Medical Gas Alarm
Medipoint 26 Digital (MP26D) Local Alarm
Medical Gas Alarm

SPECIFICATION

Medical Gas Area Alarm

Each medical gas area alarm panel shall be capable of monitoring 6 medical gas services by means of pressure sensors, which detect deviations from the normal operating limits of either pressure or medical vacuum. The medical gas area alarm shall fully comply with the requirements of HTM2022, HTM 02-01 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.

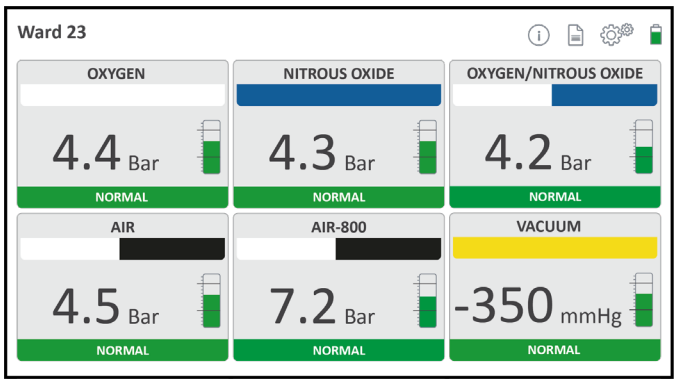
Antimicrobial Additive

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

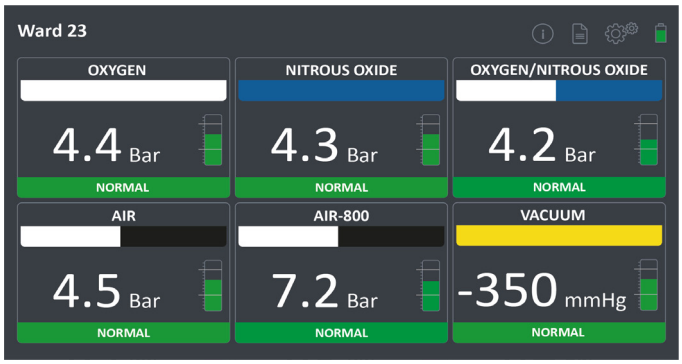
Alarm Status Screen

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

Typical normal mode view

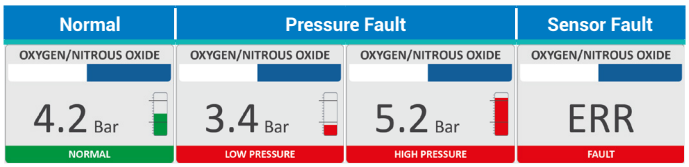


Typical dark mode view



Gas Service Status Badges

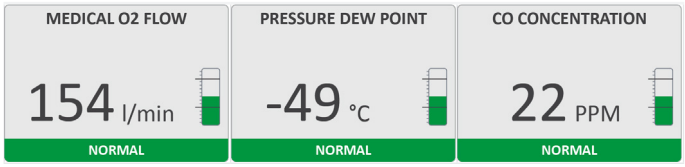
The gas status bar shall indicate green steady for normal condition, and change to red flashing for fault conditions. Loss of comunication with the gas sensor is indicated by changing the pressure reading to "ERR" and gas ID bar to red steady. The gas pressure is displayed for each service along with a vertical bar showing the alarm set points relative the the live pressure reading.



Alternative Sensor Configuration

Each input can be configured for many common 4-20mA sensors inputs including alarm trigger points from the on screen setup menus.

Typical examples of customised sensors



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 top strip on the screem display has a field for displaying the details for the deparment location servered by the gases that can be edited through the setup menus.

Main Screen Interactive Icons

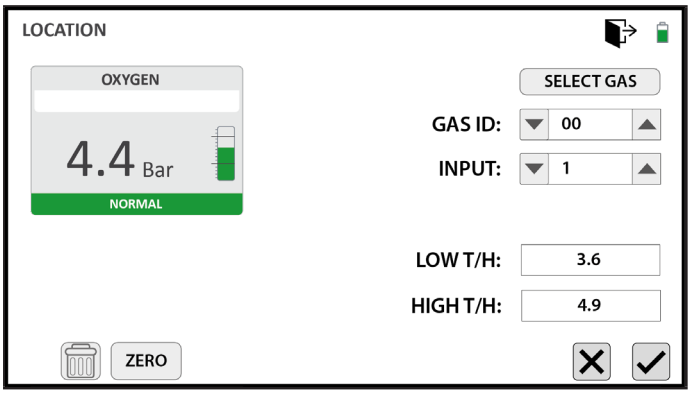
There are interactable icons for accessing the alarm information screen, alarm logs and setup menus. Alarm logs and setup menus are password protected to prevent unarthorised access to these screens.

