

5/2 Piston Valves

Sub-base mounted, pilot operated

Port size: 1" B.S.P.

Operating pressure: 2-10 bar

(Unless otherwise stated)

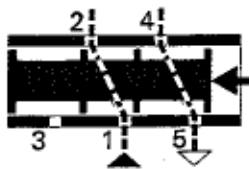
Cv. factor: 8.7

Operating temperature: -20°C* to +80°C.
(For -/123 and -/172 +5°C to +50°C)

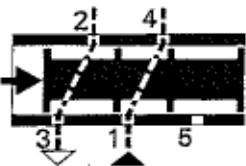
*Important: Refer to leaflet F1.

The sub-base has five port-connections but the valves can be used as 3/2 valves by plugging the unused cylinder port, leaving its associated exhaust port unplugged. All these valves are pilot actuated either by using small pilot valves such as the S/666 and S/667 ranges or by means of an electrical signal. These valves should be mounted with the centre line of the main valve piston lying in a horizontal plane.

The M/1718 and M/1748 ranges are an extension to our well-established M/1700 range of sub-base mounted valves and incorporate the same design features to give long operating life and easy servicing. They are ideally suited for the direct operation of large cylinders. The range is built up around a common body on to which can be attached the various operating mechanisms available, see details opposite. The body is fitted with a bush within which the piston and its 'O'-rings are moved by means of air pressure on each end of the piston. These valves have a piston fitted with only six 'O'-rings.

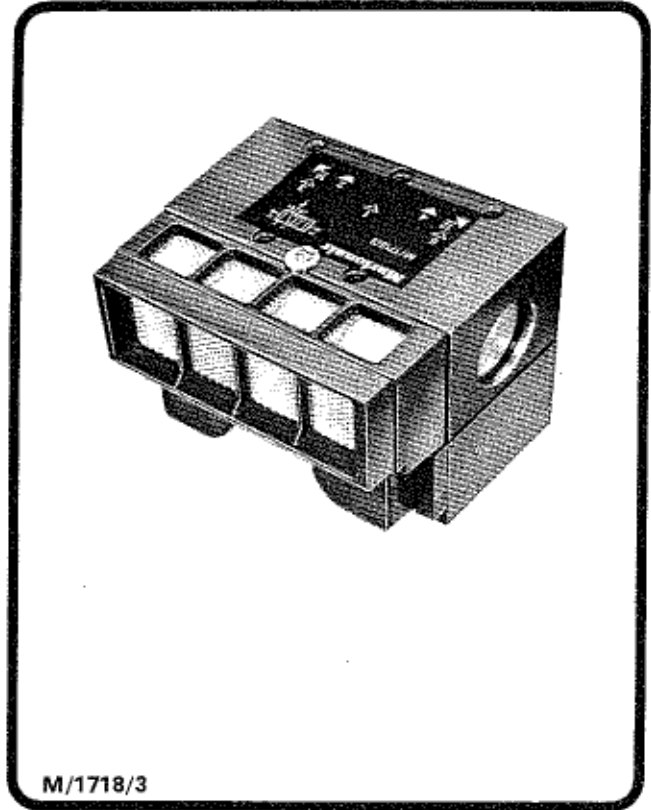


When the piston is in this position the supply air is taken to the inlet port '1' and connected to the outlet port '2'. The exhausting air passes from outlet port '4' to escape at exhaust port '5'.



When the valve is operated and the piston moves, the supply air is connected to port '4' and the exhausting air passes from port '2' to port '3'.

