



Gas Detection For Life

Application Brief

OXYGEN DEFICIENCY MONITORING IN HOSPITALS

The Issue:

Hospitals use and store large quantities of industrial and medical gas cylinders and containers; one common container is for liquid nitrogen. Liquid nitrogen provides temperatures as low as -196°C and it can be used for cryobiology and cryotherapy. The low temperature is used in cryoconservation for the long-term preservation of blood, blood components, other cells, body fluids or tissue samples.



3 Color Display



Normal



Alarm 1



Alarm 2

The presence of nitrogen cylinders and containers requires a focus on safety. Liquid Nitrogen rapidly vaporizes to gas at about 700 times the liquid volume. By displacing air the gas may kill by asphyxiation. When the oxygen concentration in air is sufficiently low, a person can become unconscious without any warning symptoms.

Solution:

RKI's Model OX-600, stand alone oxygen monitor units, can monitor individual rooms that store nitrogen containers. An optional remote mount sensor and cable can be equipped which allows the unit to be mounted on the outside of the room, in the hallway, while the extender cable allows the sensor to be located in the area with the nitrogen containers. This allows a person to recognize the condition of a room storing nitrogen prior to entering. Being aware of oxygen deficiency in the presence of compressed nitrogen cylinders or liquid nitrogen containers can save lives.

The OX-600 is an indoor, standalone monitor that detects Oxygen (O₂) with a range of 0-25.0 % volume with 0.1% increments. Its sleek, low profile design is equipped with a unique tri-color display, which changes color as oxygen levels reach each alarm level. The OX-600 has 2 preset alarms, and comes ready to operate with a simple wall mount bracket and 10 foot power cord. It is capable of operating with three different power options: 115 VAC, 24 VDC or alkaline batteries (in Canada, only the 24 VDC and alkaline versions are available currently). If Oxygen is present, the user is notified

by an audible alarm tone and the multicolored LED digital display.

The OX-600 uses a fast responding low-cost plug-in style galvanic cell sensor. This long life sensor is field-replaceable with no special tools required. The sensor can also be remotely mounted when instrument is supplied with optional sensor cable.