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

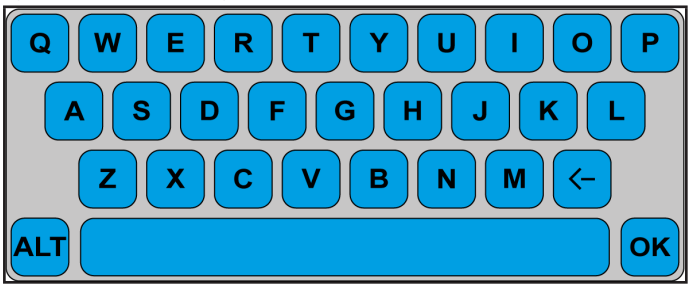
From accessing the on screen setup menus the alarm can be configured to match the hospitals medical gas alarm system specifications.

Typical menu setup screen



On screen key pads allow for simple enditing of text fields. Including main keybourd, alternative keboard 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

Senosr or Communication Fault Monitoring

Line contact monitoring circuits shall be provided to constantly monitor the integrity of the input sensors 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.

Pressure Sensors

Pressure sensor scale shall include negative and positive pressure scale, allowing one sensor to cover all gas and vacuum supply monitoring. Electrical connectors shall be designed for frequent disassembly. Spade connectors are not acceptable. Pressure switches shall include a ¼" BSPP threaded pipeline connection.

Relay Output

The alarm includes a relay output connection to allow the overal 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.

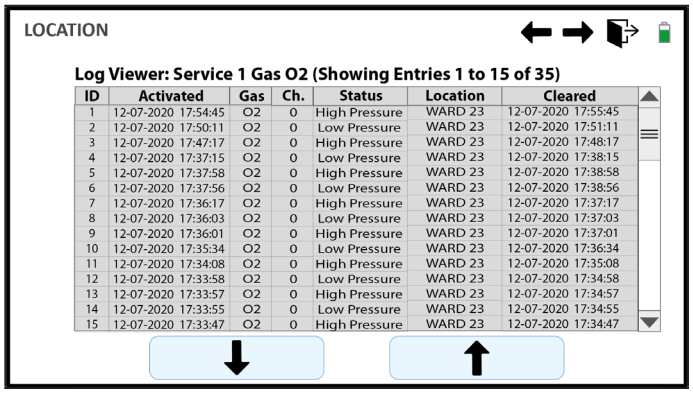
Remote Audible

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 fro all events, plus filtered screens to see each gas service seperately.

Typical data logging screen



ID	Activated	Gas	Ch.	Status	Location	Cleared
1	12-07-2020 17:54:45	O2	0	High Pressure	WARD 23	12-07-2020 17:55:45
2	12-07-2020 17:50:11	O2	0	Low Pressure	WARD 23	12-07-2020 17:51:11
3	12-07-2020 17:47:17	O2	0	High Pressure	WARD 23	12-07-2020 17:48:17
4	12-07-2020 17:37:15	O2	0	Low Pressure	WARD 23	12-07-2020 17:38:15
5	12-07-2020 17:37:58	O2	0	High Pressure	WARD 23	12-07-2020 17:38:58
6	12-07-2020 17:37:56	O2	0	Low Pressure	WARD 23	12-07-2020 17:38:56
7	12-07-2020 17:36:17	O2	0	High Pressure	WARD 23	12-07-2020 17:37:17
8	12-07-2020 17:36:03	O2	0	Low Pressure	WARD 23	12-07-2020 17:37:03
9	12-07-2020 17:36:01	O2	0	High Pressure	WARD 23	12-07-2020 17:37:01
10	12-07-2020 17:35:34	O2	0	Low Pressure	WARD 23	12-07-2020 17:36:34
11	12-07-2020 17:34:08	O2	0	High Pressure	WARD 23	12-07-2020 17:35:08
12	12-07-2020 17:33:58	O2	0	Low Pressure	WARD 23	12-07-2020 17:34:58
13	12-07-2020 17:33:57	O2	0	High Pressure	WARD 23	12-07-2020 17:34:57
14	12-07-2020 17:33:55	O2	0	Low Pressure	WARD 23	12-07-2020 17:34:55
15	12-07-2020 17:33:47	O2	0	High Pressure	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

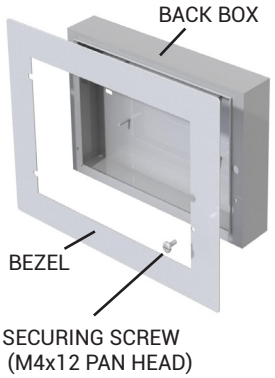
Mode of operation:

