

PRESSURE REDUCING VALVE (PRV)

DM1816 – PN16 / DM1825 – PN25

GENERAL NOTES OF SAFETY

- The PRV must only be used:
 - for the specified purpose
 - if it is in satisfactory condition
 - whilst taking the necessary safety and hazard precautions
- Always read the installation instructions and if unsure contact the Crane helpline
- The PRV must only be installed in accordance with the operating pressure and temperature stated below. The manufacturer shall not be responsible for damage caused by external influences.
- Installation must be carried out by a qualified individual.



SPECIFICATION

Medium: Water
 Maximum Inlet Pressure: DM1816 -16 Bar, DM1825- 25 bar
 Maximum Outlet Pressure Range: 1 to 8 bar
 Body Material: Bronze
 End Connections: Flanged BS EN 1092-3
 Temperature range: -10 to 85°C

Pressure gauge used to measure inlet and outlet pressure, available with axial or vertical threaded connection should be ordered separately. For each valve, two pressure gauges are required.

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FM311 ISO 9001

- Designed and manufactured under quality management systems in accordance with BS EN ISO 9001-2008

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INSTALLATION AND ADJUSTMENT

- The PRV is pre-set to an outlet pressure of 3 bar
- It should be installed in the system without applying stress to the connections
- The flow direction must coincide with the arrow on the valve body
- The valve can be installed in any mounting position
- The system should be thoroughly flushed prior to installation of the PRV, to prevent small particles entering and damaging the internal components
- The pressure gauges can be screwed into the connections to indicate the inlet and outlet pressure
- The desired outlet pressure is set by turning the adjusting spindle at idle pressure (zero flow)
- Turning the adjusting spindle in a clockwise direction increases the outlet pressure and turning the spindle in a counter-clockwise direction reduces the outlet pressure

Note: Set pressure reduces as outlets are opened.

CAUTION!! Before commissioning the PRV, it should be ensured that both pressure gauge connections on the valve body are sealed with pressure gauges or sealing plugs.

MAINTENANCE

The PRV should be regularly inspected in accordance with BSEN-1567. After long periods of inactivity the valve must be tested.

CAUTION!! When carrying out maintenance on the PRV, the valve should be isolated and the system pressure should be removed.

REPLACING THE VALVE INSERT

Remove plastic protective cap; loosen lock-nut. Relieve spring tension by turning the setting spindle counter-clockwise. Remove screws. Remove spring plate, setting spindle, copper ring and spring. Re-fit two screws on opposite sides of the body, as they are required to act as supports for screwdrivers, and remove valve insert by means of two screwdrivers. Installation is carried out in reverse order. Tighten the screws to a maximum equal torque of 18nm*, this must not be exceeded!

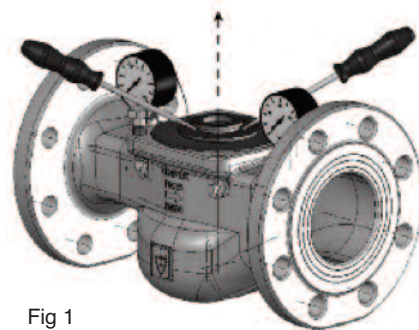


Fig 1

*Nanometre

CLEANING THE STRAINER

Unscrew and remove valve insert - see previous section (fig 1).

The strainer can be pulled off and cleaned after removing the bottom

O-ring from the valve insert. After cleaning, slide strainer over the valve insert and insert O-ring back in the provided groove. Assemble complete valve insert. Installation is carried out in reverse order.

CAUSE OF FAULTS, REMEDIAL ACTION

a) Pressure gauge indicates pressure increase

The non-return valve installed between PRV and water heater may be leaking, which, during the heating process of the boiler, leads to the expanding water of the boiler causing a rise in secondary pressure at the pressure gauge although the pressure reducer is operating correctly.

Remedial action: Replace non-return valve.

b) Damage to seat seal or sleeve

If the outlet pressure of the PRV increases or water discharges at the upper part of the valve, this may be due to damage to the seat seal and / or sleeve.

Remedial action: Restore correct operation of the valve by replacing the valve insert.

If water discharges at the spring bonnet, this may be because it is not screwed on tightly enough.

c) Scale (furring)

The distance to the non-return valve must be such that no hot water can be applied to the PRV, even in the event of the fitting leaking.

If you do not apply this rule during the installation there is a risk of the PRV scaling.

Remedial action: Correct the installation arrangement. If this is not possible you must replace the complete valve insert regularly.