



Slide valves

Types 3160/3163/ 3165/3167

Slide valves Type 3160 (normally closed) and 3165 (normally open) are manifold mounted, pilot-operated, three port, two position valves with a spring-return action. A major feature of the valve design is elimination of the continuous internal leakage which is characteristic of conventional lapped-face spool valves. The valves each incorporate special high pressure seals which prevent leakage and so render the valves suitable for use with many fluid media.

The valve slide (which can be supplied either normally closed or normally open) has a 'block before bleed' action. In a normally closed valve, for example, this means that the tank port is isolated before pressure and service ports are interconnected.

Construction materials, predominantly 316 stainless steel and CA104 aluminium bronze with seals of fluoroelastomers and PTFE materials, ensure high corrosion resistance and comply with NACE Standard MR-01-75 (latest revision as applicable).

Slide valves Type 3163/3167 are as described for Types 3160/3165, but with special seals fitted to enable the valve to be used as a selector. For Type 3163 the pressure at Port 4 must always be greater than the pressure at Port 5. These port numbers are reversed for Type 3167 for which the pressure at Port 5 must always be greater than the pressure at Port 4.

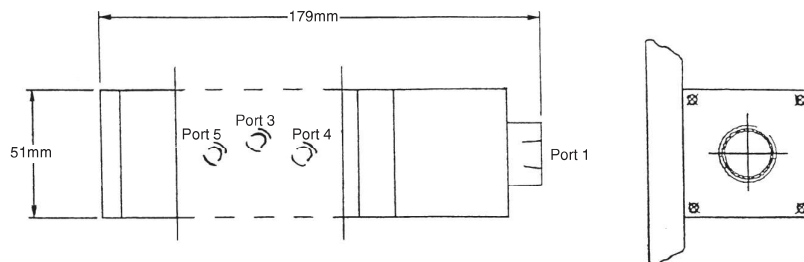
Operating parameters

| | |
|--|--|
| Working pressure – Type 3160/5 | 690 bar (10,000 psi) max. |
| Working pressure – Type 3163/7 | 413 bar (6,000 psi) max. |
| Pilot pressure | 3.4 to 17.2 bar (50 to 250 psi). |
| Operating media – main slide | Mineral oils, water, water-glycol mixtures. |
| Operating media – pilot section | Air, or any of the main slide media (above). |
| Recommended filtration | 25 micron. |
| Connections | Manifold mounted. |
| Pilot connection | 1/4" NPTF direct ported. |
| Flow rate, nominal | 27 litres/min (6 imp galls/min). |
| Working temperature | -20°C to + 130°C. |

These slide valves conform to Directive 94/9/EC relating to equipment intended for use in potentially explosive atmospheres and is ATEX (ATmosphere EXplosible) certified.



Marshalsea Hydraulics has been assessed by SGS Société Générale de Surveillance SA and certified as meeting the requirements of ISO 9001:2000 for the design, development, manufacture and servicing of hydraulic pumps, relief valves and intensifiers.



Drawing giving dimensions

| Port | Valve 3160/63 | Valve 3165/67 |
|--------|---------------|---------------|
| Port 1 | Pilot | Pilot |
| Port 3 | Service | Service |
| Port 4 | Supply | Tank |
| Port 5 | Tank | Supply |

Port assignments



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