

Medical Gas Alarm Medipoint 125 Digital (MP125D) Central Alarm Medical Gas Alarm

SPECIFICATION

Medical Gas Central Alarm

The Medipoint 125 is a flexible, customisable medical gas central alarm system. The Medipoint 125 system is capable of carrying up to fifteen gas services, and can consist of up to thirty-two panels, including any relay interfaces. The medical gas central alarm shall fully comply with the requirements of HTM2022, HTM 02-01, C11, BS EN 60601-1 and BS EN 60601-1-2 and BS EN ISO 7396-1

The cover, backbox and bezel (if required) shall be polyester powder coated in a RAL9010 30% gloss finish. A single tamperproof fastener shall be used to gain access to the hinged door. The hinge shall operate through a minimum of 120° to provide adequate access.

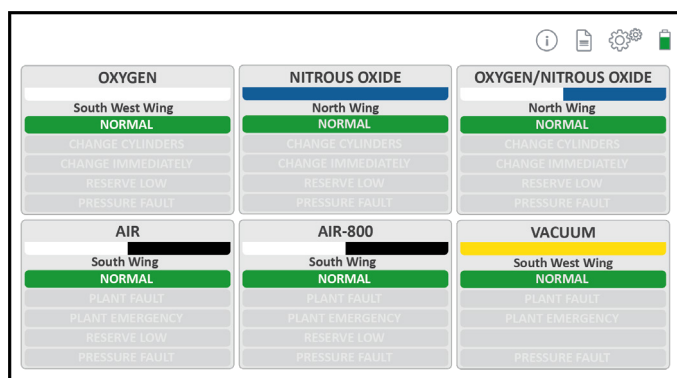
Antimicrobial Additive

User accessible parts such as the screen protector, key pad fascia shall include a silver antimicrobial additive for inherent antimicrobial protection.

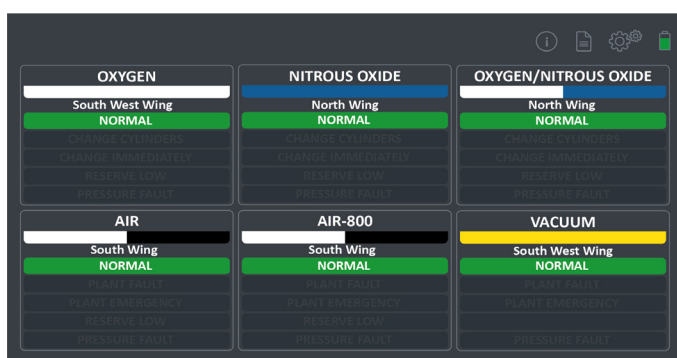
Alarm Status Screen

Each gas service shall be displayed by coloured 7" LCD touch screen to display the pipeline source equipment status for normal and fault conditions in line with HTM02-01 and HTM2022 requirements. Screen graphics are available in normal and dark mode settings for reduced brightness.

Typical normal mode view



Typical dark mode view



Gas Service Status Badges

The gas status bar shall indicate green steady for normal condition. When faults occur the normal condition is extinguished and either yellow or red flashing depending on the nature of the fault will become active. Loss of communication with the source equipment is indicated by the associated condition holding steady and the normal remains active at the same time.

All gas service legends and fault conditions are fully editable within the on screen setup menus

Normal	Fault Condition 1	Fault Condition 2
OXYGEN/NITROUS OXIDE North Wing NORMAL CHANGE CYLINDERS CHANGE IMMEDIATELY RESERVE LOW PRESSURE FAULT	OXYGEN/NITROUS OXIDE North Wing NORMAL CHANGE CYLINDERS CHANGE IMMEDIATELY RESERVE LOW PRESSURE FAULT	OXYGEN/NITROUS OXIDE North Wing NORMAL CHANGE CYLINDERS CHANGE IMMEDIATELY RESERVE LOW PRESSURE FAULT
Fault Condition 3	Fault Condition 4	Wiring Fault
OXYGEN/NITROUS OXIDE North Wing NORMAL CHANGE CYLINDERS CHANGE IMMEDIATELY RESERVE LOW PRESSURE FAULT	OXYGEN/NITROUS OXIDE North Wing NORMAL CHANGE CYLINDERS CHANGE IMMEDIATELY RESERVE LOW PRESSURE FAULT	OXYGEN/NITROUS OXIDE North Wing NORMAL CHANGE CYLINDERS CHANGE IMMEDIATELY RESERVE LOW PRESSURE FAULT

Audible Alarm and Mute function

An audible warning shall sound simultaneously with any failure indication and a mute facility 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 "Mute" switch shall be provided inside the panel for use during any maintenance resulting in prolonged pipeline or plant shutdown. This facility shall automatically reset when the gas service returns to normal.

