

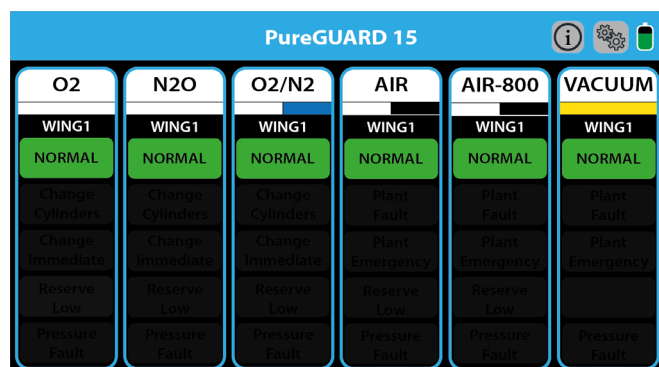
PureGUARD 15 Central Alarm

Medical Gas Central Alarm

The PureGUARD alarm is a flexible, customisable medical gas central alarm system. The PureGUARD 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.

Typical normal mode view



Gas Service Status Badges


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.

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

Normal	Fault 1	Fault 2	Fault 3	Fault 4	Wiring Fault
O2	O2	O2	O2	O2	O2
WING1	WING1	WING1	WING1	WING1	WING1
Normal	Normal	Normal	Normal	Normal	Normal
Change Cylinders	Change Cylinders	Change Cylinders	Change Cylinders	Change Cylinders	Change Cylinders
Change Immediate	Change Immediate	Change Immediate	Change Immediate	Change Immediate	Change Immediate
Reserve Low	Reserve Low	Reserve Low	Reserve Low	Reserve Low	Reserve Low
Pressure Fault	Pressure Fault	Pressure Fault	Pressure Fault	Pressure Fault	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 top strip on the screen display has a field for displaying the details for the department location served by the gases that can be edited through the setup menus.

Main Screen Interactive Icons

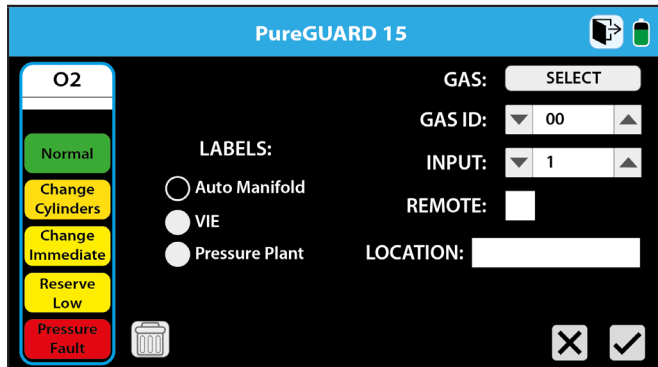
There is interatable icons for accessing the alarm information screen and setup menus. Setup menus are password protected to prevent unauthorised access to these screens.

Icon	Description
 Info Icon. Takes you to the info screen	
 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 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.

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


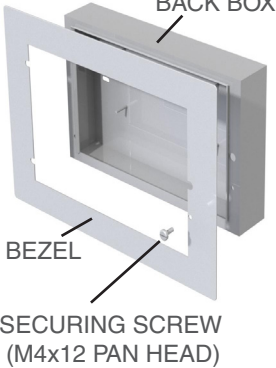
Mode of operation:

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

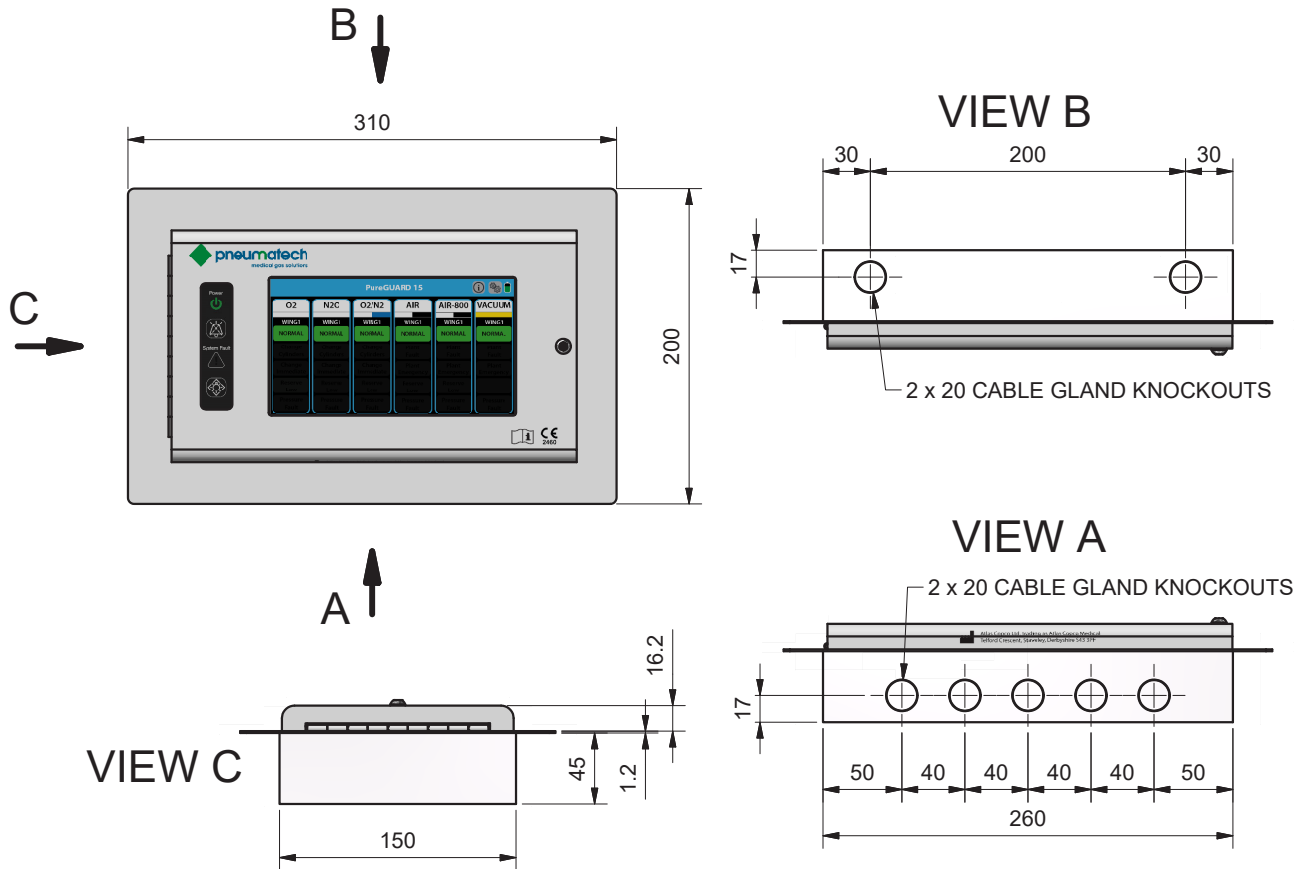
CE Marking

The standard range of Pneumatech PureGUARD Medical Gas Central Alarms are 'CE' marked under the Medical Devices Directive 93/42/EEC with approval from notified body. Under this directive, the specified products are classified as Class IIb Medical Devices.

Part Numbers

Part Number	Description	Image
Main Product group		
8102371403	PureGUARD Digital Central Alarm	
1826481	Medical Gas Alarm 1st Fix backbox	
1826484	Medical Gas Alarm Bezel	

Installation Details



Wiring Terminal Connections

AUD		SLAVE		CHANNEL 1				CHANNEL 2				CHANNEL 3				CHANNEL 4				CHANNEL 5				IN		OUT		MAINS INPUT									
+	-	C	N/O	C	1	2	3	4	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	Alarm system input communication connection.
OUT	RS-485 output	Alarm system output plus cable screen communication connection.
MAINS INPUT	110V-230V 50/60Hz	Electrical power supply connection.

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