

## Medizone™ Area Valve Service Module

HTM02-01 / HTM2022 / ISO7396-1

### SPECIFICATION

#### **Medizone Area Service Module**

The Medizone Area Service Module may contain a local area medical gas alarm and a maximum of six area valve service units. The Medizone shall be pre-piped, wired and tested ready for installation into a finished building. Medical gas/vacuum services shall be fixed copper, piped to and from their respective area valve service units, and shall normally terminate in 22mm copper stub pipes for pressure gas installations and 22 or 28mm stub pipes for oxygen and vacuum installations. Pipes shall normally be connected at ceiling level. The position of copper stub pipes shall be handed as specified by the customer. Area valve service units shall be BeaconMedæS ZSU<sup>2</sup> type and shall conform to BS EN 739:1998, HTM 02-01 and BS EN 737-3:1998. The ZSU<sup>2</sup> shall provide a zone isolation facility, for use either in an emergency or for maintenance purposes.

#### **Emergency Access**

The 2nd fix shall include a transparent plastic window incorporating the words 'Pull in Emergency and Close Valve'. In order to gain access in an emergency, a ring pull shall be fitted to the removable portion of the window. The emergency access mechanism shall be safely operable by a 5th percentile woman without the use of a tool. Glass windows shall not be used. It shall not be possible to refit or reset the means of emergency access.

#### **Door Tamper Alarm**

A door tamper alarm facility shall be available, with a reed switch initiating a system alarm indication on the local alarm panel when the emergency access window is removed. Normally only oxygen and medical air ZSU<sup>2</sup>'s controlling high acuity care areas, resuscitation bays and accident and emergency wards shall be fitted with the door tamper facility.

#### **Materials**

The second fix assembly shall be manufactured from fire retardant V0 rated ABS moulded corner pieces connecting an extruded aluminium frame in which a high pressure compact laminate fascia plate is positively retained. Alternatively the AVSU Module second fix assembly shall be manufactured from powder coated mild steel finished in RAL9002.

All wetted parts (except seals and gaskets) shall be brass or copper. Copper pipe shall be manufactured from phosphorous de-oxidised non-arsenic copper to EN 1412:1996 grade CW024A, manufactured to metric outside diameters in accordance with EN 13348:2001R250 (half hard). Copper to copper joints shall be made using a silver-copper-phosphorous brazing alloy type CP1 or CP4 to BS 1845 using a dry, clean, oil and oxygen free nitrogen inert gas shield with no flux. Each Medizone assembly shall be factory tested for gas tightness. Rubber pipe grommets shall be provided to ensure any leaking gas does not escape from the medizone into a wall cavity. All elastomeric gas seals shall be manufactured from Viton with a Shore hardness of 75.

All visible aluminium surfaces shall be powder coated RAL9010 60% gloss by a DuPont/Akzo Nobel approved powder coating specialist, offering a minimum guaranteed service life of 25 years

#### **Gas Specific Connections**

The area valve service unit shall be fully gas specific and labelled to identify the medical gas service. The gas specific shrouds shall clearly show the gas service and use colour coding to BS EN 739. Shrouds shall be pin indexed such that the only the correct shroud can be fitted to each 1st fix. Gas specific NIST connections to BS EN 739:1998 shall be incorporated on each side of the line valve and include a permanently fitted gas identification label. Pressure gas service (not vacuum) NIST connections shall incorporate 100% self sealing valves which, held closed by gas pressure until insertion of the appropriate gas specific male NIST fitting. Additional sealing of NIST fittings shall be achieved using blank NIST nuts, with a knurled outer diameter. The blank NIST nuts shall include an internal 'O' ring groove and 'O' ring to seal on the smooth outer diameter of the female NIST. Blank NIST nuts shall be hand tightened only. Each NIST connection shall be capable of providing a free air flow rate of 300 l/min with a pressure drop of 0.4 bar from a 4 bar nominal inlet pressure.

#### **Local Alarm Pressure Sensors**

The area valve service unit shall normally accommodate local alarm pressure switches. Optionally, pressure switches may be fitted within a high level access panel. Pressure switch connections shall incorporate minimum leak pressure switch connection ports. Wetted parts of pressure switches shall be manufactured from inherently corrosion proof materials. Plating or sacrificial protection on mild steel is not acceptable.

