

## VENTILATION CONTROL SYSTEM

## MODEL Tox-4ANA CONTROLLER

### TYPICAL INSTALLATIONS:

**Parking Garages**  
**Apartments**  
**Condominiums**  
**Office Buildings**

**Warehouses**  
**Tunnels**  
**Car Dealers**  
**Maintenance Garages**

**Factories**  
**Governmental Garages**  
**Fire Stations**  
**Bus Garages**

### GENERAL DESCRIPTION:

The TOXALERT'S MODEL TOX-4ANA Controller is designed to monitor Toxalert's toxic and combustible sensors and then control ventilation equipment according to gas concentrations. The controller receives 4 to 20 milliamp signals from any sensor and controls the ventilation fans according to two adjustable alarm levels. The first stage of control "warning" is normally used for activation of ventilation fans. The second stage of control "Alarm" is normally used for activation of alarm devices or Toxalert's optional alarm and id indicated by the Red LED.

Optional door mounted digital display(s) provide a visual read out of the concentration levels in parts per million (PPM) or percent of Lower Explosive level (LEL).

Optional light emitting diodes (LED's) mounted on the front of the cabinet provide visual indication of controller alarm status. The first stage of "warning" (ventilation) is indicated by amber LED(s) (one for each sensor) and the activation of fan output relay(s). The second stage of "alarm" may be indicated by the optional controller alarm.



**Tox-4ANA Sensor**



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### STANDARD FEATURES:

- Two field adjustable alarm levels
- Visual indication of "warning" level for each remote sensor.
- Two alarm level settings:
  - Level one closes contacts to start exhaust fan & light panel LED. Level two closes contacts for remote alarm indication and lights panel LED.

### OPTIONS:

- Digital display of gas concentrations
- Panel audible alarm with push button silence switch.
- Door mounted visual indication of "warning" "alarm" stages.

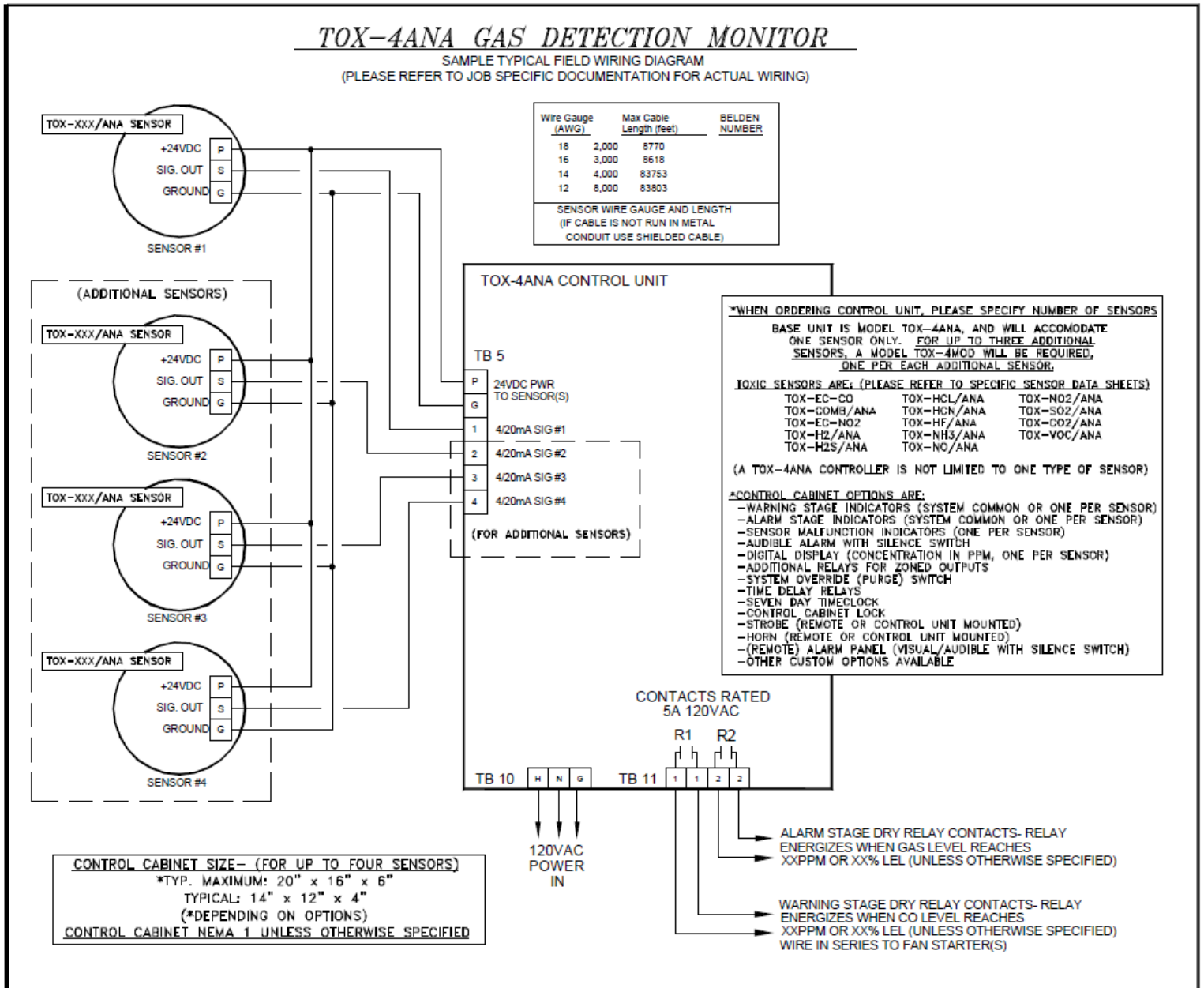
# SPECIFICATIONS:

