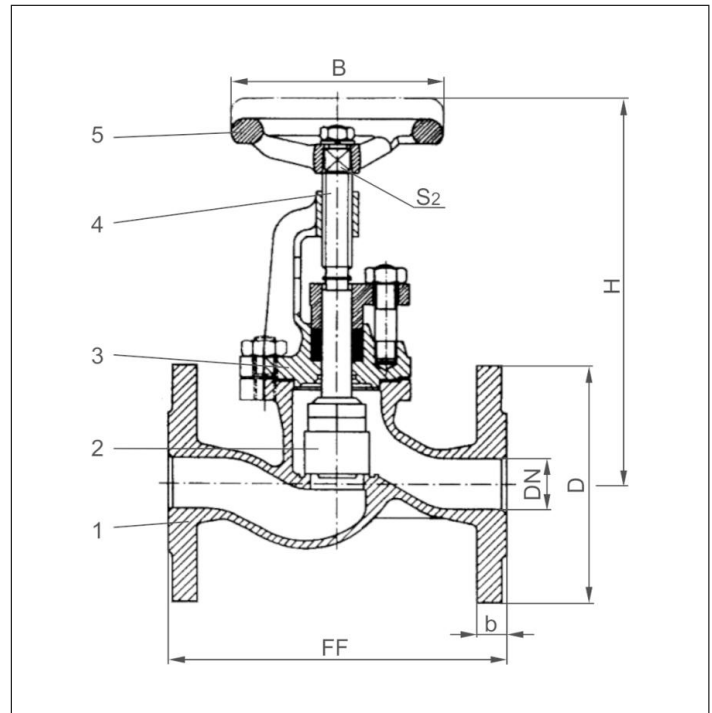
Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures: -10°C / +14°F (263K) up to +225°C / +437°F (498K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Disc	CC491K	B 62 UNS C83600
3 Headpiece	CC491K	B 62 UNS C83600
4 Stem	CW710R	no reference
5 Handwheel	cast iron	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 03050	Technical data									
Nominal size	DN	25	32	40	50	65	80	100	125	150
Dimension code	.X.	0250	0320	0400	0500	0650	0800	1000	1250	1500
Face-to-face dimension	FF	160	180	200	230	290	310	350	400	480
Height	H	210	220	250	250	315	335	375	420	460
Flange diameter	D	115	140	150	165	185	200	220	250	285
Width of flange	b	12	14	14	16	16	18	20	20	22
Handwheel-Ø	B	100	125	150	150	185	200	200	225	250
Wrench size across flats	S ₂	9	11	12	12	14	17	17	19	22
Weight	ca. kg	6.0	8.0	10.0	12.0	17.0	23.0	30.0	50.0	65.0

Dimensions in mm.

Globe Valves

Type 03080



Globe Valves, PN16, DIN 3356-1

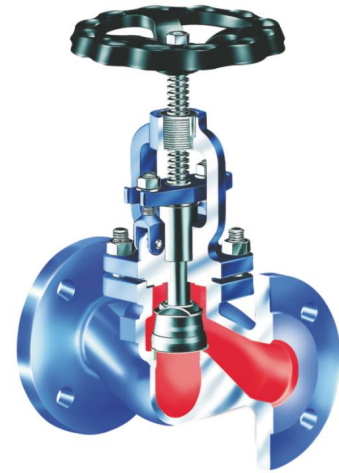
Body and topwork in cast iron
seat and disc in stainless steel, metal to metal seated

Part No. 03080.X.0000

Flanged connection acc. to DIN EN 1092-1 PN16
face-to-face dimension acc. to DIN EN 558-1, Reihe 1

Available options - on request only:

- Angled Valves
- Valve with control disc

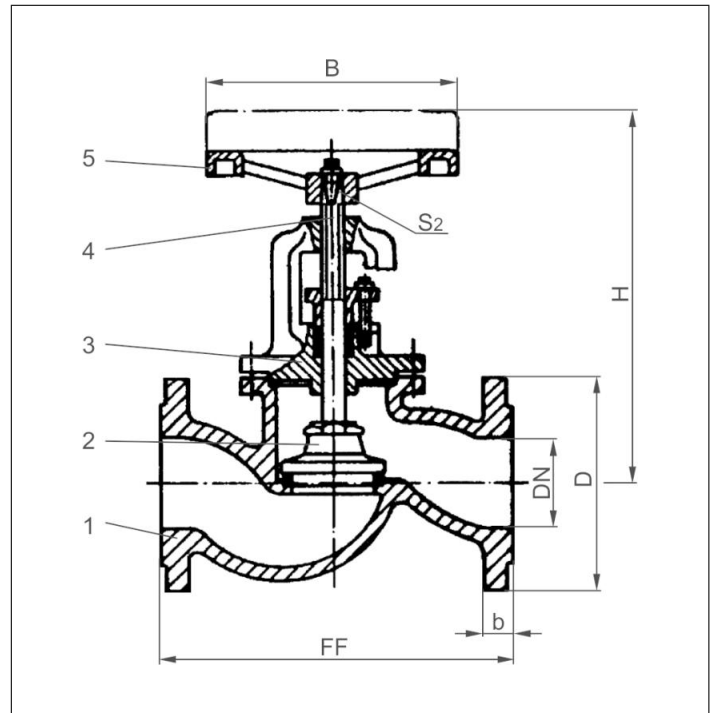


Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.
The laws, regulations and standards are to observe for the range of application.
Working temperatures: -10°C / +14°F (263K) up to +225°C / +437°F (498K)

Materials	DIN EN	ASTM
1 Body	0.6025	A 48-83 Gr. 35B
2 Disc	1.4021	A 276 grade 420
3 Headpiece	0.6025	A 48-83 Gr. 35B
4 Stem	1.4021	A 276 grade 420
5 Handwheel	cast iron	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 03080	Technical data											
Nominal size	DN	15	20	25	32	40	50	65	80	100	125	150
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000	1250	1500
Face-to-face dimension	FF	130	150	160	180	200	230	290	310	350	400	480
Height	H	180	180	190	190	225	235	265	290	345	375	465
Flange diameter	D	95	105	115	140	150	165	185	200	220	250	285
Width of flange	b	12	12	12	14	14	16	16	18	20	20	22
Handwheel-Ø	B	120	120	140	140	160	160	180	200	225	250	300
Wrench size across flats	S ₂	10	10	12	12	13	13	14	15	17	18	21
Weight	ca. kg	3.5	4.0	5.0	6.8	9.3	11.7	16.0	23.5	35.0	52.0	75.5

Dimensions in mm.

Globe Valves

Type 03090



Globe Valves, PN40, DIN 3356-1

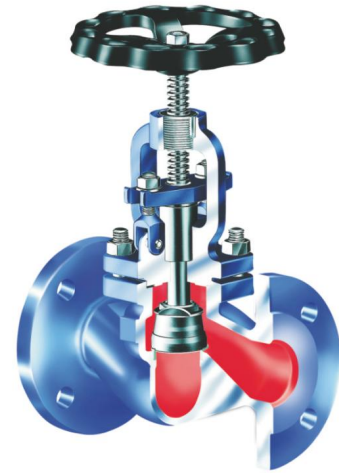
Body and topwork in cast steel
seat and disc in stainless steel, metal to metal seated

Part No. 03090.X.0000

Flanged connection acc. to DIN EN 1092-1 PN40
face-to-face dimension acc. to DIN EN 558-1, Reihe 1

Available options - on request only:

- Angled Valves
- Valve with control disc



Applications:

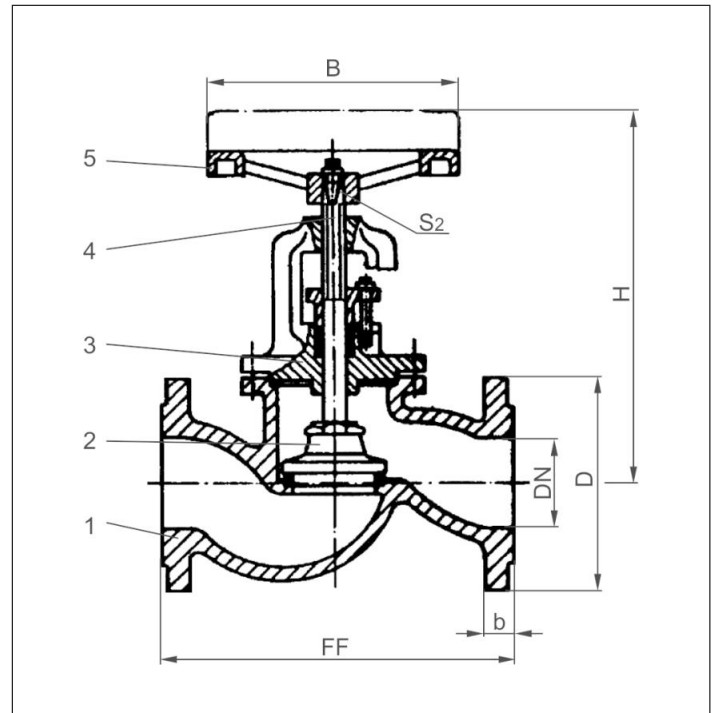
Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures: -10°C / +14°F (263K) up to +400°C / +752°F (673K)

Materials	DIN EN	ASTM
1 Body	1.0619	A 216 Grade WCB
2 Disc	1.4021	A 276 grade 420
3 Headpiece	1.0619	A 216 Grade WCB
4 Stem	1.4021	A 276 grade 420
5 Handwheel	cast iron	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 03090	Technical data											
Nominal size	DN	15	20	25	32	40	50	65	80	100	125	150
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000	1250	1500
Face-to-face dimension	FF	130	150	160	180	200	230	290	310	350	400	480
Height	H	190	190	205	205	245	255	295	325	380	425	520
Flange diameter	D	95	105	115	140	150	165	185	200	235	270	300
Width of flange	b	12	12	12	14	14	16	16	18	20	20	22
Handwheel-Ø	B	120	120	140	140	160	160	180	200	225	250	300
Wrench size across flats	S ₂	10	10	12	12	13	13	14	15	17	18	21
Weight	ca. kg	4.4	5.4	6.3	7.0	10.5	13.8	21.0	27.5	40.0	61.0	88.5

Dimensions in mm.

Gate Valves

Type 09010



Gate Valves, PN16, DIN EN 12288

Bronze body, screwed topwork in brass with gland packing and non rising stem

Part No. 09010.X.0000

Female thread connection (R) acc. to ISO 7-1 Rp



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

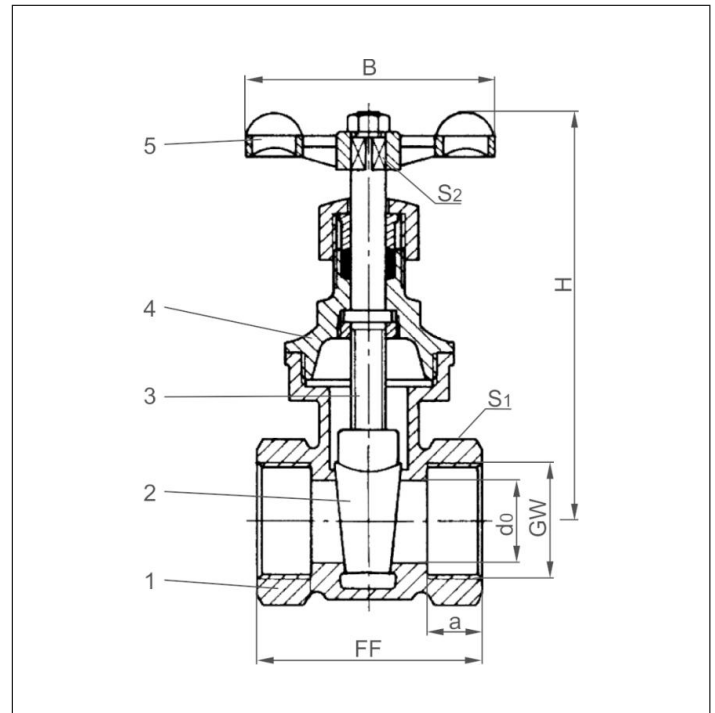
Working temperatures and pressures:

up to max. 16.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 12.0 bar: -10°C / +14°F (263K) up to +200°C / +392°F (473K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Wedge	CC491K	B 62 UNS C83600
3 Stem	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Handwheel	Aluminium - diecasting	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 09010	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Face-to-face dimension	FF	55	60	68	76	80	93
Height	H	85	105	115	130	150	180
Socket depth	a	15.0	16.3	19.1	21.4	21.4	25.7
Flow diameter	d ₀	12.0	17.5	23.2	29.0	36.0	47.0
Handwheel-Ø	B	60	70	70	80	90	110
Wrench size across flats	S ₁	27	32	41	50	58	70
Wrench size across flats	S ₂	6	7	8	9	9	11
Weight	ca. kg	0.36	0.54	0.82	1.10	1.60	2.40

Dimensions in mm.

