

## Gas Sensor FAQ

### **How often should sensors be re-calibrated?**

The time period between initial calibration and successive re-calibrations depends on many factors, commonly the operating temperature/humidity/pressure in which the sensor is used, the gases it is exposed to and the length of time the sensor is exposed to gas. In general, however, sensors provide very stable signals over time and for most applications, instruments containing sensors would only require periodic calibration, often as little as once a year. In strenuous applications involving extremes of operation, or for sensors used in safety applications, more frequent instrument calibration may be required.

### **Can sensors tolerate continuous exposure to target gas?**

Oxygen sensors are available to monitor concentration of oxygen continuously in the range 0-30% oxygen by volume or partial pressure continuously in the range 0-100% oxygen by volume. Our Toxic Gas Sensors have been designed for intermittent monitoring of target gases and are generally unsuitable for continuous monitoring applications, particularly those involving high concentrations of gases or extremes of humidity and temperature. Continuous monitoring may sometimes be achieved by cycling two (or even three) sensors in and out of the gas stream, such that each sensor is only exposed to gas for up to one half the time, being allowed to recover in fresh air for the other half.

### **What is the recommended storage period?**

The maximum recommended storage period for sensors is six months. During this time the sensors should be stored in the containers in which they were supplied in clean dry areas between 0°C and 20°C. Sensors should not be stored in areas containing organic solvents or in flammable liquid stores. Under these conditions sensors may be stored for up to six months without the length of their expected operating life being reduced. Sensors may be stored for longer periods but we are unable to give data on how they will then perform.

### **Can I test a sensor with a surrogate gas?**

Sensors should be calibrated with their target gas to ensure maximum accuracy. The calibration is best made using a gas mixture with a concentration where most measurements will be made; where this is not possible a gas mixture towards the top of the sensors measuring range should be used. Calibration gases that exceed the sensors measuring range should not be used since this may lead to an inaccurate calibration.

### **Life and Replacement**

Most sensors are designed for a minimum life span of 2 years and are warranted for 1 year from the date of shipment. Life expectancy can be as high as 10 years. Oxygen sensors have a life span of 2 years and are warranted for a period of 1 year from the date of shipment. To verify expiration date, see serial number data tag or the data sheet provided.

### **Gas Sensor Date Code**

Each gas sensor and its plastic storage container have an eight digit serial number followed by a space, and then a three digit date code. The first two digits of the date code signify the month of manufacture; the third digit signifies the year. For example, 060 represents June of 2010.