

MT-VBA LCD VALVE BOX ALARM



INSTALLATION & OPERATING MANUAL

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INDEX

PAGE

1. DESCRIPTION	1
2. SCHEMATIC WIRING DIAGRAM	2
3. SETTINGS	3
4. SPECIFICATIONS	4
5. VALVE BOX ENCLOSURE	5
6. TROUBLESHOOTING	6
7. WARRANTY	7

DESCRIPTION

Housed in the valve box cabinet, this Emergency Clinical Alarm will monitor the individual pipeline pressure of the gases at a theatre, ward or procedure room and indicate a 20% variance up or down of the nominal pressure. These alarms are installed on the demand-side of every isolating valve box.

The facia displays the pressure as well as alarm limits for each gas being monitored. This can range from a single gas up to a maximum of 8 gases.

Each gas has its' own Colour backlit LCD display. This LCD will be green for normal and red if the pressure is too high, too low or the sensor is faulty or disconnected.

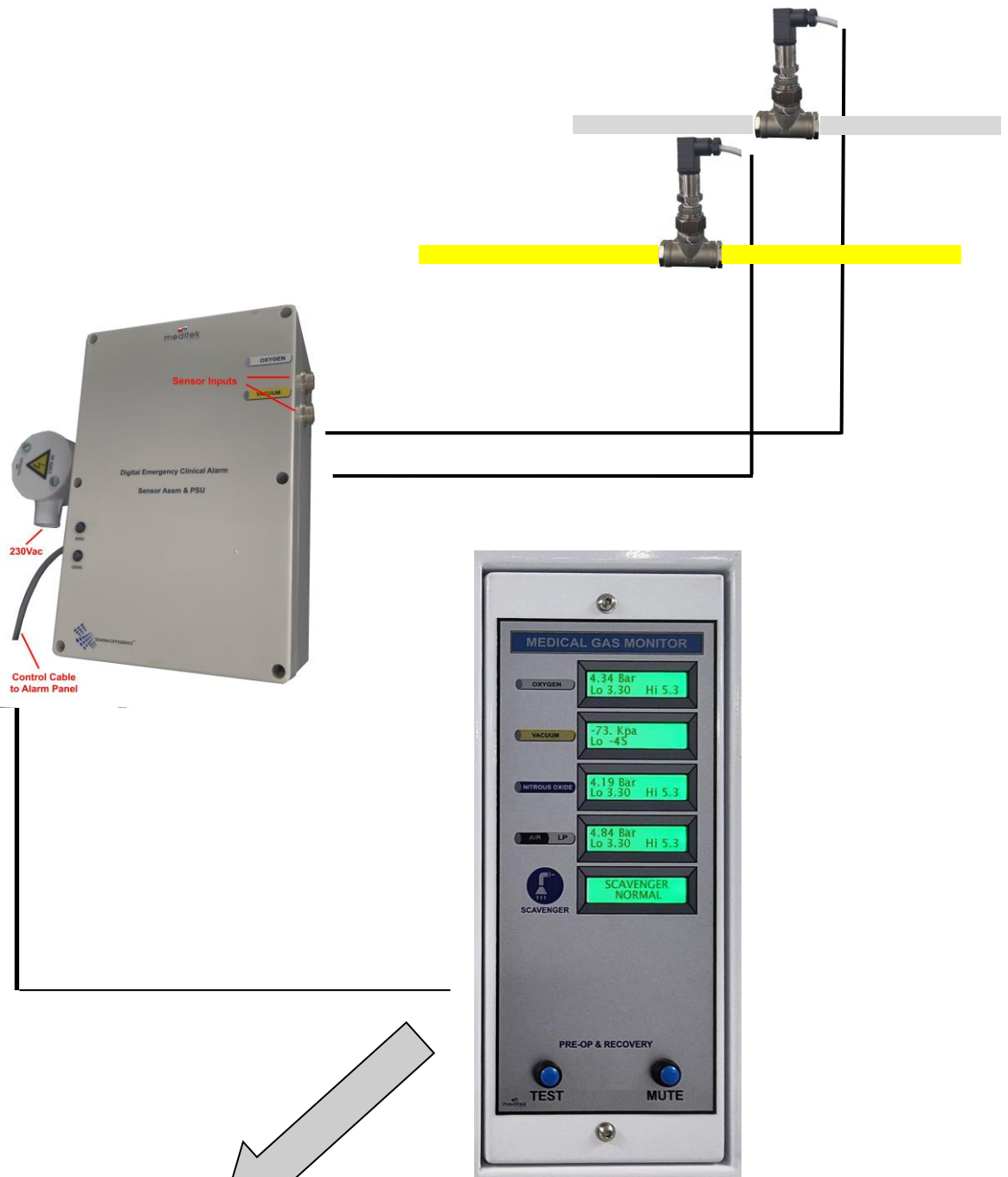
The "Hi" and "Lo" alarm limits can be set by adjusting the 2 potentiometers located on the side of the alarm enclosure. These limits are displayed on the 2nd LCD line.

