Pressure reducing valve art. PRV

Pressure reducing valves are mainly used upstream residential plants for the distribution of domestic water, and perform two functions: to reduce water pressure to the value required by the private supply pipe, in order to prevent component failures due to excessive pressure, and to stabilise outlet pressure, so to avoid uncomfortable supply fluctuations. PRV pressure reducing valves are based on the opposite forces exerted by two elements on a compensated control valve: a spring (closing action) and a diaphragm (opening action). The compensation stabilises the outlet pressure to the set value independently of the upstream value, thus eliminating the risk of instability or fluctuations. Pressure reducing valves PRV feature an outlet pressure gauge and a self-cleaning strainer. Available in sizes DN 15, 20, 25, 32 and 40. Versions with pipe unions also available.

TECHNICAL FEATURES

Working fluid: water; compressed air; neutral non-adhesive fluids; neutral gases
Max inlet pressure: 16 bar
Outlet pressure adjustment range: 1.5-6 bar
Factory setting: 4 bar
Max operating temperature: 30 °C
Strainer porosity: 0.5 mm

MATERIALS

Body: CW602N dezincification-resistant brass
Rubber parts: EPDM
Compatible with potable water

MAIN COMPONENTS

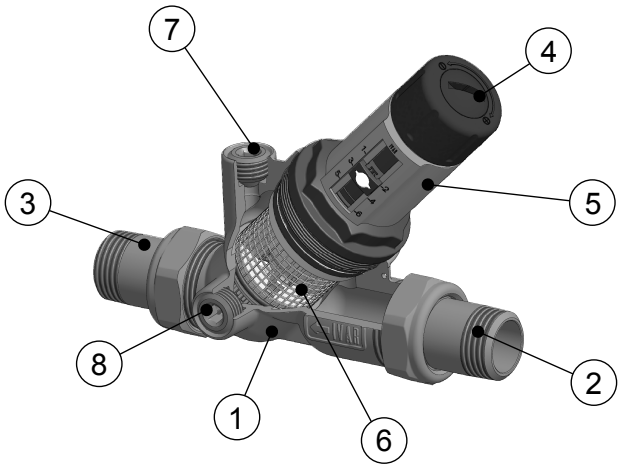

Fig. 1: PRV main components.

1. Body
2. Inlet
3. Outlet
4. Adjustment selector
5. Outlet pressure indicator
6. Strainer
7. Strainer cleaning outlet
8. Pressure gauge port

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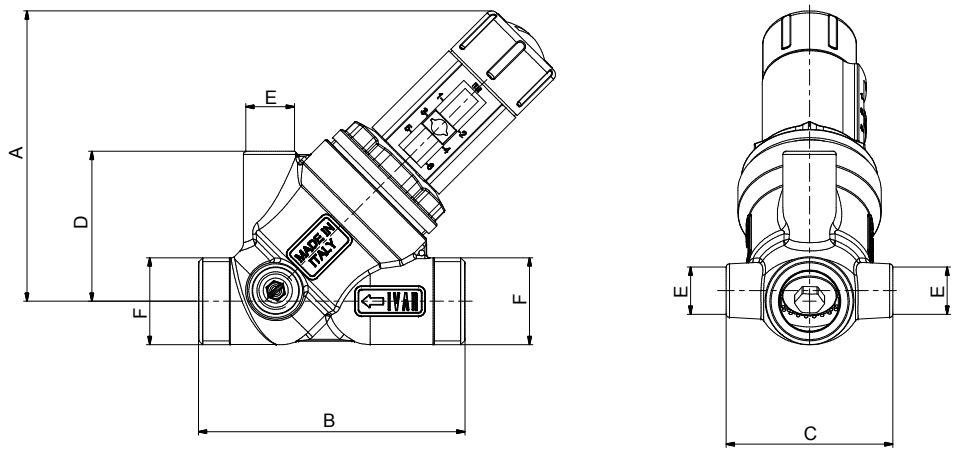
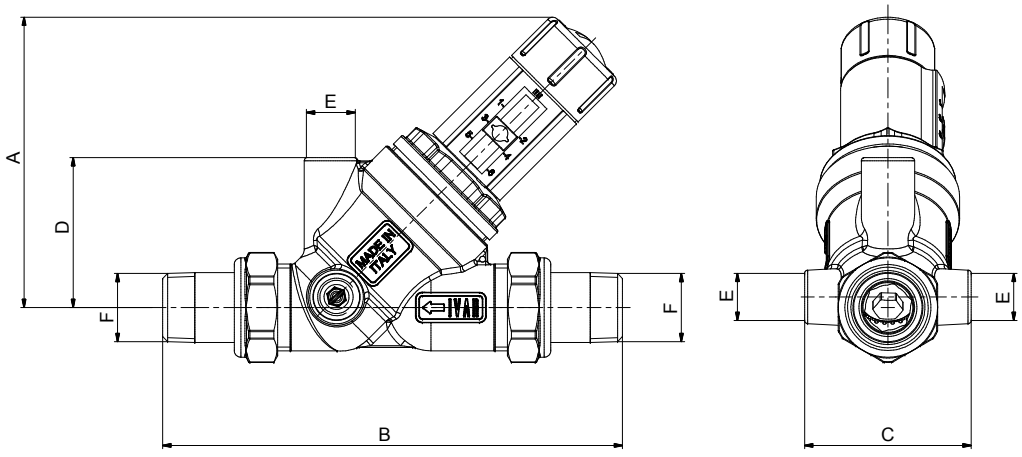
DIMENSIONS

