

Pressure Reducing Valve (PRV)

Model PRVNGE – Pilot Operated - Datasheet

The PRVNGE Pressure Reducing Valve from Arrow Valves is designed to provide a constant outlet pressure despite varying inlet pressures. The outlet pressure is adjustable between 1.0–5.3 bar as standard – other ranges available. The inlet pressure must be higher than the desired outlet pressure.

The outlet pressure can be adjusted at any time by removing the tamperproof cover on the pilot valve and rotating the hexagon screw. Turn clockwise to increase the pressure.

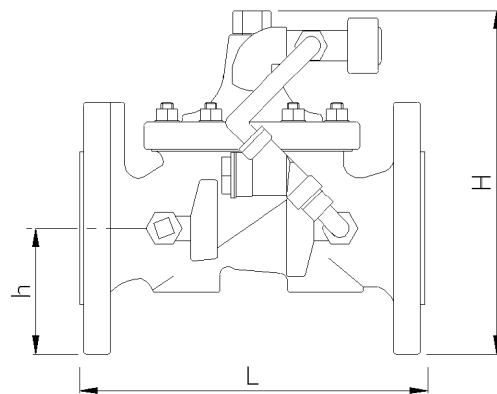
The PRVNGE is pilot operated, which has many advantages over direct acting, including –

- Accurate down stream pressure characteristics
- Compact, with no large springs
- Controllable, ancillary pilot valves control main valve

Two pressure gauges are supplied with each PRV, which indicate the supply and outlet pressure. Gauge isolating valves are provided for extra security (use as drain tap with gauge removed). The valve is configured with the gauges visible for flow left to right. This can be reversed if required.

Horizontal installation is recommended but vertical configuration is permissible due to the light moving assembly. A reinforced diaphragm is used rather than a piston - overcoming stiction problems. The pilot system controls the pressure above the diaphragm, which controls the main valve.

Upstream and downstream Servicing Valves are strongly recommended to avoid draining for maintenance – e.g. resilient seat Gate Valves as supplied by Arrow Valves.



Connection Pipes

PN16 flange as standard. Female BSPP DN32–80 available
Copper – Compression ring to 108 mm, Braze to PN16 flange

Steel – Weld or screw to steel PN16 flange

Plastic – PN16 flange with backing ring

Specification

Pressure Inlet	16 bar (PN16) standard 25 bar (PN25) optional
Pressure Outlet	1.0–5.3 (standard) 0.5–2 (Low) 2–20 (High) bar
Pressure Minimum	0.5 bar differential
Temperature	5 - 65° C
Approval	0606102

Materials

Body	Ductile Iron, epoxy coated
Seat, Springs, Strainer	Stainless Steel 316L
Pilot	Bronze and stainless steel

Applications

- Reducing excessive mains pressure.
- Controlling pump outlet pressure.
- Pressure regulation per floor.
- Water conservation.

Options

- Check Valve on pilot, which makes main valve non return
- Pressure sustaining valve limits open of PRV to ensure minimum supply pressure remains (e.g. 1 bar)
- Solenoid Valve for shutting main valve.
- Stainless steel construction
- Numerous valve combinations, including – constant flow, float operated, pressure relief etc. Several pilot controls can be incorporated into a single valve – contact us

Dimensions

SIZE PN16	L Note 1	H Note 2	h	K _v m ³ /hr Note 3	Kg
50	230	255	83	32	15
65	290	295	93	43	20
80	310	300	100	58	25
100	350	390	110	119	40
150	480	480	143	209	70
200	600	585	170	479	120

Notes

1. Face to Face length are standard BS4504 PN16.
2. Maximum height including pilot system.
3. K_v is flow required to produce 1 bar differential pressure drop with valve fully open. Lower headloss valves available (Model GE).

Codes and Descriptions

Size	Code	Description
DN80,100	PRVSIZENGESV	NGE PRV, 2 Gauges, Serv. Valves PN26
DN50-150	PRVSIZEPNNGE	NGE PRV, Pilot, 2 Gauges 1-5.3 bar PN16
DN50,65,100,150,200	PRVSIZEPNGES	NGE PRV Gauges 1-5.3 bar PN16
DN50,65,100,150,200	PRVSIZEPNGEL	NGE PRV Gauges 0.5-2 bar PN16
DN50,65,100,150,200	PRVSIZEPNGEH	NGE PRV Gauges 2-20 bar PN16
DN32,40,50,80	PRVSIZFPNGES	NGE PRV Gauges 1-5.3 bar FBSPP
DN32,40,50,80	PRVSIZFPNGEL	NGE PRV Gauges 0.5-2 bar FBSPP
DN32,40,50,80	PRVSIZFPNGEH	NGE PRV Gauges 2-20 bar FBSPP
All	PRVEBNGE	Check Valve Option for NGE PRV
All	PRVPSNGE	Pressure Sustaining Option NGE PRV
All	PRVSOLNGE	Solenoid Valve Option for NGE PRV

Substitute size required in code in place of "Size".

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Arrow Valves Ltd reserve the right to change specifications,

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All unit-less dimensions in mm.

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