During an alarm condition an audible buzzer is activated which can be manually muted. The visual alarm LCDs will however continue to indicate a fault until such time as the fault is rectified. The audible alarm is re-activated should an additional alarm condition occur.

Operating from a standard 230V ac supply, the system uses a 12VDC power supply to supply the sensors and the control unit.

The sensor assembly, (sensors, Power Supply, control board and wiring cabinet), is installed in the roof space in close proximity to the associated gas pipe lines. All sensors and 230Vac supply is connected to this assembly. A single 4 core 0.22mm mylar screen cable connects this assembly to the alarm display in the valve box.

SCHEMATIC WIRING DIAGRAM



The Communication Control Cable must be wired correctly to avoid irreparable damage to the circuitry.

B – Blue
R – Red
G – Green
Y – Yellow

SETTINGS

Each alarm system is calibrated and set before leaving the factory and no adjustment should be required. If, however, the alarm level pressures need to be adjusted, the high and low pressure alarm levels can be set by adjusting the 2 potentiometers provided.

Turn anti-clockwise to decrease the alarm limit and clockwise to increase the alarm limit on both the "LOW" and the "HIGH" potentiometers.

These alarm limits are simultaneously applicable to all gases other than Vacuum and HP Air, which are "hard-programmed" and will require factory setting to be adjusted.



SPECIFICATIONS

POWER SUPPLY

- 230 Volt ac supply with max 20% tolerance.
- Surge suppressers- 275V.
- 12V standby charger with battery (optional).
- 12VDC output
- 4A Resettable fuse.

INPUTS

- Max 8 input channels.
- 0 to 16bar 4-20mA pressure sensor.
- -1 to 0 bar 4-20mA vacuum sensor.

