

AL-4S,4ST

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Safety Relief Valve

Full bore type	Lift type	Safety valve	Relief valve
Safety relief valve	Lever type	Closed type	Dash-pot structure
Handle type	Stainless	High pressure gas testing products	
Diaphragm	Non-leakage		



■ Features

1. Safety relief valve, simple structure and easy maintenance.
2. Easy adjustment.
3. Fluororesin disc ensures reliable seating. (AL-4ST)

■ Specifications

· AL-4S

Structure		Closed type
Application		Steam
Working pressure		0.05-2.0 MPa
Maximum temperature		220°C
Material	Valve case	Ductile cast iron
	Spring case	Ductile cast iron *
	Valve, valve seat	Stainless steel
Connection		JIS 10K FF flanged JIS 16K FF flanged JIS 20K FF flanged

* Available with stainless steel.

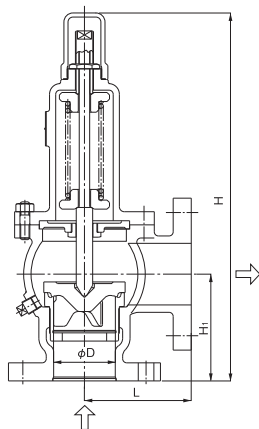
· Please refer to the chart in P. 8-82 for set pressure range.

· AL-4ST

Structure		Closed type
Application		Air, Water, Oil, Other non-dangerous fluids
Working pressure		0.05-2.0 MPa *1
Maximum temperature		150°C
Material	Valve case	Ductile cast iron *2
	Spring case	
	Valve, valve seat	Stainless steel (PTFE disc incorporated)
Connection		JIS 10K FF flanged JIS 16K FF flanged JIS 20K FF flanged

*1 When working pressure is more than 1.2 MPa (for 65A and 80A) or 1.0 MPa (for 100A and 125A), a metal-to-metal seating is incorporated in.

*2 Available with stainless steel (JIS10KFF · JIS20KFF)



The shape of AL-4ST is slightly different.

■ Dimensions and Weights

· AL-4S

Nominal size	Dimension (mm)				Flow area $\pi D \ell$ (mm ²)
	L	H ₁	H	D	
65A	135	125	442	65	331.9
80A	135	135	457	75	441.8
100A	160	150	597	100	785.4

· AL-4ST

Nominal size	Dimension (mm)				Flow area $\pi D \ell$ (mm ²)
	L	H ₁	H	D	
65A	135	125	444	65	331.9
80A	135	135	459	75	441.8
100A	160	150	599	100	785.4

■ Certified Capacity Table for AL-4S

· For steam (saturation temperature) <Pressure vessel structure standard>

(kg/h)

Pressure MPa Nominal size	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
65A	263	340	493	663	834	1000	1165	1328	1489	1651	1814
80A	350	452	657	882	1111	1331	1550	1767	1983	2198	2415
100A	622	804	1168	1569	1975	2367	2756	3142	3525	3908	4294

(kg/h)

Pressure MPa Nominal size	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
65A	1976	2138	2299	2461	2621	2783	2944	3108	3269	3430
80A	2631	2846	3060	3276	3489	3704	3919	4138	4352	4566
100A	4677	5059	5440	5825	6203	6586	6968	7357	7737	8118

■ Certified Capacity Table for AL-4ST

· For air (20°C) <Pressure vessel structure standard>

(kg/h)

Pressure MPa Nominal size	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
65A	422	550	799	1073	1347	1621	1895	2169	2443	2717	2991
80A	562	732	1064	1428	1793	2158	2522	2887	3252	3616	3981
100A	999	1302	1891	2540	3188	3836	4484	5133	5781	6429	7077

(kg/h)

Pressure MPa Nominal size	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
65A	3264	3538	3812	4086	4360	4634	4908	5182	5456	5730
80A	4346	4710	5075	5440	5804	6169	6534	6898	7263	7628
100A	7726	8374	9022	9671	10319	10967	11615	12264	12912	13560

· For water (accumulation: 25%) <Yoshitake standard>

(m³/h)

Pressure MPa Nominal size	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
65A	4.1	5.9	8.3	10.2	11.8	13.2	14.5	15.6	16.7	17.7	18.7
80A	5.5	7.8	11.1	13.6	15.7	17.6	19.3	20.8	22.3	23.6	24.9
100A	9.9	14.0	19.8	24.2	28.0	31.3	34.3	37.0	39.6	42.0	44.3

(m³/h)

Pressure MPa Nominal size	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
65A	19.6	20.5	21.3	22.1	22.9	23.6	24.4	25.1	25.8	26.4
80A	26.1	27.3	28.4	29.5	30.5	31.5	32.5	33.4	34.3	35.2
100A	46.4	48.5	50.5	52.4	54.2	56.0	57.8	59.4	61.1	62.6

· Please refer to P. 12 for the calculation procedure for nominal size selection.