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**Submittal Data Sheet**

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**Project  
Information**

Project Number \_\_\_\_\_ Approval \_\_\_\_\_

**Features**

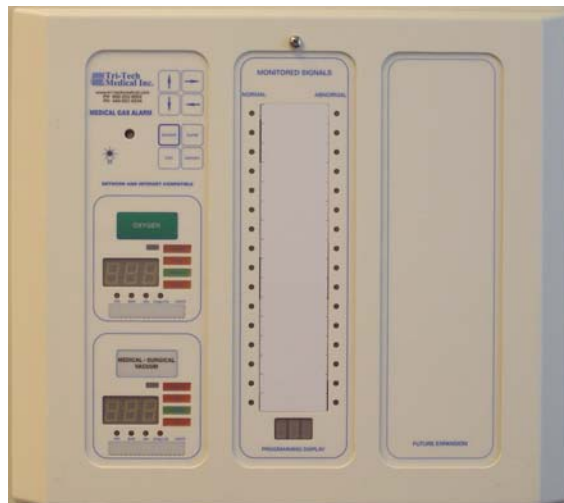
The Tri-Tech Area / Master Alarm Panel monitors and displays normal and alarm conditions for up to 14 medical gases or up to 64 remote medical gas source signals in various combinations. Transducers are included. Pressure switches and DISS union check valve connectors are sold separately.

- Complies with NFPA 99. Made in the U.S.A.
- Designed for ease of installation and service.
- Microprocessor controlled
- Self-diagnostic and error message display for ease of maintenance.
- Audio and visual alarm indicators
- Bright easy to read L.E.D. displays – clearly visible in both day and night lighting conditions
- Constant display and monitoring of each gas
- User programmable high/low set points and remote signal alarm points (NC, NO or OFF)
- Dry contacts for remote monitoring of all alarm conditions on each gas module and on the CPU module for the entire panel
- Alarm history display of previous alarm conditions
- Easy to read – color coded gas modules
- Hinged frame with lanyards for easy accessibility
- Optional circuit board available for interface to building management system (master alarm signals only).
- Optional interface to the hospital TNET alarm information management system (area & master information).
- Three year PC board warranty

**Specification**

The Area, Master or Combination alarm shall be the Tri-Tech Medical Area, Master or Combination Alarm Panel. The panel shall be microprocessor controlled and designed to comply with NFPA 99. The panel shall be 100% digital and shall not require re-calibration. The alarm panel shall be enclosed in a steel box and shall be designed to accept an electrical input range of 120-240 volts AC – 50-60 hertz. The source voltage shall be stepped down with a self-contained transformer. The panel shall contain audible and visual alarm indicators. The audible alarm may be silenced by pressing the alarm silence button, but the visual alarm indicator can only be cancelled by fault correction. The alarm shall detect and filter out transient (less than 0.6 seconds) signals created by R.F.I. The alarm shall be capable of displaying alarm history for all possible alarm conditions.

Each gas module shall display up to three gases. Each source signal module shall monitor 16 signals. The alarm shall be capable of monitoring and displaying up to 14 gases



(Combination alarm panel shown is a 2-gas Area Alarm with a 16 signal Master Alarm, with a blank module – part # DUOV16B)

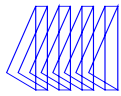
per alarm panel, or 64 medical gas source signals, or any combination in increments of up to three gases, or 16 source signals. The alarm may be an Area Alarm, Master Alarm or combination Area/Master. Gas or source signal modules can be arranged in accordance with the customer's requirements.

In addition, each Area Alarm Module shall incorporate the following features:

- Does not require re-calibration
- Gas specific sensor with DISS nut & nipple. An error message will be displayed if incorrect sensor or no sensor is attached.
- User programmable pressure limits (Programmed from factory at 60/40 psig and 12 in Hg)
- Shall be capable of displaying gas readouts in PSI (in Hg), BAR or kPa, button selected.
- Gas alarm repeat feature factory set at 10 minutes, adjustable from 1 minute to 999 minutes, or off
- Digital Transducers to be mounted inside the alarm for easy access, or may be mounted remotely up to 5,000 ft (1,524 m) utilizing twisted pair wiring

