## Pressure Reducing Valve - VL





#### Introduction

The VL is a Direct acting, Balanced seat design, Diaphragm operated PRV with built in filter as per european norms.

### **Application**

Pressure Reducing Valves protect household water installations for industrial or commercial applications within the range of their specification. By installing a pressure reducing valve, pressurisation damage is avoided and water consumption is reduced. The set pressure is also maintained constant even when there is wide inlet pressure fluctuation. Reduction of the operating pressure and maintaining it at a constant level minimizes flow noise in the installation.

The VL is specially designed for lower outlet pressure without compromising on the flow rate. These are especially used when more then 4 branches are drawn from one downtake line and the last branch tends to get very high pressure in spite of using a PRV Method of Operation

Spring loaded pressure reducing valves operate by means of a force equalising system. The force of a diaphragm operates against the force of an adjustment spring. If the outlet pressure & therefore diaphragm force fall because water is drawn, the then greater force of the spring causes the valve to open. The outlet pressure then increases until the force between the diaphragm & the spring are equal again. The inlet pressure has no influence in either opening or closing of the valve. Because of this, inlet pressure fluctuation does not influence the outlet pressure.

Specification / design of products are liable to change without notice.

## **Special Features**

- Built-in filter to prevent dirt particles from reaching internals thus avoiding static pressure failures.
- Since the prv is Diaphragm operated it has better pressure control, less noise and maintenance compared to the older piston operated PRVs.
- Moreover, Diaphragm is thin walled, corrugation shaped for better flexibility & smoother operation. Increased surface area of diaphragm reduces overall size of PRV. i.e. compactness.
- Nylon reinforced NBR Diaphragm for better strength and longer life.
- Transparent filter cap which shows dirt accumulated on filter. (currently in 15 & 20mm size only)
- Easy clean attachment (optional) helps flush out all dirt particles collected on filter at mere turn of a knob. No need to open the valve for cleaning. No downtime. No technician.
- Moving parts are of low weight engineering plastic (with metal insert) to ensure quick response time to changes in inlet pressure or flow conditions thus reducing noise levels significantly and give smoother pressure control.
- 'Cartridge' design internals entire working mechanism is in a cartridge which operates independent of the body. Thus, servicing is without removing body from pipeline.
- The valve cartridge is of high quality synthetic material and can be fully exchanged.
- 'Dual open' design. Filter can be opened and cleaned from other side without disturbing pressure settings or removing working mechanism (cartridge).
- In-built provision for inserting pressure gauge.
- Inlet pressure balancing Fluctuating inlet pressure does not influence outlet pressure.
- Light weight.
- Stainless steel spring & spring plate and powder coated Gun Metal / Bronze body (optional) for rust free, corrosion free, dezincification free valve for longer life.

#### **Range of Application**

Medium : water, compressed air, nitrogen

Inlet Pressure : Maximum 16 kg/cm<sup>2\*</sup>

Max. Temp. : 45° C\* with transparent cap

: 70° C\* with metal filter cap

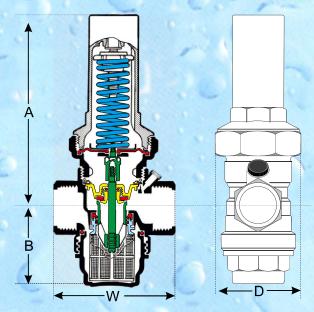
Connection size : 15,20,25,32 mm

End connections : BSP Female threaded Outlet Pressure : 0.5 - 2.0\* kg/cm²

<sup>\*</sup> For higher outlet pressures use W3 or VH models # Higher temperatures & inlet pressure on request.

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## **Dimensions in mm**

Sizes	15	20	25	32
Width W	74	74	107	107
Height A	129	129	167	165
Height B	69	71	72	74
Depth D	78	78	84	84
Weight Kg	1.1	1.2	2.4	2.5
KVS Value	2.4	3.1	7.6	8.5

## **Installation Guidelines**

If possible install in horizontal pipework with the filter bowl downwards as this is the most effective position for cleaning. Fit shut off valves to allow servicing and maintenance

The VL can be installed in any position. However,

Ensure good accessibility so that the pressure can be easily checked and other maintenance, cleaning can be done easily.

#### **Material:**

Body : Gun Metal.

without removal from pipework.

Bonnet: Nylon.

Cap : Gun Metal / Transparent plastic.

Internals : S.S., NBR; Brass; plastic.

Filter: SS316 with 0.4 mm pore Size \* wire mesh.

\*0.8 mm or 0.2 mm mesh also available.

Spring : Spring steel.

Warranty: 10 Years.

## **Accessories**:

#### PTK -1 Pressure testing Kit.



Useful for quick and efficient testing/setting of pressure on PRV.

Spanners SP 40 FB; SP 15F; SP 2515FB

For removing Bonnet / Filter Cap.



#### **ECA-2** Easy clean attachment

to be retrofitted on PRV if easy to clean feature is required later on for flushing out dirt collected on filter without opening valve assembly.



