

V1-40 PILOT CHECK VALVE

Pilot check valves are used to lock one or both service ports to ensure that there is zero movement of the actuator whilst its control valve is in neutral.

Check valves are mounted using four cap screws on the service port face of a "Z" type valve section with a manifold interface. Where a single acting check valve is used, the valve section must be fitted with an "M" or "D" spool to ensure pilot pressure is available to unlock the check valve.

When used with cylinders, whose rod is large in relation to the diameter of the bore, it is possible for pressures to be generated in the rod end which can not be unlocked.



To avoid this the ratio of the cylinder full area to the rod annular area must not be greater than 4:1, which is the pilot ratio of this check valve.

When lowering a cylinder, the pump may not maintain the pilot pressure. This can result in jerky operation caused by oscillation of the pilot piston. This can be overcome by restricting the flow out of the cylinder to maintain pilot pressure at the check valve.

Description

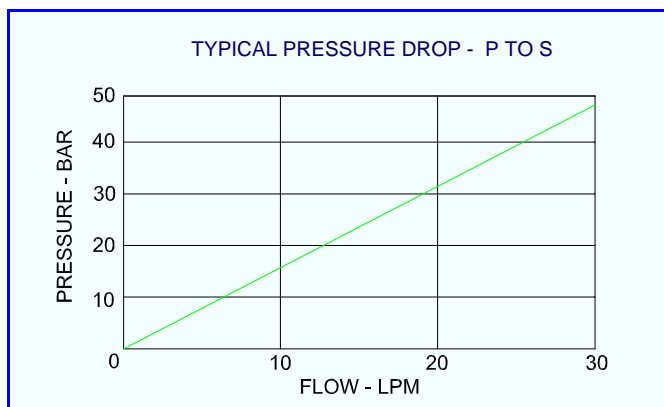
Designed to be mounted directly onto the service port face of the V1-40 Z section. Chrome steel ball and hardened seats provide a positive and total lock to actuators, this cannot be released unless the pump is running and the valve is operated.

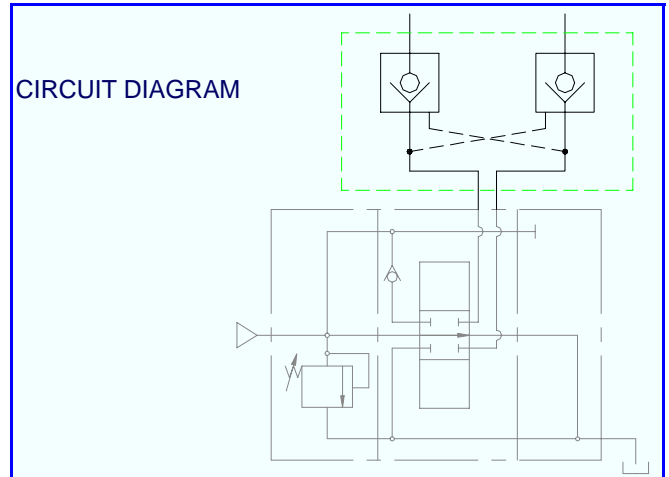
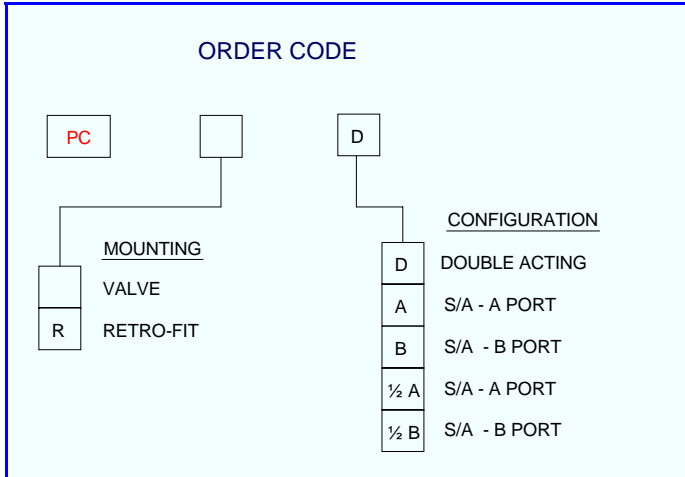
Application

Used to positively lock cylinders and prevent involuntary movement when the pump is not running. Ideally suited to mobile applications such as back hoe and access platforms.

Features

- 4:1 pilot ratio.
- Hardened seats.
- Manifold mounting.
- 100 % production testing.
- Suitable for manual or solenoid sections.
- Good flow characteristics.
- Low opening pressure.





Technical Data

Performance

Rated flow	40 l/min
Maximum pressure	250 bar
Opening pressure	0.4bar
Temperature rating: minimum	- 20°C
Temperature rating: maximum	+65°C
Leakage	0 cc/min

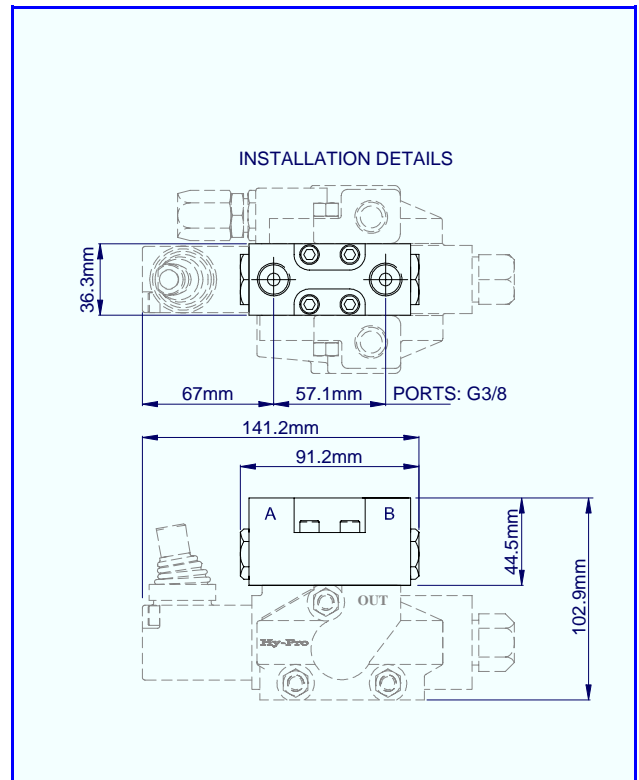
Recommended Oil

Mineral based hydraulic	ISO VG37
Filtration (minimum)	25 micron

Materials

Body – cast iron	BS 1452
External plating – Nitrotec	NQ3
M6 cap screw torque	8.0 Nm
Seals	PTFE/Nitrile
Mounting interface	Z type section

Weight	0.98 kg
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