

**Submittal Data Sheet**

**Project  
Information**

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

**Features**

The Tri-Tech Combination Alarm Panel conversion kits are designed to upgrade or retro-fit existing panels produced by several major brands. The conversion kit replaces all necessary major components re-utilizing the existing back box.

The Tri-Tech Med Touch Combination Area and Master Alarm Panel digitally displays gas pressure (1 psi increments) monitors and displays normal and alarm conditions for a combination of up to 128 remote medical gas source signals and provides alarm conditions as required by the latest edition of NFPA 99 for up to 16 medical gases. Transducers & DISS riser adaptors are included where applicable for area alarm gas boards. Transducers may be installed remotely or in the back box. Pressure switches, transducers for master alarms and DISS union check valve connectors are sold separately.



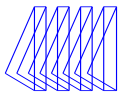
- **Five year parts and one year labor warranty**
- 2.85” LCD touch screen displays up to 8 normal and alarm conditions for pressure switch sensor inputs
- 2.85” LCD touch screen displays up to 8 normal and alarm conditions and provides a digital pressure display for up to 4 transducer sensor inputs
- 2.85” LCD touch screen displays normal and high/low alarm conditions for one 4 – 20 mA sensor input
- Individual 2.85” LCD touch screen display for each gas service
- The LCD touch screen allows all alarm programming and set up to be done without the use of tools
- A green normal or red alarm condition for each gas services confirms the condition for each individual gas service
- Emergency preparedness instructions - Med Touch Alarm Panels allow users to set up customized instructions for each alarm signal, to appear on the screen when the signal is in alarm
- Up to 128 signal points in a single panel
- Wireless (minimal low voltage wiring) models available (wireless feature for master signal points only)
- Last event history (per gas board /signal point)
- Made in the U.S.A.
- NFPA and ISO pre-loaded gas ‘labels’
- English, and English/French pre-loaded languages
- Editable text and alarm ‘labels’
- Self-contained unit - Designed for ease of installation and service
- Self-diagnostic and error message display for ease of maintenance
- Audio and visual alarm indicators
- Bright easy to read LCD displays – clearly visible in both day and night lighting conditions
- Constant display and monitoring of each gas
  - User programmable high/low set points on transducer and 4 – 20 mA sensor input boards
- Dry contacts provided on the CPU module for general fault condition covering entire panel
- Hinged frame for easy accessibility
- Color coded displays

**Additional master alarm features:**

- Individual user programmable remote signal alarm points to accept NO or NC signals, or may be disabled. Factory preset to accept Normally Closed signals
- LCD indicators (Green) confirms normal status, (Red) indicates abnormal condition
- Menu of NFPA 99 master alarm signals for quick, easy selection
- Gas specific transducer master signal boards. An error message will be displayed if incorrect sensor or no sensor is attached.
- Transducer master signal boards shall be capable of displaying gas readouts in PSI, kPa, BAR, inHg or mmHg.
- Alarm repeat feature is turned off when unit is shipped, but is adjustable up to 240 minutes thru user programming change
- User programmable high/low set points on transducer master boards

**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
- Shall be capable of displaying gas readouts in PSI, kPa, BAR, inHg or mmHg.
- Gas alarm repeat feature is factory set at 10 minutes, and is adjustable or may be turned off



As options, the panel shall be able to;

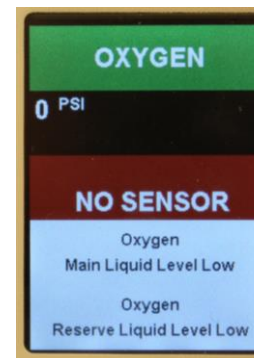
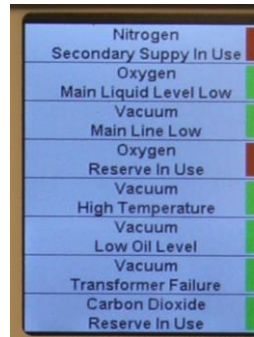
The following options shall be able to be added to the panel at the time of order or after installation

- Optional Ethernet module. This module may be added to any alarm panel. It will provide the following features:
  - Webserver – allows a remote user access to the alarm’s webpage – viewing a graphic image of the alarm with all signal conditions, pressure & event / history log information
  - Text or e mail notification of alarm conditions (up to 5 addresses)
  - Event / history log – maintains a rolling list of the 100 most recent alarm condition events and a file of the 1,000 most recent alarm events and is downloadable through embedded web pages
- Modbus interface
- Optional Ethernet connection for BACnet or Modbus transmission of signals to a building automation system

**Specification**

The alarm shall be the Tri-Tech Medical Med Touch Combination Area & Master Alarm. The panel shall be microprocessor controlled and designed to comply with NFPA 99. The panel shall incorporate an individual 2.85” LCD touch screen display for each gas service and a 2.85” LCD touch screen display(s) for groups of up to 8 master signal points in communication with either dry contacts, transducers or 4 – 20 mA sensors which shall allow all alarm programming and set up to be done without the use of tools. The unit 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.

