

Vibration resistant and can operate in any mounting attitude

Dustproof and splashproof

Reversal of action possible by simple adjustment

All ports on one side

Split range possible

Technical Data

Medium:

Compressed air

Air supply must incorporate a pre-filter and a high efficiency (5mm) filter. Lubrication not required as cylinders are pregreased

Operation:

Universal Positioners, force balance design

Operating Pressure:

2 - 10 bar

Control Pressure:

0.2 - 2.0 bar M/1841 0,2 - 1,0 bar M/1842

Operating Temperature: +5°C* to +80°C

*100% dry air

Sensitiveness:

Within 0,007 bar

Linearity:

Within 1,5% stroke M/1841 Within 0,8% stroke M/1842

Repeatability:

Within 0,4% stroke

Hysteresis:

Within 0,8% stroke

Dynamic Response:

Non-oscillatory

Control Action:

Direct or indirect

Flow

9 dm3/s of free air at 6 bar

Cv factor:

0,21

Steady state Air Consumption:

Less than 0,5 dm²/s at 6 bar supply

Zero screw adjustment:

5 50% full stroke

Proportional Band:

Signal

Ratio 25 - 150%

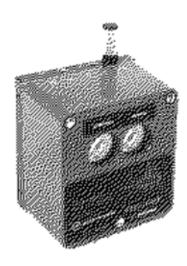
Stroke

Aluminium alloy main base, cover, valve body and control bellows housing, stainless steel valve spool and feedback cam, brass valve bush, 80/20 brass or phosphor bronze bellows, zinc plated pressed steel balance lever and feedback levers, polycarbonate gauge windows to BS 6005 (1981), silicone rubber seal.

Ordering Information

To order a Universal Positioner for use with a control pressure range of 0,2 - 1,0 bar quote: M/1842





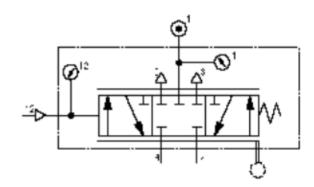
Control Pressure Ranges

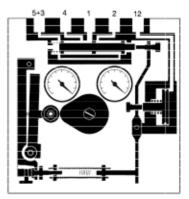
0,2 - 1,0 bar

0,2 - 2,0 bar

Alternative Models

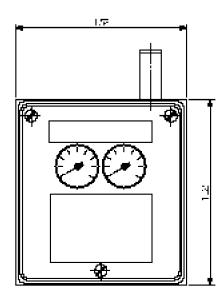
For alternative temperature ranges please consult our Technical Service.

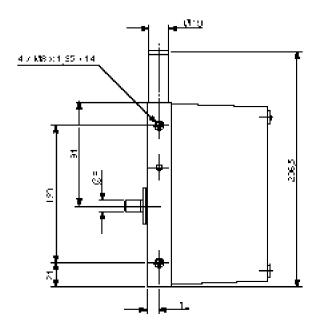


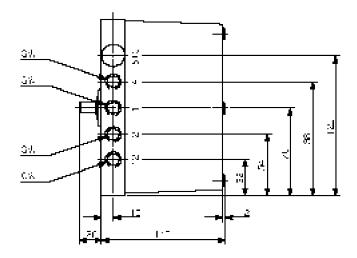




Basic Universal Positioner Dimensions







The M/1841 and M/1842 Universal Positioners provide linear positioning of the piston rod of an air cylinder in proportion to a change in control signal. Basically, they are used where a magnitude or quantity has to be varied. When fitted to a servo cylinder, they are suited to many applications, typical ones being 90° movement modulating valves such as butterfly valves and dampers, linear movement modulating valves such as gate valves and penstocks, conveyor tracking, hopper gates, air conditioning louvres, forced draught louvres for furnaces, steam by-pass valves, speed variation and fluid level control.

They offer very good resistance to vibration and are robust, reliable units suitable for use in adverse environments. Generally, the M/1840 Positioners have a non-oscillatory dynamic response to step change in the control pressure with little or no overshoot during settling.

It is recommended that positioners are supplied assembled complete on the desired servo cylinder as these incorporate special low friction materials and various detail modifications to ensure optimum performance.

The M/1841 and M/1842 can be supplied to provide either direct action or reverse action. Direct action is where the cylinder piston rod outstrokes as the control pressure increases and instrokes as it decreases. Reverse action, as the term implies, provides an instroking of the piston rod as the control pressure increases and outstrokes as it falls.

The units are fitted with a zero adjustment and special attention has been given in the design to make these positioners easy to set up. The amount of zero adjustment available enables split ranges to be used. For example, the unit could be set so that start of stroke corresponds to mid-control pressure and mid-stroke corresponds to maximum control pressure. The proportional band width adjustment is simply made by screw adjustment.

Weights of Universal Positioners (kg)

Model	Weight
M/1841	3,72
M/1842	3,72

Spares

Model	Spares kit
M/1841	QM/1841/00
M/1842	QM/1842/00

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where *pressures* and *temperatures* can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the

failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.