

VENTILATION CONTROL SYSTEM

MODEL TOXControl CONTROLLER

TYPICAL INSTALLATIONS:

Parking Garages
Apartments
Condominiums
Maintenance Garages

Warehouses
Tunnels
Car Dealers
Tunnels

Factories
Governmental Garages
Fire Stations
Bus Garages

GENERAL DESCRIPTION:

TOXALERT'S very flexible Model TOXControl Toxic and Combustible gas controller is micro-processor based and uses EEPROM memory to insure system programs are not lost during power interruptions. The TOXControl is designed to monitor analog signal values from remote sensors (see list of **TOXALERT'S** available sensors) and has two (2) levels of annunciation/control (warning stage and alarm stage). More levels are available if desired/required.

The TOXControl can monitor any number or combination of gas sensors and can be designed to operate any number of fans, depending on zoning requirements. Multiple panels may be networked together using a 2 conductor shielded cable, and a single or multiple visual display panel(s) can be supplied to monitor the entire system operation.

GENERAL DESCRIPTION OF OPTIONS:

Optional labeled indicators may be provided on the face of the TOXControl panel for each sensor to indicate "Warning" level, "Alarm" level and sensor "Malfunction".

Optional audible alarm with silence may also be provided on the face of the panel.

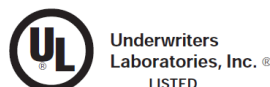
Many customers take advantage of the optional LCD display for displaying gas concentrations in PPM (parts per million) for toxins or percent (%) LEL (lower explosive level) for combustibles. The LCD display displays the sensor with the highest gas concentration. Labeled pushbuttons are provided on the face of the controller for each sensor. When a sensor pushbutton is depressed, it's gas concentrations is displayed in the LCD window.



TOXControl Panel



Remote Sensors



STANDARD FEATURES:

- BACnet MS/TP communications
- Warning/Alarm/Sensor Malfunction Indicator
- Two stages of relay contacts

OPTIONS:

- Digital display of gas concentrations with adjustable set points.
- Analog Output 0 to 10vdc or 4-20mA Output
- Additional Alarm Level

OUTPUTS:

DPDT dry relay contacts outputs are provided for each warning level and the alarm level output. The contacts are rated at 5A at 120-220 VAC resistive load. Optional 0-10 VDC analog outputs are also available

SYSTEM POWER:

Controller– The Controller requires 120 VAC to power the unit. A 20 amp lighting circuit is adequate to power the system.

Sensor Power– Sensor power is generally supplied from the TOXControl controller. Most sensors require 24 VDC but some require 24 VAC. Sensors only require a few milliwatts of power for operation. (See specific sensor data sheet for more detailed information).

TOXControl OPTIONS:

- A) One “warning level” LED may be supplied for each sensor for quick recognition of which sensor is calling for exhaust fan operation.
- B) One “alarm level” LED may be supplied for each sensor for quick recognition of which sensor is detecting an alarm condition.
- C) Sensor malfunction alarm can be supplied for the system to indicate when sensor signal has failed.
- D) The system may be programmed to automatically operate exhaust equipment on the day (s) of the week and time of day basics.
- E) Phone Modem capabilities may be included for remote system monitoring and control.

The following is a list of sensors normally used in conjunction with TOXControl. The sensors listed below are not meant to be all inclusive but rather a partial list of sensors manufactured and distributed by TOXALERT International, Inc.

SENSOR	SYMBOL	STANDARD RANGE
• Ammonia	NH ³	0 to 50 PPM
• Carbon Monoxide	CO	0 to 200 PPM
• Carbon Dioxide	CO ²	0 to 2000 and 0 to 5000 PPM
• Chlorine	CL ²	0 to 20 PPM
• Combustible		
Methane	CH ⁴	0 to 100% LEL
Natural Gas	—	0 to 100% LEL
Propane	C ² H ⁸	0 to 100% LEL
Hydrogen	H ²	0 to 100% LEL
• Hydrogen Chloride	HCl	0 to 20 PPM
• Hydrogen Cyanide	HCN	0 to 20 PPM
• Hydrogen Sulfide	H ² S	0 to 200 PPM
• Nitrogen Dioxide	NO ²	0 to 10 PPM
• Oxygen	O ²	0 to 25%
• Sulfur Dioxide	SO ²	0 to 100 PPM