Icon	Description
Mute Button	Press to activate to silence the audible alarm.

Test Function

The alarm panel shall have a 'Test' facility to prove the integrity of the internal circuits, gas status and audible warning.

Icon	Description
Test Button	Press to activate the alarm test button.

Editable Alarm Service Location Legend




The alarm badge includes an editable field for displaying the location details for the source equipment being monitored. This can be edited through the setup menus.

Antimicrobial Additive

User accessible parts such as the screen protector, key pad fascia shall include a silver antimicrobial additive for inherent antimicrobial protection.

Main Screen Interactive Icons

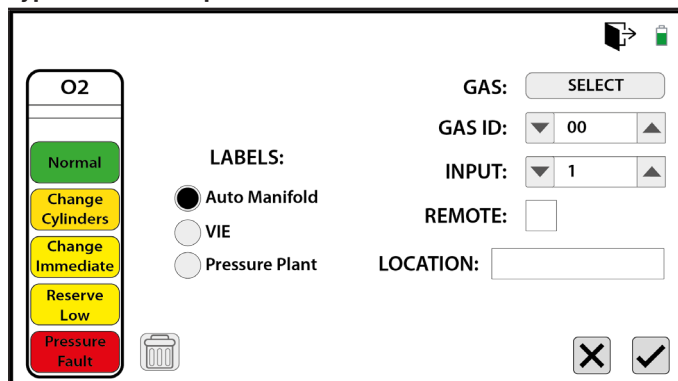
There are interatable icons for accessing the alarm information screen, alarm logs and setup menus. Alarm logs and setup menus are password protected to prevent unauthorised access to these screens.

Icon	Description
	Info Icon. Takes you to the info screen
	Logs Icon. Takes you to the logs screens.
	Settings Icon. Takes you to the settings menu screens.

Interactive Setup Menus

From accessing the on screen setup menus the alarm can be configured to match the hospitals medical gas alarm system specifications.

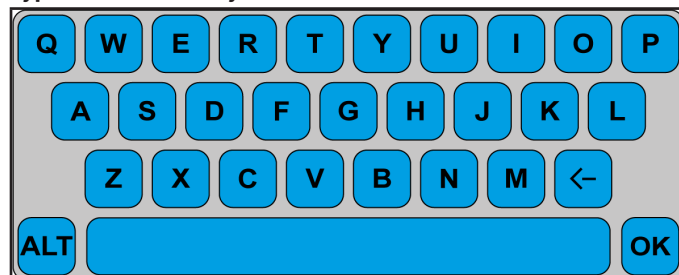
Typical menu setup screen



The screen displays configuration options for O2 gas. On the left, a vertical list of buttons includes 'Normal' (green), 'Change Cylinders' (yellow), 'Change Immediate' (yellow), 'Reserve Low' (yellow), and 'Pressure Fault' (red). To the right, there are input fields for 'GAS: SELECT', 'GAS ID: 00', 'INPUT: 1', 'REMOTE: [checkbox]', and 'LOCATION: [text field]'. Below these, 'LABELS:' are listed with radio buttons for 'Auto Manifold' (selected), 'VIE', and 'Pressure Plant'. At the bottom right, there are 'X' and 'checkmark' buttons.





On screen key pads allow for simple editing of text fields. Including main keyboard, alternative keyboard and numpad.

Typical on screen keyboard



Power on and System Fault LED Indicators

Each alarm shall provide a green LED to indicate that electrical power is available at the panel and a red LED to indicate 'System Alarm'. In the event of a system fault or electrical power supply failure the 'System Alarm' LED shall illuminate (flashing).