A security pin code shall be required and must be entered in order to access the programming software. A security pin code shall be required and must be entered in order to access the programming software.



**Gas / Area Display**

Shown in alarm condition. Display blinks on and off when in alarm condition drawing attention and alternates displaying rooms/area covered with user programmed emergency instructions.

**Master / Remote Signal Display**

**(both dry and transducer sensors)**

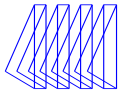
Shown in normal condition. User selects signal labels from database of NFPA signals included in the boards memory. Individual signal points are pre-programmed NC but may be re-programmed as Disabled or NO by user.

**Master / Remote Signal Display**

**(dry contact sensors)**  
Shown in alarm condition. Display blinks on and off when in alarm condition drawing attention and alternates displaying signal identification with user programmed emergency instructions.

**Master / Remote Signal Display**

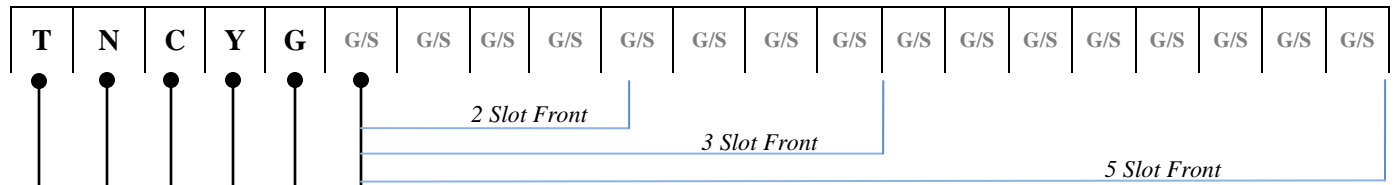
**(transducer sensors)**  
Shown in alarm condition. The standard display looks and acts the same as both of the above Master/Remote displays. By touching the signal point you wish to view, the display changes to the view shown here providing the additional actual line pressure of the gas being monitored. This may be viewed at any time, in Normal or Alarm condition.



**How to Order:** Easy to use modular ordering system.

Fill in the blanks to specify the Med Touch Combination Alarm that meets **your** needs.

**Model Numbering:**



*Note: a 35-3032 kit may be ordered separately and installed in the field to provide; Ethernet webserver, event log, alarm notifications may be sent up to 5 users via text or e-mail and Modbus Interface. The 35-3033 Ethernet programming kit is required and must be ordered when the 35-3032 kit is ordered. Only one is needed per facility.*

*Note: a 35-3035 kit may be ordered separately and installed in the field to provide a BACnet interface. The 35-3032 and 35-3033 kits are also required whenever the 35-3035 kits is ordered. Only one 35-3033 kit is needed per facility.*

**S = Master Signal Input Type**

Non-Latching Alarm Relays	Description
<b>M</b>	4-20 mA
<b>P</b>	Dry Contact ( 8 Signal Points )
<b>Q</b>	Transducer ( 4 Gases, 8 Signal Points )

Latching Alarm Relays	Description
<b>%</b>	4-20 mA
<b>+</b>	Dry Contact ( 8 Signal Points )
<b>#</b>	Transducer ( 4 Gases, 8 Signal Points )

**B** – Blank Slot - 4 Vertical Future Expansion (Blank) Positions in One slot

**F** – Future Expansion (Blank) Position

List Signal Input Type Choices from Left to Right

**G = Gas Service**

- A** – Medical Air
- B** – Blank Slot (for future expansion)
- C** – Carbon Dioxide – 50 psig
- D** – Carbon Dioxide – 80 psig
- F** – Future Expansion
- H** – Hyperbaric Oxygen
- I** – Instrument Air
- J** – Carbon Dioxide-Oxygen Mixt DISS 1080 (CO2>7%)
- K** – Helium-Oxygen Mixt DISS 1060 (He>80%)
- L** - Helium
- N** – Nitrous Oxide
- O** - Oxygen
- R** – Tri-Gas
- S** - AGSS
- T** - Nitrogen
- V** – Medical Vacuum
- W** - WAGD/EVAC