Alternatively a High Dependency Medizone suitable for ITU/CCU/ Operating Theatre's/Resuscitation/HDU, etc can accommodate local alarm pressure transducers in order to provide digital display read-out via the Total Alert Notification System (Medizone Area Service Module only).

#### **Medical Gas Notification System**

The TotalAlert Infinity™ medical gas notification system shall fully comply with the requirements of HTM 02-01, BS EN 60601-1-2 and BS EN ISO 7396-1.

The medical gas notification system shall allow:  
Set up customised instructions for each alarm signal, to appear on the screen when the signal is in alarm.  
Create custom instructions with the touch screen interface on the alarm panel LCD.  
Incorporate user-defined instructions into an emergency response plan by the facility.

#### **Panel Functionality**

Central, Zone, and Combination medical gas notification systems shall have an 8" touch screen LCD display.

#### **CE Marking**

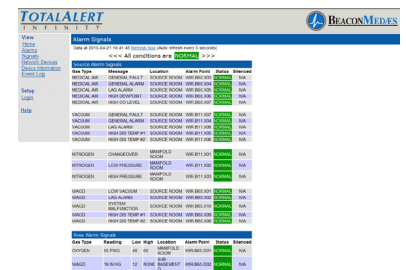
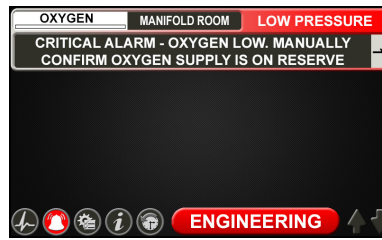
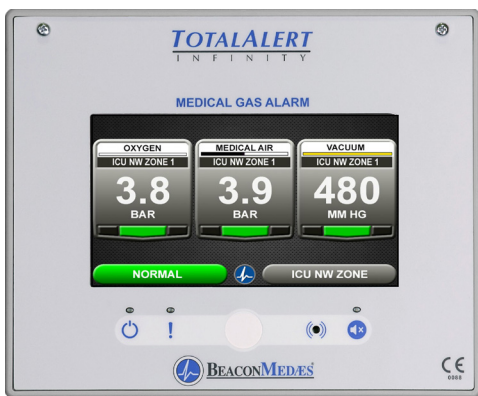
The standard range of BeaconMedæS Medizone Area Service Modules are 'CE' marked under the Medical Devices Directive 93/42/EEC with approval from notified body no. 0088 (Lloyd's Register Quality Assurance). Under this directive, the specified products are classified as Class IIb Medical Devices.

