

# 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

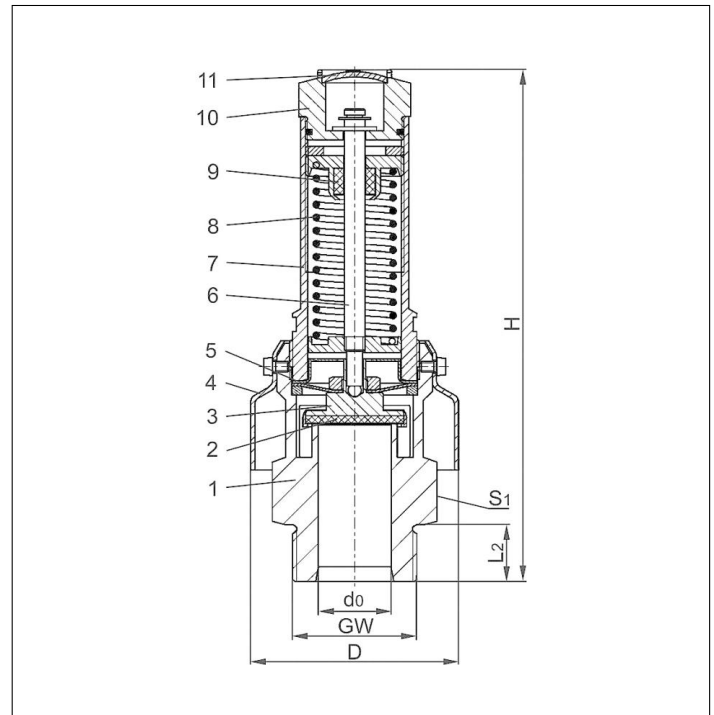


### Applications:

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 (D<sub>0</sub> 24 up to D<sub>0</sub> 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 <sub>0</sub>	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 <sub>2</sub>	18	22	22	22	22	25
Protection cap diameter	D	80	80	80	80	80	115
Wrench size across flats	S <sub>1</sub>	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 <sub>w</sub>	0.62	0.58	0.58	0.68	0.68	0.52
Coeff. of discharge from 3.5 bar	α <sub>w</sub>	-	-	-	0.65	0.65	-
Coeff. of discharge from 4.5 bar	α <sub>w</sub>	0.57	-	-	-	-	-

Dimensions in mm.

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### Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

Air in m<sup>3</sup>/h at 0°C and 1013.25 mbar

**The capacity indicated below is for a fully opened valve.**

d<sub>0</sub> - orifice

A<sub>0</sub> - flow area

Set pressure in bar (g)	GW	1	1-1/4 & 1-1/2	1-1/4 & 1-1/2	2
	d <sub>0</sub> (mm)	24.0	28.0	31.0	48.0
	A <sub>0</sub> (mm <sup>2</sup> )	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	-