**Y = Conversion Type**

**2** = Amico    **4** = Chemetron    **6** = Tri-Tech AA    **7** = Ohio & Medaes    **8** = Tri-Tech AU & DU

**C = Gas Set**

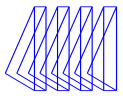
**U** – Tri-Tech Labeled NFPA Color Code English    **I** – Tri-Tech Labeled ISO Color Code English/French

**N = Number of Slots on Front Panel**

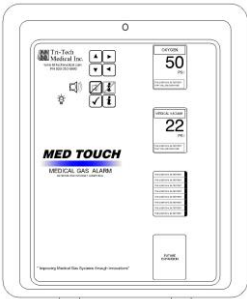
**2** – 2 Slot Front Panel    **3** – 3 Slot Front Panel    **5** - 5 Slot Front Panel

**T = Type of Alarm**

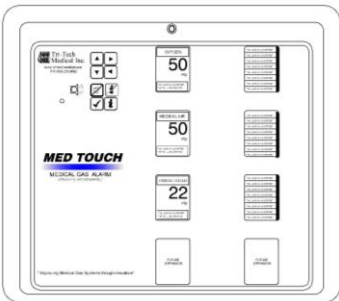
**T** - Touch Screen Digital



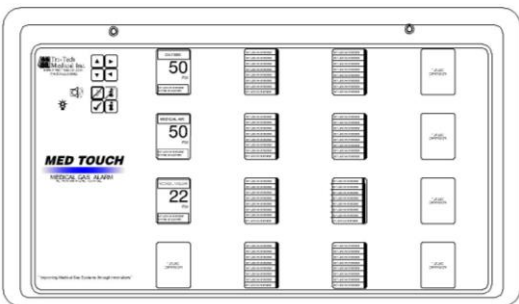
*Part No. Examples*



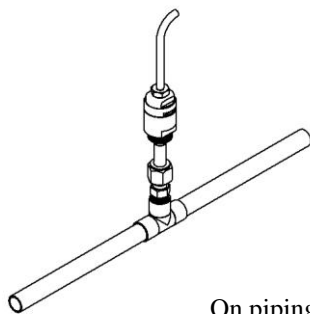
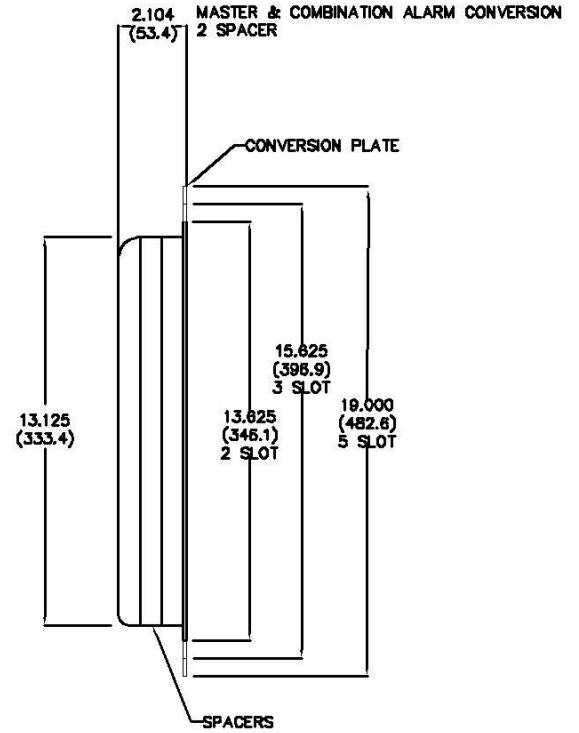
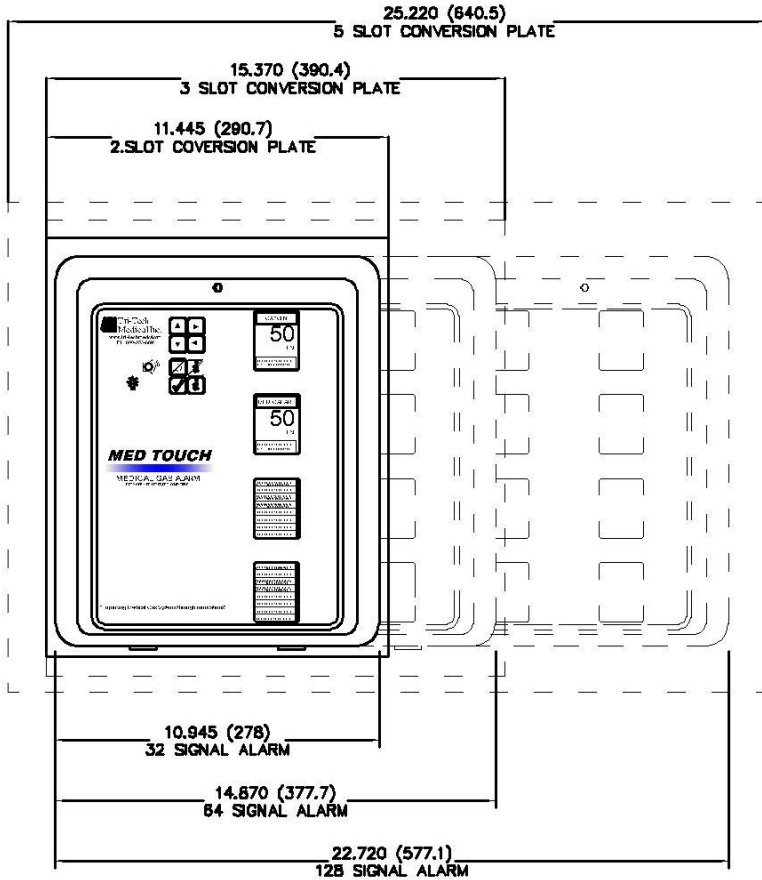
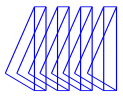
**T2U80VPF2** = Converts Tri-Tech AU or DU series 2 Slot Combination Alarm, set for NFPA Color Code English gas set. Oxygen, Medical Vacuum, 8 Dry Contact Signal Points w/ Non-Latching Alarm Relays and one Future Expansion. Ethernet Webserver and Modbus Interface Communication Option.



