



Pressure Regulating Valve Model: DRV024A

Product Description

DRV024A is a high pressure regulating landing valve suitable for installation on wet risers in buildings for fire-fighting purposes, permanently charged with water from a pressurized supply.

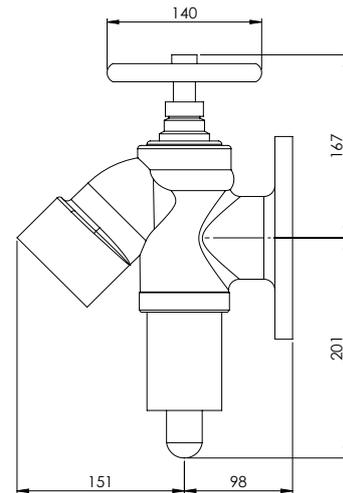
The design and construction of the landing valves are in accordance with BS5041-1 and the requirements of BS9990: 2015.

The valve is suitable for connection of a high pressure water supply of up to 25 bar (362 psi) and will provide a reduced outlet pressure which can be set in-situ during testing and commissioning of the fire protection system.

When the valve is closed, watertight sealing is achieved by using a high quality rubber bonded seat disc which acts as a primary rubber to metal seal.

When the valve is open, the inlet pressure flows into the upper part of the pressure chamber. By adjusting the spring below, a balance pressure of these two forces determines the degree of the valve opening to maintain a constant outlet pressure.

Each valve is hydrostatically pressure tested to 25 bar and 30 bar for the valve seat and body respectively. The valve is supplied with a standard red plastic BS336 plug and chain.



Features

- High quality casting finishes
- Primary shut-off valves using a high-quality rubber bonded seating disc for a watertight rubber to metal seal
- Corrosion resistant
- Complete with plastic cap and chain

Standards

- Designed and built in accordance with BS5041-1 to meet the requirements of BS9990: 2015.
- Manufactured from LG2 bronze as per BS1400
- PN16 (8 holes)/PN25/PN40 flat face inlet flange connections as per BS EN 1092-3
- Instantaneous female outlet connection as per BS336.

Working Pressure

Maximum inlet pressure is 25bar. With supplied inlet pressure of 12-25 bar the outlet static pressure is preset to 10-11 bar. The outlet dynamic pressure is 8 ± 0.5bar and the flow is 750LPM ± 75LPM as per BS9990.

Specifications

Size	DN65 (2 1/2")
Max. Working Pressure	25 bar (362 psi)
Min. Inlet Pressure	4 bar (58 psi)
Outlet Pressure Range*	4 - 18 bar (58 - 260 psi)*
Max. Test Pressure	30 bar (435 psi)
Material	Gun Metal Bronze LG2
Inlet Connection	PN16 Flange (Flat Face) 8 Holes PN25 Flange (Flat Face) PN40 Flange (Flat Face)
Outlet Connection	BS336 Female
Manufactured in Accordance to	BS5041-1
Weight	12 kg

*Outlet pressure range is dependant on the inlet pressure.



Pressure Regulating Valve Model: DRV024A

Installation, commissioning and maintenance of Pressure regulating valves should only be carried by a competent person.

Fire mains should be tested at appropriate stages during installation, as work progresses, and upon final completion. Records should be kept of the tests and their results.

Installation and Adjustment

After the valve is installed, prior to conducting tests, water should be allowed to flow through the fire main and be discharged via the topmost outlet to flush out any debris that might be present.

During the test water should be passed through the system under pressure and readings taken of flows and pressures. The flow and pressure test should be carried out at the highest or furthest landing valve and at a minimum of two intermediate valves, using the system pumps.

According to BS9990:2015 outlet pressure of each valve should be set to 8 ± 0.5 bar at 750 ± 75 L/min flow.

Leaving the system fully pressurised attach T piece with a gauge and drain hose to the outlet of PRV. Water from PRV outlet should be diverted to drain test line whilst this procedure is carried out.

Unscrew the protective cap, loosen the locking nut with 19mm spanner, rotate the square stem of the valve with an 8mm spanner until the gauge reads the required pressure. To increase the pressure turn the square stem right and to decrease turn it left.

Outlet pressure of all valves is factory pre-set to 10-11 bar, you may find some valves may not need adjustment depending on what level they are installed.

When the valve outlet pressure is regulated, it will remain set unless it is being tampered with. The valve outlet pressure setting can only be regulated under a flowing condition. A small flow coming out of the valve outlet is sufficient to perform the task.

A permanent record of all initial inspections and acceptance tests should be kept by the responsible person, as per BS 9990:2015

Service & Maintenance

Rapidrop DRV024A Pressure regulating valves require no regular maintenance, however it is advisable to inspect and verify proper operation of the unit every six months, as per BS9990 or in accordance with the authority having jurisdiction.