**Medizone**

**AVSU Module**

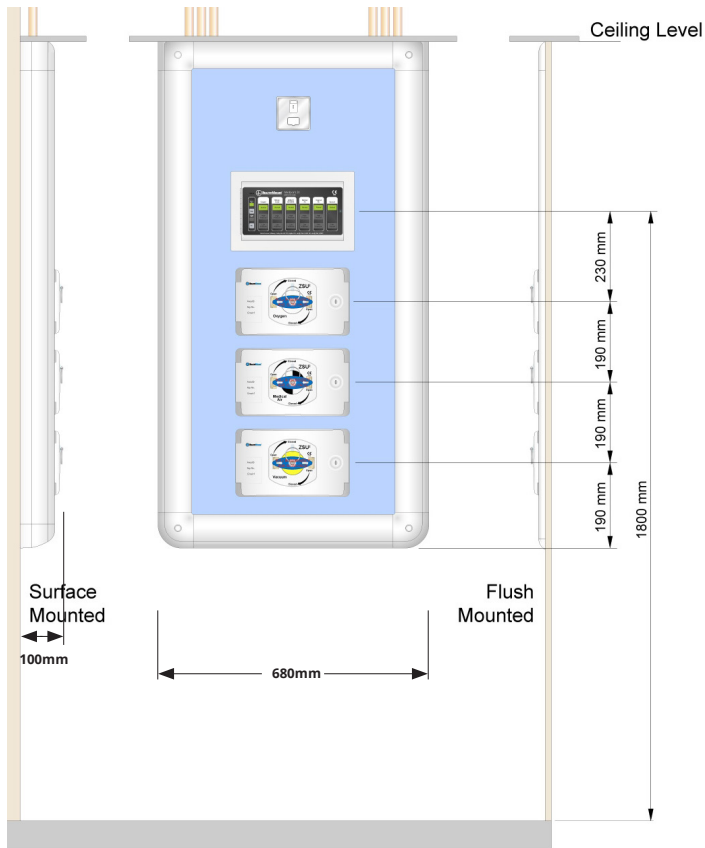


**Total Alert Infinity - Medical Gas Alarm/Notification System**

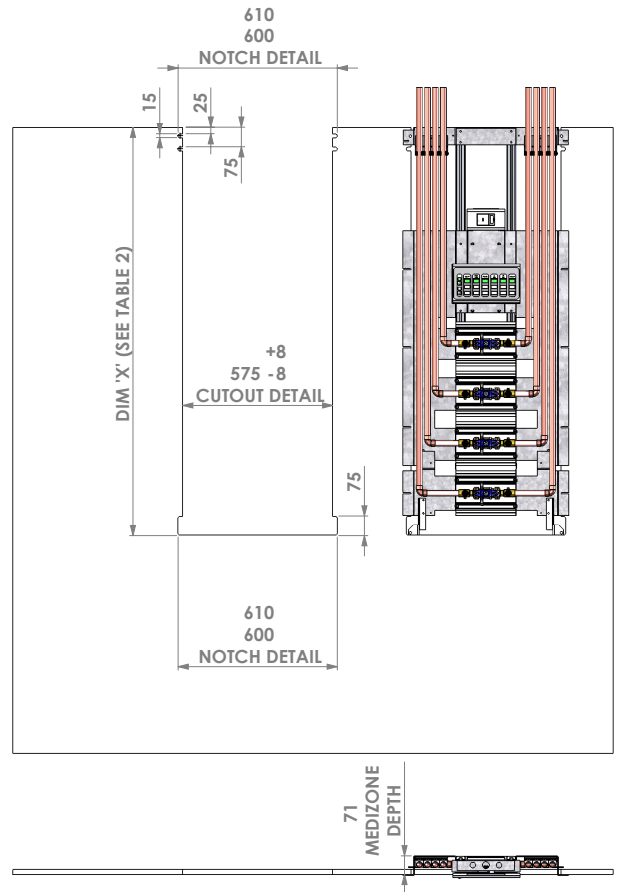




## Dimensions - Medizone

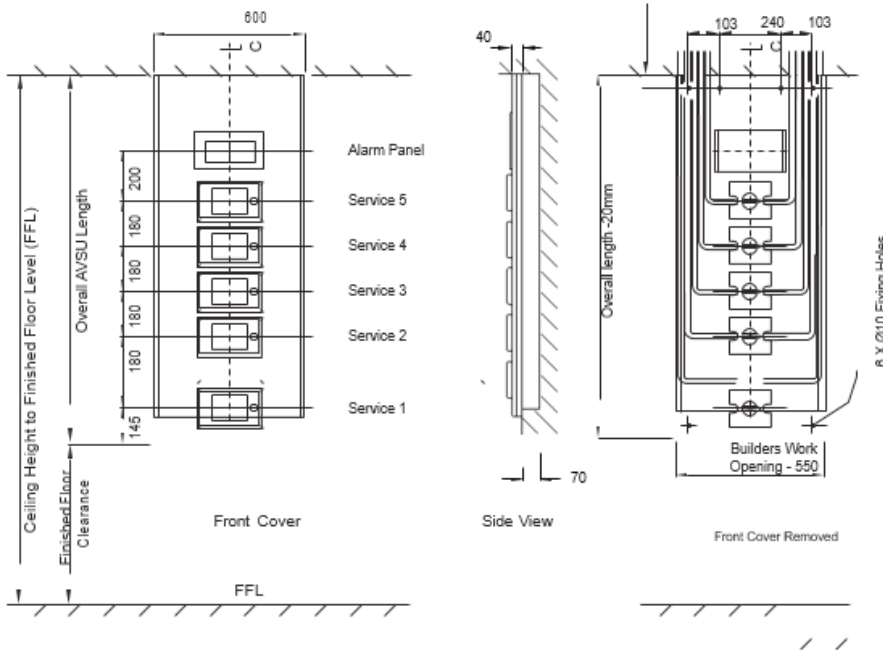


## Flush Mount Cut Out Details



### Dimensions - AVSU Module

**Note:** For 1, 2, 3 and 4 gas modules, the alarm will be 180 mm



**Semi-flush Fitting**  
Up to five gases

**Installed Size**

Height 1320 mm  
1520 mm  
1720 mm  
1920 mm

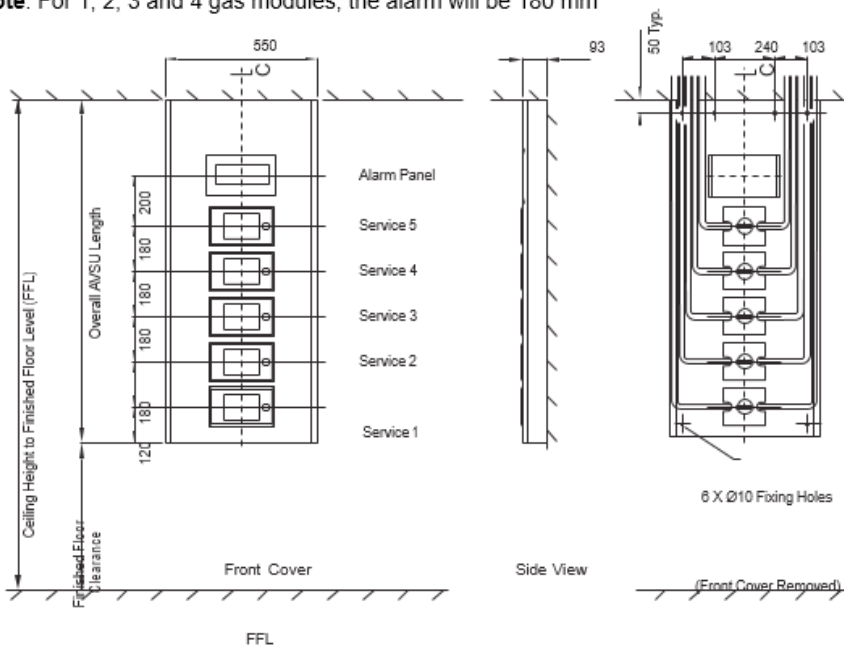
Width 600 mm

**Protrusion (from wall)**  
40 mm

**Depth into wall**  
70 mm ± 5 mm

All dimensions are in millimeters

**Note:** For 1, 2, 3 and 4 gas modules, the alarm will be 180 mm



**Surface Fitting**  
Up to five gases

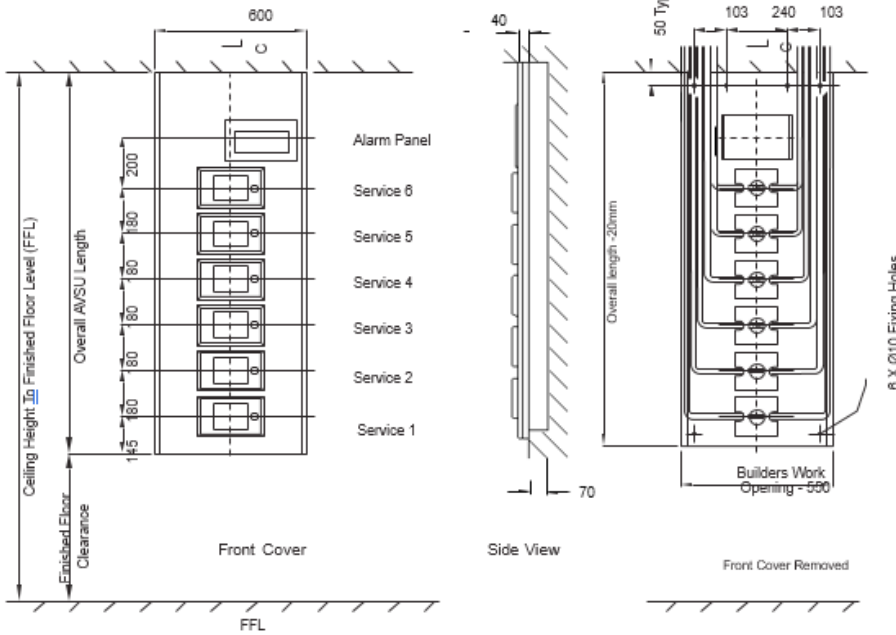
**Installed Size**

Heights 1300 mm  
1500 mm  
1700 mm  
1900 mm

Width 550 mm

**Protrusion (from wall)**  
93 mm

**Depth into wall**  
Nil



### Semi-flush Fitting Six Gas

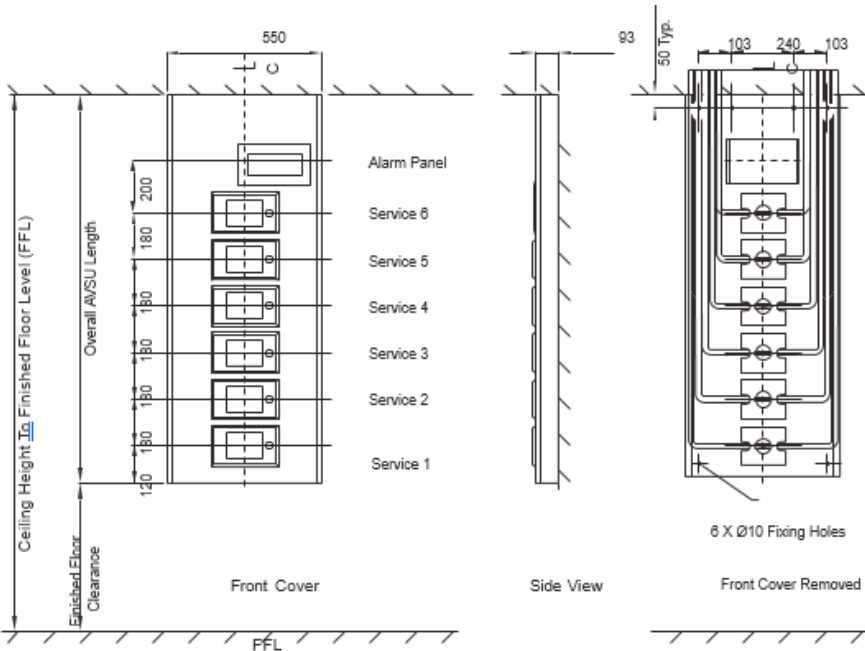
**Installed Size**  
Heights 1520 mm  
1720 mm  
1920 mm

Width 600 mm

**Protrusion (from wall)**  
40 mm

