

## Slide valves

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### Types 4101-4102/ 4106-4107

Slide valves Type 4101 (normally closed) and 4106 (normally open) are manifold mounted with integral pilot connection, pilot-operated, three port, two position valves with a spring return action. The pilot operator of each valve is capable of withstanding high pressures equal to the main line pressure. This enables the valves to be used locally to actuators, as quick dump valves.

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 Types 4102 (normally closed) and 4107 (normally open) are as described for Types 4101 and 4106, but with a remote (top) pilot connection and without an integral manifold pilot connection.

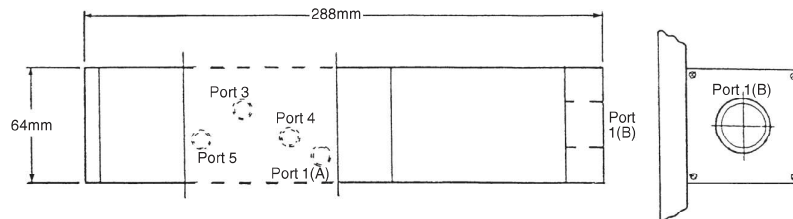
### Operating parameters

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| <b>Working pressure</b>                | 517 bar (7,500 psi) max.            |
| <b>Pilot pressure</b>                  | 76 to 517 bar (1,100 to 7,500 psi). |
| <b>Operating media – main slide</b>    | Mineral oils, water, water-glycol.  |
| <b>Operating media – pilot section</b> | Mineral oils, water, water-glycol.  |
| <b>Recommended filtration</b>          | 25 micron.                          |
| <b>Connections</b>                     | 1/4" NPTF all ports.                |
| <b>Flow rate, nominal</b>              | 54 litres/min (12 imp galls/min).   |
| <b>Working temperature</b>             | -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 4101/2          | Valve 4106/7          |
|-----------|-----------------------|-----------------------|
| Port 1(A) | 4101 – integral pilot | 4106 – integral pilot |
| Port 1(B) | 4102 – remote pilot   | 4107 – remote pilot   |
| Port 3    | Service               | Service               |
| Port 4    | Supply                | Tank                  |
| Port 5    | Tank                  | Supply                |

Port assignments



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