

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

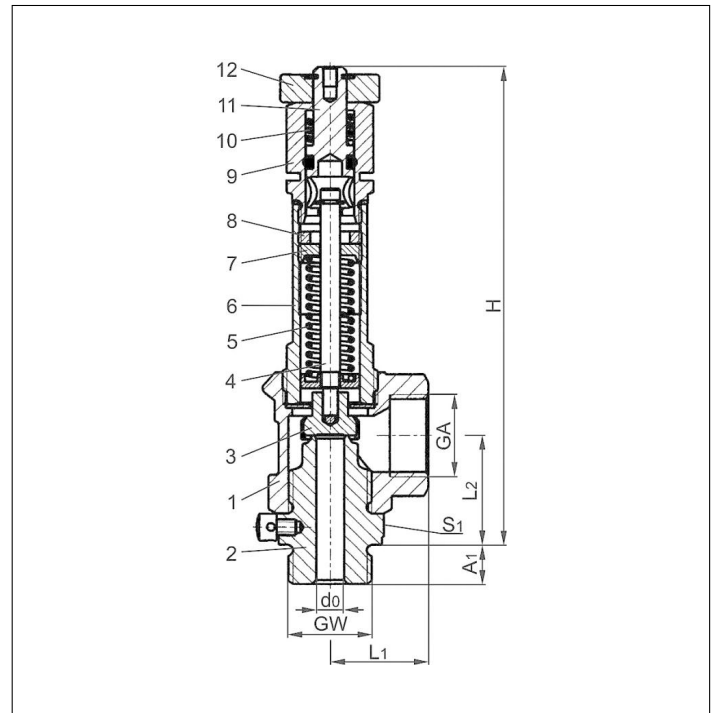
Part No. 50051.0004.0000



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.

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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