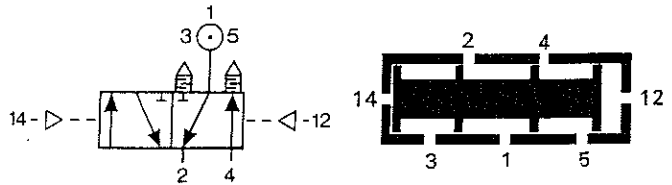
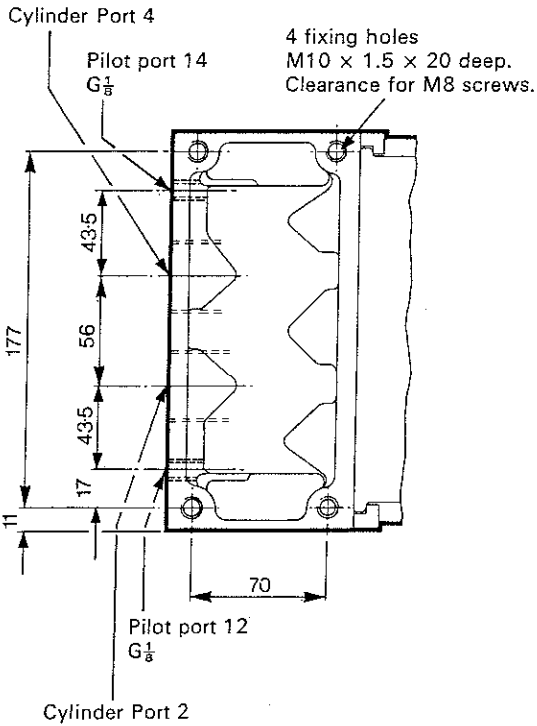
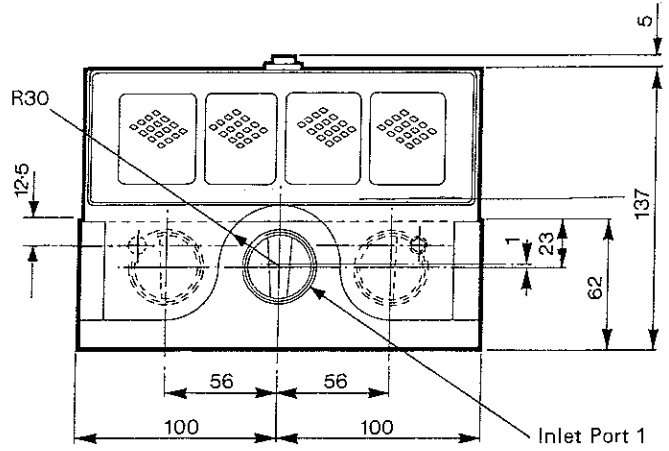
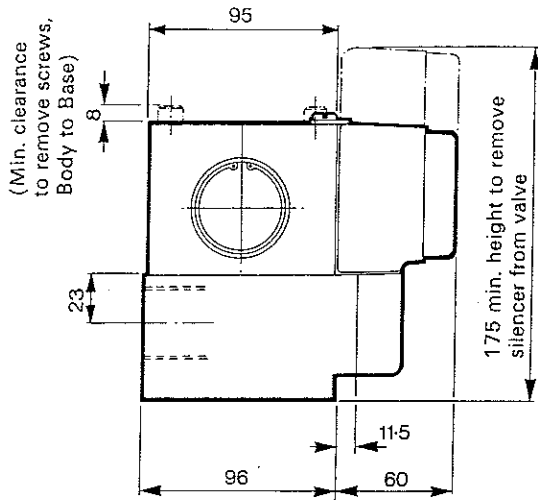
M/1718, M/1748



Type	Description
M/1718/3	Pressure set-reset.
M/1718/45	Pressure actuated, spring and air return.
M/1748/123	Solenoid pilot set-reset.
M/1748/172	Solenoid pilot actuated, spring and air return.

Silencer

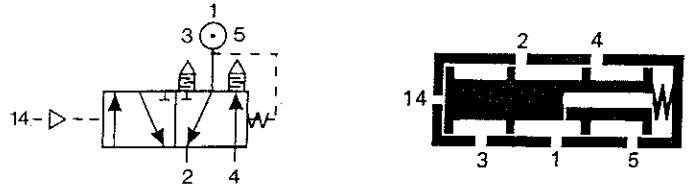
A specially designed silencer assembly is fitted to these ranges of valves to reduce noise levels without impairing the efficiency of the valve. Of neater design than conventional screw-in silencers, it simply slots into integral tongues on the valve body and is locked in position by a screw and washer and the exhausting air escapes to atmosphere through the porous plastic silencing elements. These elements are designed to prevent becoming clogged up or frozen. The silencer is also effective as an exhaust port filter to prevent the ingress of dirt.



