Medical Gas Central Alarm Panel

The medical gas central alarms shall be capable of monitoring a maximum of 5 medical gas services by means of input sensors from the specific plant or point alarms. The medical gas central alarms shall fully satisfy the UK National Health Service – Model Engineering Specification C11 and Health Technical Memorandum No. 2022 (HTM 2022).

Each gas service shall be displayed by coloured LED’s to show “Normal” (green), and “4 stage” alarm conditions (yellow/red). Medical vacuum systems shall be displayed in the “Normal” (green) and “3 stage” alarm conditions (yellow/red) only. Failure indicators shall be displayed by flashing lights and normal indications shall be steady. Each LED block indicator shall be a plug-in component with individual long life LED’s connected.

An audible warning shall be provided. Following a mute selection the audible will resound after approximately 15 minutes, or shall operate simultaneously should a further alarm condition occur. A maintenance ‘Mute’ switch shall be provided internally to the panel for use during maintenance which results in prolonged pipeline or plant shutdown. This facility shall automatically reset when the gas service returns to normal.

The alarm panel shall have a ‘test facility to prove the integrity of the internal circuits, LED’s and audible warning. The alarm panel shall incorporate a volt free normally closed relay to allow for interconnection to whether a medical gas central alarm system or an event recording circuit managements system.

Each alarm shall provide a red LED to indicate that electrical power is available at the panel. In the event of an electrical power supply failure “Line Fault” LED of failed block shall illuminate (flashing) and the audible warning shall be delayed for 20 seconds to enable standby tests.

The central alarm system must be interconnected using specific data cable on a ‘radial’ to considerably reduce interconnecting wiring. Signals must be transmitted around the system in a ‘multiplexed’ around the system in a ‘multiplexed’ form. The central alarm system must be capable of operating a Central Mute facility as described in HTM2022.

Alarm panels must be stored in their packaging at between 0 C and + 70 C, with the relative humidity between 10 and 95 % non-condensing. Alarm panel
enclosures provide protection to IP32 (BS5490). A comprehensive Operating and Maintenance Manual shall be available.

The standard range of Medical Gas Central Alarm System is “CE” marked under the Medical Devices Directive 93/42/EEC with approval body number. Under this directive, the specified products are classified as Class IIa Medical Devices.