Gate Valves

Type 09012



Gate Valves, PN16, DIN EN 12288

Bronze body, screwed topwork in brass with maintenance-free gland packing (O-Ring) and non rising stem

Part No. 09012.X.0000V

Female thread connection (R) acc. to ISO 7-1 Rp



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours. The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

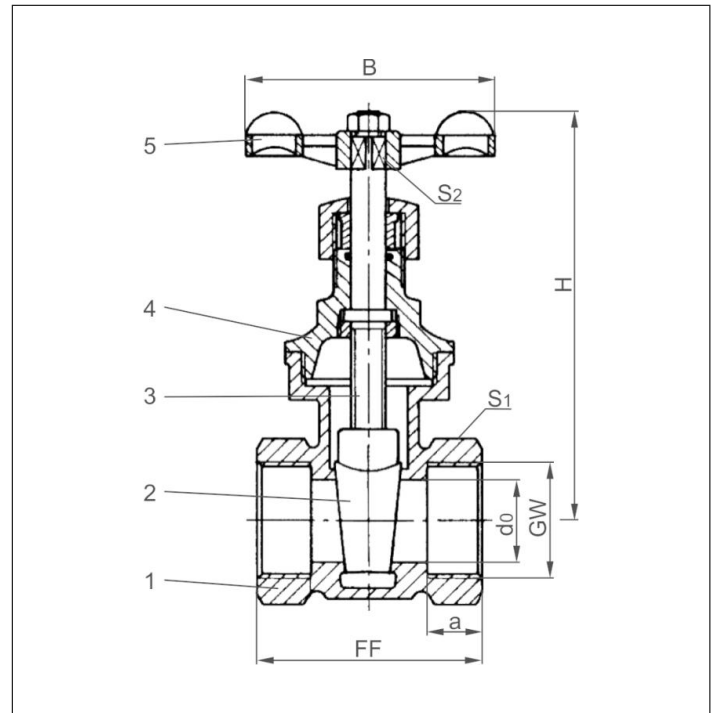
up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +180°C / +356°F (453K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Wedge	CC491K	B 62 UNS C83600
3 Stem	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Handwheel	Aluminium - diecasting	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 09012	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Face-to-face dimension	FF	55	60	68	76	80	93
Height	H	85	105	115	130	150	180
Socket depth	a	15.0	16.3	19.1	21.4	21.4	25.7
Flow diameter	d ₀	12.0	17.5	23.2	29.0	36.0	47.0
Handwheel-Ø	B	60	70	70	80	90	110
Wrench size across flats	S ₁	27	32	41	50	58	70
Wrench size across flats	S ₂	6	7	8	9	9	11
Weight	ca. kg	0.36	0.54	0.82	1.10	1.60	2.40

Dimensions in mm.

Gate Valves

Type 09061



Gate Valves, PN16, DIN EN 12288

Bronze body, screwed topwork in brass with gland packing and non rising stem

Part No. 09061.X.0160

Flanged connection acc. to DIN EN 1092-1 PN16



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

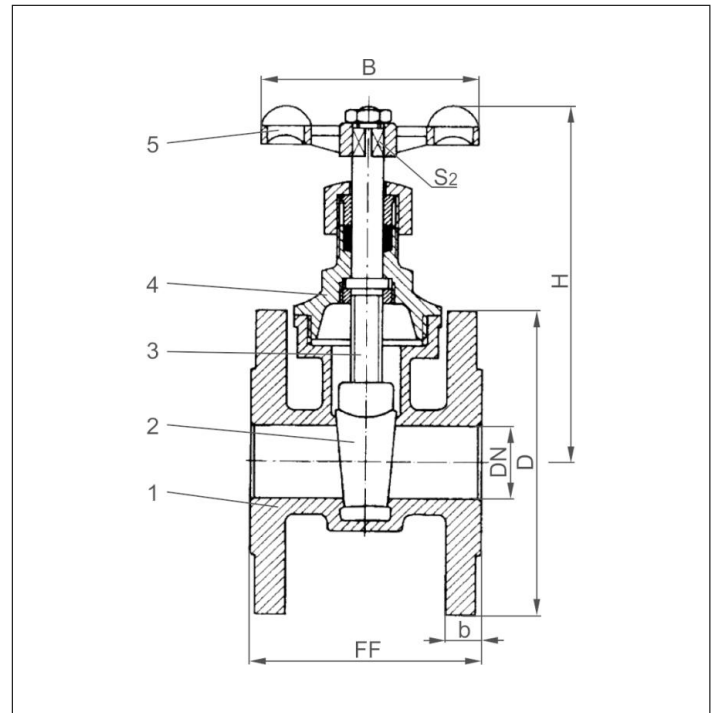
up to max. 16.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +150°C / +302°F (423K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +200°C / +392°F (473K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Wedge	CC491K	B 62 UNS C83600
3 Stem	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Handwheel	Aluminium - diecasting	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 09061	Technical data							
Nominal size	DN	20	25	32	40	50	65	80
Dimension code	.X.	0200	0250	0320	0400	0500	0650	0800
Face-to-face dimension	FF	75	80	90	100	110	130	150
Height	H	105	115	130	150	180	220	250
Flange diameter	D	105	115	140	150	165	185	200
Width of flange	b	12	12	14	14	16	16	18
Handwheel-Ø	B	70	70	80	80	110	150	160
Wrench size across flats	S ₂	7	8	9	9	11	12	13
Weight	ca. kg	1.8	2.3	3.6	4.6	6.4	9.4	12.1

Dimensions in mm.

Gate Valves

Type 09420



Flanged Gate Valves, PN16, DIN EN 12288

Bronze body, screwed topwork in brass
with maintenance-free gland packing (O-Ring)
and non rising stem
flanged connection acc. to DIN EN 1092-3 PN16

Part No. 09420.X.000000

· Standard valve

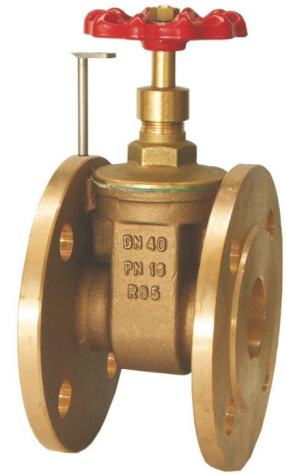
Part No. 09420.X.010000

· Valve with locking device without lock

Part No. 09420.X.020000

· Valve with locking device with lock

option:
Locking device →



Applications:

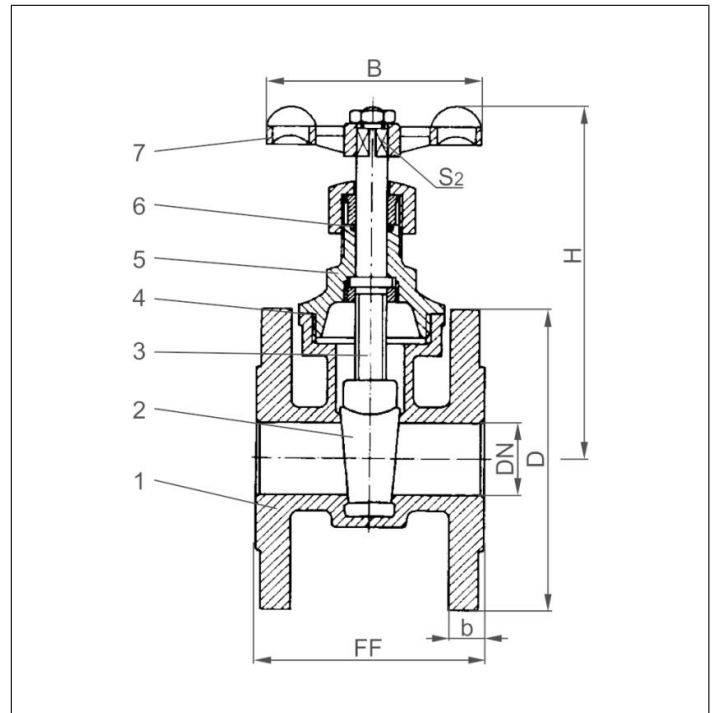
Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures: -25°C / -13°F (248K) up to +120°C / +248°F (393K) and maximal 6.0 bar

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Wedge	CC491K	B 62 UNS C83600
3 Stem	CW614N	B 249 UNS C38500
4 Bonnet gasket	Klingsil C-4400	
5 Headpiece	CW614N	B 249 UNS C38500
6 O-Rings	FPM (Viton)	
7 Handwheel	Aluminium - diecasting	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 09420	Technical data							
Nominal size	DN	25	32	40	50	65	80	100
Dimension code	.X.	0250	0320	0400	0500	0650	0800	1000
Face-to-face dimension	FF	80	90	100	110	130	150	165
Height	H	120	130	150	180	225	250	300
Flange diameter	D	115	140	150	165	185	200	220
Width of flange	b	12	14	14	16	16	18	20
Handwheel-Ø	B	70	80	80	110	150	150	150
Wrench size across flats	S ₂	8	9	9	11	12	14	14
Weight	ca. kg	2.6	3.6	4.4	6.5	9.2	12.1	15.8

Dimensions in mm.

Gate Valves

Type 09420



Flanged Gate Valves, PN16, DIN EN 12288

Bronze body, screwed topwork in brass
with maintenance-free gland packing (O-Ring)
and non rising stem
flanged connection acc. to DIN EN 1092-3 PN16

Part No. 09420.X.100000

· Valve with opening indicator

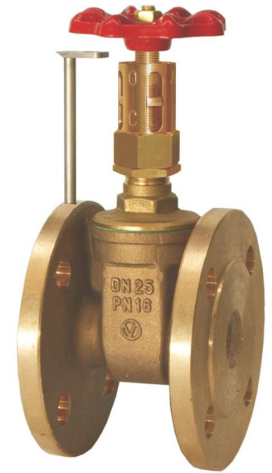
Part No. 09420.X.110000

· Valve with opening indicator and locking device without lock

Part No. 09420.X.120000

· Valve with opening indicator and locking device with lock

option:
Locking device →



Applications:

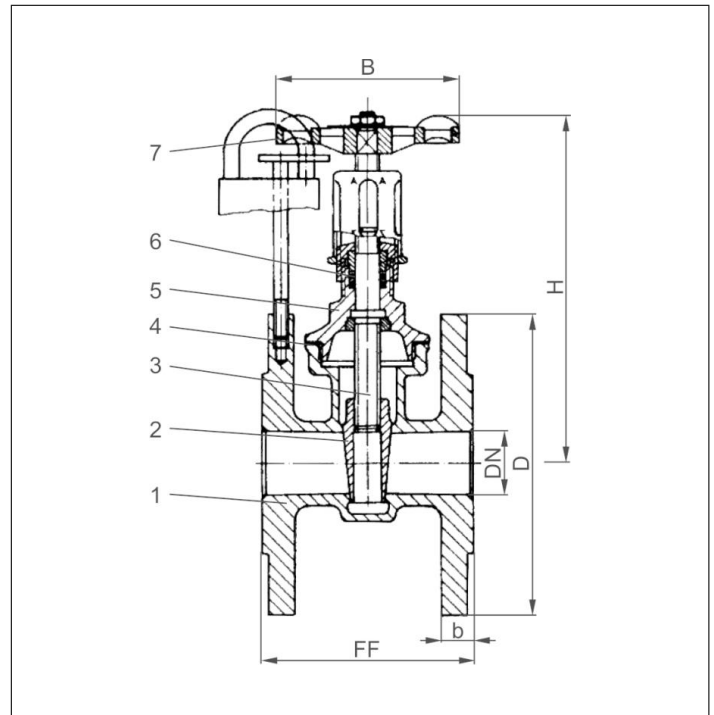
Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures: -25°C / -13°F (248K) up to +120°C / +248°F (393K) and maximal 6.0 bar

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Wedge	CC491K	B 62 UNS C83600
3 Stem	CW614N	B 249 UNS C38500
4 Bonnet gasket	Klingsil C-4400	
5 Headpiece	CW614N	B 249 UNS C38500
6 O-Rings	FPM (Viton)	
7 Handwheel	Aluminium - diecasting	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 09420	Technical data							
Nominal size	DN	25	32	40	50	65	80	100
Dimension code	.X.	0250	0320	0400	0500	0650	0800	1000
Face-to-face dimension	FF	80	90	100	110	130	150	165
Height	H	138	152	169	208	253	281	318
Flange diameter	D	115	140	150	165	185	200	220
Width of flange	b	12	14	14	16	16	18	20
Handwheel-Ø	B	70	80	80	110	150	150	150
Wrench size across flats	S ₂	8	9	9	11	12	14	14
Weight	ca. kg	2.7	3.7	4.9	6.7	9.4	12.5	16.2

Dimensions in mm.

Angle Valves

Type 01131



Globe Valves, angle type, PN16

Bronze body, screwed topwork in brass

Part No. 01131.X.0000

Female thread connection (R) acc. to ISO 7-1 Rp



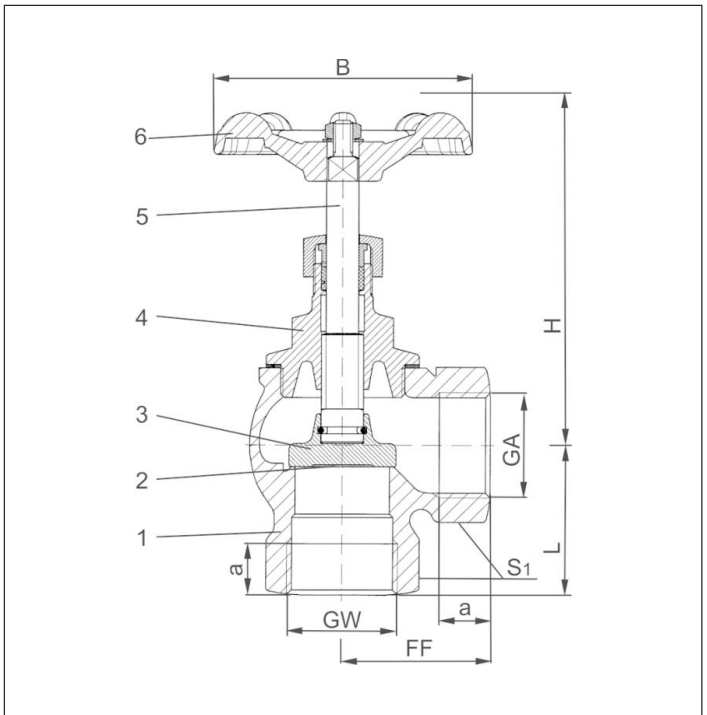
Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures: -10°C / +14°F (263K) up to +185°C / +365°F (458K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE	
3 Disc	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Stem	CW614N	B 283 UNS C38500
6 Handwheel	Aluminium - diecasting	



Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 01131	Technical data					
Nominal size	GW	1/2	3/4	1	1-1/2	2
Dimension code	.X.	0400	0600	1000	1400	2000
Face-to-face dimension	FF	25	37.5	42.5	48	56
Length	L	25	35	36	48	56
Height	H	95	110	135	155	190
Socket depth	a	12	19	19	18	20
Thread size	GA	1/2	3/4	1	1-1/2	2
Handwheel-Ø	B	70	70	80	80	80
Wrench size across flats	S ₁	27	32	41	58	70
Wrench size across flats	S ₂	7	8	9	8	9
Weight	ca. kg	0.4	0.6	1.0	1.6	2.5

Dimensions in mm.