**Depth into wall**  
70 mm ±5 mm

All dimensions are in millimeters



### Surface Fitting Six Gas

**Installed Size**  
Heights 1500 mm  
1700 mm  
1900 mm

Width 550 mm

**Protrusion (from wall)**  
93 mm

**Depth into wall**  
Nil

All dimensions are in millimeters



## Ordering

### MEDIZONE

Part No	Description	Size
MZTAI2	High Dependency Medizone with Tai Alarm Notification System and pressure transducers	2 Gas
MZTAI3	High Dependency Medizone with Tai Alarm Notification System and pressure transducers	3 Gas
MZTAI4	High Dependency Medizone with Tai Alarm Notification System and pressure transducers	4 Gas
MZTAI5	High Dependency Medizone with Tai Alarm Notification System and pressure transducers	5 Gas
MZTAI6	High Dependency Medizone with Tai Alarm Notification System and pressure transducers	6 Gas
MZ272616	Medizone with Medipoint 26 alarm and pressure switches	1 Gas
MZ272626	Medizone with Medipoint 26 alarm and pressure switches	2 Gas
MZ272636	Medizone with Medipoint 26 alarm and pressure switches	3 Gas
MZ272646	Medizone with Medipoint 26 alarm and pressure switches	4 Gas
MZ272656	Medizone with Medipoint 26 alarm and pressure switches	5 Gas
