

## YPR-2W Type Primary Pressure Regulating valve for Water

This is a type of relief valve and self-operating regulating valve that discharges excessive pressure resulting from load fluctuations and maintains a constant pressure level in instruments or pipelines. In case of continuous pump operation, changes are made according to fluctuations in the discharge pressure load. It is possible to install this product as a primary pressure regulating valve in the bypass circuit to relieve excessive pressure, and to adjust the discharge pressure to remain constant.

### Features

- Easy to handle: small size and light weight.
- Two ways to install: horizontally or vertically.
- Stable operations: no such issues as hunching or vibration.
- Use of a disc made of special materials inside the valve: No water leakage when the valve is opened and closed.
- Piston-type balance structure: almost no change in the opening pressure resulting from back pressure fluctuations.
- The pressure tank can be used as a relief valve in a pipeline.

### Specification

| Applicable fluid        |            | Water                                                   |                  |
|-------------------------|------------|---------------------------------------------------------|------------------|
| Primary pressure        |            | Maximum 1.0MPa                                          |                  |
| Primary pressure        |            | 0.05~0.70MPa                                            |                  |
| Allowable leakage       |            | Less than 0.01% of rated flow ( ANSI b16.104 class IV ) |                  |
| Descending pressure     |            | Set pressure x within 20% (within 0.03 MPa minimum)     |                  |
| Accumulation pressure   |            | Set pressure x 10% or less (within 0.03 MPa minimum)    |                  |
| Fluid temperature       |            | 5~80°C or less                                          |                  |
| End connection          | size       | 15~25A                                                  | 32~150A          |
|                         | Inlet      | KS PT SCREW                                             | KS 10K FF FLANGE |
|                         | Outlet     | KS PT SCREW                                             | KS 10K FF FLANGE |
| materials               | Body       | GC200                                                   |                  |
|                         | Disc, seat | NBR/CAC406                                              |                  |
|                         | Diaphragm  | NBR                                                     |                  |
| Hydraulic test pressure |            | 1.1MPa                                                  |                  |

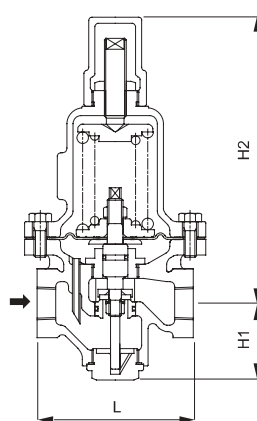
► Strainer (over 40 Mesh ) installation is required to ahead inlet when valve installing.

### Dimensions

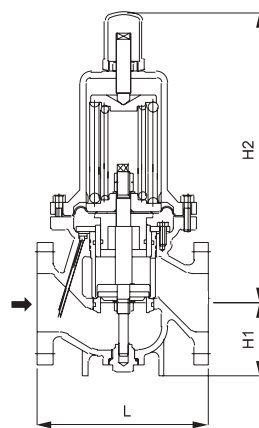
(mm)

| Size       | L   | A   | H1  | H2  | Cv    | Weight (kg) |
|------------|-----|-----|-----|-----|-------|-------------|
| 15(1/2")   | 100 | 116 | 50  | 184 | 2.9   | 3.2         |
| 20(3/4")   | 100 | 116 | 50  | 184 | 3.5   | 3.3         |
| 25(1")     | 120 | 142 | 68  | 224 | 6.2   | 6.4         |
| 32(1 1/4") | 190 | 174 | 81  | 327 | 12.8  | 17.5        |
| 40(1 1/2") | 190 | 174 | 81  | 327 | 13.7  | 17.7        |
| 50(2")     | 190 | 174 | 81  | 327 | 13.8  | 18.8        |
| 65(2 1/2") | 250 | 228 | 100 | 374 | 40.2  | 37.6        |
| 80(3")     | 250 | 228 | 100 | 374 | 41.9  | 37.8        |
| 100(4")    | 290 | 250 | 125 | 490 | 64.7  | 65.5        |
| 150(6")    | 390 | 340 | 165 | 655 | 109.5 | 155.6       |

### Dimensional drawing



Screwed type(15A~25A)