Needle Valves

Type 04010



Needle Valves, PN100

Brass body and topwork
with needle cone

Part No. 04010.X.0000

Female thread connection (G) acc. to ISO 228/1



Applications:

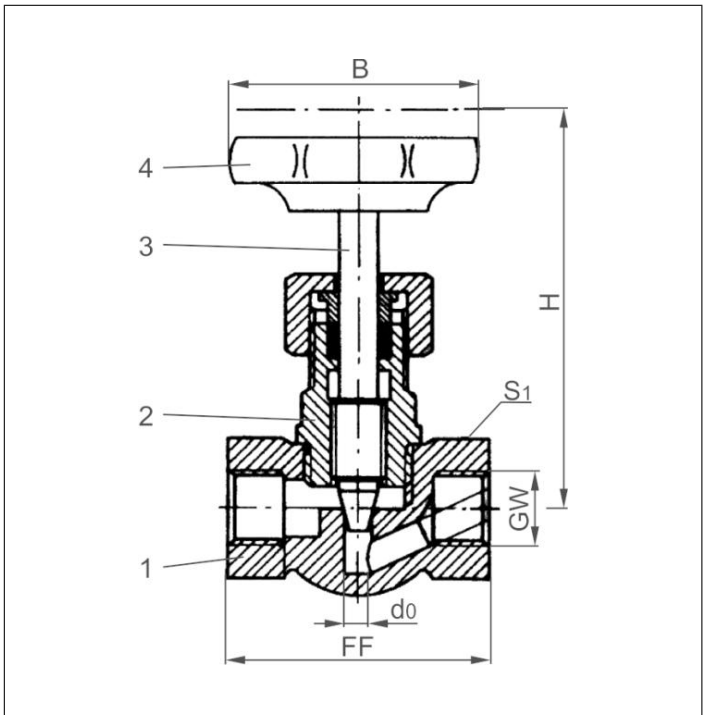
Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures: -10°C / +14°F (263K) up to +100°C / +212°F (373K)

Materials	DIN EN	ASTM
1 Body	CW614N	B 249 UNS C38500
2 Headpiece	CW612N	B 283 UNS C37700
3 Stem	CW612N	B 283 UNS C37700
4 Handwheel	Plastic	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 04010	Technical data						
Nominal size	GW	1/4	3/8	1/2	3/4	1	1-1/4
Dimension code	.X.	0200	0300	0400	0600	1000	1200
Face-to-face dimension	FF	50	50	50	67	75	110
Height	H	80	80	80	90	95	105
Orifice	d ₀	5.0	6.0	6.5	9.0	11.0	13.0
Handwheel-Ø	B	50	50	65	65	65	90
Wrench size across flats	S ₁	22	22	25	32	40	54
Weight	ca. kg	0.30	0.30	0.35	0.55	0.75	1.80
Kvs-Value	m ³ /h	0.4	0.6	0.6	1.0	1.6	3.0
Cv-Value	gal/min	0.5	0.7	0.7	1.1	1.8	3.5

Dimensions in mm.

Self closing globe Valves

Type 01028



Self closing Globe Valve, PN16

Bronze body and lever,
gland with FPM O-Rings

Part No. 01028.X.0000

Female thread connection (R) acc. to ISO 7-1 Rp

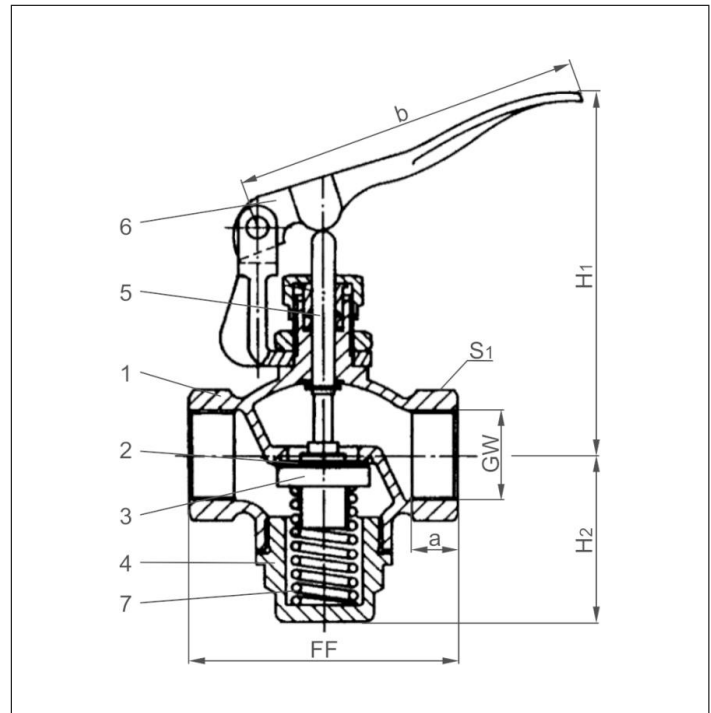


Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.
The laws, regulations and standards are to observe for the range of application.
Working temperatures: -10°C / +14°F (263K) up to +165°C / +329°F (438K)
Pay attention to pressure-temperature reduction.

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	FPM (VITON)	
3 Disc	CW612N	B 283 UNS C37700
4 Plug	CW612N	B 283 UNS C37700
5 Stem	1.4104	A 276 Grade 430F
6 Lever	CC491K	B 62 UNS C83600
7 Spring	1.4310	A 313 Grade 301

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 01028	Technical data			
Nominal size	GW	1/2	3/4	1
Dimension code	.X.	0400	0600	1000
Face-to-face dimension	FF	70	80	95
Height	H ₁	120	120	130
Height	H ₂	50	55	60
Socket depth	a	12	14	16
Length	b	123	123	123
Wrench size across flats	S ₁	27	33	41
Weight	ca. kg	0.8	0.9	1.4

Dimensions in mm.

Control Valves

Type 04020



Control Valves, PN16, DIN 3844

Control characteristic: linear
Bronze body, screwed topwork in brass
with opening indicator

Part No. 04020.X.0000

Female thread type G (BSPP) acc. to ISO 228/1



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.
The laws, regulations and standards are to observe for the range of application.

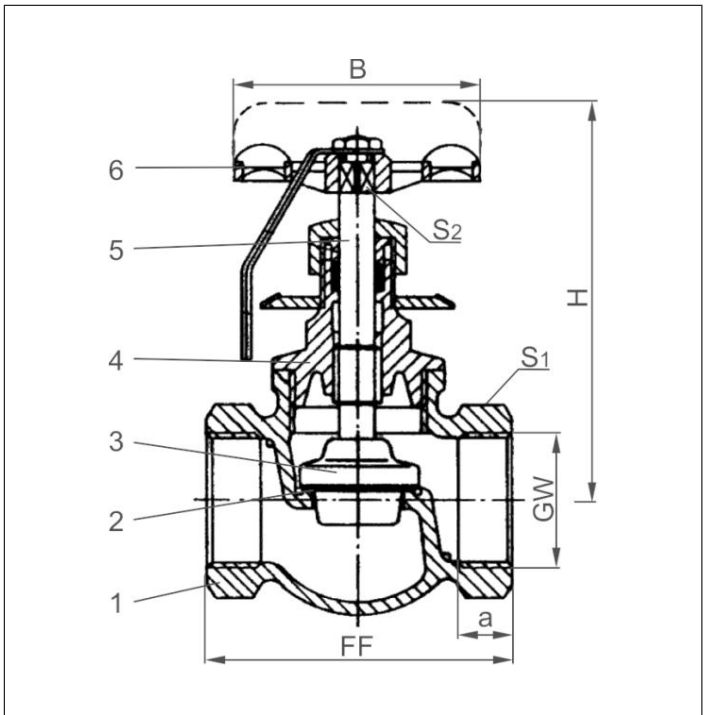
Working temperatures and pressures:

up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE	
3 Control disc	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Stem	CW614N	B 283 UNS C38500
6 Handwheel	Aluminium - diecasting	



Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 04020	Technical data							
Nominal size	GW	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Dimension code	.X.	0300	0400	0600	1000	1200	1400	2000
Face-to-face dimension	FF	50	60	70	80	95	105	130
Height	H	75	85	95	105	120	130	145
Socket depth	a	10	13	14	17	19	19	23
Handwheel-Ø	B	40	50	60	70	80	90	110
Wrench size across flats	S ₁	22	27	32	41	50	58	70
Wrench size across flats	S ₂	4.5	5	6	7	8	9	9
Weight	ca. kg	0.35	0.4	0.5	0.7	1.1	1.4	2.3
Kvs-Value	m ³ /h	1.5	2.0	4.0	6.0	12.0	16.0	25.0

Dimensions in mm.

Control Valves

Type 04041



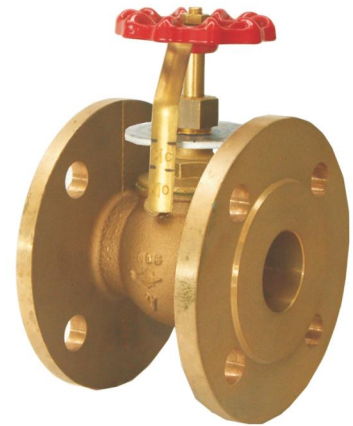
Control Valves, PN16

Control characteristic: linear

Bronze body, screwed topwork in brass
with opening indicator

Part No. 04041.X.0160

Flanged connection acc. to DIN EN 1092-3 PN16



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

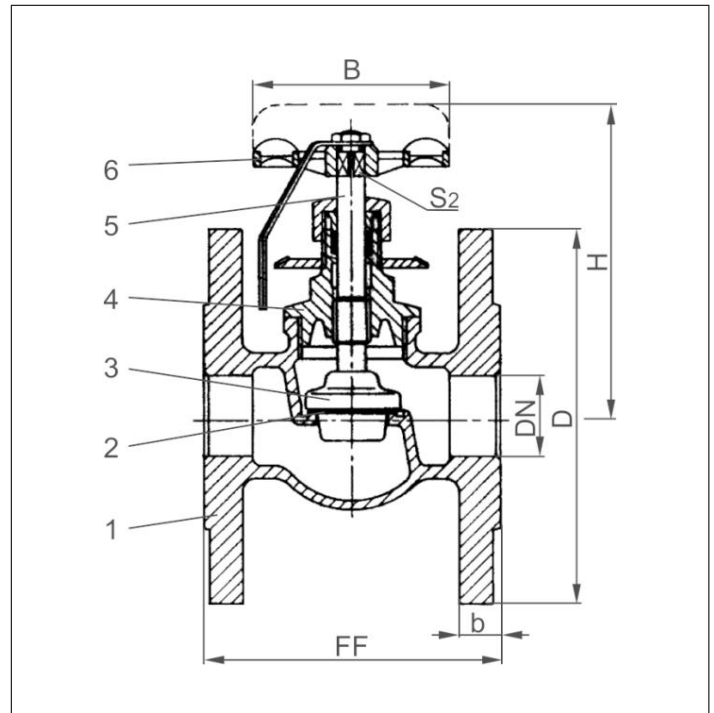
up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14 (263K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	PTFE	
3 Control disc	CW614N	B 283 UNS C38500
4 Headpiece	CW614N	B 283 UNS C38500
5 Stem	CW614N	B 283 UNS C38500
6 Handwheel	Aluminium - diecasting	

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 04041	Technical data						
Nominal size	DN	15	20	25	32	40	50
Dimension code	.X.	0150	0200	0250	0320	0400	0500
Face-to-face dimension	FF	65	80	90	95	110	125
Height	H	85	95	105	120	130	145
Flange diameter	D	95	105	115	140	150	165
Width of flange	b	10	12	12	14	14	16
Handwheel-Ø	B	50	60	70	80	90	110
Wrench size across flats	S ₂	5	6	7	8	9	9
Weight	ca. kg	1,4	2,0	2,6	3,9	4,5	6,6
Kvs-Value	m ³ /h	2,0	4,0	6,0	12,0	16,0	25,0

Dimensions in mm.

