

3M™ Know Your Air Software for the Multi-Gas Detector 950 Series - Sensor Options



The 3M Know Your Air program allows Gas Alarm levels to be set, within some limits, to values other than those recommended or suggested as the initial default values or current occupational exposure limits (OEL). Changing alarm levels to higher values than recommended or required should not be carried out without careful consideration of the consequences of such an action. Alarm levels may also be set to values that are lower than the OEL or generally recommended levels. The user of the detector must be informed of any such change. **Failure to do so may result in sickness or death.**

In the KNOW YOUR AIR PC Software, the “Sensor” tab provides access to information concerning the 3M smart sensors that have been installed in the 950 Series Detector, ability to view and change installed sensor alarm and warning levels, calibration settings and warranty expiration information.

Note, although the various gas alarm and warnings for an installed sensor can be silenced for up to 5 minutes after activation on the 950 Series detector they cannot be programmed to be permanently silenced or deactivated in the Know Your Air Software.

Making a change to a field in the menu will cause that field to be highlighted (yellow) until such time as the change has been successfully transferred to the detector. Pressing the Reset button will return all tentative changes to their original values.

Under the Alarms and Warnings Section the gas warning indicator for the sensors installed may be enabled or disabled. The detector will remind users that a calibration of the sensors is due on a particular day if the sensor calibration due warning box is checked. The longest interval between calibrations for which the system will issue a reminder is 365 days. Recommended time between calibrations is every 30 days or on every use. The detector can be programmed to warn users when the warranty period has expired for the installed sensors. If the sensor warranty expiration warning is enabled then another option will appear to allow for stopping the operation of the 950 Series detector.

Under the Calibration Functions section checking the box to Prompt to Calibrate at Power On will remind the user to perform the calibration before continuing to carry out a survey. As sensors should only be zeroed when the user is confident that the detector is in a non-contaminated environment, it may be appropriate to allow for retention of a previously determined zero value when proceeding with a calibration. An option is provided to allow or disallow spanning without zeroing.

By clicking on the appropriate box users may also choose to show or hide the Span and Zero values during the detector's calibration routine.

The Smart Sensor Data section displays the two letter symbol for all the sensors currently installed in the 950 series detector. Each 3M smart sensor is identified with its own serial number. The highest sensing range value for each sensor is also displayed. The alarm set points and warning levels are displayed for each sensor. The alarm set points and warning levels may be customized within certain limits to meet a users particular needs.

For example, the hydrogen sulfide or HS sensor has a factory default alarm set point at 10 parts per million. This alarm set point may be changed to any of eight levels from 2 – 100 parts per million. The HS sensor factory default Short Term Exposure Limit or STEL alarm set point is set at 15 parts per million. This STEL alarm set point may be changed to any of four levels from 2 – 100 parts per million. The HS sensor factory default Time Weighted Average or TWA alarm set point is set at 10 parts per million. This TWA alarm set point may be changed to any of four levels from 2 – 100 parts per million. The detector will display a warning signal when gas levels are present at a programmed percentage of the alarm set point. Typically the warning is set at 50% of the alarm level but this percentage can be varied from 10 – 90% of the alarm set point.

This section also displays the warranty expiration date for each sensor installed in the detector.

Under the Calibration section the zero and span values are shown for each sensor. On calibration of a particular sensor, the 950 Series Detector will determine the required value for the Zero and Span. There are limits of allowable values for these parameters that will determine when a sensor may be used or when it fails calibration. As a sensor ages, the Span value may change. Maintaining an awareness of the Span value may assist the user in projecting when a 3M smart sensor replacement may be required.

For certain sensors such as the Explosive or EX sensor, the gas used to calibrate the sensor may be selected. For the EX sensor pentane, methane or hydrogen can be selected for the calibration gas.

To send changes to the 950 series click on the configure button. The software will configure the connected detector. When completed a warning box will appear indicating changes made with the software will not take affect until the detector has been turned off and restarted.