M/1718/3

Pressure set-reset

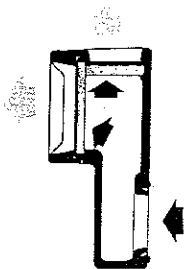
Pilot pressure: 0.7 + (0.1 × supply pressure) bar.



M/1718/45

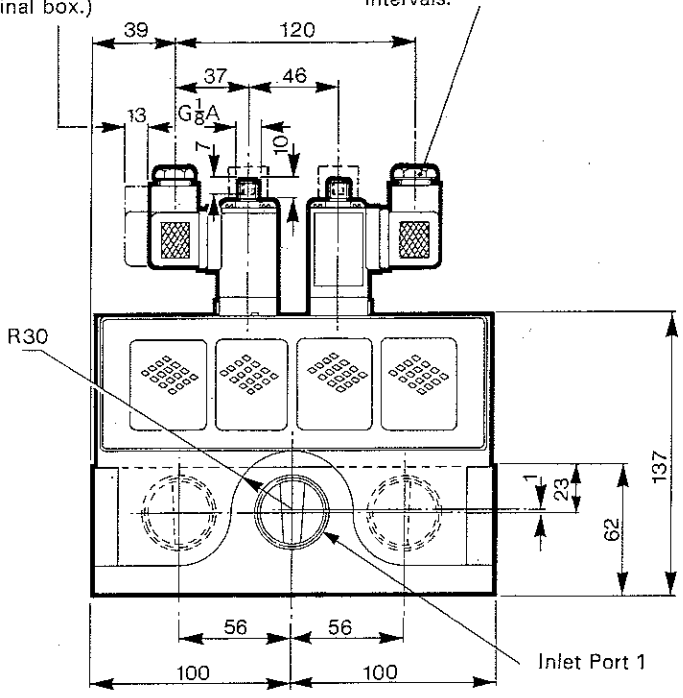
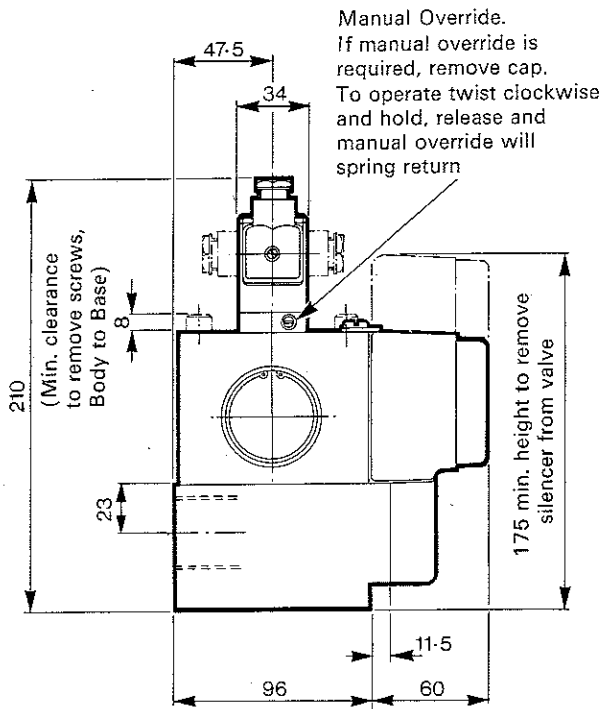
Pressure actuated, air and spring return

Operating pressure: 2–10 bar.
Air pilot pressure: 1 + (0.6 supply).