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

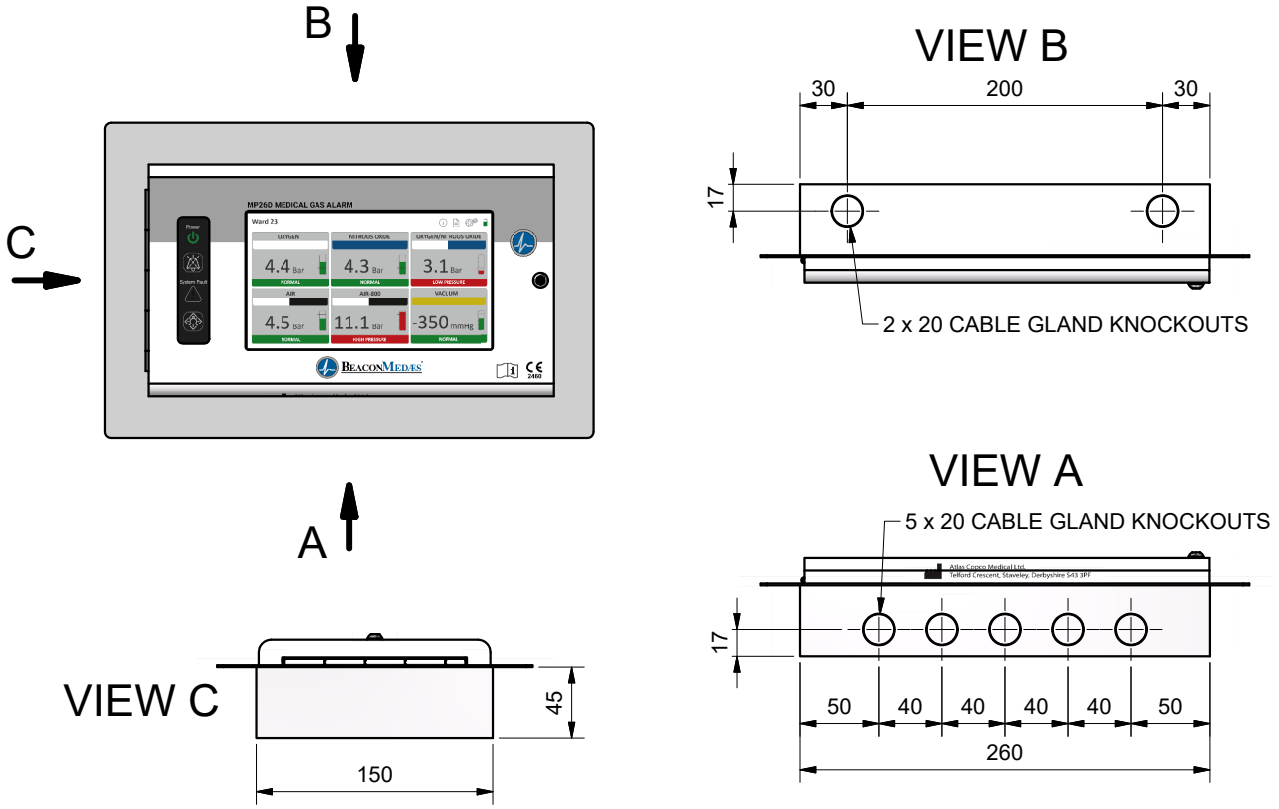
CE Marking

The standard range of BeaconMedæs Medipoint 26 Medical Gas Area Alarms are 'CE' marked with approval from a notified body (more detailed information available on request).

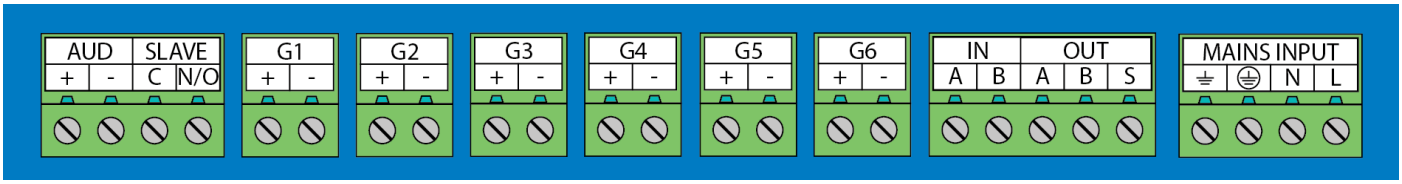
Part Numbers

Part Number	Description	Image
Main Product group		
8102371400	Medipoint 26 Digital Alarm (MP26D)	
1826481	Medical Gas Alarm 1st Fix backbox	
1826484	Medical Gas Alarm Bezel	
4233400417	Pressure & Vacuum Sensor	
Related Products		
1824433	Minimum leak tee adaptor 15 mm	
1824434	Minimum leak tee adaptor 22 mm	
1826284	Minimum leak tee adaptor 28 mm	
1826285	Minimum leak tee adaptor 35 mm	
1826286	Minimum leak tee adaptor 42 mm	
1826287	Minimum leak tee adaptor 54 mm	
1829939	Connection Kit c/w 2mt tube - for remote pressure switch connection	

Installation Details



Wiring Terminal Connections



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.
G1 to G6	4-20mA input	Gas sensor or alternative 4-20mA transmitter input connection
IN	RS-485 input	Medipoint alarm system input comunication connection
OUT	RS-485 output	Medipoint alarm system output plus cable screen comunication connection
MAINS INPUT	110V-230V 50/60Hz	Electrical power supply connection

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