MZ272666	Medizone with Medipoint 26 alarm and pressure switches	6 Gas
MZ27PS16	Medizone with pressure switches, no alarm	1 Gas
MZ27PS26	Medizone with pressure switches, no alarm	2 Gas
MZ27PS36	Medizone with pressure switches, no alarm	3 Gas
MZ27PS46	Medizone with pressure switches, no alarm	4 Gas
MZ27PS56	Medizone with pressure switches, no alarm	5 Gas
MZ27PS66	Medizone with pressure switches, no alarm	6 Gas
MZ2716	Medizone without pressure switches, no alarm	1 Gas
MZ2726	Medizone without pressure switches, no alarm	2 Gas
MZ2736	Medizone without pressure switches, no alarm	3 Gas
MZ2746	Medizone without pressure switches, no alarm	4 Gas
MZ2756	Medizone without pressure switches, no alarm	5 Gas
MZ2766	Medizone without pressure switches, no alarm	6 Gas

MZ27125	Extra for adding a Medipoint 125 Central Alarm to a Medizone without any alarm panel	
MZ27F-C	Extra for floor to ceiling Medizone	
MZ22-28	Extra for installing 28mm vacuum ZSU2	
MZSAXFI	Extra for installing free issue 3rd party Alarm	
MZ27AI	Extra for a double pole fused switch for isolation of alarm	
MZ27ACCESS	Extra for installing pressure switches in a high level access panel	