**T3I40AVF+++F** = Converts Allied Combination Alarm, 3 Slot set for ISO Color Code English/French gas set. Oxygen, Medical Air and Medical Vacuum, one Future Expansion (Blank) position at bottom, of 2<sup>nd</sup> slot 24 Dry Contact Signal Points w/ Latching Alarm Relays and one Future Expansion (Blank) position at bottom of 3<sup>rd</sup> slot. No Interface Communication Option.

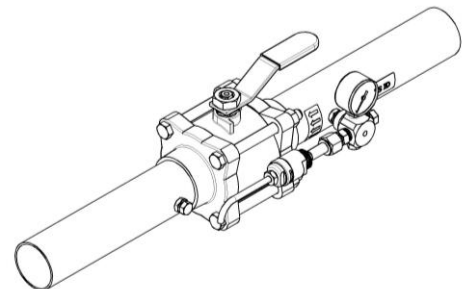


**T5U20AVFPPPPQQQB3** = Converts Amico Combination Alarm, 5 Slot, set for NFPA Color Code English gas set. Oxygen, Medical Air, Medical Vacuum and one Future Expansion (Blank) position at bottom of 2<sup>nd</sup> slot. 32 Dry Contact Signal Points w/ Non-Latching Alarm Relays in 3<sup>rd</sup> slot, 32 Transducer Signal Points W/ Non-Latching Alarm Relays in 4<sup>th</sup> slot, 5<sup>th</sup> slot is Blank. Ethernet Web Server, Modbus, and BACnet Interface Communication Option.

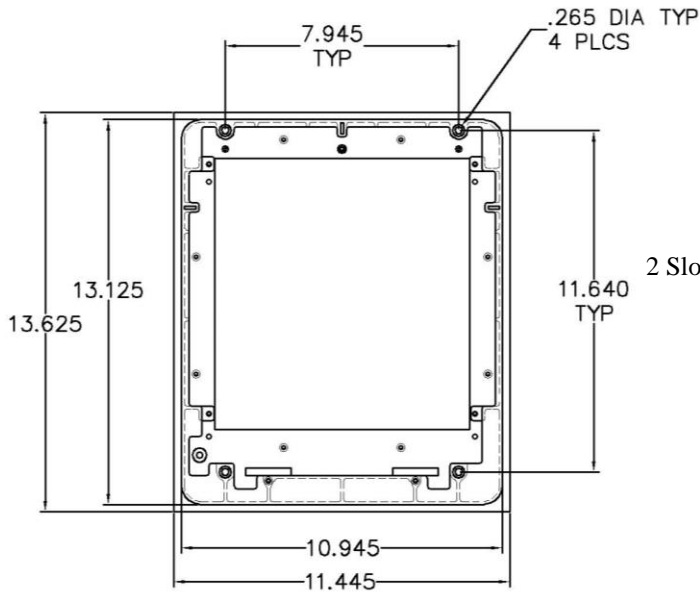
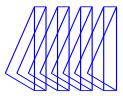


