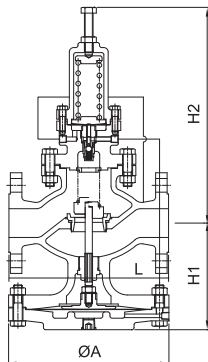


Type YPR-100, 100A Pressure Reducing Valve For Steam

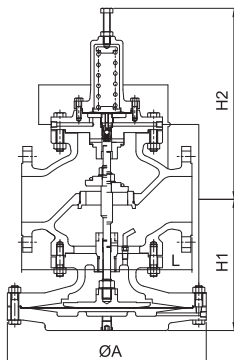
This pressure reducing pilot diaphragm valve for steam is a self-operated valve that has a high Cv value, and maintains an outstanding level of controllability in primary pressure changes as well as steam equipments' load fluctuations.



■ Dimensional drawing



Type 15-40A



Type 50-150A

■ Features

- 20:1 Maximum Pressure Turndown Ratio provides one-stage reduction without the customary costly two stage reduction.
- High Cv value and superb flow-controlling capacity allows even products that are one or two size smaller than the usual nominal diameter.
- Low pressure (0.21 kgf/cm²) management is possible.
- Three different springs are employed based on the secondary pressure regulating range, thereby color-differentiating the pressure range based on the pipeline conditions.
- Simple structure, and major moving parts are made of durable stainless steel : removal of an adapter between the main valve and pilot valve enables easy repair and inspection.

■ Specifications

Type		YPR-100	YPR-100A
Applicable fluid		Steam	
Primary pressure		Maximum 17 kgf/cm ²	Maximum 30 kgf/cm ²
High pressure regulating range		0.21~2.1kgf/cm ² (for low pressure), 1.4~7.0kgf/cm ² (for medium pressure), 5.~14.0kgf/cm ² (for high pressure)	
Maximum pressure reduction ratio		20:1	
Minimum differential pressure in the inlet and outlet side of the valve		0.5kgf/cm ²	
Leakage allowance		0.01% less of rated flow	
Fluid temperature		220° C below	250° C below
End connection		KS 10K, 20K kgf/cm ² RF FLANGE	KS 20K, 30K kgf/cm ² RF FLANGE
Material	Body	GCD450	SCPH2
	Disc, seat	STS	
	Diaphragm	Copper	
Hydraulic test pressure		30 kgf/cm ²	45 kgf/cm ²

- ▶ Strainer (over 80 Mesh) installation is required to ahead inlet when valve installing.
- ▶ Install a water separator at the inlet of the pressure reducing valve to ensure the removal of condensate.

■ Pressure regulating spring range

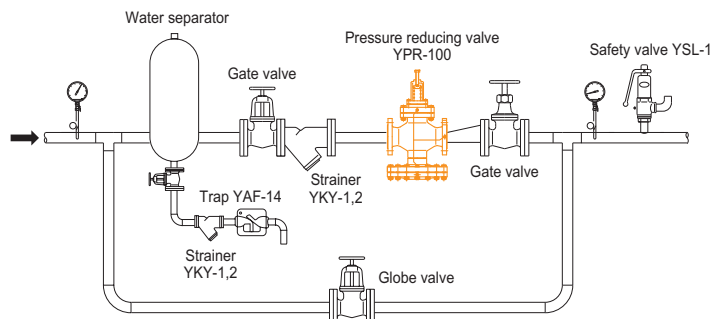
Yellow	0.21~2.1kgf/cm ²
Red	1.4~7.0kgf/cm ²
Blue	5.6~14.0kgf/cm ²

■ Dimensions

Size	L	ØA	H1	H2	Cv	Weight (kg)
15(1/2")	130(130)	196	140(127)	273(130)	5	17.5
20(3/4")	150(150)	196	135(130)	281(130)	7.2	18
25(1")	184(197)	223	150(135)	283(130)	10.9	23.5
32(1 1/4")	180(180)	223	163(143)	293(130)	14.3	24.5
40(1 1/2")	222(235)	223	173(148)	297(130)	18.8	26
50(2")	254(267)	272	195(194)	292(130)	32	41.5
65(2 1/2")	276(292)	348	255(227)	327(130)	60	69.5
80(3")	298(318)	348	260(230)	332(130)	78	75
100(4")	352(368)	402	285(252)	343(130)	120	97.5
125(5")	400	460	330(368)	415(368)	160	180
150(6")	451(473)	530	384(368)	445(368)	245	230