PRV - No pipe union fittings



COD.	DN	A	B	C	D	E	F
509151	DN15	88	80	50	45	1/4”	3/4”
509152	DN20	88	80	50	45	1/4”	1”
509153	DN25	115	100	58	56	1/4”	1 1/4”
509154	DN32	161	130	67	65	1/4”	1 1/2”
509155	DN40	161	130	67	65	1/4”	2”

PRV - Pipe union fittings



COD.	DN	A	B	C	D	E	F
509126	DN15	88	138	50	45	1/4”	1/2”
509127	DN20	88	144	50	45	1/4”	3/4”
509128	DN25	115	171	58	56	1/4”	1”
509129	DN32	161	212	67	65	1/4”	1 1/4”
509130	DN40	161	216	67	65	1/4”	1 1/2”

OPERATING INSTRUCTIONS

Installation and adjustment instructions

Preliminary operations

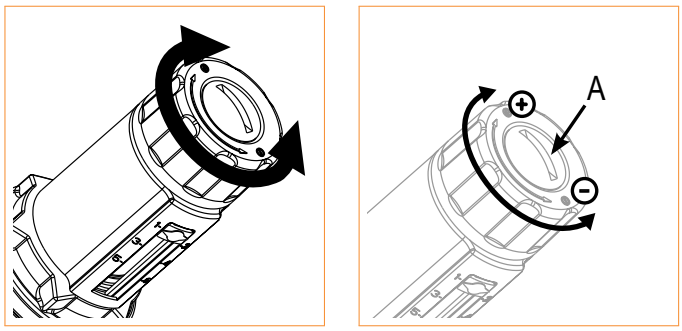
Flush and vent the piping network prior to PRV installation. Consider to install PRV in a place that can be easily accessed and inspected.

Installation

Mount the pressure reducing valve according to the direction indicated on the device brass body. Do not install the device with upside-down cartridge. Do not apply mechanical stresses. Consider that you will be able to turn the outlet pressure indicator at any time, so to make it visible (Fig.2a).
Warning! The installation of shut-off valves upstream and downstream PRV device is strongly recommended in order to make the device isolation possible, and to allow easy flushing and maintenance operations. The installation of an in-line shock arrestor is also recommended to prevent possible component failures. In case of aggressive water, consider to install a water treatment system upstream the pressure reducing valve.

Adjustment

To adjust outlet pressure setting, loosen safety screw A in Fig.2b, then turn the adjustment selector towards "–" to decrease pressure value, or towards "+" to increase it. Factory setting 4 bar.



(a) Pressure gauge swivelling. **(b)** Outlet pressure adjustment.

Fig. 2: Possible actions on the adjustment part.

Strainer cleaning

PRV pressure reducing valve features a strainer to block dirt upstream the private pipe inlet. It is advisable that the strainer is periodically checked to make sure the device is still working properly. If the strainer is clogged, it can be cleaned as follows:

1. If shut-off valves have been installed upstream and downstream PRV, shut them off;
2. Remove the plug nut blocking the outlet 7 in Fig.1 then connect a hose in its place;
3. Open the upstream shut-off valve;
4. Let dirty flow come out of the drain hose until water flows out completely clean (Fig.3);
5. Shut off the upstream valve again;
6. Plug the outlet 7 in Fig.1 with the nut;
7. Open both upstream and downstream shut-off valves.

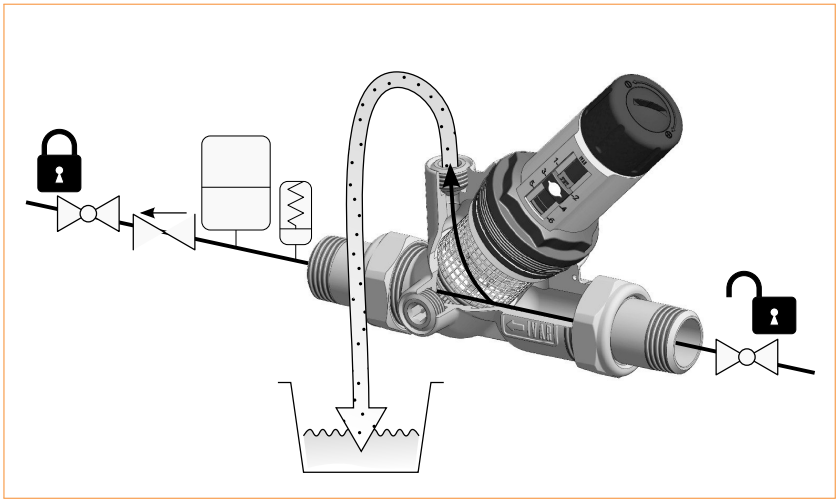


Fig. 3: Strainer cleaning.

CERTIFICATIONS

Undergoing certification by SVGW.

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