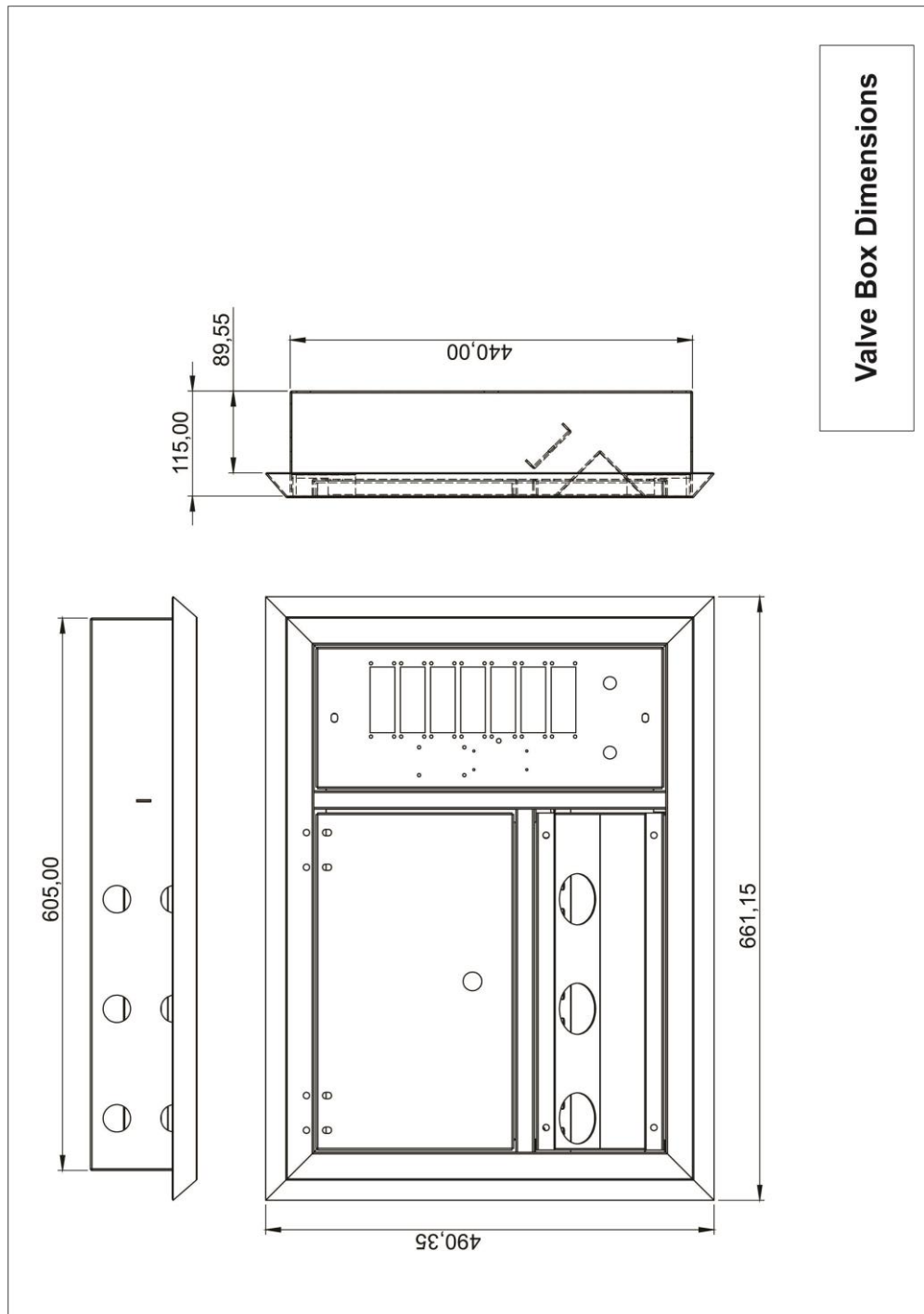
DISPLAY

- 16 x 2 char Multicolour backlit LCD per channel.

VALVE BOX

The MT-VBA Emergency Clinical Alarm is an integral component of the plastic coated, mild steel valve box manufactured as either a flush-mount or surface mount unit.

The alarm facia and associated electronics is housed in a separate compartment adjacent to the valve assembly.



TROUBLESHOOTING

The MT-VBA Emergency Clinical Alarm System contains no user serviceable components. All repairs and maintenance must be carried out by qualified, Meditek Systems' appointed personnel. Failure to comply may render any warranty null and void.

All panels are factory set and configured prior to installation. Changing any settings may cause the entire alarm network to malfunction.

Problem	Cause	Solution
Panel dead	No power or PSU failure.	Check 230Vac supply. Replace PSU.
Panel dead	Control cable failure.	Check control cable between sensor assembly and display panel for damage or bad contact.
Panel "frozen"	Power issue	Disconnect power and reapply after 2 minutes
Incorrect LCD readings	Faulty Sensor	Replace sensor

These alarm systems require minimal operating maintenance but do require checking and calibration by qualified personnel annually.

Please refer any other errors to the relevant service department or contact gas@mediteksystems.co.za for assistance.

WARRANTY

Limited Warranty Statement

Meditek Systems warrants its products to be free from defects in material and workmanship under normal use for a period of twelve (12) months from the date of purchase. If the warranted products are returned during this period, Meditek Systems will repair or replace (at its option) without charge those items found to be defective. Any replacement or repairs parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original purchaser must promptly notify Meditek Systems in writing during the warranty period, of the defect in material or workmanship. Returned goods must be accompanied by a copy of the original invoice or proof of purchase. Prior authorization is required before returning the product as Meditek Systems will not accept any shipment for which prior authorized has not first been obtained. This warranty does not cover damage incurred in shipping or handling, problems that result from external causes such as accident, abuse, misuse or problems with electrical power failures or other damage caused by:

- Peripherals or unauthorized alterations or modifications.
- Servicing not authorized by Meditek Systems.
- Usage that is not in accordance with product instructions
- Failure to provide a suitable installation environment for the products
- Improper maintenance or failure to perform regular preventative maintenance

MEDITEK SYSTEMS DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS LIMITED WARRANTY OR FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING WITHOUT LIMITATION, ANY LIABILITY FOR THIRD PARTY CLAIMS AGAINST YOU FOR DAMAGE. MEDITEK SYSTEMS 'S MAXIMUM LIABILITY WILL BE NO MORE THAN THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF THE CLAIM.

Meditek Systems will not be responsible for any custom fees, taxes, freight, travel, replacement charges or VAT that may be due.

We strongly recommend that your alarm systems be tested and maintained on a regular basis.

Warning: Dealers, installers and/ or other selling, distributing Meditek Systems product (s) are not authorized to modify this warranty or make any additional warranties.

Meditek Systems may change the terms of its limited warranty, without notice, as its discretion.

Limitations of Alarm Systems: It must be understood that while your Meditek Systems product is highly advanced and sophisticated, it does not offer any guaranteed protection in case of emergency. This is due to a number of reasons, including by not limited to inadequate or improper installation and positioning, switch or sensor limitations, power limitations and network functionality. As a result, Meditek Systems does not represent that the alarm system will prevent personal injury or property, or in all cases provide adequate warning or protection.