Check Valves

Type 05011, Type 05012



Check Valves, PN16, DIN EN 3845-2

Bronze body, screwed cap in brass

Part No. 05011.X.0000

Female thread type G (BSPP) acc. to ISO 228/1

Disc with FPM seal

Part No. 05012.X.0000

Female thread type G (BSPP) acc. to ISO 228/1

Disc with PTFE seal

Available options - on request only:

- Disc with EPDM seal
- Disc with NBR seal



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

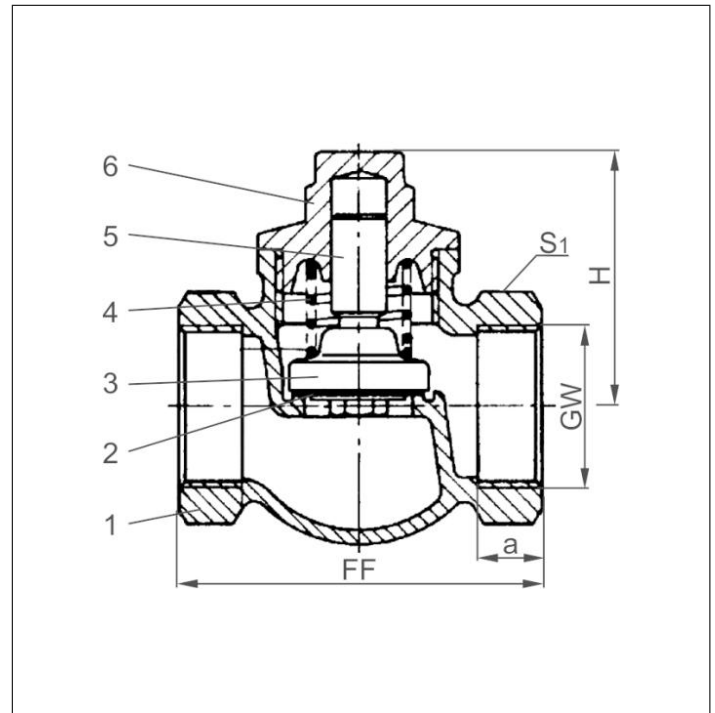
up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Seal Type 05011	FPM	
2 Seal Type 05012	PTFE	
3 Disc	CW614N	B 283 UNS C38500
4 Spring	1.4310	A 313 Grade 301
5 Guide piece	CW614N	B 283 UNS C38500
6 Cap	CW614N	B 283 UNS C38500

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 05011 & 05012	Technical data							
Nominal size	GW	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Dimension code	.X.	0300	0400	0600	1000	1200	1400	2000
Face-to-face dimension	FF	50	60	70	80	95	105	130
Height	H	40	40	50	55	55	65	75
Socket depth	a	10	13	14	17	19	19	23
Wrench size across flats	S ₁	22	27	32	41	50	58	70
Weight	ca. kg	0.2	0.3	0.4	0.6	0.9	1.3	2.0

Dimensions in mm.

Check Valves

Type 05083



Check Valves, PN16

Bronze body, screwed cap in brass

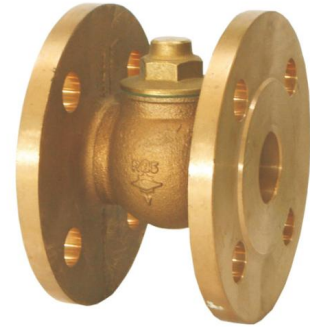
Part No. 05083.X.0160

Flanged connection acc. to DIN EN 1092-3 PN16

Disc with FPM seal

Available options - on request only:

- Disc with PTFE seal



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

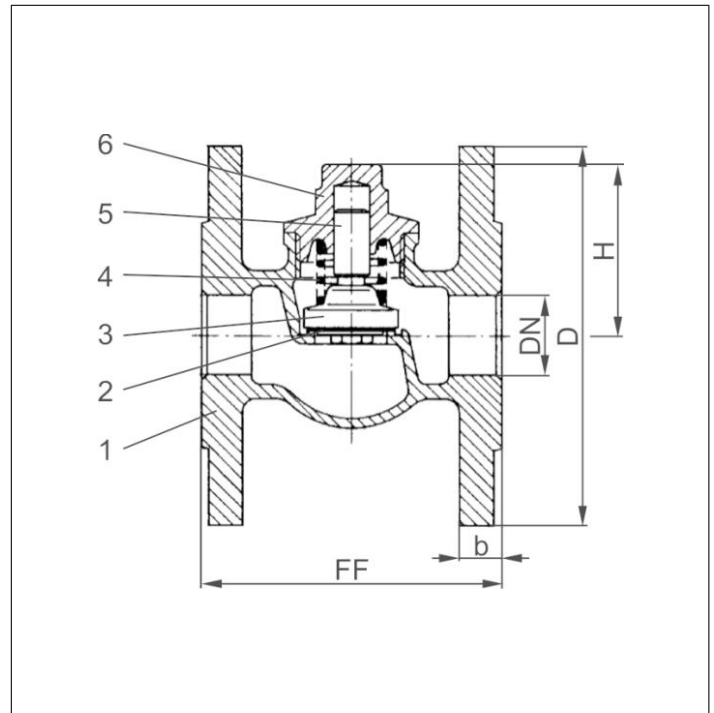
up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Valve seal	FPM	
3 Disc	CW614N	B 283 UNS C38500
4 Spring	1.4310	A 313 Grade 301
5 Guide piece	CW614N	B 283 UNS C38500
6 Cap	CW614N	B 283 UNS C38500

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 05083	Technical data					
Nominal size	DN	20	25	32	40	50
Dimension code	.X.	0200	0250	0320	0400	0500
Face-to-face dimension	FF	80	90	95	110	125
Height	H	50	55	55	65	75
Flange diameter	D	105	115	140	150	165
Width of flange	b	12	12	14	14	16
Weight	ca. kg	1.9	2.6	3.7	4.3	6.4

Dimensions in mm.

Check Valves

Type 05110

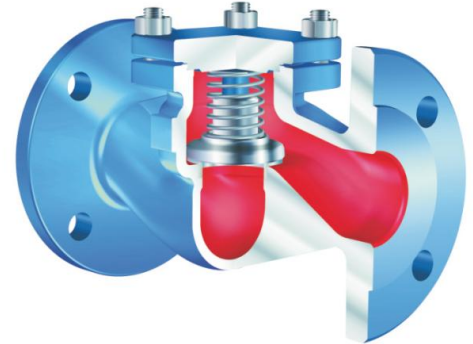


Check Valves, PN16

Body and cap in cast iron
seat and disc in stainless steel, metal to metal seated

Part No. 05110.X.0000

Flanged connection acc. to DIN EN 1092-1 PN16
face-to-face dimension acc. to DIN EN 558-1, Reihe 1



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.
The laws, regulations and standards are to observe for the range of application.

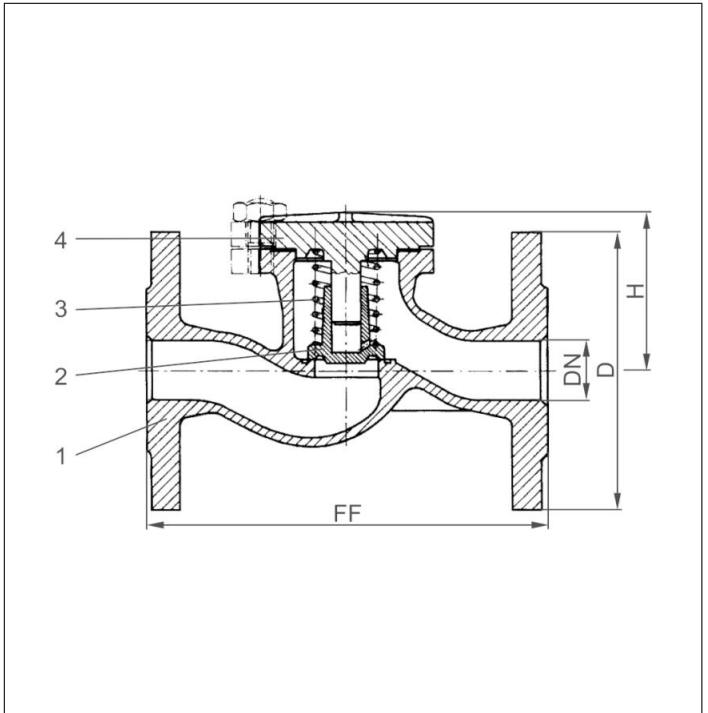
Working temperatures and pressures:

up to max. 16.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 13.0 bar: -10°C / +14°F (263K) up to +225°C / +437°F (498K)

Materials	DIN EN	ASTM
1 Body	0.6025	A 48-83 Gr. 35B
2 Disc	1.4021	A 276 Grade 420
3 Spring	1.4310	A 313 Grade 301
4 Cap	0.6025	A 48-83 Gr. 35B

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 05110	Technical data											
Nominal size	DN	15	20	25	32	40	50	65	80	100	125	150
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000	1250	1500
Face-to-face dimension	FF	130	150	160	180	200	230	290	310	350	400	480
Height	H	70	70	80	80	85	95	110	130	155	165	215
Flange diameter	D	95	105	115	140	150	165	185	200	235	270	300
Weight	ca. kg	2.4	3.0	3.8	5.7	7.4	10.3	15.2	20.4	31.0	49.0	69.0

Dimensions in mm.

Check Valves

Type 05115



Check Valves, PN40

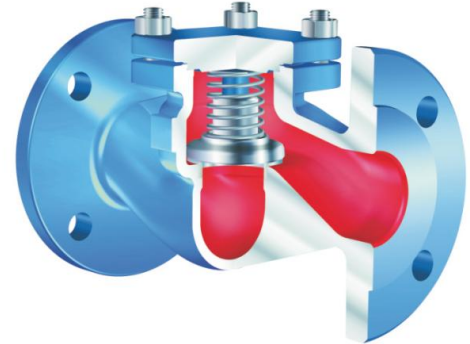
Body in cast steel

seat and disc in stainless steel, metal to metal seated

Part No. 05115.X.0000

Flanged connection acc. to DIN EN 1092-1 PN40

face-to-face dimension acc. to DIN EN 558-1, Reihe 1



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

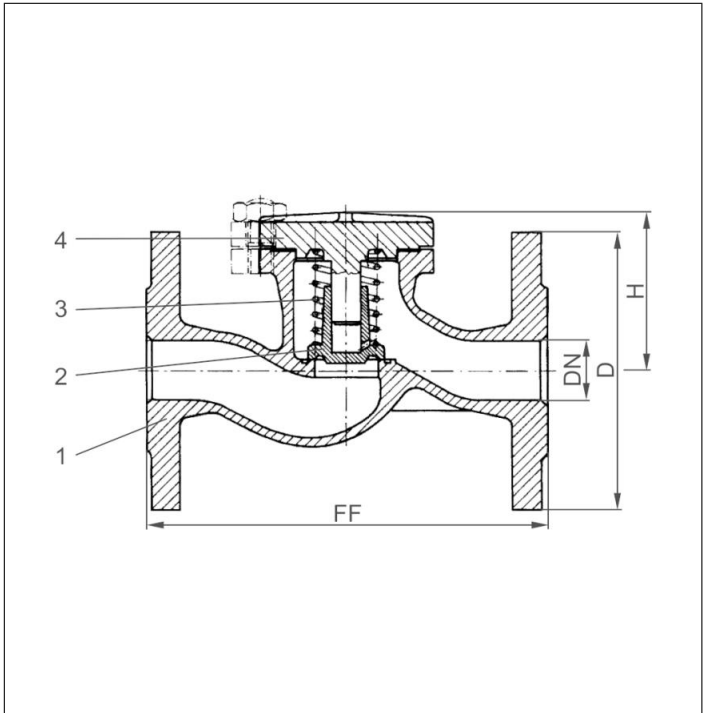
up to max. 40.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 33.0 bar: -10°C / +14°F (263K) up to +225°C / +437°F (498K)

up to max. 21.0 bar: -10°C / +14°F (263K) up to +400°C / +752°F (673K)

Materials	DIN EN	ASTM
1 Body	1.0619	A 216 Grade WCB
2 Disc	1.4021	A 276 Grade 420
3 Spring	1.4310	A 313 Grade 301
4 Cap DN15 - 65	1.0402	A 576 Grade 1020
5 Cap DN80 - 150	1.0425	no reference

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 05115	Technical data											
Nominal size	DN	15	20	25	32	40	50	65	80	100	125	150
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000	1250	1500
Face-to-face dimension	FF	130	150	160	180	200	230	290	310	350	400	480
Height	H	70	70	80	80	85	95	110	130	155	165	215
Flange diameter	D	95	105	115	140	150	165	185	200	235	270	300
Weight	ca. kg	3.8	4.9	5.9	7.1	10.4	12.3	22.7	28.5	40.0	64.0	90.0

Dimensions in mm.

