01

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

Install a water separator at the inlet of the pressure reducing valve to prevent flow of water coming in and to ensure removal of condensation water.

Features

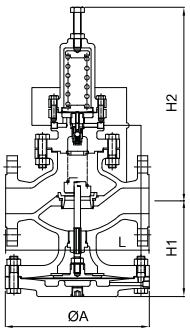
- 20:1 Maximum Pressure Turndown Ratio provides one-stage reduction without the customary costly two stage reduction.
- High Cv value and superb flow-controlling capacity allows even products that are one or two size smaller than the usual nominal diameter.
- Low pressure (0.21 Mpa) management is possible.
- 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

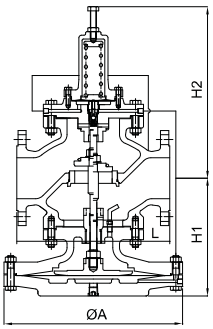
Type		YPR-100	YPR-100A
Applicable fluid		Steam	
Primary pressure		Max 1.7MPa	Max 3.0MPa
High pressure regulating range		0.02~0.2MPa (for low pressure), 0.14~0.69MPa (for medium pressure), 0.55~1.37MPa (for high pressure)	
Maximum pressure reduction ratio		14:1	
Minimum differential pressure in the inlet and outlet side of the valve		0.05MPa	
Leakage allowance		0.01% less of rated flow	
Fluid temperature		220℃ below	250℃ below
End connection		KS 10K RF FLANGE	KS 20K, 30K RF FLANGE
Material	Body	GCD450	SCPH2
	Disc, seat	STS	
	Diaphragm	Copper	
Hydraulic test pressure		2.6MPa	4.5MPa

▶ 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.

Dimensional drawing



15-40A Type

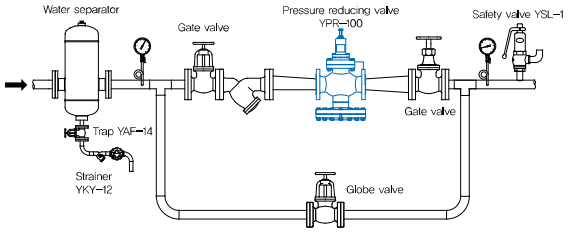


50-150A Type

Pressure regulating spring range

Yellow	0.02~0.2MPa
Red	0.14~0.69MPa
Blue	0.55~1.37MPa

Application Diagram (Example)



Dimensions

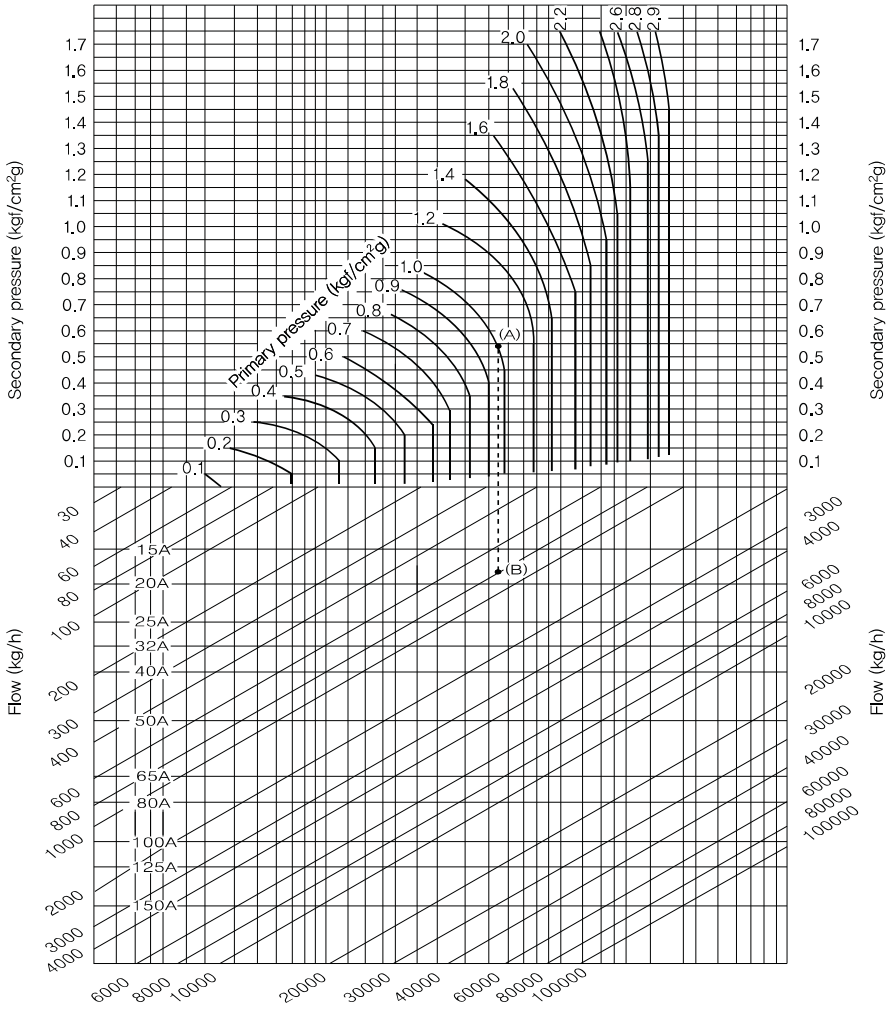
(mm)

Size	L	ø A	H1	H2	Cv	Weight (kg)
15(½")	130(130)	196	140	273	5	19.1
20(¾")	150(150)	196	135	281	7.2	20.2
25(1")	184(197)	223	150	283	10.9	20.4
32(1¼")	180(180)	223	163	293	14.3	26.4
40(1½")	222(235)	223	173	297	18.8	27.4
50(2")	254(267)	272	195	292	32	45.2
65(2½")	276(292)	348	255	327	60	76.5
80(3")	298(318)	348	260	332	78	75
100(4")	352(368)	402	285	343	120	107.4
125(5")	400	460	330	415	160	156
150(6")	451(473)	530	384	445	245	219.4

▶ Dimensions in parenthesis are for YPR-100A.

YPR–100, 100A Type Pressure Reducing Valve

Chart on selecting a size



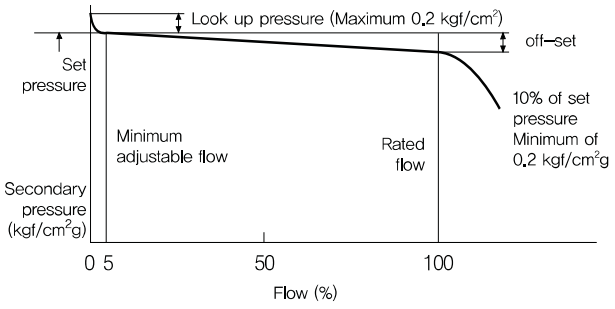
How to select the size of a valve by the chart

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

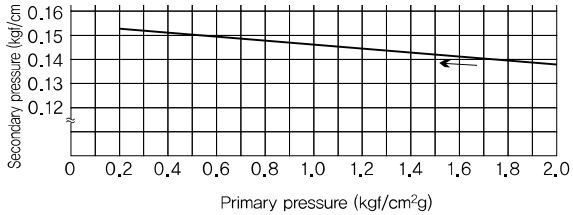
1) Determine "A," the point of intersection between the primary pressure (10 kgf/cm²g) and secondary pressure (5.5 kgf/cm²g).

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.