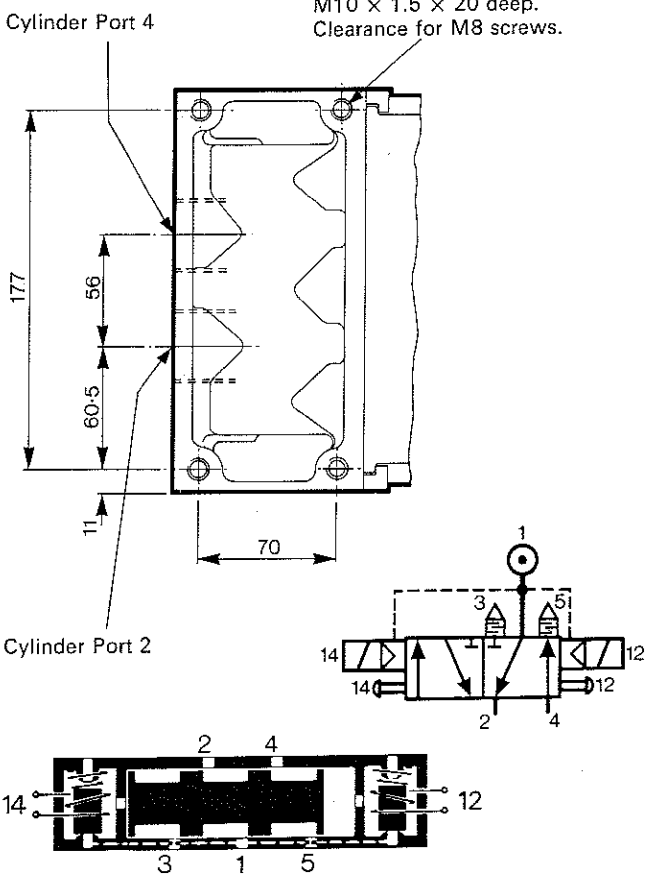


Gland nut Pg11 Hex = 18 A/F
 Cable dia. = 8-10
 Note: Terminal box may be moved through 180° at 90° intervals.

(Min. clearance to remove terminal box.)



4 fixing holes
 M10 x 1.5 x 20 deep.
 Clearance for M8 screws.



M/1748/123 and M/1748/172

The electrically actuated versions of these valves are available for the following voltages.

Voltage	Stroke No	Voltage	Stroke No	Voltage	Stroke No
24V 50Hz	5	220V 50Hz	6	12V D.C.	16
42V 50Hz	93	380V 50Hz	74	24V D.C.	10
48V 50Hz	3	220V 60Hz	7	48V D.C.	61
110V 50Hz	4	110V 60Hz	27	110V D.C.	21

The standard 3 pole terminal box can be rotated through 180° at 90° intervals. Further details of the DM/2400 can be found on B76 page 13. The operating temperature is +5 °C to +50 °C. Indicator terminal boxes available on request. Refer to leaflet B76 page 14'A'.

Voltage Tolerance

A.C. models +10%, -15% of mid range or nominal voltage
 D.C. models ±10% of mid range or nominal voltage

Nominal Power Consumption:

A.C. models
 Inrush 17.5 V.A.
 Hold-on 10 V.A. (6 watts)
 D.C. models 8.5 watts

Typical Response Times (Dead Times)