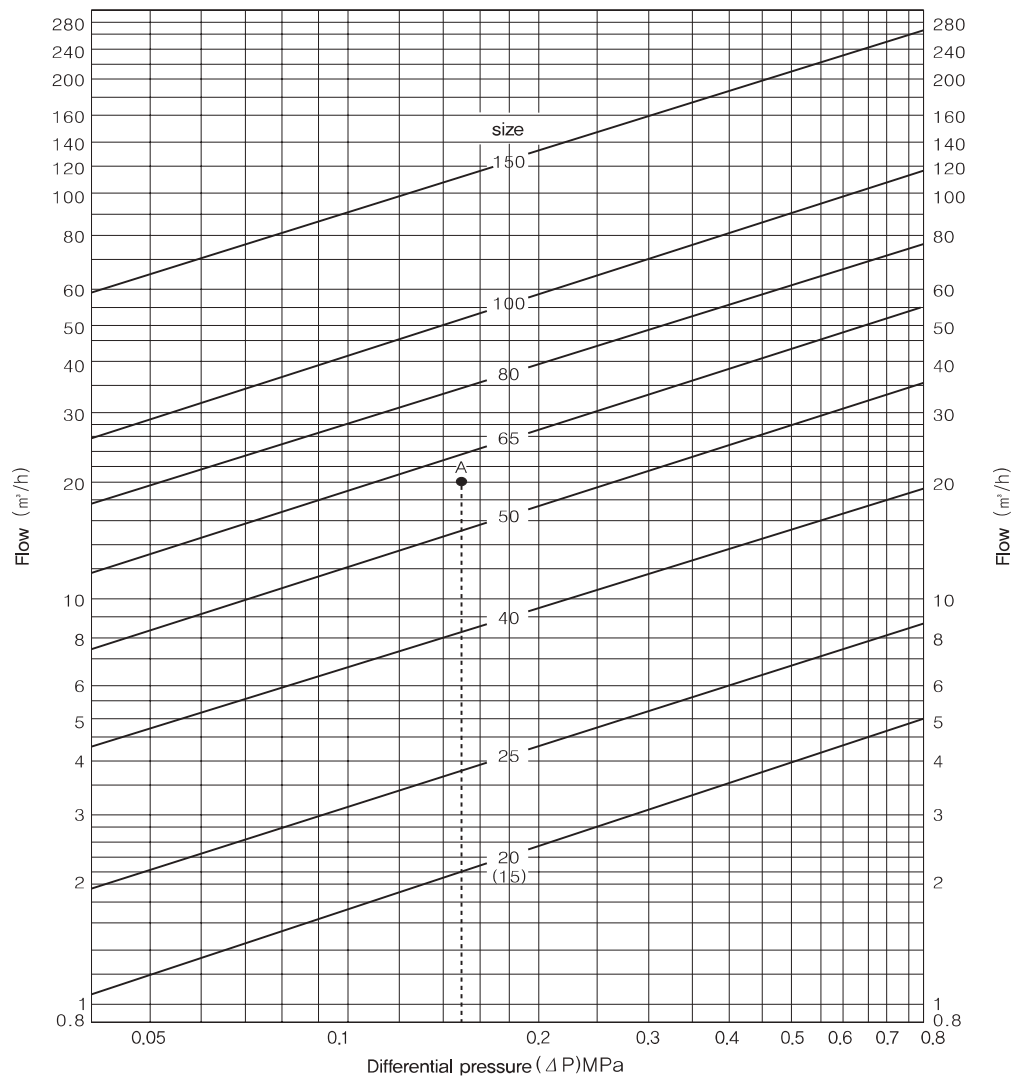
Flanged type(32A~150A)



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## YPR-2W Type Primary Pressure Regulating Valve

Chart on selecting a size



### How to select the size of the valve in reference to the chart

Example) If the opening pressure is 6 kgf/cm<sup>2</sup>g, back pressure is 4,5 kgf/cm<sup>2</sup>g, and flow is 20 m<sup>3</sup>/h,

The differential pressure is ( $\Delta P$ ) 6-4,5=1,5 kgf/cm<sup>2</sup>g.

Determine "A" where a vertical line from the differential pressure ( $\Delta P$ ) (1,5 kgf/cm<sup>2</sup>g) meets the flow (20 m<sup>3</sup>/h).

Now that "A" is in between a size of 50 and 65, the size of the valve should be 65.

### Application Diagram [Example]

