

Zeus and East AVSU Modules



East AVSU Module

Centrally located, isolation units with integral alarm, providing control of all gas or services within a specific zone

- ◆ Complies with BS 5682:1984, BS EN 737-1, HTM 2022, HTM02 and C11
- ◆ Reliable and easy to operate
- ◆ Powder coated steel chassis and cover, plus unique emergency access lock mechanism on each door
- ◆ Multi-gas configuration to suit location
- ◆ Each unit is batch controlled and has a Two Year Warranty
- ◆ Optional Area Alarm, pressure switches and interconnecting cabling
- ◆ Simple installation
- ◆ Separate 1st and 2nd fix eliminates on-site disassembly (East AVSU Module only)

Partnership for Life

Product Summary - East AVSU Module

The Penlon East Area Service Unit Module shall consist of 1 to 5 AVSU (Area Valve Service Units) with an optional Local Area Alarm.

The AVSU shall incorporate a valve with NIST connection at either side, mounted in a lockable box with an emergency break-glass front, the valve will be complete with stub pipes that extend to the outside of the box to enable easy connection to the MGPS.

The Valve will be constructed from Die-cast nickel plated brass alloy, body, cap and stem with chrome plated brass alloy ball valve with Nitrile seats. Access to the seats and ball is through the front of the valve thereby avoiding the necessity of valve removal for repair or maintenance.

The seats are made as a one-piece insert to ease maintenance. The valve shall be able to operate from fully closed to fully open with a quarter turn of the handle.

The assembly shall be connected to the copper stub pipes by means of a flange, fitted with Nitrile O-ring seals forming part of the spade gaskets. The spades are supplied with 'THROUGH' and 'BLANK' stamped on their edges to identify type and so that they are easily identified. The stub pipes shall have the appropriate NIST connectors fitted each side of the valve.

The valve box will be manufactured from 16 SWG steel, powder coated white and designed to avoid gas escape into the building structure by unitary construction of the back box.

The door will be fixed to the back box using a full-length hinge, pin-indexed to ensure non-interchangeability with other gases, it shall be louvered top and bottom to naturally ventilate the valve box.

The opening in the door shall be suitable for a plastic (pull-out) or glass insert to suite the customers needs. The whole door shall be secured in position with a key operated latch lock with the option of 200 key combinations.

The whole of the AVSU shall be identified for its gas by an engraved traffolite label rivetted to the cover, and a gas identity label attached to the pipework. The NIST connectors forming part of the stub pipes shall incorporate a metal to metal seal thus avoiding the possibility of degradation over time.

Product Features - East and Zeus AVSU Modules

Design Features

- ◆ Compliance with BS EN 737-1, BS 5682:1984, HTM 2022, HTM02 and C11
- ◆ Creates an independent zone within the gas pipeline system
- ◆ One to five gases / services (Zeus unit can have up to 6 gases)
- ◆ Available with or without Area Alarm
- ◆ Attractive appearance suitable for any location

Easy to Install

- ◆ East unit only - available as a complete kit, or as separate first fix chassis (with all pipes, fittings, pressure switches and gas specific Area Valve Service Unit and second fix cover and pre-wired area alarm panel, so that supply can be matched to the progress of site work at larger installations)
- ◆ Simple pressure switch adjustment, aids commissioning
- ◆ Includes all internal pipework with stub pipes for ease of installation using inert gas jointing procedures

Easy to Use and Maintain

- ◆ Designed for installation at any location that allows departmental staff to view and access easily
- ◆ Staff can be easily trained in the use of the AVSU and Alarm

Safety Features

- ◆ Clear labelling and colour coding helps staff in potential emergency situations
- ◆ Provides a single point isolation / alarm unit within the zone
- ◆ Metal enclosure provides durability and fire resistance
- ◆ Zeus unit only - the design permits the facility to detect emergency or unauthorised access
- ◆ East unit only - includes electrical isolation spur

Ordering Information

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

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Product Summary - Zeus AVSU Module

The Penlon 'Zeus' AVSU Module shall consist of up to 6 ball valves, with NIST connectors on each side, and an optional Area Alarm, mounted in a powder coated steel enclosure.

The ball valves shall be individually accessible via lockable doors with emergency access facilities. The stub pipes for each service will extend to the outside of the enclosure to enable easy connection to the Medical Gas Pipeline System (MGPS). The valve shall operate from fully closed to fully open with a quarter turn of the handle.

The valves shall be connected to the copper stub pipes by means of flat faced unions fitted with nitrile O-ring seals forming part of the spade gaskets. The spades shall be injection moulded and colour coded to show 'THROUGH' or 'BLANK' identification. The stub pipes shall have the appropriate coded NIST connectors fitted each side of the valves. The NIST check valves shall have a metal to metal seal, thus avoiding the possibility of degradation over time.

Each valve assembly will be located behind an injection-moulded door.

The door will have a key operated lock for normal access, and a quick release mechanism for emergency access. The key to access one door shall not fit any of the other doors in the AVSU Module. A colour coded service identity label will be fitted behind the handle of each valve.

Product Summary - Area Alarm Unit

The Area Alarm will provide indication of the pressure (Normal, High or Low) of the gas at the point of use by monitoring the internal pressure of the pipeline downstream of the AVSU Module. Monitoring will be by individual pressure switches for high pressure, low pressure and low vacuum, installed on the downstream side of the ball valve for each service.

Normal Operation

- ◆ Access by key to NIST connectors up/downstream of the valve
- ◆ Access by key to the interchangeable spades

Gases and Services

Any combination of:

- ◆ Oxygen
- ◆ Nitrous Oxide
- ◆ 50% Oxygen / 50% Nitrous Oxide
- ◆ Medical Air (400 kPa)
- ◆ Surgical Air (700 kPa)
- ◆ Medical Vacuum
- ◆ Other Gases available

Mounting Options

- ◆ Wall Mounting - surface or semi-flush mounting

Service and Maintenance

- ◆ Two year 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 a full repair and maintenance service of the highest quality
- ◆ Outside the UK a similar local service is provided by our fully trained distributors



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