

# 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

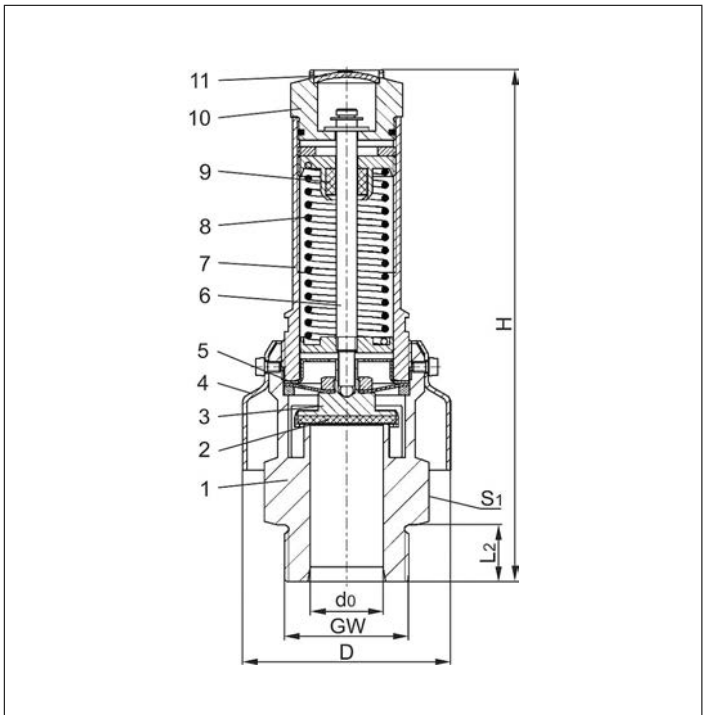


### Applications:

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)

Materials	DIN EN	ASTM
1 Body	CW614N	B 249 UNS C38500
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



**Essential:** Valves are delivered at a set pressure, therefore when ordering please confirm set pressure, medium and temperature.

Standard marking acc. to Pressure Equipment Directive 97/23/EC (PED).



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 mass flow 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	28.0	31.0	31.0	48.0
	A <sub>0</sub> (mm <sup>2</sup> )	452.4	615.8	615.8	754.8	754.8	1810.0
Medium							
Air							
0.5		237	297	297	435	435	835
0.6		268	326	326	482	482	949
0.7		299	354	354	535	535	1063
0.8		329	392	392	579	579	1153
0.9		353	422	422	631	631	1240
1.0		372	449	449	673	673	1250
1.2		414	508	508	759	759	1390
1.4		456	578	578	848	848	1531
1.6		504	639	639	941	941	1675
1.8		553	703	703	1031	1031	1863
2.0		604	768	768	1123	1123	2059
2.2		648	825	825	1200	1200	2243
2.4		694	883	883	1277	1277	2431
2.6		740	942	942	1354	1354	2546
2.8		782	995	995	1431	1431	2657
3.0		825	1051	1051	1511	1511	2770
3.2		868	1105	1105	1588	1588	3024
3.4		910	1158	1158	1665	1665	3170
3.5		931	1185	1185	1628	1628	3244
3.6		952	1212	1212	1665	1665	-
3.8		994	1266	1266	1739	1739	-
4.0		1036	1319	1319	1812	1812	-
4.2		1078	1373	1373	1886	1886	-
4.4		1120	1427	1427	1960	1960	-
4.5		1049	1453	1453	1997	1997	-
4.6		1069	-	-	2034	2034	-
4.8		1107	-	-	2107	2107	-
5.0		1148	-	-	2185	2185	-
5.2		1187	-	-	2259	2259	-
5.4		1226	-	-	2333	2333	-
5.6		1265	-	-	2407	2407	-
5.8		1304	-	-	2481	2481	-
6.0		1343	-	-	2555	2555	-