



Installation & Operating Manual



CORE PRV **Pressure Reducing Valve**



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1. Introduction

- The CORE PRV can be used in pipework systems to reduce inlet pressure to a safe level before fluid reaches any plumbing fixtures within a building.
- The CORE PRV has been classified in accordance with PED 2014/68/EU.
- The CORE PRV is WRAS approved to a maximum operating temperature of 80°C.

2. Technical Data

The CORE PRV Technical Specification	
Material	Nickel Plated DZR Brass
Maximum inlet pressure	16 bar
Outlet pressure range	0.5 bar – 6 bar
Operating temperature range	0°C – 80°C

Pressure reducing valves should always be sized according to system flow velocities and flow rates not line size.

Flow Velocity m/s	1 m/s	2 m/s	1 m/s	2 m/s	1 m/s	2 m/s
DN	Flow Rate (litres / sec)		Flow Rate (litres / minutes)		Flow Rate (litres / hour)	
15	0.18	0.35	10.8	21	0.65	1.26
20	0.31	0.63	18.6	37.8	1.12	2.27
25	0.49	0.98	29.4	58.8	1.76	3.53
32	0.8	1.61	48	96.6	2.88	5.80
40	1.26	2.51	75.6	150.6	4.54	9.04
50	1.96	3.93	117.6	235.8	7.06	14.15

3. Valve Features

- The CORE PRV conforms to BS EN 1567
- The CORE PRV is supplied with pressure gauge
- The CORE PRV is manufactured from corrosion resistant brass

4. Valve Installation

- The valve should be sited to ensure ease of access.
- It is the responsibility of the installer to ensure the valve is suitable for service conditions e.g., temperature, pressure, and service media.
- Where fitted, remove flange protectors / dust caps and all other packaging material.
- Care should be taken to ensure the surface finish of the valve is protected during installation.
- The valves may be installed in horizontal or vertical pipework. Do not install the valve upside down.
- Suitable sealing material should be used during installation. Sealing material is not required on the union joints.
- The valve is uni-directional and this is clearly highlighted by flow directional arrows on the valve.
- The valve should be installed with no undue stress in the pipework system. Suitable bracketing / supports should always be used.
- It is recommended that the valve has suitable isolation valves both upstream and downstream to allow maintenance to take place.
- The PRV must be installed with a minimum pipe length of 5 times pipe diameters after the PRV to reduce noise and ensure laminar flow.

Flushing

Control valves are sized to give good control over the system water and have therefore been designed with small, convoluted flow paths. These water ways may not allow adequate water velocities needed for flushing the system during the pre-commissioning stages of water treatment, even when fully open. In line with BSRIA recommendations, suitable consideration needs to be made as to how the removal of system debris can be achieved during the system flushing process.

5. Setting Instructions

- The outlet pressure of the CORE PRV can be set and adjusted as follows: -
- Leave one tap in the property open.
- Adjust the PRV to the required outlet pressure by turning the handwheel in the same direction as the +/- arrows).
- Read the pressure on the gauge (ensure the tap is still open).
- Adjust as necessary by following steps 1-5 inclusive.
- A tap / faucet must always be left open whilst adjustments are being made.
- The pressure gauge may be read incorrectly with the stopcock open and all taps closed.

6. Valve Maintenance

- The CORE PRV may require occasional cleaning of the internal filter. To do this by the following steps: -
 - Isolate the valve.
 - Unscrew the plastic head.
 - Remove the filter.
 - Rinse with warm water – do not use detergents.
 - Reassemble.

7. Pressure Reduction

- A pressure reduction ratio of three to one should never be exceeded. For example, inlet pressure 9 bar, minimum outlet pressure 3 bar.

8. Approvals Classification

- The CORE PRV are WRAS approved.
- The valve is classified in accordance with PED 2014/68/EU as Sound Engineering Practice (SEP).

9. Troubleshooting

- If any maintenance is to be undertaken on the valve it is the responsibility of the installer to ensure the system is adequately drained and depressurized.
- A full risk assessment should be undertaken prior to any works taking place.

10. Warranty

- For further details about the CORE range's warranty period, please contact your CORE representative.