On piping using  
A "Tee" and Gas Specific Demand Valve

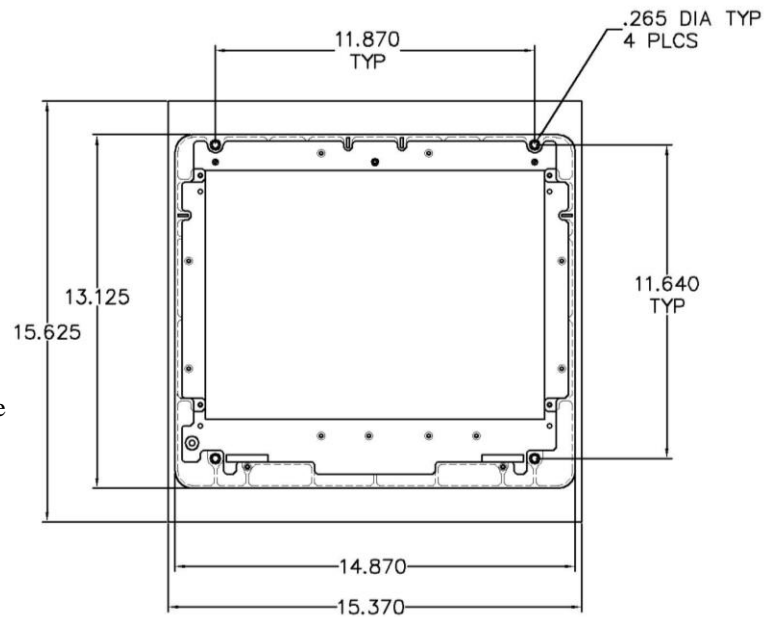
Typical Methods of  
Remotely Mounting  
Transducers



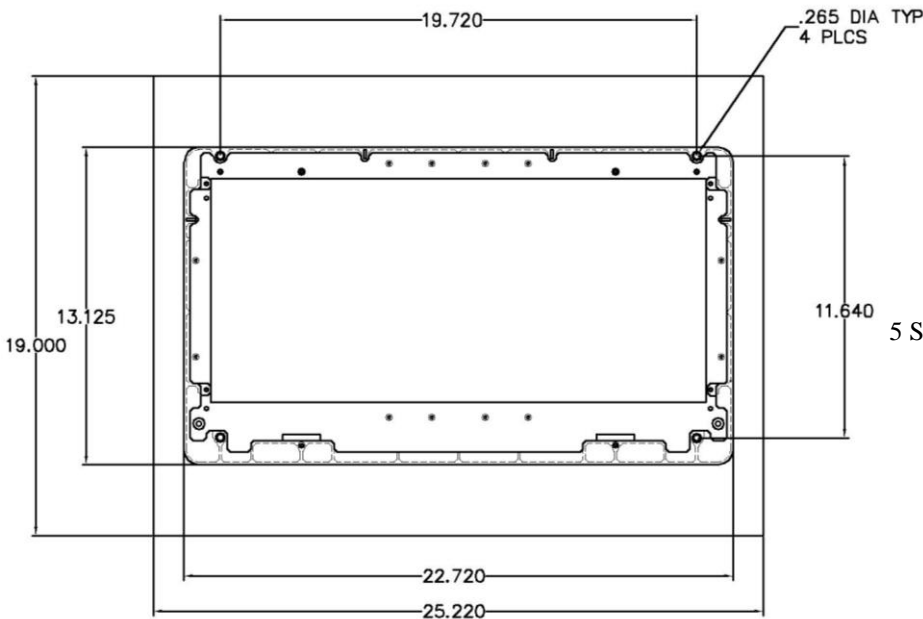
On Zone Valve using  
Tri-Tech EZ Find Valves or Retro Fit Kits



2 Slot Alarm Front Conversion Sub-Mounting Plate



3 Slot Alarm Front Conversion Sub-Mounting Plate



5 Slot Alarm Front Conversion Sub-Mounting Plate