Check Valves

Type 05040



Check Valves, swing type, PN16

Bronze body, screwed cap in brass
Female thread type G (BSPP) acc. to ISO 228/1

Part-No. 05040.X.0000

Metal to metal seated

Part-No. 05040.X.0200

Disc with silicone seal

Part-No. 05040.X.0600

Disc with EPDM seal

Part-No. 05040.X.0700

Disc with FPM seal



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

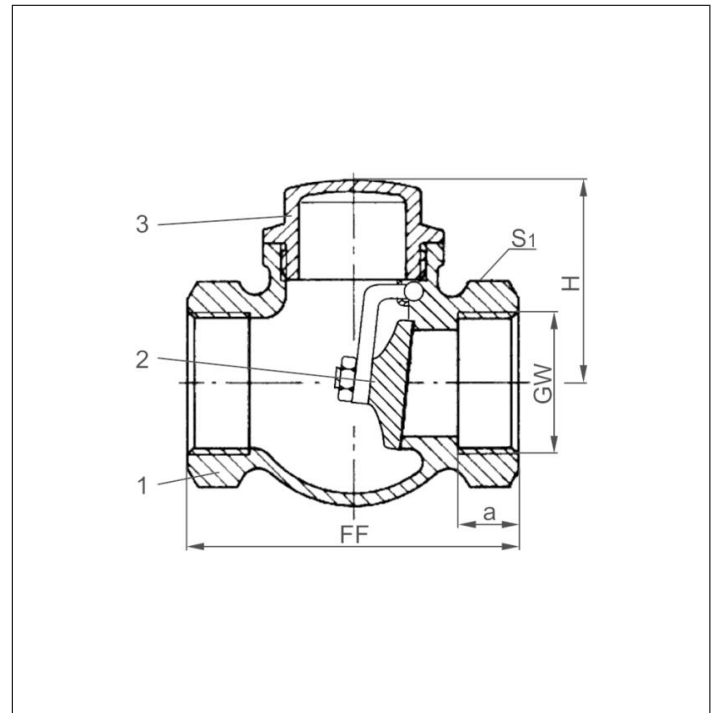
up to max. 16.0 bar: -10°C / +14°F (263K) up to +80°C / +176°F (353K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Swing	CW614N	B 283 UNS C38500
3 Cap	CW614N	B 283 UNS C38500

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 05040	Technical data							
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
Dimension code	.X.	0400	0600	1000	1200	1400	2000	2400
Face-to-face dimension	FF	60	70	80	95	105	130	160
Height	H	40	49	56	60	70	80	105
Flow diameter	d ₀	13	17	22	28	31	46	60
Socket depth	a	12	13	15	16	18	20	20
Wrench size across flats	S ₁	27	34	41	51	55	70	90
Weight	ca. kg	0.28	0.45	0.70	0.96	1.40	2.10	3.70
Kvs-Value	m ³ /h	5.5	10.2	20.2	34.7	44.9	104.0	175.0

Dimensions in mm.

Check Valves

Type 05338



Check Valves, disc type, PN40 / class 300

Body in stainless steel

Part No. 05338.X.0000

Metal to metal seated
with closing spring,
for mounting between two flanges acc. to
DIN PN10, PN16, PN25 or PN40
ASME class 125, class 150 or class 300



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.
The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

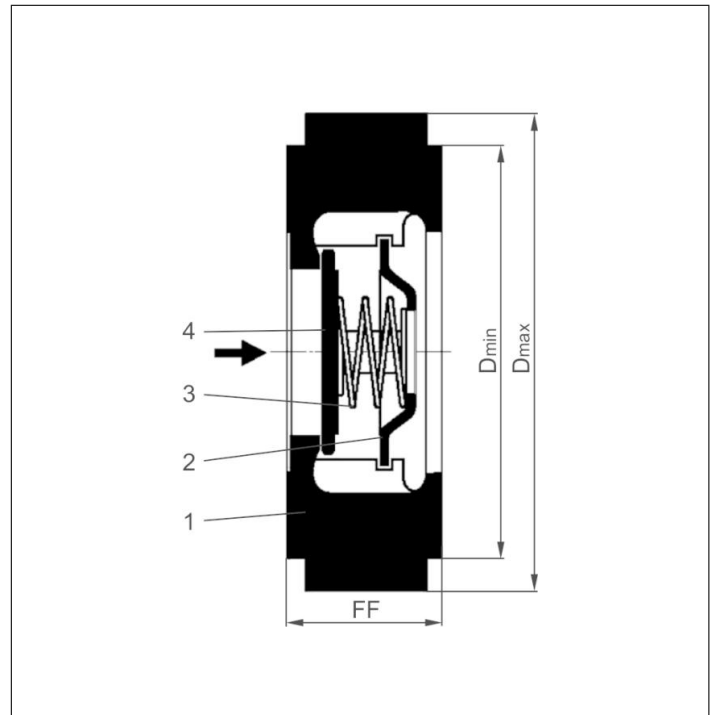
up to max. 49.6 bar: -200°C / -328°F (73K)

up to max: 35.8 bar: +200°C / +392°F (473K)

up to max. 24.0 bar: +550°C / +1022°F (823K)

Materials	DIN EN	ASTM
1 Body	1.4408	A 351 CF 8M
2 Spring cap	1.4571	A 276 Grade 316Ti
3 Spring	1.4571	A 313 Grade 316Ti
4 Disc	1.4571	A 276 Grade 316Ti

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 05338	Technical data									
Nominal size	DN	15	20	25	32	40	50	65	80	100
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000
Face-to-face dimension	FF	16	19	22	28	31.5	40	46	50	60
Disc diameter	D _{min}	44	53	64	70	83	96	110	128	151
Disc diameter	D _{max}	67	76	82	93	104	118	136	158	186
Weight	ca. kg	0.27	0.38	0.52	0.80	1.12	1.78	2.43	3.37	5.34
Kvs-Value	m ³ /h	2.7	5.8	10.3	17.8	27.0	42.0	68.0	88.0	112.0
Cv-Value	gal/min	3.1	6.7	11.9	20.6	31.3	48.7	78.9	102.1	129.9

Dimensions in mm.

Pressure reducing Valves

Type 08010

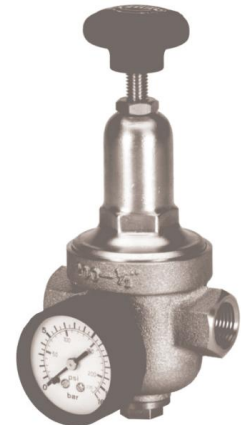


Pressure Reducing Valves

Bronze body, with balanced seat,
disc with NBR seal, pressure gauge connection G1/4,
inlet pressure: up to max. 25.0 bar
outlet pressure: 1.5 up to 8.0 bar
greatest reducing ratio: 10 : 1

Part No. 08010.X.0000

Female thread connection (R) acc. to ISO 7-1 Rp



Applications:

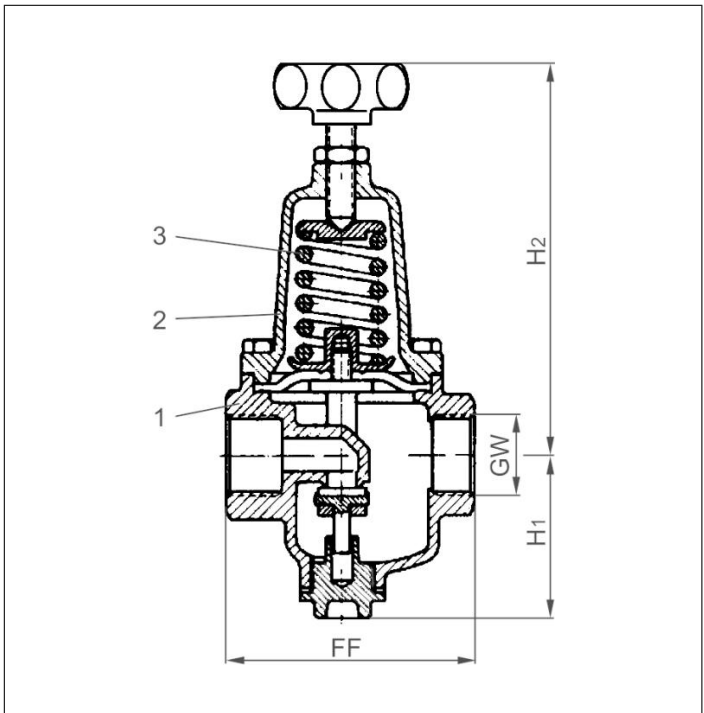
Suitable for compressed air, nitrogen and similar non-inflammable, non-toxic gases.
Working temperature: -10°C / +14°F (263K) up to +75°C / +167°F (348K)

Picture:

Accessory pressure gauge - not included with valve

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Bonnet (GW 1/4 - 1)	CW614N	B 249 UNS C38500
2 Bonnet (GW 1-1/4 - 2)	0.6025	A 48-83 Gr. 35B
3 Spring	1.1200	A 227

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08010	Technical data									
Nominal size	GW	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	
Dimension code	.X.	0200	0300	0400	0600	1000	1200	1400	2000	
Face-to-face dimension	FF	70	70	85	85	95	104	108	147	
Height	H ₁	48	48	48	48	55	61	61	64	
Height	H ₂	110	110	120	120	155	200	200	260	
Weight	ca. kg	0.85	0.85	1.10	1.10	1.60	3.60	3.65	7.00	

Dimensions in mm.

Pressure reducing Valves

Type 08011



Pressure Reducing Valves

Bronze body, with balanced seat,
disc with NBR seal, pressure gauge connection G1/4,
with piston control

inlet pressure: up to max. 40.0 bar

outlet pressure: 1.5 up to 20.0 bar

greatest reducing ratio: 6 : 1

Part No. 08011.X.0000

Female thread connection (R) acc. to ISO 7-1 Rp



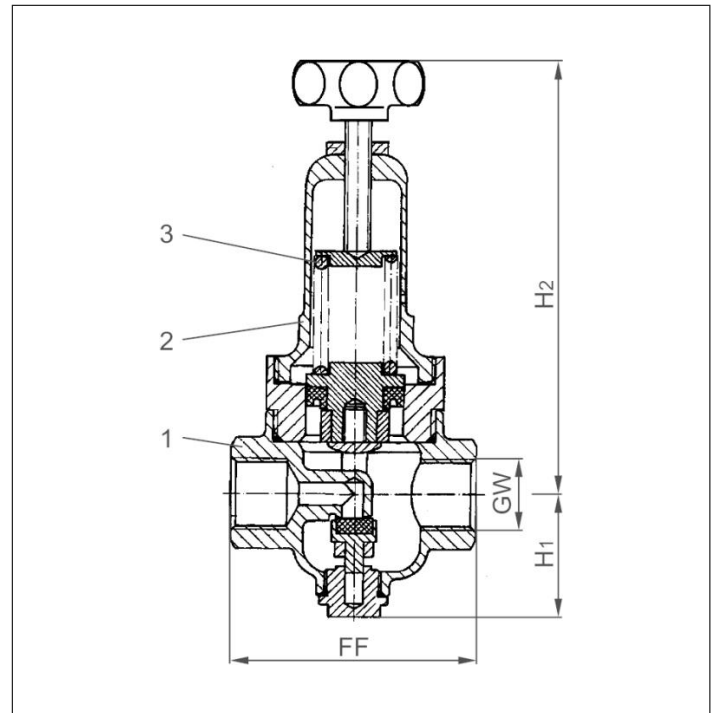
Applications:

Suitable for compressed air, nitrogen and similar non-inflammable, non-toxic gases.

Working temperature: -10°C / +14°F (263K) up to +75°C / +167°F (348K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Bonnet (GW 1/4 - 1)	CW614N	B 249 UNS C38500
2 Bonnet (GW 1-1/4 - 2)	0.6025	A 48-83 Gr. 35B
3 Spring	1.1200	A 227

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08011	Technical data									
Nominal size	GW	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	
Dimension code	.X.	0200	0300	0400	0600	1000	1200	1400	2000	
Face-to-face dimension	FF	70	70	85	85	95	104	108	147	
Height	H ₁	48	48	48	48	55	61	61	64	
Height	H ₂	130	130	140	140	185	230	230	295	
Weight	ca. kg	1.20	1.15	1.70	1.70	2.65	5.95	6.10	9.80	

Dimensions in mm.

Pressure reducing Valves

Type 08012

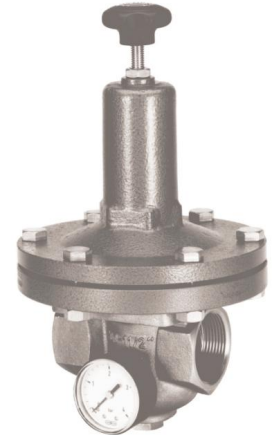


Pressure Reducing Valves

Bronze body, with balanced seat,
disc with NBR seal, pressure gauge connection G1/4,
inlet pressure: up to max. 25.0 bar
outlet pressure: 0.2 up to 2.0 bar
greatest reducing ratio: 20 : 1

Part No. 08012.X.0000

Female thread connection (R) acc. to ISO 7-1 Rp



Applications:

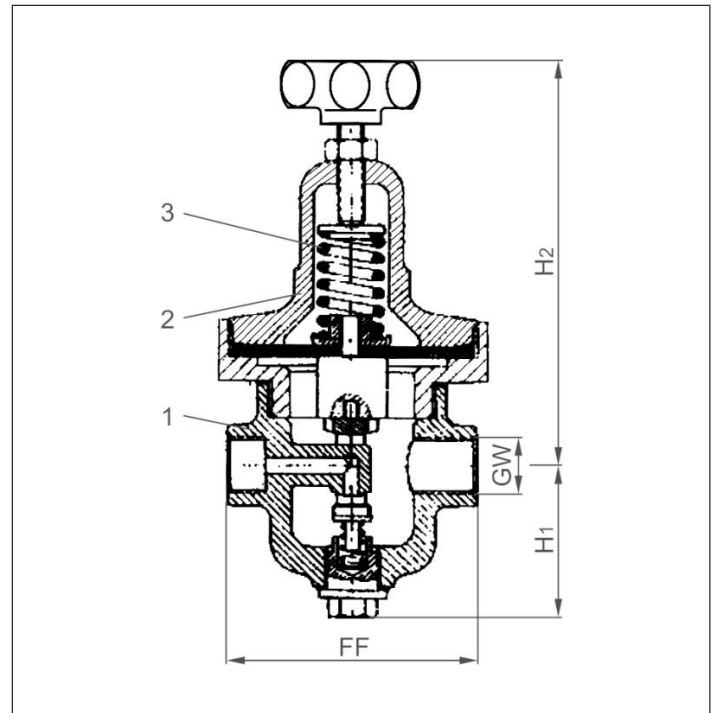
Suitable for compressed air, nitrogen and similar non-inflammable, non-toxic gases.
Working temperature: -10°C / +14°F (263K) up to +75°C / +167°F (348K)

Picture:

Accessory pressure gauge - not included with valve

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Bonnet (GW 1/4 - 1)	CW614N	B 249 UNS C38500
2 Bonnet (GW 1-1/4 - 2)	CC491K	B 62 UNS C83600
3 Spring	1.1200	A 227

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08012	Technical data									
Nominal size	GW	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	
Dimension code	.X.	0200	0300	0400	0600	1000	1200	1400	2000	
Face-to-face dimension	FF	70	70	85	85	95	104	108	147	
Height	H ₁	47	47	47	47	55	60	60	66	
Height	H ₂	155	155	220	220	250	300	300	300	
Weight	ca. kg	1.0	1.0	2.65	2.65	4.2	7.75	12.0	13.1	

Dimensions in mm.

