

Automatic Changeover Manifolds (Electronic)



1500SP-E Manifold



Penlon 500SP-E and 1500SP-E Manifolds provide a duty or standby gas supply from two cylinder banks with automatic changeover, local status and remote indicator facility

- ◆ Complies with BS EN 737, HTM 2022, HTM02 and C11
- ◆ 500 L/min and 1500 L/min models available
- ◆ Quick and easy to install with fully soldered header racks
- ◆ 400, 700 or 1000 kPa output pressure available
- ◆ Low maintenance with all components fixed from the front on union connections for ease of service
- ◆ Single button for alternating duty or standby banks
- ◆ 100% inspected and tested

Partnership for Life

Product Summary

Penlon Automatic Manifolds are designed to supply the medical gas pipeline systems with a constant pressure supply via a control panel from two equal banks of cylinders. The changeover from the DUTY to the STANDBY bank of cylinders is automatic. Automatic changeover from the DUTY to the STANDBY bank occurs at a cylinder pressure that ensures the maximum usage of the contents of the DUTY bank.

The normal operation of the changeover control depends on an electrical supply, the design of the unit ensures that in the event of an electrical supply failure, there is no disruption to the flow of gas into the medical gas pipeline system. Once the supply is restored the original running bank returns on-line. The manifolds and control panel are designed and certified for use with 230 bar cylinders.

Cylinder Manifold Unit

The cylinder manifold unit accommodates two or more cylinders in each bank. The supplied cylinder racks are powder coated steel and securely support cylinders of varying diameters. The cylinder tailpipes have gas specific connections to the manifold header, and cylinder connections have either Bullnose (BS 341) or Pin-indexed connectors (BS 1319).

Automatic Changeover Unit

The changeover unit supplies medical gas at a constant pressure from either bank of cylinders into the medical

gas pipeline system. Each unit has separate pressure regulating valves for each bank of cylinders and the control system is designed for ease of maintenance. Cylinders can be changed, or the pressure regulating valves removed for overhaul without loss of continuity of the gas supply.

The changeover unit is provided with monitoring to detect and display:

1. Duty Bank Operating
2. Duty Bank Empty (standby bank operating)
3. Standby Bank below 10% (duty bank empty)
4. Reserve Bank Low
5. Pipeline Pressure Fault

Conditions 2, 3, 4 and 5 can be transmitted into the main alarm system via volt-free contacts. Pressure gauges are also provided to indicate cylinder bank pressures and the distribution pressure.

The 1500SP-E is housed in an epoxy powder coated, lockable, steel enclosure with glass fronted door to prevent ingress of contaminants into the controls. Manifold status indicators, including gauges, are visible without opening the enclosure.

The 500SP-E is housed in a lightweight polymer cover. Manifold status indicators, including gauges, are visible without opening the enclosure.

Product Features

Design Features

- ◆ Meets the requirements of BS EN 737, HTM 2022, HTM02 and C11
- ◆ 500 L/min and 1500 L/min models available
- ◆ All metal construction, including enclosure (1500SP-E only)
- ◆ Available in 'wall mounting' or 'free standing' format
- ◆ Straight line format as standard - alternative layouts are available
- ◆ Control Panel kit comprises: changeover panel, isolation and relief valve assembly, and manifold connections
- ◆ Manifold kit comprises: soldered manifold assemblies, cylinder racks, gas specific tailpipes to most international standards, cylinder restraining chains and cylinder toolkit (where appropriate)
- ◆ Manifolds extensions available for system expansion
- ◆ CGA cylinder connections available on request

Easy to Install

- ◆ Enclosure can be removed for access to backplate and changeover components
- ◆ Copper stub pipes for ease of connection to medical gas pipeline system using inert gas jointing procedures

Gases and Services

- ◆ Oxygen
- ◆ Nitrous Oxide
- ◆ 50% Oxygen / 50% Nitrous Oxide
- ◆ Medical Air (400 kPa)
- ◆ Surgical Air (700 kPa)
- ◆ Surgical Air (1000 kPa)
- ◆ Laboratory
- ◆ Carbon Dioxide
- ◆ Nitrogen

Service and Maintenance

- ◆ 12 month warranty from date of manufacture, excluding components designated as service items to be replaced by the customer as part of the published service schedule
- ◆ Throughout the UK our network of service engineers provides full Service and Maintenance support of the highest quality
- ◆ Outside the UK our fully trained distributors provide a similar local service

NOTE Cylinders are NOT included with Penlon manifolds

Ordering Information

Contact our Sales Office, or refer to our latest price list for part number and price information

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