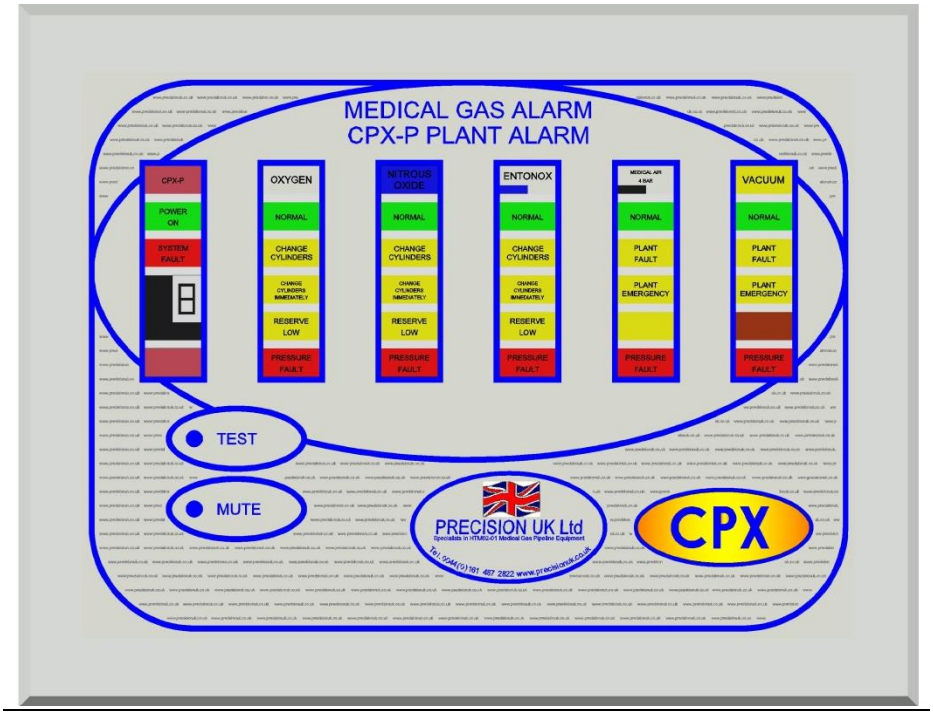
PRECISION UK Ltd

Specialists in HTM02-01 Medical Gas Pipeline Equipment

Technical Specification

Master Alarm Panel



Product Description

Master alarm panel for Medical gases upto 5 gases
220-250V 50Hz or 60Hz 1 Phase supply
MEDCON data protocol
89/336 EMC directive, 73/23 Low voltage directive
HTM 02-01, C11 and BS 737-3 compliant

Product Description

Central Main Alarm in the Plant Room - (5 Gases) PRECISION UK CPX

To comply and fully meets with the latest standard HTM2022. It should be duly CE marked with CE no. and Copy of CE certificate from notified body must be submitted. Certificate of Origin must be given. Master Alarm Panel shall monitor the central gases, vacuum and compressed air and work or indicate abnormal conditions as per specified herein. It shall be ideally located in the gas manifold room in the basement of the APC Building. Display up to five services each with normal & three fault conditions. Battery Back Up will be provided within the system to enable the alarm panel to function normally in the event of mains power failure. Supplied surface or flush format.
The CPX-15 Medical Gas Alarm system is a multiplexed system using the MEDCON data transmission standard, a pulse width modulated signal, on 2 core inter-panel wiring, capable of displaying up to 15 services, each consisting of up to 4 conditions plus normal.

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Any service may be split into four individual displays to be used to bring signals, such as the common alarm output from Area alarms, to a central point or to any point where this information is required. Signals from plant or other monitored equipment are fed into the system via transmitters located adjacent to the equipment. A complete service can be transmitted from one transmitter or, if required EMS for plant located remotely to the plant, for example, the service can be transmitted from several transmitters.

The services are displayed at each panel as required, the service being selected by a rotary switch for each service within the panel. Five long-life, 10 x 20 mm block LEDs per service show the conditions of the service through a replaceable lens mounted behind a wipe-clean membrane.

As an alarm condition occurs, the appropriate alarm condition will flash and the audible alarm will sound if selected by a 4 way DIL switch for that service within the panel. Operating the Mute switch on a repeater panel will silence the audible on that panel. Operating the Mute switch on the central panel will silence the audible on the central panel and convert the flashing lights to steady on all panels. (The audible on repeaters is not affected). If the condition remains, the audible will re-trigger, requiring re-muting. If a condition is to be in an alarm condition for a prolonged period, e.g. for pipeline maintenance, the re-trigger can be prevented by silencing the audible with the Lockout button within the panel. The audible will not then sound for that condition of that service until it has returned to normal and then back to alarm condition. A volume control is fitted within the panel. A loud speaker is used for the audible rather than a buzzer, to give a mellow sound which, whilst drawing attention to the alarm condition, can be tolerated by staff otherwise occupied. Remote audible and muting units are available for use in areas where full display is not required or access to the panel is not possible.

Operation of the test button on the front of the panel will cause the normal lamps to illuminate, the alarm conditions to flash, the system fault lamp to flash and the audible to sound. Any fault condition which is locked out will not flash, showing at a glance if a condition has returned to normal operation. A seven segment display below the system fault lamp will also illuminate, showing which system fault, if any, is present (Power failure, data transmission failure, flashing circuit failure or contact line fault).

The alarm is housed in a steel enclosure (flush or surface mounting types are available) with a bezel which houses an aluminium front plate covered by a PVC membrane. Within the enclosure are mounted the power supply with battery reserve, control board with lamps, selector switches etc. and transmitter, if fitted. The front plate with control board is mounted on a hinge which allows the front to swing clear for connection or servicing, or reversed for access to the rear of the board and selector switches. The battery reserve enables the system to remain in operation for up to 8 hours with only the lamps on the panel affected by the power failure out of operation, or for 4 hours if the panel is set for full backup. Computer interfaces are available to decode the multiplexed signals to volt-free contacts for connection to BMS systems or other alarm system

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Remote transmitters

The Remote Transmitter is used to convert data from the plant, manifold etc. into the multiplexed signal which is carried around the alarm system on the 2 core signal cable. The integrity of the cabling between plant or manifold and the transmitter is monitored. A fault on this cable will cause the signal(s) affected by the fault to fail to alarm condition. An internal LED will also flash to indicate that a cable fault is present. The Remote Transmitter is available in 1 - 4 gas forms.

Installation requirements

A 230 Vac supply, fused at 3 amps, fed from the essential supply.
Screened cable (minimum 0.5mm) from plant or manifold to the Remote Transmitter (1 core per signal +common), maximum 100 meters
A 2 core screened cable (minimum 0.5mm) connecting the Remote Transmitter to the alarm system data cable.

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