



Introduction

The W3 is a Direct acting, Balanced seat design, Diaphragm operated PRV with built in filter (optional) 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.

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.

Technical Specifications :

As per the table overleaf.

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

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Special Features

- Built-in filter (optional) 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.
- 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. Prevents water hammer and noise 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 pipe work.
- 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 ^{2#}
Max. Temp.	: 45° C [#]
Connection size	: 15 to 50 mm
End connections	: BSP Female threaded BSP Male threaded in W3-MT
Outlet Pressure	: 1.5 - 5.0* kg/cm ²

* For lower or higher outlet pressures use VL (0.5 to 2 kg/cm^{2#}) or VH (4 to 10 kg/cm^{2#}) models respectively.

Higher temperatures & inlet pressure on request.

Different Variants of W3

		Body	Spring / Spring Plate	Built-in Filter*	EasyClean Attachment	Powder Coating on body	Bonnet	Warranty
<p>W3-B – This comes in Brass body construction with built-in filter and a transparent filter cap. The built-in filter effectively ensures smooth working of internals and gives steady control of static pressure and good flow control.</p> 	Brass	Spring Steel	SS 316 - 0.4mm	No	No	Nylon	5 years	
<p>W3-BSC – Same as W3-B but has an additional Easy Clean attachment. This reduces nuisance of sending technician/plumber to clean the filter. W3-BSC is generally used in remote locations like bungalows where cost of technician plumber is higher or is also used in prestigious projects where residents want minimal nuisance of plumber/ technician knocking their door for access to the duct where PRV is installed.</p> 	Brass	Spring Steel	SS 316 - 0.2mm	Yes	No	Nylon	5 years	
<p>W3-NF – This does not have any built-in filter unlike all other variants of W3. Generally this is used when there is constraint of access to PRV to clean the filter (especially when ducts are narrow). Though one of the most economical model variant it cannot take care of malfunction and increase in pressure if dirt particles reach internals.</p> 	Brass	Spring Steel	-	No	No	Nylon	5 years +	
<p>W3-G – Same as W3-B but the material of construction is superior. Body is of Gunmetal (Bronze) in place of Brass to reduce dezincification effects. Bonnet internals viz Spring; spring plate are of stainless steel material. Thus, body and internals are corrosion resistant, rust free Owing to superior material the overall life is higher. Comes with a warranty of 10 years. Ideal where PRV is to be installed in open space where it is exposed to rain water or in premium projects for longer warranties.</p> 	Gunmetal / Bronze	Stainless Steel	SS 316 - 0.4mm	No	Yes	Nylon	10 years	
<p>W3-SC – Same as W3-G, but has an additional Easy Clean attachment which helps flush out dirt on filter without having to open the filter. This reduces nuisance of sending technician/plumber to clean the filter. W3 SC is generally used in remote locations like bungalows where cost of technician plumber is higher or is also used in prestigious projects where residents expect minimal downtime and nuisance of plumber/ technician knocking their door for access to the duct where PRV is installed.</p> 	Gunmetal / Bronze	Stainless Steel	SS 316 - 0.2mm	Yes	Yes	Nylon	10 years	
<p>W3-M1B – Same as W3-B but with male threaded end connection with one size higher i.e 3/4" PRV will have 1" BSP end connection; 1" PRV will have 1-1/4" BSP end connection.</p> 	Brass	Spring Steel	SS 316 - 0.4mm	No	No	Nylon	5 years	
<p>W3-M1NF – Same as M1B but without filter.</p> 	Brass	Spring Steel	-	No	No	Nylon	5 years +	

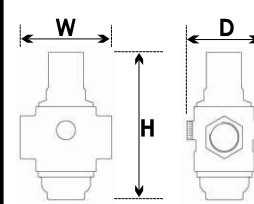
* Superfine (0.2mm) or Coarse filter (0.8mm) also available on request.

+ No warranty for failure due to dirt particles in water

Pressure gauge shown in photo is not part of supply.

Dimensions (in mm) of different variants of W3 model

Size (in mm)	15mm			20mm			25mm			32mm			40mm			50mm	
	B/ N/ F/ G	SC/ BSC	MT	B/ N/ F/ G	SC/ BSC	MT	B/ N/ F/ G	SC/ BSC	MT	B/ N/ F/ G	SC/ BSC	MT	B/ N/ F/ G	SC/ BSC	MT	B/ N/ F/ G	SC/ BSC
Size (in inch)	1/2"			3/4"			1"			1-1/4"			1-1/2"			2"	
Height (H)	138	190	138	138	190	138	158	205	159	158	205	159	265	315	265	265	315
Depth (D)	74	74	74	74	74	90	100	100	100	100	100	100	120	120	130	120	120
Width (W)	76	78	76	78	78	78	85	85	86	85	85	86	85	85	95	85	85
Kvs Value with 0.4mm mesh	2.3			2.9			7.2			8.6			12.0			12.4	



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