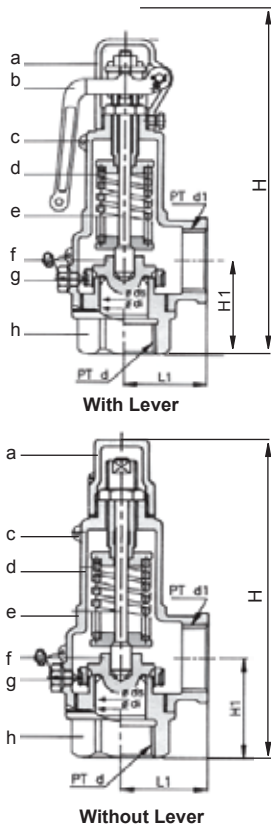


# Safety Valve

## Type JSV-LT12(BSR-S2)



### Lift type safety valve screwed spring loaded



As angle type spring loaded lift safety valve for steam, air and water, JSV-LT12 (BSR-S2) is suitable for small and medium capacity applications such as failure protection of pressure reducing valve at down stream, small boiler or pressure vessel, and tracing equipment.

- Quickly popping reaction and correct re-seating
- Easy adjustment of set pressure and blow-down pressure

#### Specifications

- Working Pressure range : 1.01-2, 2.01-4, 4.01-7, 7.01-11 kgf/ cm<sup>2</sup>  
 Working temperature : Max. 220°C  
 Connection Inlet/Outlet : female screwed  
 Hydraulic pressure test : 15 kgf/cm<sup>2</sup> {1.5 MPa}  
 Cap types available  
     With lever : for periodical check in mainly steam and/or air service  
     Without lever : when air-tight is required for liquid

#### Materials

No	Part	Material
a	Cap	Forged Brass
b	Lever	Bronze
c	Bonnet	Bronze
d	Spring	Oil Tempered Alloy Steel
e	Stem	Stainless steel
f	Disc	Forged Brass
g	Blow down ring	Bronze
h	Body	Forged Brass

#### Dimensions (mm)

Size	Inlet dia.	Seat opening dia.	Effective area (mm <sup>2</sup> )	Lift	End to end		Height	End connection		Wt
mm(inch)	di	ds(D)	$\frac{\pi}{4}D\ell$	$\ell$	L1	H1	H	PTd	PTd1	Kgs
15(1/2")	20	21	62.83	1.0	35	45	142	1/2"	3/4"	0.8
20(3/4")	20	21	62.83	1.0	35	45	144	3/4"	3/4"	1.0
25(1")	25	26	133.52	1.7	41	49	155	1"	1"	1.3
32(1 1/4")	32	33	221.17	2.2	45	58	173	1 1/4"	1 1/4"	2.0
40(1 1/2")	40	41	289.03	2.3	55	64	198	1 1/2"	1 1/2"	3.0
50(2")	50	51	393.70	2.5	70	74	220	2"	2"	5.7

Dimensions in millimetre approximately. The lift type safety valve is designated to have the control mechanism for flow capacity in which the lifts ( $\ell$ ) of safety valve are 1/40 to 1/15 excl. of the seat opening diameter.

#### Discharge Capacities

##### Symbols for fluid

I. Steam (kg/h at saturated with 3% accumulation) II. Air (kg/h at 20°C with 10% accumulation) III. Water (m<sup>3</sup>/h at G = 1 with 15% accumulation)

Effective area (mm <sup>2</sup> )	15A, 20A		25A			32A			40A			50A																	
	62.83						133.52						221.17						289.03						392.70				
Fluid	I			II			I			II			I			II			I			II			III				
0.1{0.01}	51.7	36.3	0.45	109.8	77.1	0.96	181.9	127.8	1.60	237.8	167.0	2.09	323.1	226.9	2.83														
0.2{0.02}	56.6	39.1	0.64	120.4	83.0	1.36	199.4	137.6	2.26	260.6	179.8	2.95	354.1	244.3	4.01														
0.3{0.03}	61.6	41.9	0.79	131.0	89.0	1.67	216.9	147.4	2.76	283.5	192.7	3.61	385.2	261.8	4.91														
0.4{0.04}	66.6	44.6	0.91	141.5	94.9	1.93	234.5	157.3	3.19	306.4	205.5	4.17	416.3	279.3	5.67														
0.5{0.05}	71.6	47.4	1.01	152.1	100.9	2.15	252.0	167.1	3.57	329.3	218.4	4.66	447.4	296.7	6.34														
0.6{0.06}	76.5	50.2	1.11	162.7	106.8	2.36	269.5	176.9	3.91	352.2	231.2	5.11	478.5	314.2	6.94														
0.7{0.07}	81.5	53.0	1.20	173.2	112.7	2.55	287.0	186.8	4.22	375.1	244.1	5.52	509.6	331.6	7.50														
0.8{0.08}	86.5	55.8	1.28	183.8	118.7	2.72	304.5	196.6	4.51	395.0	256.9	5.90	540.7	349.1	8.01														
0.9{0.09}	91.5	58.6	1.36	194.4	124.6	2.89	322.0	206.4	4.79	420.8	269.8	6.26	571.8	366.5	8.50														
1.0{0.1}	96.4	61.4	1.43	205.0	130.5	3.05	339.5	216.2	5.05	443.7	282.6	6.59	602.9	384.0	8.96														
2 {0.2}	146.2	85.4	2.03	310.7	181.6	4.31	514.7	300.8	7.14	672.6	393.1	9.33	913.8	534.1	12.67														
3 {0.3}	195.9	114.2	2.48	416.4	242.7	5.28	689.8	402.1	8.74	901.4	525.4	11.42	1224.8	713.9	15.52														
4 {0.4}	245.7	143.0	2.87	522.1	303.8	6.09	864.9	503.3	10.09	1130.3	657.8	13.19	1535.7	893.7	17.92														
5 {0.5}	295.4	171.7	3.21	627.8	365.0	6.81	1040.0	604.6	11.28	1359.1	790.1	14.74	1846.7	1073.5	20.03														
6 {0.6}	345.2	200.5	3.51	733.6	426.1	7.46	1215.1	705.9	12.36	1588.0	922.4	16.15	2157.6	1253.3	21.95														
7 {0.7}	394.9	229.3	3.79	839.3	487.2	8.06	1390.3	807.1	13.35	1816.8	1054.8	17.45	2468.5	1433.1	23.70														
8 {0.8}	444.7	258.0	4.05	945.0	548.4	8.62	1565.4	908.4	14.27	2045.7	1187.1	18.65	2779.5	1612.9	25.34														
9 {0.9}	494.4	286.8	4.30	1050.7	609.5	9.14	1740.5	1009.7	15.14	2274.5	1319.4	19.78	3090.4	1792.7	26.88														
10 {1.0}	544.2	315.6	4.53	1156.4	670.6	9.63	1915.6	1110.9	15.96	2530.4	1451.8	20.85	3401.4	1972.5	28.33														