### AVSU MODULE

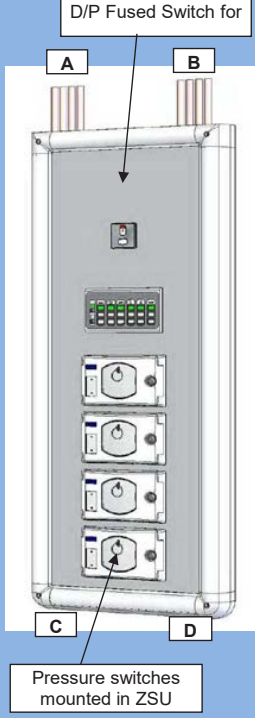
PartNo	Description
8102370490	AVSU Module with Medipoint 26 alarm and pressure switches, 1 Gas
8102370491	AVSU Module with Medipoint 26 alarm and pressure switches, 2 Gas
8102370492	AVSU Module with Medipoint 26 alarm and pressure switches, 3 Gas
8102370493	AVSU Module with Medipoint 26 alarm and pressure switches, 4 Gas
8102370494	AVSU Module with Medipoint 26 alarm and pressure switches, 5 Gas
8102370495	AVSU Module with Medipoint 26 alarm and pressure switches, 6 Gas
8102370496	AVSU Module with pressure switches, no alarm, 1 Gas
8102370497	AVSU Module with pressure switches, no alarm, 2 Gas
8102370498	AVSU Module with pressure switches, no alarm, 3 Gas
8102370499	AVSU Module with pressure switches, no alarm, 4 Gas
8102370500	AVSU Module with pressure switches, no alarm, 5 Gas
8102370501	AVSU Module with pressure switches, no alarm, 6 Gas
8102370502	AVSU Module without pressure switches, no alarm, 1 Gas
8102370503	AVSU Module without pressure switches, no alarm, 2 Gas
8102370504	AVSU Module without pressure switches, no alarm, 3 Gas
8102370505	AVSU Module without pressure switches, no alarm, 4 Gas
8102370506	AVSU Module without pressure switches, no alarm, 5 Gas
8102370507	AVSU Module without pressure switches, no alarm, 6 Gas

**Order Sheet**

Please fill out the following sheet on order placement (note an excel version is available - please contact customer services)

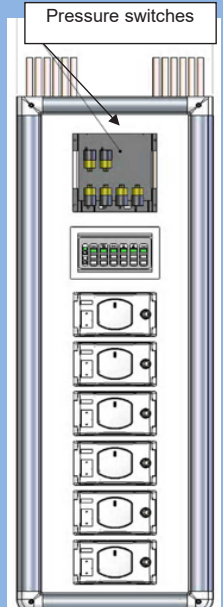
## Medizone Order Sheet

<b>Company Name</b>		<b>Date Added</b>	23/02/2017
<b>Contact Person</b>		<b>Required Date</b>	
<b>Purchase Order Number</b>			
<b>Medizone Project/Ref.</b>			
<b>Medizone Type</b>		<b>Medizone Qty.</b>	
<b>Alarm Option</b>		<b>Ceiling Height</b>	
<b>D/P Fused Switch for Alarm</b>		<b>Medizone Length</b>	0
<b>Pressure Switch Options</b>			
<b>Front Panel Colour</b>			
<b>Inlet Position</b>	A		
<b>Outlet Position</b>	B		
<b>Medizone ZSU2 Selection</b>			
<b>Special Notes:</b>			



D/P Fused Switch for

Pressure switches mounted in ZSU



Pressure switches

To ensure that your order can be processed efficiently and in a timely manner, please complete the relevant boxes indicated in Grey.

With regard to Medizone Length the spreadsheet calculates for the most economic solution taking into consideration the requirements of both HTM2022 and HTM02-01. Any specified deviations from this calculated length are the responsibility of the Customer.

**NOTE!**

For 6 gas Medizones with Alarm or Pressure Switches fitted in Access Panel, the lowest ZSU will not meet the height requirements of HTM02-01. Height to centre line will be 600mm Approx. instead of 800mm (HTM02-01)

Only select options which are included in the original sales quotation - the invoice price will match the medizone plus any additional options.