Icon	Description
Power LED	 Green, illuminated - Power On
	 Black, de-energised - Power Off
System Fault	 Black, de-energised - System Normal
	 Red, illuminated - System Fault

Communication Fault Monitoring

Line contact monitoring circuits shall be provided to constantly monitor the integrity of the inputs and interconnecting wiring. In the event of any fault the line contact monitoring circuits shall initiate the specific gas service failure indication, a 'System Alarm' indication and an audible warning. Further aids to fault diagnosis shall be provided by means of varying flashing rates whilst operating the 'Test' switch.

Alarm System Networking

A simple data connection shall be provided to allow connection, enabling the visual and audible alarm signals to be repeated at other locations within a department.

Relay Output

The alarm includes a relay output connection to allow the overall status of the alarm to other alarms or building management systems. Any fault condition on the alarm will change the status of the relay output.

Remote Audible

The alarm includes a connection for a remote buzzer. Any condition that activates the alarm's internal audible warning will also activate the remote buzzer. Mute functions will silence the remote buzzer as per the internal audible warning.

Data Logging

Data logs can be accessed through password protected screens to review up to 1000 logged events. Data logging includes a main screen for all events, plus filtered screens to see each gas service separately.

Typical data logging screen

Log Viewer: Service 1 Gas O2 (Showing Entries 1 to 15 of 35)

ID	Activated	Gas	Ch.	Status	Location	Cleared
1	12-07-2020 17:54:45	Air	0	Plant Fault	WARD 23	12-07-2020 17:55:45
2	12-07-2020 17:50:11	Air	0	Plant Emergency	WARD 23	12-07-2020 17:51:11
3	12-07-2020 17:47:17	Air	0	Reserve Low	WARD 23	12-07-2020 17:48:17
4	12-07-2020 17:37:15	Air	0	Pressure Fault	WARD 23	12-07-2020 17:38:15
5	12-07-2020 17:37:58	Air	0	Plant Fault	WARD 23	12-07-2020 17:38:58
6	12-07-2020 17:37:56	Air	0	Plant Fault	WARD 23	12-07-2020 17:38:56
7	12-07-2020 17:36:17	Air	0	Plant Emergency	WARD 23	12-07-2020 17:37:17
8	12-07-2020 17:36:03	Air	0	Plant Fault	WARD 23	12-07-2020 17:37:03
9	12-07-2020 17:36:01	Air	0	Pressure Fault	WARD 23	12-07-2020 17:37:01
10	12-07-2020 17:35:34	Air	0	Plant Fault	WARD 23	12-07-2020 17:36:34
11	12-07-2020 17:34:08	Air	0	Plant Fault	WARD 23	12-07-2020 17:35:08
12	12-07-2020 17:33:58	Air	0	Plant Fault	WARD 23	12-07-2020 17:34:58
13	12-07-2020 17:33:57	Air	0	Pressure Fault	WARD 23	12-07-2020 17:34:57
14	12-07-2020 17:33:55	Air	0	Plant Fault	WARD 23	12-07-2020 17:34:55
15	12-07-2020 17:33:47	Air	0	Plant Fault	WARD 23	12-07-2020 17:34:47

Power source

Mains operated using 110V-230V, 50/60Hz, alternating current.

Cable size:

Frequency	Voltage	Minimum Cable Size
50 Hz	230 V	3 x 1.5 mm ²
60 Hz	110 V	3 3 AWG14

- Current requirements - 3.0 amps
- Type of protection against electric shock.
- Class 1 (Mains supplied equipment using a protected earth).
- Relative Humidity 90% max.
- Altitude up to 2000m
- Pollution Degree 2


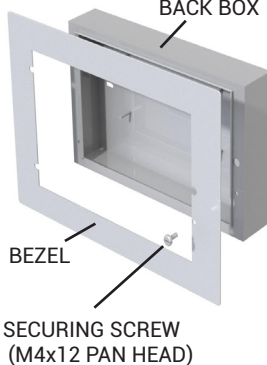
Mode of operation:

- Indoor use.
- Continuous (equipment may be left switched on indefinitely).