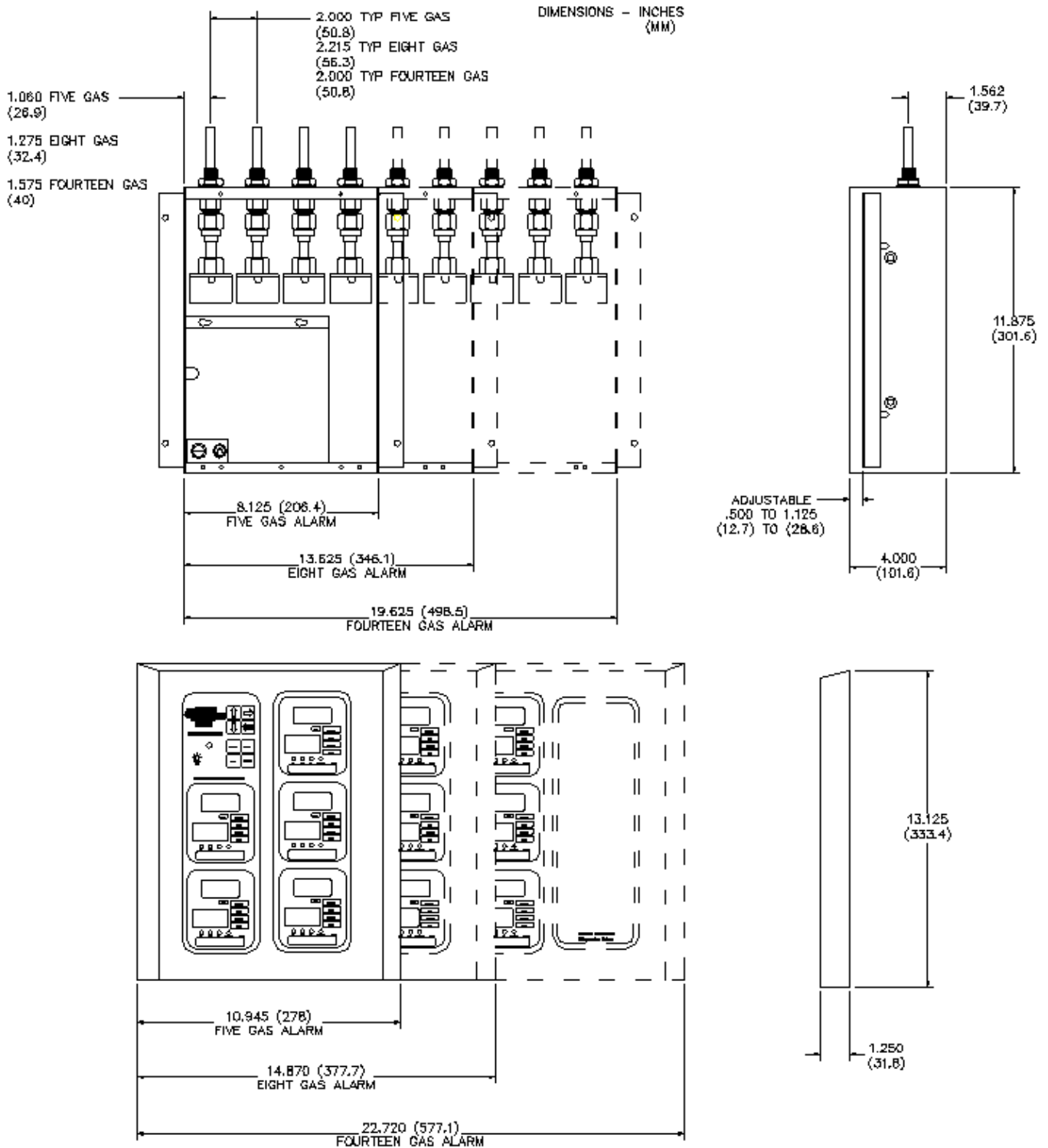
In addition, each 16 signal Master Alarm Module shall incorporate the following features:

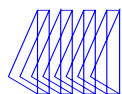
- User programmable to accept NO or NC signals, or not to be used at this time (disabled). Factory preset to accept Normally Closed signals
- Each signal point may be individually programmed, NC or NO or turned off (disabled)
- LED indicators (Green) confirms normal status, (Red) indicates abnormal condition
- Each signal easily labeled and positioned to suit any requirement using self-adhesive labels provided



**Tri-Tech  
Medical Inc.**

*Manufacturer of Headwalls  
& Medical Gas Piping Equipment*





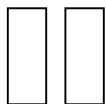
**Ordering Information:**

**D**

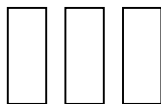


Label Colors	Area Alarm Gas Services	Master Remote Signals	Blank Slot for Future Expansion
U = USA (NFPA) C = Canada (CSA)	O = Oxygen V = Medical Vacuum A = Medical Air N = Nitrous Oxide T = Nitrogen C = Carbon Dioxide W = WAGD/EVAC S = AGSS H = Hyperbaric Oxygen U = Utility Air L = Helium I = Instrument Air (USA) Surgical Air (Canada) D = Carbon Dioxide 80 psig M = Gas Mixtures 50 psig P = Gas Mixtures high pressure 180 psig R = Tri-Gas F = Future	16 = 16 points 32 = 32 points 48 = 48 points 64 = 64 points	B = Blank Slot

