



TOXALERT MODEL TOX-OXY2 GUIDE SPECIFICATION OXYGEN DEPLETION DETECTION & CONTROL SYSTEM

Provide a Toxalert Model Tox-OXY2 oxygen depletion Detection and Control Systems as specified.

The oxygen sensor(s) shall have a range of 0 to 25% and a linear 4 to 20 mA output signal over its range. The sensor shall be housed in an industrial style explosion proof housing. The sensing element shall be electro-chemical diffusion barrier type and be designed for ten (10) year element life. Sensors with a three year or less expected life are not acceptable. The sensor shall be powered by low voltage and its 4 to 20 mA output shall be directly proportional to the percent of oxygen being detected. When sensor fails it shall drive its output signal to zero indicating alarm condition.

The oxygen sensor shall have the following diagnostic light emitting diodes (LED's):

- 1) Power
- 2) Sensor Failure
- 3) LOOP UP (LED varies in intensity indicating 4 to 20 mA loop current to controller).

Sensor shall have volt meter terminals on face of sensor to indicate percent oxygen being detected.

The controller shall monitor the oxygen sensor(s) and shall have two modes of control. The first mode, "warning" shall light an amber warning lamp and start the mechanical room ventilation (or purge) system. The second mode, "alarm," shall light a red alarm light and sound the audible alarm. The audible alarm shall have momentary push button silence switch to silence the audible portion of the alarm. The audible alarm, after being silenced, shall automatically reset and sound again at the next alarm occurrence.

When the oxygen level drops to 19.5% the "warning" mode shall be activated. When the oxygen level drops to 18.5% the alarm mode shall be activated. Contact outputs shall be supplied for "warning" and "alarm" modes.

The controller shall have dry contacts on both the warning and alarm stages to interface to the facility EMS.

The controller panel front shall include the following labeled indicator lights and control switches:

- 1) Power to system light.
- 2) Labeled “warning” level indicator light for each sensor.
- 3) Labeled “alarm” level indicator light for each sensor.
- 4) Audible alarm & silence push button.
- 5) Purge switch to manually activate the mechanical room ventilation equipment.
- 6) Sensor malfunction light.

The oxygen depletion detection and control system shall be as manufactured by Toxalert International, Inc.

Note for specifying engineer: The following are options you may want to specify.

OPTIONS:

- 1) digital value display for visual indication of oxygen concentration
- 2) Red Alarm strobe light on top of controller
- 3) Remote Alarm Panel.

SPECIFICATIONS FOR OPTIONS:

Provide LCD digital value display on the face of the controller for each gas being monitored. The display shall read in percent of oxygen.

Provide a remote visual and audible alarm and locate (where).
(Maximum 1000 feet away from control unit).