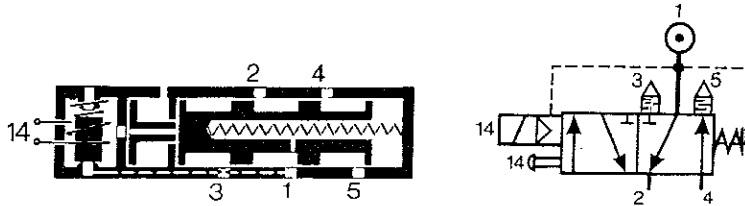
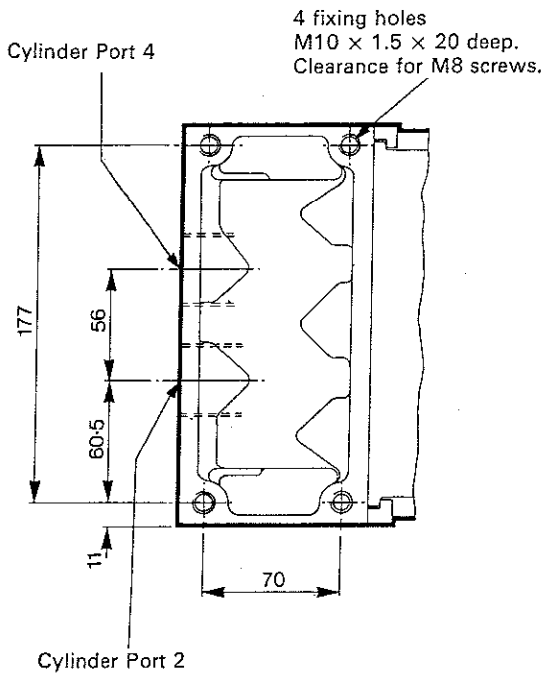
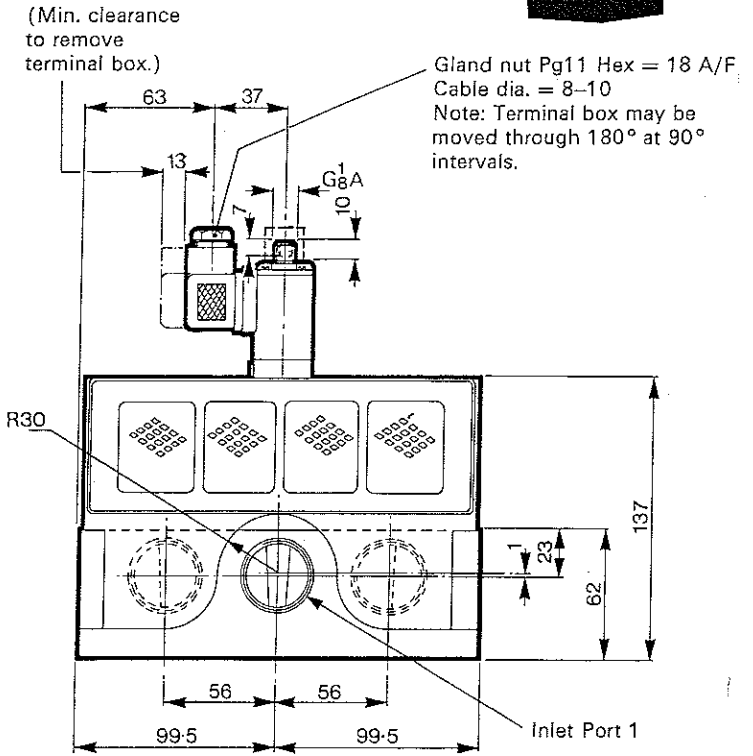
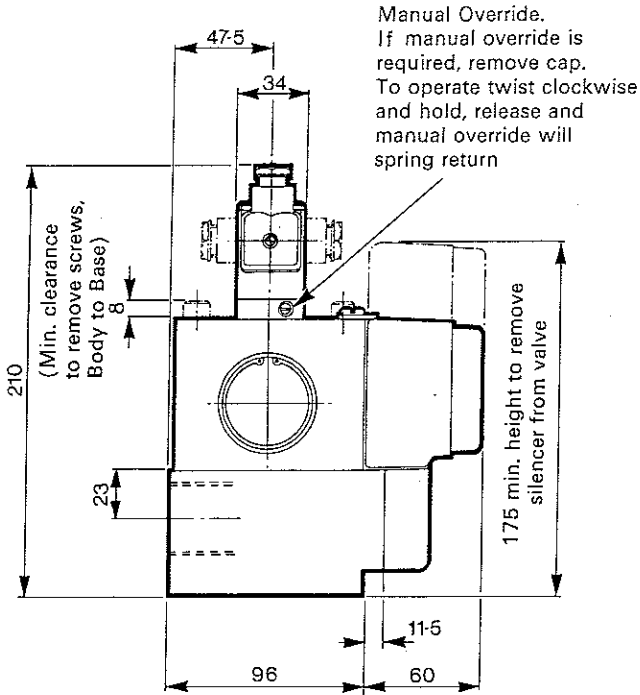
M/1748/123/- on 50 milliseconds
 off 50 milliseconds
 M/1748/172/- on 58 milliseconds
 off 130 milliseconds

M/1748/123

Solenoid pilot set-reset

Mains supply pressure: 2-10 bar

Operating temperature: +5°C to +50°C



M/1748/172

Solenoid pilot actuated, air and spring return

Mains supply pressure: 2.7 bar minimum

Operating temperature: +5°C to +50°C.

Manual over-ride

A manual over-ride is fitted as standard to each solenoid unit to enable the valve to be operated in the event of a power failure.

To operate the manual over-ride, remove protective plastic cover and insert a screwdriver into the slot. Twist clockwise to operate, release to return.

If the over-ride feature is not required, the protective cover may be left in position.