

AL-24,24F

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		



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Safety Relief Valve

■Features

1. No need to worry about rust by made of bronze for valve case and stainless steel for valve seat. Operation is reliable since the valve is diaphragm type with no sliding part.
2. Wide set pressure range is available by only one spring. Changing set pressure is easy, because the adjusting screw is handle type and lock nut is butterfly nut.
3. Opening and closing are smooth even when the valve operates continuously, and surely relief the fluid at set pressure. Also it can operate stably from small to large flow rate.
4. Diaphragm and valve materials can be selected from NBR or FKM (fluororubber) depends on the specification.
5. Can be connected in any direction (horizontal or vertical).

■Specifications

Model	AL-24	AL-24F
Application	Cold and hot water	Cold and hot water, Oil, Other non-dangerous fluids
Working pressure	0.1-0.7 MPa *1	
Maximum temperature	60°C	120°C
Material	Valve case	Bronze *2
	Valve	NBR
	Valve seat	Stainless steel
	Diaphragm	NBR (heat-resistant nylon contained)
Connection	JIS Rc screwed	

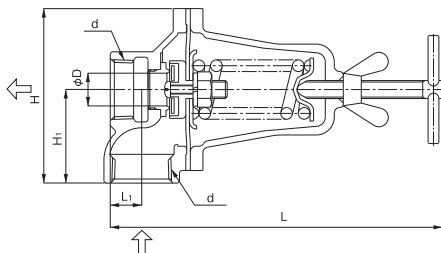
*1 Available with working pressure between 0.05MPa and 0.1MPa.

*2 Available with Npb-treated.

■Dimensions and Weights

(mm)

Nominal size	d	L	L ₁	H	H ₁	D	Weight (kg)
15A	Rc 1/2	180.5	20.5	91	46	15	1.4
20A	Rc 3/4	181.5	18.5	92	47	15	1.4
25A	Rc 1	187.5	17.5	97	52	18.2	1.6



■ Certified Capacity Table for AL-24, 24F

· Set pressure range 0.1 to 0.7 MPa (accumulation 25%)

(m³/h)

Nominal size	Set pressure (MPa)												
	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70
15A	0.31	0.38	0.44	0.49	0.54	0.58	0.63	0.66	0.70	0.73	0.77	0.80	0.83
20A	0.31	0.38	0.44	0.49	0.54	0.58	0.63	0.66	0.70	0.73	0.77	0.80	0.83
25A	0.46	0.56	0.65	0.73	0.80	0.86	0.92	0.98	1.03	1.08	1.13	1.18	1.22

· Set pressure range 0.05 to 0.1 MPa (accumulation 25%)

(m³/h)

Nominal size	Set pressure (MPa)					
	0.05	0.06	0.07	0.08	0.09	0.10
15A	1.27	1.39	1.50	1.61	1.70	1.80
20A	1.27	1.39	1.50	1.61	1.70	1.80
25A	1.87	2.05	2.21	2.37	2.51	2.65

· Calculation formula

$$V = \frac{AK}{12.4\sqrt{\frac{G}{P}}}$$

V: Discharge capacity (m³/h)

D: Seat diameter (mm)

ℓ: Lift (mm)

0.1-0.7 MPa ℓ = D/40

0.05-0.1 MPa ℓ = D/7

A: Effective area (m²)

A = πDℓ

K: 0.7 (Flow rate coefficient)

G: Specific gravity

P: Opening pressure (MPa)

Viscosity is calculated from formula for viscosity correction.