Pressure reducing Valves

Type 08015



Pressure Reducing Valves

Bronze body, with balanced seat,
disc with NBR seal, pressure gauge connection G1/4,
inlet pressure: up to max. 40.0 bar
outlet pressure: 1.0 up to 10.0 bar

Part No. 08015.X.0000

Female thread connection (R) acc. to ISO 7-1 Rp



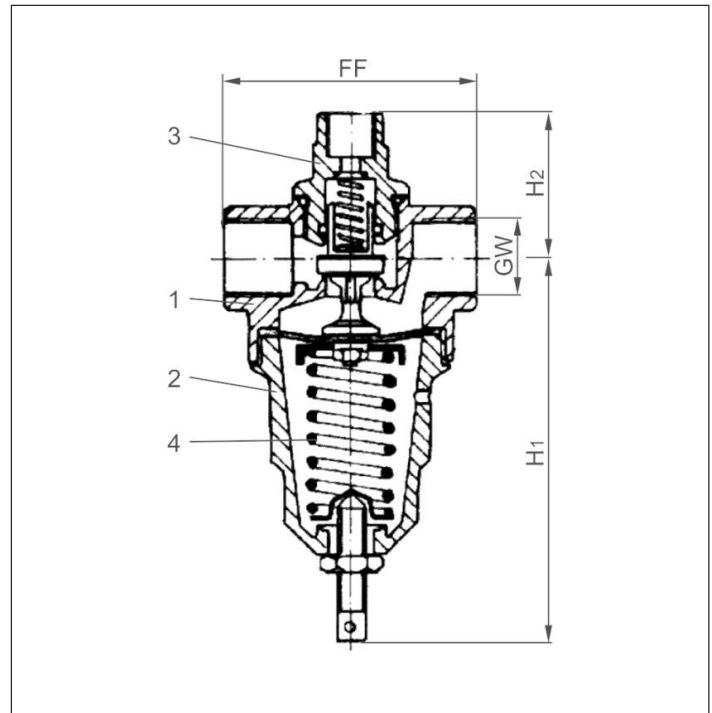
Applications:

Suitable for compressed air, nitrogen and similar non-inflammable, non-toxic gases.

Working temperature: -10°C / +14°F (263K) up to +70°C / +158°F (343K)

Materials	DIN EN	ASTM
1 Body	CW612N	B 283 UNS C37770
2 Bonnet	synthetic material	
3 Headpiece	CW612N	B 283 UNS C37770
4 Spring	1.1200	A 227

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08015	Technical data									
Nominal size	GW	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	
Dimension code	.X.	0200	0300	0400	0600	1000	1200	1400	2000	
Face-to-face dimension	FF	50	50	65	80	95	105	115	130	
Height	H ₁	90	90	105	105	150	160	200	210	
Height	H ₂	34	34	36	42	57	57	72	72	
Weight	ca. kg	0.30	0.30	0.45	0.60	1.35	1.80	2.90	3.80	

Dimensions in mm.

Pressure reducing Valves

Type 08023



Pressure Reducing Valves

Bronze body, with balanced single seat valve,
disc made of bronze with EPDM seal, pressure gauge connection G1/4,
inlet pressure: up to max. 25.0 bar
outlet pressure: 1.0 up to 8.0 bar

Part No. 08023.X.0000

Union connections with male thread (G) acc. to ISO 228-1



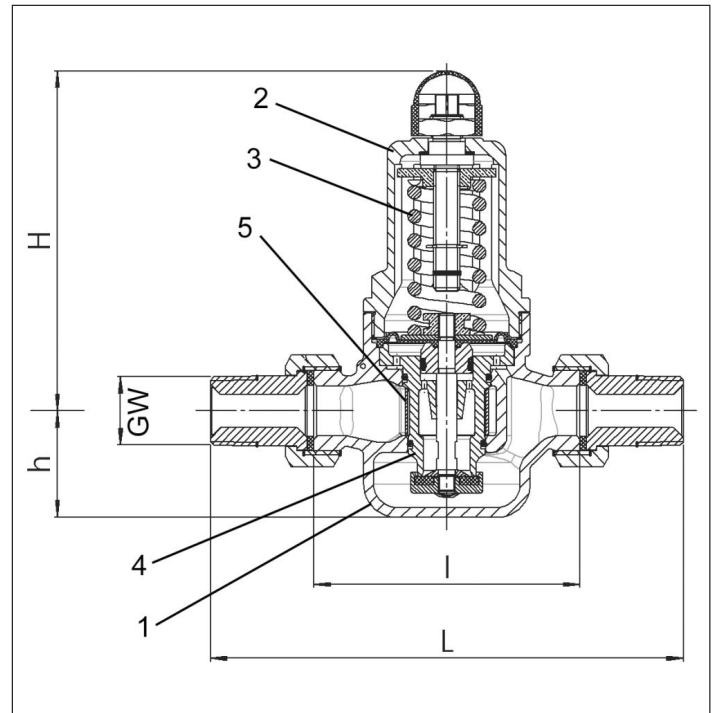
Applications:

Suitable for water, non-viscous liquids, compressed air,
and similar non-inflammable, non-toxic gases.

Working temperature: -10°C / +14°F (263K) up to +95°C / +203°F (368K)

Materials	DIN EN	ASTM
1 Body	CC499K	CC499K
2 Bonnet	CC499K	CC499K
3 Spring	1.1200	A 228
4 Inner parts	CC499K	CC499K
5 Screen	1.4404	A 316L

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08023	Technical data						
Nominal size	GW	1/2	3/4	1	1-1/4	1-1/2	2
Dimension code	.X.	0400	0600	1000	1200	1400	2000
Face-to-face dimension	L	142	158	180	193	226	252
Body length	l	80	90	100	105	130	148
Height	h	33	33	45	45	70	70
Height	H	102	102	130	130	165	165
Weight	ca. kg	1.2	1.3	2.4	2.6	5.5	6.0

Dimensions in mm.

Strainers

Type 08180, Type 08181



Strainer, PN16

Y-type pattern, Bronze body,
stainless steel strainer screen,
Female thread type G (BSPP) acc. to ISO 228/1

Part No. 08180.X.0000

screen with 0.6 mm mesh

Part No. 08181.X.0000

screen with 0.25 mm mesh



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.
The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

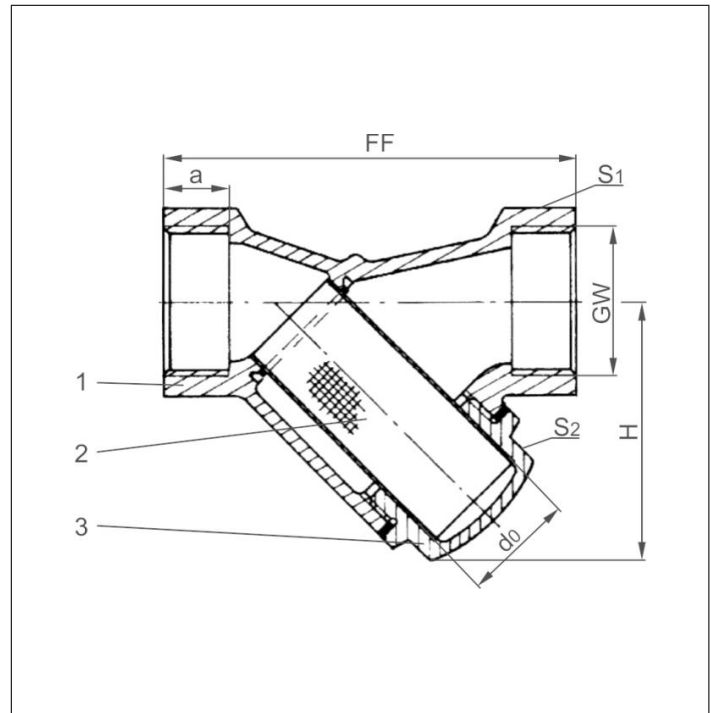
up to max. 16.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 10.0 bar: -10°C / +14°F (263K) up to +160°C / +320°F (433K)

up to max. 6.0 bar: -10°C / +14°F (263K) up to +200°C / +392°F (473K)

Materials	DIN EN	ASTM
1 Body	CC491K	B 62 UNS C83600
2 Screen	1.4300	A 276 Grade 302
3 Plug	CW614N	B 283 UNS C38500

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08180 & 08181	Technical data								
Nominal size	GW	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Dimension code	.X.	0200	0300	0400	0600	1000	1200	1400	2000
Face-to-face dimension	FF	55	55	65	75	90	110	120	150
Height	H	37	37	38	44	57	67	73	85
Socket depth	a	9	9	11	12	14	16	18	202
Flow diameter	d ₀	11	11	12	18	24	31	37	45
Wrench size across flats	S ₁	22	22	27	32	41	50	58	70
Wrench size across flats	S ₂	17	17	19	22	27	36	41	50
Weight	ca. kg	0.20	0.20	0.25	0.35	0.50	0.85	1.00	1.70

Dimensions in mm.

Strainers

Type 08161



Strainer, PN16

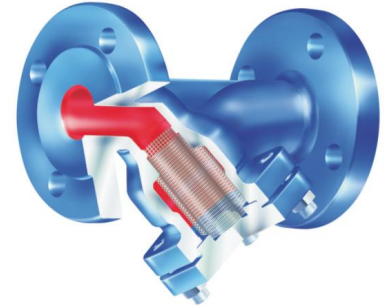
Body and cap in cast iron
Y-type pattern, stainless steel strainer screen

Part No. 08161.X.0000

Flanged connection acc. to DIN EN 1092-1 PN16
face-to-face dimension acc. to DIN EN 558-1, Reihe 1

Available options - on request only:

- screen with 0.25 mm mesh



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

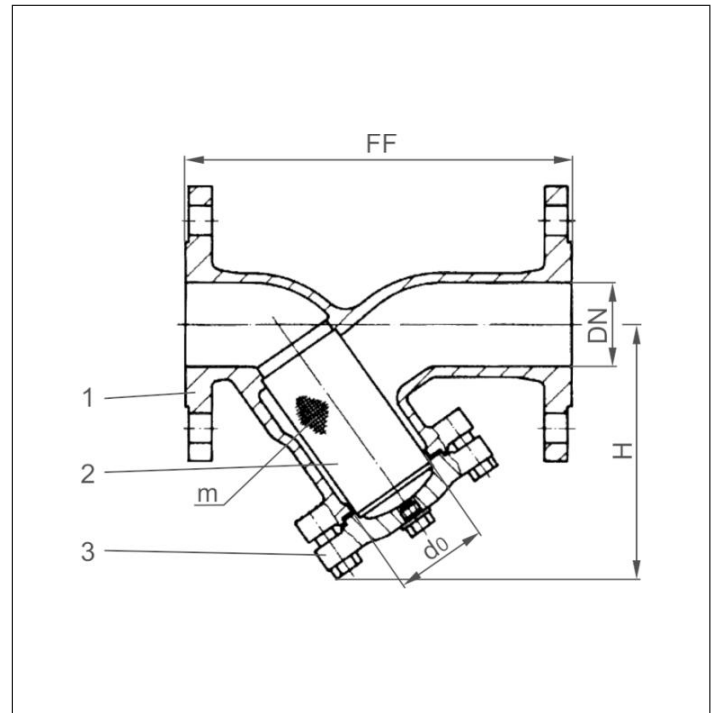
Working temperatures and pressures:

up to max. 16.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 13.0 bar: -10°C / +14°F (263K) up to +200°C / +437°F (473K)

Materials	DIN EN	ASTM
1 Body	0.6025	A 48-83 Gr. 35B
2 Screen	1.4301	A 276 Grade 304
3 Cap	0.6025	A 48-83 Gr. 35B

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08161	Technical data											
Nominal size	DN	15	20	25	32	40	50	65	80	100	125	150
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000	1250	1500
Face-to-face dimension	FF	130	150	160	180	200	230	290	310	350	400	480
Height	H	90	100	115	125	150	160	180	215	235	275	305
Flange diameter	D	95	105	115	140	150	165	185	200	220	250	285
Flow diameter	d ₀	23	28	36	42	50	61.5	78.5	89.5	109.5	137.5	160
Mesh	m	1.0	1.0	1.0	1.0	1.0	1.0	1.25	1.25	1.6	1.6	1.6
Weight	ca. kg	3.0	4.0	5.0	7.0	9.0	12.0	16.0	21.0	30.0	43.0	61.0

Dimensions in mm.