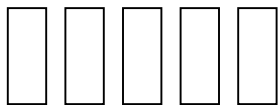
**Examples:**



DU16 = 16 signal Master Alarm, USA colors, 2 slot box  
DUOVB = 2 gas Area Alarm – Oxygen, Vacuum and Blank slot, USA colors, 2 slot box  
DUOFB = 1 gas Area Alarm – Oxygen, Future and Blank slot, USA colors, 2 slot box  
DUOVANT = 5 gas Area – OXY, VAC, AIR, N2O, N2 and Blank slot, USA colors, 2 slot box



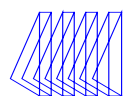
DCOV16B = 2 gas Area – OXY, VAC & 16 signal Master & Blank slot, USA colors, 3 slot box  
DU32 = 32 signal Master Alarm, USA colors, 3 slot box  
DUOVANTB = 5 gas Area – OXY, VAC, AIR, N2O, N2 and Blank slot, USA colors, 3 slot box  
DUOVANTCWMB = 8 gas Area, OXY, VAC, AIR, N2O, N2, CO2, WAGD, Gas Mixture and Blank slot, USA colors, 3 slot box



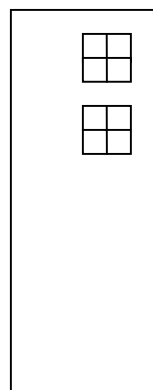
DU64 = 64 signal Master, USA colors, 5 slot box  
DUOVAB32 = 3 gas Area – OXY, VAC, AIR, Blank slot & 32 signal Master, USA colors, 5 slot box  
DUOVANCTWU32 = 8 gas Area – OXY, VAC, AIR, N2O, CO2, N2, WAGD, Utility Air & 32 signal Master, USA colors, 5 slot box

\*Note – Medical Gas Alarms come in one of the three configurations shown above - 2 slots , 3 slots or 5 slots.

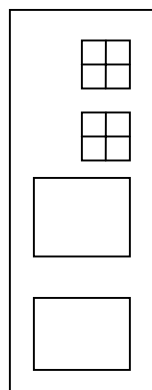
*See next page for standard alarm configuration example drawings*



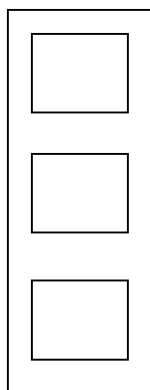
**Ordering Information:**



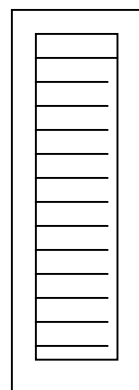
**Logic Module  
With Buzzer**



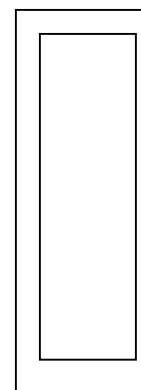
**Logic Module  
With Buzzer  
& Two Gas  
(Area Alarm  
Modules)**



**Area Alarm Module  
(Choose 3 letters from  
chart below – one for  
each gas service)**



**Master Alarm Module  
16 Signals per module**



**Blank Module**

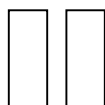
**Part Number**  
**DU = USA (NFPA)**  
**DC = Canada (CSA)**

**Part Number**  
**A = Medical Air**  
**C = Carbon Dioxide**  
**E = EVAC/WAGD**  
**F = Future**  
**H = Hyperbaric Oxygen**  
**N = Nitrous Oxide**  
**O = Oxygen**  
**T = Nitrogen**  
**U = Utility Air**  
**V = Vacuum**

**Part Number**  
**16 = One 16-signal module**  
**32 = Two 16-signal modules**  
**48 = Three 16-signal modules**  
**64 = Four 16-signal modules**

**Part Number**  
**B = Blank Module**

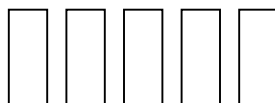
**Examples:**



DU16 = 16 signal Master Alarm  
DUOVB = 2 gas Area Alarm – Oxygen, Vacuum and Blank Module  
DUOFB = 1 gas Area Alarm – Oxygen, Future and Blank Module



DUOV16B = 2 gas Area Alarm – OXY, VAC & 16 signal Master Alarm and Blank Module  
DU32 = 32 signal Master Alarm  
DUOVANTB = 5 gas Area Alarm – Oxygen, Vacuum, Air, Nitrous Oxide, Nitrogen and Blank Module



DU64 = 64 signal Master Alarm  
DUOVAB32 = 3 gas Area Alarm – OXY, VAC, AIR, Blank Module & 32 signal Master Alarm  
DUOVANCTEU32 = 8 gas Area Alarm – OXY, VAC, AIR, N2O, CO2, N2, EVAC, Utility Air & 32 signal Master Alarm

\*Note – Medical Gas Alarms come in one of the three configurations shown above - 2 slots , 3 slots or 5 slots.