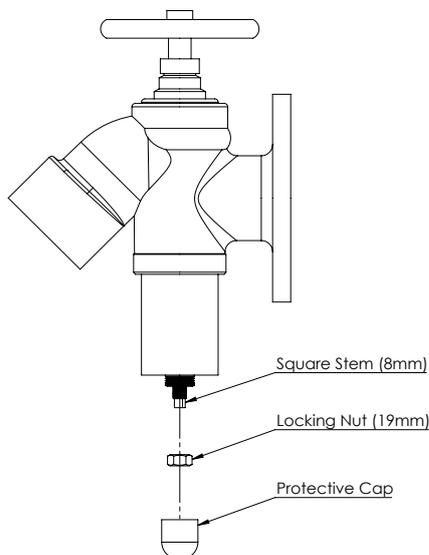
The inspection should include a visual check for leakage at the flange connection, the stem and the outlet. Debris in the piping system might cause difficulties in closing the valve, this problem can be overcome by backing off the handwheel and closing the valve again.

Particular attention should be given to condition of the stem, handwheel and gland nut to ensure that they are in satisfactory condition, so the valve is ready for immediate use.

Where valves are found to be defective they should be replaced immediately if possible.

There should be a signed and dated log of periodic inspections, maintenance and rectification of any defects.

Rapidrop Pressure Regulating Valves are suitable for both indoor and outdoor use. Minor degradations of surface finish should not affect the performance of the valve.

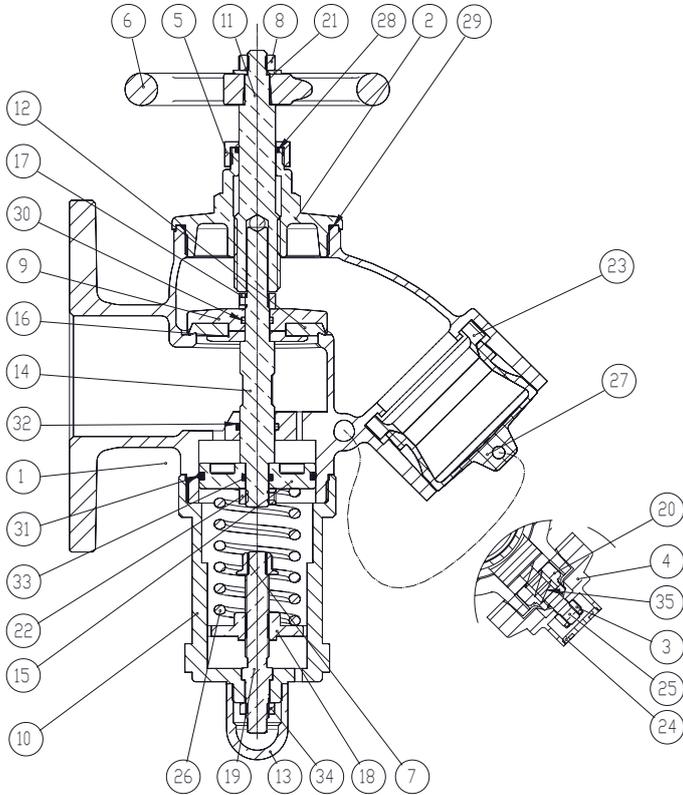




Data Sheet 10.55

Issue A

Pressure Regulating Valve Model: DRV024A



Material Specification

No.	Part Name	Material
1	Body	Gun Metal Bronze LG2
2	Bonnet	Brass CZ122
3	Plunger Nut	Stainless Steel 304
4	Plunger Release Lug	Die Casting Brass DCB3
5	Gland Nut	Brass CZ121
6	Handwheel	Cast Iron FC200
7	Pin	Stainless Steel 304
8	Lock Nut	Stainless Steel 304
9	Disk	Gun Metal Bronze LG2
10	Spring Housing	Die Casting Brass DCB3
11	Stem	Brass CZ121
12	Disk Rubber Facing	NBR
13	Screw Protector	Die Casting Brass DCB3
14	Seat Fixed Stem	Brass CZ121
15	Piston Seat	Brass CZ121
16	Seat Washer	Brass CZ121
17	Lock Nut	Brass CZ121
18	Spring Fixed Disk	Brass CZ121
19	Spring Adjusting Stem	Brass CZ121
20	Plunger Gland	Brass CZ121
21	Washer	Stainless Steel 304
22	Lock Nut	Brass CZ121
23	Packing	NBR
24	Lug Cap	Brass CZ121
25	Plunger	Brass CZ121
26	Adjusting Spring	Chrome Vanadium Steel
27	Plug Cap with Chain	Plastic + Stainless Steel 304
28	O-ring (P18)	NBR
29	O-ring (G70)	NBR
30	O-ring (P12.5)	NBR
31	X-ring (X-228)	NBR
32	O-ring (P18)	NBR
33	O-ring (P12)	NBR
34	Plunger Spring	Stainless Steel 304