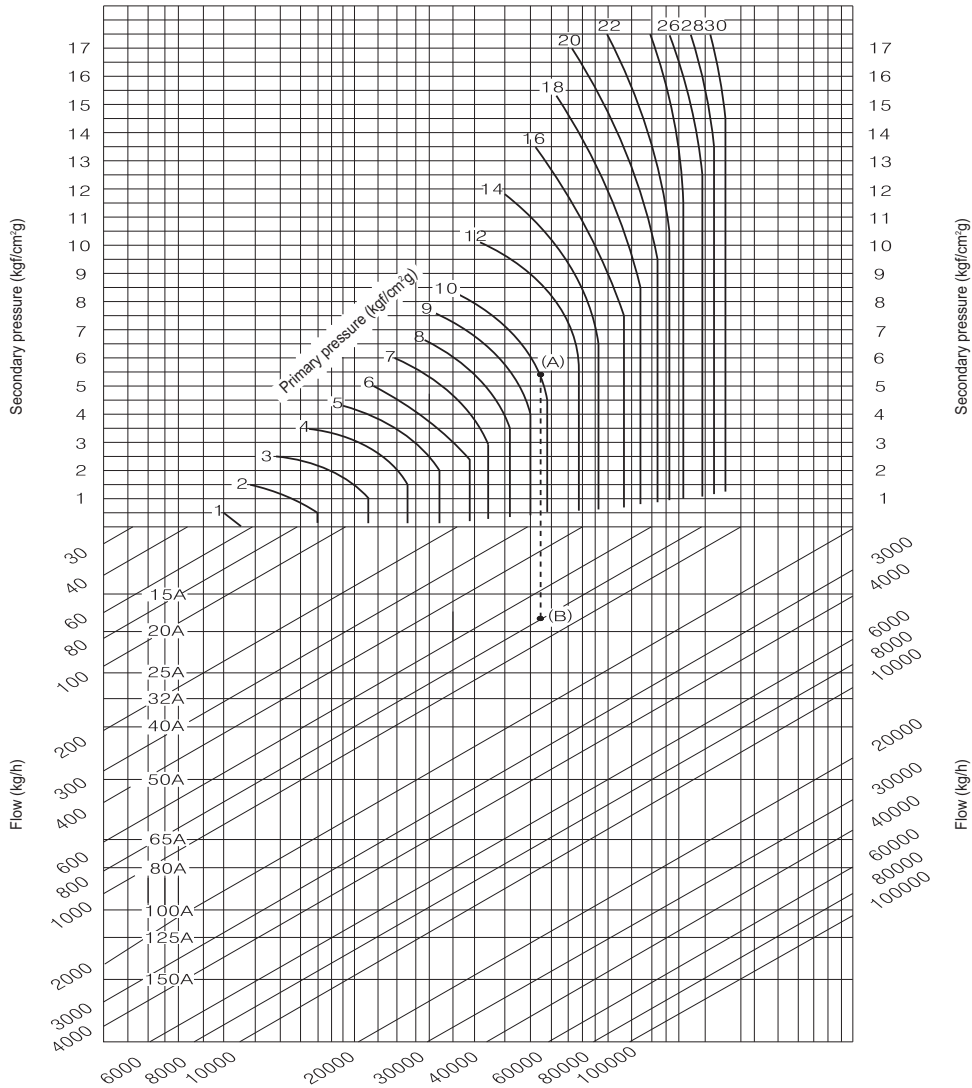
- ▶ Dimensions in parenthesis are for YPR-100A.

■ Application Diagram (Example)



Type YPR-100, 100A Pressure Reducing Valve

■ Chart on selecting a size

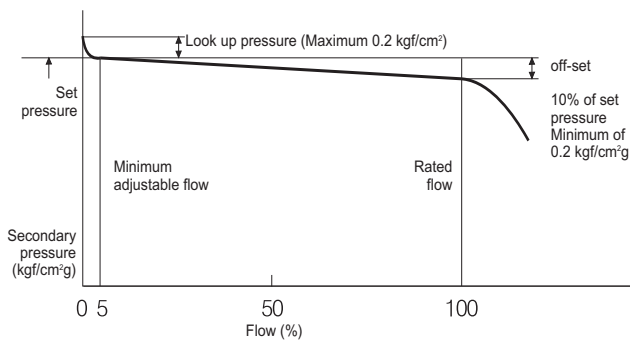


How to select the size of a valve by the chart

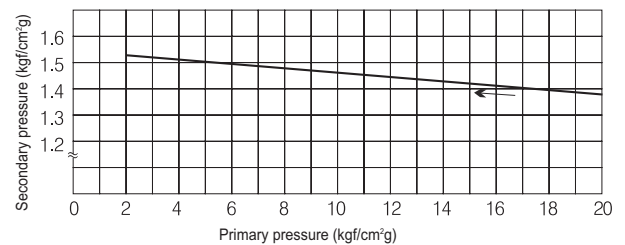
Example) If the primary pressure is 10 kgf/cm²g, secondary pressure is 5.5 kgf/cm²g, and flow is 800 kg/h,

- 1) Determine "A," the point of intersection between the primary pressure (10 kgf/cm²g) and secondary pressure (5.5 kgf/cm²g).
- 2) Go down vertically from "A" to make intersection "B" with the flow (800 kg/h). Now that "B" is in between a size of 15A and 20A, a size of 20A should be selected.

■ Flow characteristics chart



■ Pressure characteristics chart



► Assuming that the secondary pressure was set to 1.4 kgf/cm²g, while the primary pressure was 17.5 kgf/cm²g, this chart shows changes in the secondary pressure when the primary pressure is adjusted to between 2 and 14 kgf/cm²g.