# WATER PRESSURE REDUCING VALVE

# GD-24

You can believe in.

GD-24 water pressure reducing valve can be used as a pressure control unit in water supply systems of general residential housing, high-rise buildings, industrial plant, and factory equipment.   It can also be used to provide stable water pressure in high-rise apartment units, and for hilly districts where each house requires an individual water supply system.   Trouble free flow control solutions are achieved through the use of a stainless steel valve seat and a suspesionary fitting in the drive mechanism.

## ■ Features

(1)  The use of a suspesionary fitting in this direct-acting type pressure reducing valve
　　 eliminates sliding parts, such as O-rings, etc., and provides longer service life.
(2)  Bronze body construction prevents rusty water problems.
(3)  A stainless steel valve seat reduces wear and increases durability.
(4)  A sealed construction prevents external leakage even if the diaphragm should break.
(5)  The valve can be mounted in any position (facing up or down).

## ■ Specification

| | | |
|---|---|---|
| Application | | Hot or cold water |
| Connection | | JIS Rc (PT Screwed) |
| Inlet pressure | | 0.2～1.6 MPa {2.0～16 kgf/cm$^2$G} |
| Outlet pressure | | 0.05～0.55 MPa {0.5～5.5 kgf/cm$^2$G} |
| Min. differential pressure | | 0.05 MPa {0.5 kgf/cm$^2$} |
| Temperature | | 5～80 ℃* |
| Material | Body | Bronze |
| | Valve | Brass |
| | Valve disc | Urethane rubber |
| | Seat | Stainless steel |
| | Diaphragm | NBR |
| | Cap | Brass |
| | Plug | Stainless steel |

## Options

Suffix:
G   - D-type 1.0MPa {10kgf/cm$^2$G} pressure gauge (R 1/8)
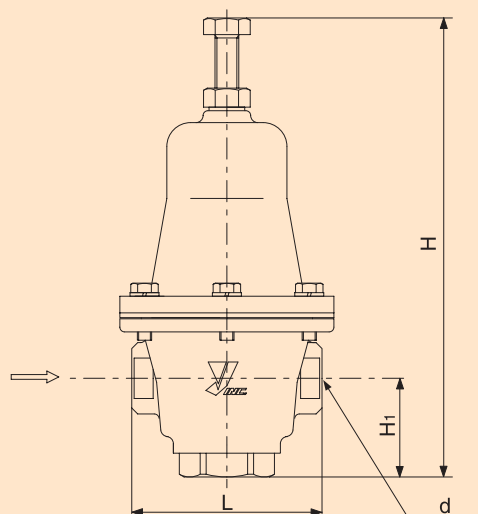S   - Strainer (SY-24, 60 mesh as a standard)
GS - Gauge and strainer

Other
*Diaphragm: Viton (FKM) for hot water, Max. temperature 90℃ (194 $^o$F)

## ■ Dimensions & Weight
(mm)

| Size | d | L | H | H$_1$ | Weight(kg) |
|---|---|---|---|---|---|
| 15A | Rc 1/2 | 80 | 193 | 42 | 1.8 |
| 20A | Rc 3/4 | 90 | 210 | 45 | 2.4 |
| 25A | Rc 1 | 100 | 230 | 50 | 3.3 |
| 32A | Rc 1 1/4 | 120 | 265 | 60 | 4.7 |
| 40A | Rc 1 1/2 | 150 | 315 | 62 | 8.2 |
| 50A | Rc 2 | 185 | 365 | 73 | 14.3 |

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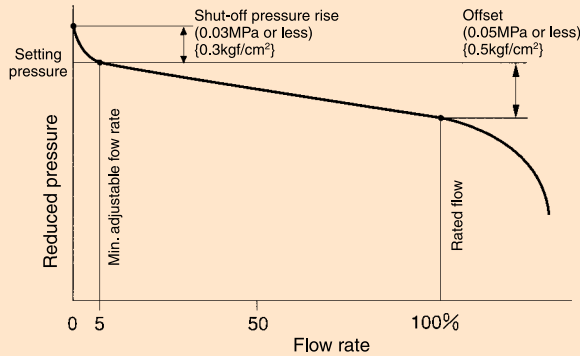## ■ Formula for nominal size selection

### ● Cv value calculation formula

$$Cv = \frac{0.365V\sqrt{G}}{\sqrt{\Delta P}}$$

P1 : Inlet pressure 〔MPa・A〕
P2 : Reduced pressure 〔MPa・A〕
ΔP : P1－P2 〔MPa〕
G : Specific gravity (relative to water)
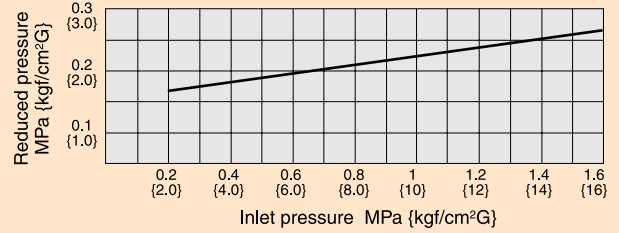V : Maximum flow rate 〔m³/h〕
Cv : Cv value of the nominal size

### ● Cv value

| 15A | 20A | 25A | 32A | 40A | 50A |
|-----|-----|-----|-----|-----|------|
| 1.5 | 1.9 | 3.0 | 4.0 | 7.0 | 10.0 |

## ■ Flow rate characteristics chart



## ■ Pressure characteristics chart



## ■ Nominal size selection chart

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