Strainers

Type 08170



Strainer, PN40

Body in cast steel

Y-type pattern, stainless steel strainer screen

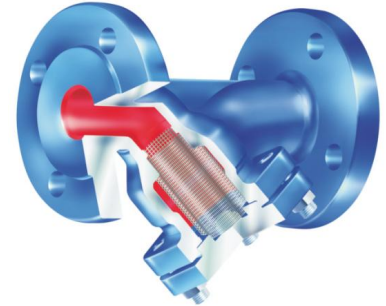
Part No. 08170.X.0000

Flanged connection acc. to DIN EN 1092-1 PN40

face-to-face dimension acc. to DIN EN 558-1, Reihe 1

Available options - on request only:

- screen with 0.25 mm mesh



Applications:

Suitable for non-toxic, non-inflammable fluids, gases and vapours.

The laws, regulations and standards are to observe for the range of application.

Working temperatures and pressures:

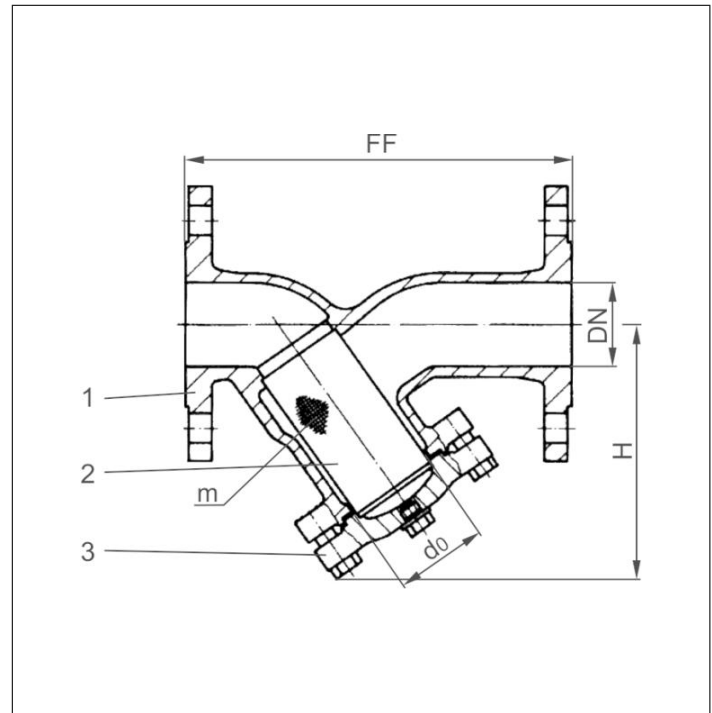
up to max. 40.0 bar: -10°C / +14°F (263K) up to +120°C / +248°F (393K)

up to max. 33.0 bar: -10°C / +14°F (263K) up to +225°C / +437°F (498K)

up to max. 21.0 bar: -10°C / +14°F (263K) up to +400°C / +752°F (673K)

Materials	DIN EN	ASTM
1 Body	0.0619	A 216 Grade WCB
2 Screen	1.4301	A 276 Grade 304
3 Cap DN15 - 65	1.0460	A 105 Grade II
3 Cap DN80 - 150	1.0425	no reference

Essential: When ordering or requesting an offer please indicate flow medium, working pressure and working temperature.



Type 08170	Technical data											
Nominal size	DN	15	20	25	32	40	50	65	80	100	125	150
Dimension code	.X.	0150	0200	0250	0320	0400	0500	0650	0800	1000	1250	1500
Face-to-face dimension	FF	130	150	160	180	200	230	290	310	350	400	480
Height	H	90	100	115	125	150	160	180	215	235	275	305
Flange diameter	D	95	105	115	140	150	165	185	200	235	270	300
Flow diameter	d ₀	23	28	36	42	50	61.5	78.5	89.5	109.5	137.5	160
Mesh	m	1.0	1.0	1.0	1.0	1.0	1.0	1.25	1.25	1.6	1.6	1.6
Weight	ca. kg	4.0	5.0	6.0	8.0	10.0	13.0	19.0	24.5	35.0	51.0	71.0

Dimensions in mm.



Nonferrous materials

DIN EN new		DIN old		ASTM
CC490K	CuSn3Zn8Pb5-C	RG2	2.1098	-
CC491K	CuSn5Zn5Pb5-C	RG5	2.1096.01	B 62 UNS C83600
CC493K	CuSn7Zn4Pb7-C	RG7	2.1090	B 505 UNS C93200
CW450K	CuSn4	CUSN4	2.1016	B 103 UNS C51100
CW452K	CuSn6	CUSN6	2.1020	B 159 UNS C51900
CW453K	CuSn8	CUSN8	2.1030	B 103 UNS C52100
CW507L	CuZn36	CUZN36	2.0335	B 111 UNS C27000
CW508L	CuZn37	CUZN37	2.0321	B 111 UNS C27200
CW509L	CuZn40	CUZN40	2.0360	B 111 UNS C28000
CW610N	CuZn39Pb0,5	CUZN39PB	2.0372	B 111 UNS C36500
CW612N	CuZn39Pb2	MS58	2.0380.10	B 283 UNS C37770
CW614N	CuZn39Pb3	MS58	2.0401.08	B 283 UNS C38500
CW617N	CuZn40Pb2	MS58	2.0402.20	B 283 UNS C38000
CW710R	CuZn35Ni3Mn2AlPb	CUZN35NI	2.0540	-
CW713R	CuZn37Mn3Al2PbSi	CUZN40AL	2.0552	-
CW718R	CuZn39Mn1AlPbSi	CUZN40AL	2.0561	-
CW720R	CuZn40Mn1Pb1	CUZN40MN	2.0580	-
CW723R	CuZn40Mn2Fe1	CUZN40MN	2.0572	-

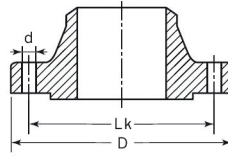
Ferrous materials

DIN EN new		DIN old	ASTM
1.1200	Spring steel	Carbon steel	A 227
1.4021	C20Cr13	1.4021	A 276 Grade 420
1.4034	X45Cr13	1.4034	A 276 Grade 420
1.4057	X17CrNi16-2	1.4057	A 276 Grade 431
1.4104	X14CrMoS17	1.4104	A 276 Grade 430F
1.4112	X90CrMoV18	1.4112	A 276 Grade 440B
1.4122	X39CrMo17-1	1.4122	-
1.4300	X12CrNi18-8	1.4300	A 276 Grade 302
1.4301	X5CrNi18-10	1.4301	A 276 Grade 304
1.4305	X8CrNiS18-9	1.4305	A 276 Grade 303
1.4306	X2CrNi19-11	1.4306	A 312 TP 304L
1.4308	G-X6CrNi18-9	1.4308	A 351 CF8
1.4310	X10CrNi18-8	1.4310	A 313 Grade 301
1.4401	X5CrNiMo17-12-2	1.4401	A 276 Grade 316
1.4404	X2CrNiMo17-12-2	1.4404	A 276 Grade 316L
1.4408	GX5CrNiMo19-11-2	1.4408	A 351 CF 8M
1.4409	G-X2NiCrMo28-20-2	1.4409	A 351 CF 3M
1.4541	X6CrNiTi18-10	1.4541	A 276 Grade 321
1.4568	X7CrNiAl17-7	1.4568	A 313 Grade 631
1.4571	X6CrNiMoTi17-12-2	1.4571	A 313 Grade 316Ti
1.4552	G-X7CrNiNb18-9	1.4552	A 351 CF 8C
1.4923	X22CrMoV12-1	1.4923	A 193 Grade B6
1.4980	X5CrNiTi26-15	1.4980	A 286 Grade 660
1.5415	16Mo3	-	A 182 Grade F1
1.7225	42CrMo4	1.7225	A 194 Grade 7
1.7258	24CrMo5	1.7258	A 194 Grade B7
1.7335	13CrMo4-5	1.7335	A 182 Grade F12
1.7380	10CrMo9-10	1.7380	A 182 Grade F22
1.7709	21CrMoV5-7	1.7709	-

Dimensions of DIN flanges



DN = Nominal diameter
D = Diameter of flange
Lk = Diameter of bolt circle
n = Number of holes
d = Diameter of holes



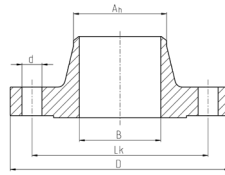
DN		PN 6				PN 10				PN 16				PN 25				PN 40			
		D	Lk	n	d	D	Lk	n	d	D	Lk	n	d	D	Lk	n	d	D	Lk	n	d
10	3/8"	75	50	4	11	90	60	4	14	90	60	4	14	90	60	4	14	90	60	4	14
15	1/2"	80	55	4	11	95	65	4	14	95	65	4	14	95	65	4	14	95	65	4	14
20	3/4"	90	65	4	11	105	75	4	14	105	75	4	14	105	75	4	14	105	75	4	14
25	1"	100	75	4	11	115	85	4	14	115	85	4	14	115	85	4	14	115	85	4	14
32	1-1/4"	120	90	4	14	140	100	4	18	140	100	4	18	140	100	4	18	140	100	4	18
40	1-1/2"	130	100	4	14	150	110	4	18	150	110	4	18	150	110	4	18	150	110	4	18
50	2"	140	110	4	14	165	125	4	18	165	125	4	18	165	125	4	18	165	125	4	18
65	2-1/2"	160	130	4	14	185	145	4	18	185	145	4	18	185	145	8	18	185	145	8	18
80	3"	190	150	4	18	200	160	8	18	200	160	8	18	200	160	8	18	200	160	8	18
100	4"	210	170	4	18	220	180	8	18	220	180	8	18	235	190	8	22	235	190	8	22
125	5"	240	200	8	18	250	210	8	18	250	210	8	18	270	220	8	26	270	220	8	26
150	6"	265	225	8	18	285	240	8	22	285	240	8	22	300	250	8	26	300	250	8	26
200	8"	320	280	8	18	340	295	8	22	340	295	12	22	360	310	12	26	375	320	12	30

DN		PN 63				PN 100				PN 160				PN 250				PN 320			
		D	Lk	n	d	D	Lk	n	d	D	Lk	n	d	D	Lk	n	d	D	Lk	n	d
10	3/8"	100	70	4	14	100	70	4	14	100	70	4	14	125	85	4	18	125	85	4	18
15	1/2"	105	75	4	14	105	75	4	14	105	75	4	14	130	90	4	18	130	90	4	18
20	3/4"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	1"	140	100	4	18	140	100	4	18	140	100	4	18	150	105	4	22	160	115	4	22
32	1-1/4"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	1-1/2"	170	125	4	22	170	125	4	22	170	125	4	22	185	125	4	26	195	145	4	26
50	2"	180	135	4	22	195	145	4	26	195	145	4	26	200	150	8	26	210	160	8	26
65	2-1/2"	205	160	4	22	220	170	8	26	220	170	8	26	230	180	8	26	255	200	8	30
80	3"	215	170	4	22	230	180	8	26	230	180	8	26	255	200	8	30	275	220	8	30
100	4"	250	200	4	22	265	210	8	30	265	210	8	30	300	235	8	30	300	265	8	36

Dimensions of ANSI flanges



- DN** = Nominal diameter
- D** = Diameter of flange
- Lk** = Diameter of bolt circle
- n** = Number of holes
- d** = Diameter of holes
- B** = Flange bore
- A_n** = Outside diameter butt weld










				Class 150				Class 300			
DN		B	A _n	D	Lk	n	d	D	Lk	n	d
15	1/2"	15.8	21.3	90	60.3	4	15.9	95	66.7	4	15.9
20	3/4"	20.9	26.7	100	69.9	4	15.9	115	82.6	4	19.0
25	1"	26.6	33.4	110	79.4	4	15.9	125	88.9	4	19.0
32	1-1/4"	35.1	42.2	115	88.9	4	15.9	135	98.4	4	19.0
40	1-1/2"	40.9	48.3	125	98.4	4	15.9	155	114.3	4	22.2
50	2"	52.5	60.3	150	120.7	4	19.1	165	127.0	8	19.0
65	2-1/2"	62.7	73.0	180	139.7	4	19.1	190	149.2	8	22.2
80	3"	77.9	88.9	190	152.4	4	19.1	210	168.3	8	22.2
100	4"	102.3	114.3	230	190.5	8	19.1	255	200.0	8	22.2
125	5"	128.2	141.3	255	215.9	8	22.2	280	235.0	8	22.2
150	6"	154.1	168.3	280	241.3	8	22.2	320	269.9	12	22.2
200	8"	202.7	219.1	345	298.5	8	22.2	380	330.2	12	25.4

Approvals and Classifications



Nowadays, product approvals are essential for many customer applications. Below is an excerpt of our most important certifications. A detailed list can be found at herose.com.