## Environmental:

**Temperature:** +20° F to 122° C  
(+29° C to 60°C)

**Relative Humidity:** 0 to 95% non  
condensing

- **Power requirements:** 120VAC, 1 amp
- **Warranty:** 1 year
- **Digital Display:** .558”H x 1.79”W
- **Electrical connections:** Screw Terminal Strip
- **Power to Sensors:** 24 VAC & VDC
- **Signal input:** 4 to 20 ma



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## **Tox-4ANA CONTROLLER MODULE CALIBRATION:**

If TOXALERT, Inc. is given the “Warning” and “Alarm” settings required for the project when the unit is ordered the “Warning” and “Alarm” settings are factory adjusted and would not require field calibrations.

If it is necessary to readjust the “Warning” and/or “Alarm” level operation you will need an external variable 4 to 20 ma DC signal and a digital milliamp (ma) meter. Most of Toxalerts sensors have a linear output over the 4 to 20 ma signal range and that 16 ma differential covers the sensors range. Recalibrate one module at a time. Follow the following steps for each module to be recalibrated.

1. Turn power off
2. Disconnect sensor input signal at controller input terminal
3. Put a wire nut on wire disconnected in step 2 to prevent potential short circuit.
4. Connect the positive(+) lead of the external 4 to 20 ma DC signal to the positive lead of the digital milliamp meter.
5. Connect the negative(-) lead of the digital ma meter to the positive input terminal.
6. Connect the negative(-) lead of the external 4 to 20 ma DC signal to negative input terminal.
7. Turn controller power on after checking all connections.
8. Determine what ma signal level “Warning” and “Alarm” are to be set.
9. Set mA input signal to desired relay pull in current.
10. For “Warning” level use Setpoint A and use Setpoint B for “Alarm” level.
11. Adjust the 25 turn potentiometer until relay just pulls in.
12. Repeat step 8-11 for alarm levels.
13. New levels are now set.
14. Turn Power off
15. Disconnect external 4-20 ma signal & digital ma meter.
16. Reconnect sensor wires.
17. Check all connections & turn controller power ON.