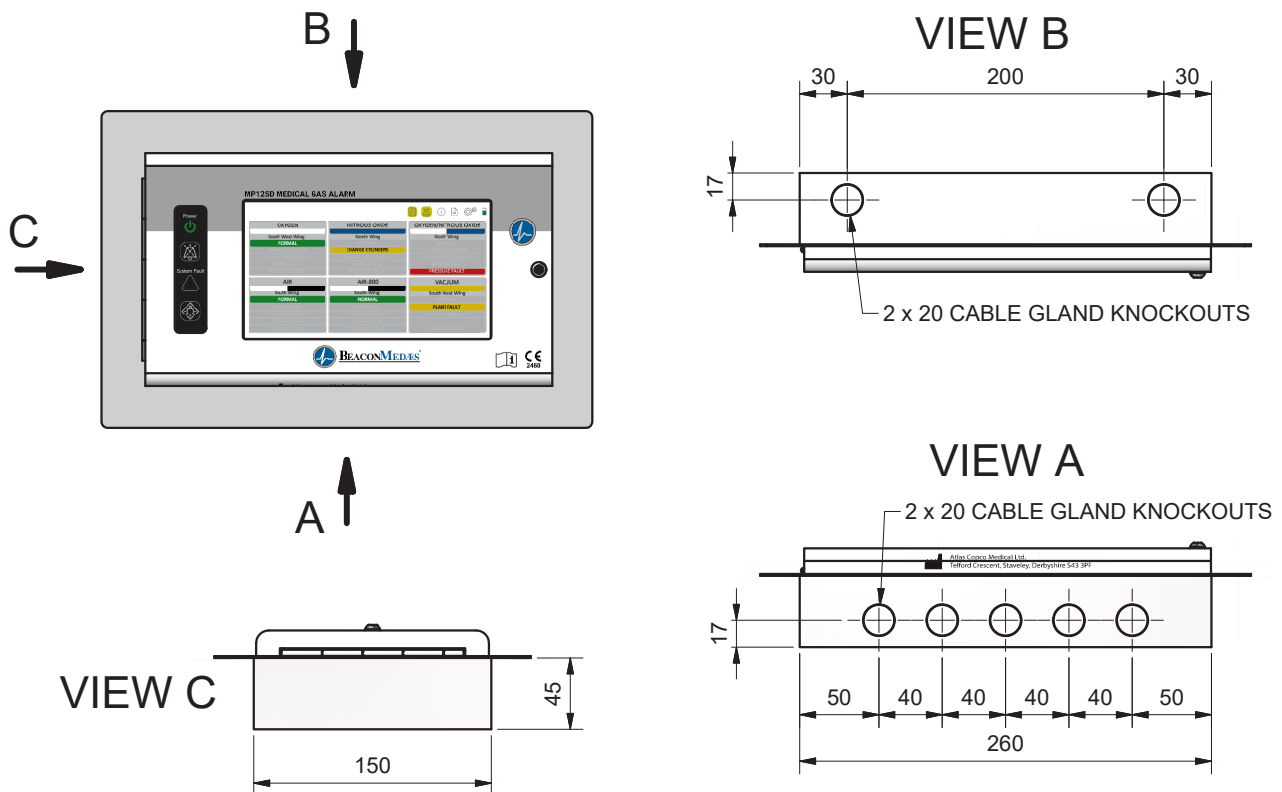
CE Marking

The standard range of BeaconMedaes Medipoint 125 Medical Gas Central Alarms are 'CE' marked with approval from a notified body (more detailed information available on request).

Part Numbers

Part Number	Description	Image
Main Product group		
8102371401	Medical Gas Alarm 2nd fix - Medipoint 125 Digital Alarm (MP125D)	
1826481	Medical Gas Alarm 1st Fix backbox	
1826484	Medical Gas Alarm Bezel	
8102371404	Analog to Digital Retrofit Kit	

Installation Details



Wiring Terminal Connections

AUD	SLAVE	CHANNEL 1				CHANNEL 2				CHANNEL 3				CHANNEL 4				CHANNEL 5				IN			OUT			MAINS INPUT		
+	-	C	1	2	3	4	C	1	2	3	4	C	1	2	3	4	C	1	2	3	4	A	B	A	B	S	+	-	N	L

Ref	Specification	Description
AUD	Remote Audible	Connection for remote buzzer for audible alarm.
SLAVE	N/O Volt free Relay output	Normally open relay output triggered from any alarm fault condition to to another alarm or Building Management System.
Channel 1-5	180 Ohm (Normal) 510 Ohm (Fault)	4x Line contact monitored input fault conditions
IN	RS-485 input	Medipoint alarm system input communication connection
OUT	RS-485 output	Medipoint alarm system output plus cable screen communication connection
MAINS INPUT	110V-230V 50/60Hz	Electrical power supply connection