Type approvals

Approval company	Approval	Mark
TÜV	CE LNG (DIN EN 12567) Fire Safe (DIN EN ISO 10497)	
National Board	ASME / UV	
AQSIQ	Manufacture License of Special Equipment	
VNIINMASH	EAC	
TSSA	CRN	
AAR		
TECKO	GOST-Ukraine	

Classification societies



Bureau Veritas



China Classification Society



Det Norske Veritas/
Germanischer Lloyd



Lloyd's Register



American Bureau of Shipping



Registro Italiano Navale

Overview ASME Approvals

Safety Valves



HEROSE Type	Inlet	D ₀	Certificate No.	Media
06216/06217	1/2"	12 mm	91178	Vapours and Gases
06216/06217	3/4"	15 mm	91112	Vapours and Gases
06216/06217	1"	20 mm	91123	Vapours and Gases
06216/06217	1-1/4"	25 mm	91134	Vapours and Gases
06216/06217	1-1/2"	32 mm	91145	Vapours and Gases
06216/06217	2"	40 mm	91156	Vapours and Gases
06310/06311	3/4" up to 1"	9/13/17.5 mm	37112	Vapours and Gases
06310/06311	3/4" up to 1"	9/13/17.5 mm	37101	Fluids
06315/06316	1/2" up to 3/4"	10 mm	37213	Vapours and Gases
06315/06316	1/2" up to 3/4"	10 mm	37189	Fluids
06345/06346/06347	DN25 up to DN150	23 bis 125 mm	37044	Vapours and Gases
06345/06346/06347	DN25 up to DN150	23 bis 125 mm	37055	Fluids



AS OF 08 / 2023

Terms of sales

The following terms apply to all purchase agreements and contracts for work and materials concluded between us and our contractual counterparts that are businesses (hereinafter referred to as "Purchaser"), as well as to our offers, even if we do not expressly refer to them in an individual case.

Derogations from this general rule are only binding upon us where we expressly confirm them in writing. The Purchaser's terms of purchase shall not be binding upon us, even where we do not expressly object to them.

1. Offer and contract formation

Our offer is subject to change with respect to the price, amount, delivery period and our ability to make delivery until the order is confirmed in writing. Side agreements are only effective if they have been confirmed by us in writing.

2. Scope of delivery

The scope of delivery is specified in the order confirmation with binding effect. With respect to goods that are customised we are allowed to make excess or short deliveries differing from the quantity ordered by up to 10 %.

3. Deliveries and delivery periods

The delivery period shall start on the date when all details of the order have been clarified, but not until the contractual duties to be fulfilled by the Purchaser by that time have been fulfilled. The delivery deadline shall be deemed complied with if the goods have left the warehouse when the deadline is reached or, where shipping is delayed due to reasons for which the Purchaser is responsible, if the notification that the goods are ready to ship is made within the delivery period agreed. Compliance with the delivery period is subject to the condition precedent that we receive correct and timely deliveries from our suppliers. Timely and appropriately sized partial deliveries are permissible and may be billed separately.

If force majeure events, industrial actions or other events that are beyond our control, regardless of whether they are experienced by us or our suppliers, keep us from complying with our duty to deliver the goods, the delivery shall be extended by the duration of the disruption. We are obliged to inform the Purchaser immediately of such events as soon as we become aware of them. If it becomes impossible to deliver the goods because of such an event or if the subsequent delivery creates an undue burden for either of the parties, both parties are entitled to rescind the agreement. If performance is delayed or if it is no longer possible to deliver the goods ordered due to reasons for which we are responsible, the Purchaser is entitled to rescind the agreement in accordance with the statutory provisions. Claims for damages are subject to the provisions in Section 12 of these Terms of Sale.

If the Purchaser is in default of acceptance, we are entitled to charge the Purchaser a fee for storing the goods for each week of default at a flat rate of 1 % of the invoice value per week, with a total of 5 %. Should a new customs declaration become necessary due to the delay in acceptance, we are entitled to charge 250.00 € net for the additional customs declaration.

4. Prices

Our prices are quoted ex warehouse, exclusive of the statutory value-added tax. Packaging costs, loading costs, customs fees, etc. shall be borne by the Purchaser.

5. Shipping / passing of the risk

Goods are dispatched and shipped at the expense and risk of the Purchaser. The risk shall pass to the Purchaser when the goods leave our premises. Where the dispatch is delayed due to the Purchaser's conduct, the risk shall pass, and the purchase price shall become due, when the Purchaser is notified that the goods are ready to ship. We are duly registered under the registration number DE 4365 6203 496 62 with the Central Packaging Register (Packaging Register LUCID) in accordance with §§24ff VerpackG (German Packaging Act) pursuant to § 9 para. 1 and para. 2 sentence 1 VerpackG. Within the scope of recurring deliveries, we are entitled to fulfil the obligation to take back packaging pursuant to § 15 I 1 VerpackG also only with one of the next deliveries.

6. Payment terms

Invoice amounts must be paid within 30 days of the date of invoice without any deduction. If we grant any discounts, they may not be deducted from any new invoices as long as older invoices for which payment is due have not been paid yet.

For periods during which the Purchaser is in default of payment or during which payments due are deferred we will charge the default interest at the statutory rate and the statutory flat-rate default fee in the amount of 40.00 € without prejudice to any further claims for damages. Where it becomes apparent after the conclusion of the agreement that our claim for payment is at risk due to the customer's inability to perform and where we have fulfilled the obligations owed by us in return, all of our outstanding claims become due immediately. In this event we are entitled to only make outstanding deliveries against payment of cash or the provision of a security. This does not affect any further statutory claims. The Purchaser has the right to withhold payments, or to offset counterclaims against them, only in so far as the Purchaser's counterclaims either are in a reciprocal relationship (§ 320 BGB) to the claims asserted by us, are legally established, undisputed or recognized. This does not apply to counterclaims of the Purchaser which directly seek rectification or to reverse a transaction - owing to a defect we have not corrected, or are unable to correct, by means of remedial performance - and which are based on the same contractual relationship as our claim to payment.

7. Retention of title

We will retain the title to the goods delivered until all outstanding payments due to us under the business relationship, including incidental costs and interest, are settled in full. This also applies until the checks for such payments have cleared. For current accounts, the goods subject to retention of title shall secure our claim to the outstanding balance. Goods subject to retention of title shall be processed and treated on our behalf without creating any obligations for us.

If our goods are processed, combined or mixed with other goods that do not belong to us, we are entitled to a co-ownership interest in the new items based on the ratio of the invoice value of the goods subject to retention of title compared to the value of the other goods processed at the time when they are processed, combined or mixed. Where the Purchaser becomes the sole owner of the new item, it already now assigns the co-ownership interest in the new item to us based on the ratio of the invoice value of our goods subject to retention of title compared to the value of the other goods processed at the time when they are processed, combined or mixed and it shall hold the new item in custody for us with the due diligence of a prudent businessman.

The goods delivered, irrespective of whether they are unprocessed or have been processed or combined or mixed, may only be resold by resellers in the ordinary course of business subject to retention of title, and only if the receivables resulting from the resale pass to us. The Purchaser must not pledge or assign goods subject to retention of title as collateral or agree to a prohibition of assignment or an assignment without our consent in the context of factoring. Where execution is levied in respect of the goods subject to retention of title or where our rights are prejudiced by third parties in any other way, the Purchaser must notify us without undue delay. The Purchaser hereby assigns to us in advance all receivables to which it is entitled now or will be entitled later from the resale or on any other legal ground with respect to the goods delivered by us as of the time when they accrue. We accept the assignment. The value of the goods shall be deemed our invoice amount plus a surety surcharge of 10 % which is not applied, though, where the rights of third parties conflict with it. If our goods are resold after they have been processed, combined or mixed or if the new item resulting from the processing, combination or mixing is resold, the claim against the Purchaser's customer in the amount of the invoice value of our processed, combined or mixed goods shall be assigned.

This also applies if our goods are sold after they have become an essential component of another item by combining or processing them with other items not belonging to us. If the value of the collateral provided to us exceeds our claims by more than 10 % in total, we have a duty to release collateral (to be selected at our discretion) at the Purchaser's request. Once all outstanding payments due to us under the business relationship have been settled, title to the goods subject to retention of title and the receivables assigned shall pass to the Purchaser. The Purchaser is authorised to collect the purchase price on our behalf until we revoke this authorisation. The Purchaser has a duty to notify its customers of the assignment at our request and to provide the information and documents that are required for exercising our rights vis-à-vis the respective purchaser.

8. Liability for defects

The Purchaser's warranty rights are predicated on the assumption that the Purchaser, where the Purchaser is a businessman ("Kaufmann"), has duly satisfied its obligations to inspect the goods and to give notice of defects pursuant to Section 377 of the German Commercial Code (HGB). If the suspicion of a not only completely insignificant defect arises with regard to delivered goods, the Purchaser is obligated to notify us immediately of the existing suspicious facts, even if further examinations must be carried out in order to verify the defect. Any breach of this obligation shall result in the Purchaser's liability for damages, unless the Purchaser is not responsible for such breach of obligation.

The Purchaser is not entitled to base complaints on excess or short weight due to foundry technology reasons. If there is a defect, we can remedy the defect or provide a replacement, at our option. If the Purchaser asserts claims for defects, it must give us the opportunity and the time required to review the complaint.

If the item is defective and if the Purchaser has incorporated said item into another item or attached it to another item in accordance with its nature and type of use, then we – should a claim for subsequent performance be asserted against us – are entitled to choose within a reasonable period of time whether to compensate the Purchaser for the work required to remove the defective product and to install or attach the rectified product or the defect-free replacement product (work), or to carry out this work ourselves or have this work carried out at our expense (self-performance). If we fail to exercise this right within a reasonable period of time, it shall be deemed forfeited. If we opt for self-performance, the Purchaser shall be entitled to specify a reasonable period of time for such performance. Where said time period expires without results, the Purchaser is entitled to carry out the work itself or have it carried out. In this case, our right to self-performance shall be deemed forfeited and the Purchaser may carry out this work at our expense. Our right to object to the kind of subsequent performance due to its disproportionate expense pursuant to Section 439 (4) of the German Civil Code (BGB) remains unaffected. Where this does not apply, we must reimburse the Purchaser for the required costs incurred for the work.

Claims for defects pursuant to Section 437 BGB shall become time barred twelve (12) months after the date of delivery. No warranty is given for used products. The limitation period in the event of a delivery recourse according to §§ 445 b, 478 BGB shall remain unaffected by the provisions of the two preceding sentences. Claims for damages based on defects shall not be affected by this. The statutory warranty period shall apply to these, including claims for damages arising from the fact that we are in default with a rectification of defects requested by the purchaser and owed by us.

9. Returns

Returns that are not based on a statutory claim may only be made with our express consent. The return delivery must be made free of carriage charges. We reserve the right to deduct an amount of at least 30% of the net value of the goods when we credit the purchase price to compensate for the costs incurred with every return. The Purchaser is free to prove to us that the loss incurred by us due to the return is smaller.

10. Catalogues

The images in our catalogues and brochures are not binding for the actual execution. We reserve the right to change the construction style where this is advisable for technical reasons and does not impair the contractual purpose. Derogations from the measures and weights specified are permissible where they do not jeopardise the contractual purpose or the quality.

11. Copyright

We reserve the proprietary rights and copyrights with respect to catalogues, images, drawings, samples, and other documents. They must not be made available to third parties without our consent and must be returned without undue delay upon request. If an order placed with us infringes upon third party patent, design or trademark rights due to drawings or models submitted to us, all responsibility shall lie with the Purchaser which shall be liable for any resulting damage and loss of profits incurred by us, as the supplier, and shall indemnify us against any claims brought against us by third parties unless it is not responsible for the infringement.

12. General liability

Claims for damages of any kind against us and our legal representatives and vicarious agents are excluded, except in the case of intent or gross negligence or the breach of a material contractual duty. "Material contractual duties" are duties whose fulfilment is essential to the proper performance of the contract and upon whose fulfilment the Purchaser regularly relies and may regularly rely. Our liability is limited to the reasonably foreseeable damage typically incurred with this type of contract provided that only simple or gross negligence is involved.

The foregoing limitations of liability do not apply to injuries to the life, body or health of a person or in cases of liability under product liability law.

The Purchaser's claims for the reimbursement of expenses pursuant to Section 284 BGB are waived to the extent that a claim for damages in lieu of performance is excluded pursuant to the foregoing provisions. The statutory burden of proof is not affected by the provisions of this clause.

13. Place of performance, venue, applicable law, miscellaneous

The place of performance for the delivery and for the fulfilment of warranty claims is the respective supplying plant, the place of performance for payment is our registered office.

The legal venue for all disputes with businessmen, legal entities under public law, special funds under public law or persons who do not have a place of general jurisdiction in Germany is exclusively the city in which our registered office is located. However, we are entitled to also, at our option, bring a suit against the Purchaser in the court having jurisdiction over the area in which its registered office is located.

If the Purchaser is domiciled outside the European Economic Area (EEA) and the European Free Trade Association (EFTA), all disputes arising in connection with the contracts concluded under these General Terms and Conditions shall instead be finally settled in accordance with the Rules of Arbitration of the German Institution of Arbitration (Deutsche Institution für Schiedsgerichtsbarkeit e.V.). (DIS) under exclusion of the ordinary legal process. The place of arbitration shall be Hamburg, the language of the proceedings shall be German. In taking evidence, the arbitral tribunal shall be guided by the usual practice in proceedings before German state courts. The defendant is entitled to file a counterclaim before the arbitration court. Procedural principles of common law, such as in particular the so-called document production, shall not apply directly or mutatis mutandis. Insofar as one party may have to reimburse the other party for legal fees in connection with the arbitration proceedings, these shall be limited to the costs billable under the German Lawyers' Fees Act (RVG). German law applies to the exclusion of the UN Convention on Contracts for the International Sale of Goods (CISG). We store the data generated in the context of the business relationship in accordance with the legal regulations

HEROSE GMBH



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