Impact of Temperature Changes on Ventis™ Pro Series CO/H₂S Sensor

The Ventis Pro Series CO/H₂S sensor (part number 17155306-J, 6-series) will experience short-term drift issues when there is a rapid and dramatic change in the ambient temperature. Users may notice the issue when maintaining instruments indoors and walking outdoors to perform their work or vice versa. For example:

- A user calibrates an instrument indoors at room temperature (68°F/20°C) and then walks outdoors where the temperature is 32°F/0°C. The instrument’s carbon monoxide (CO) reading will increase to 15 ppm after two minutes on average. As the sensor adjusts to the new ambient temperature, the CO reading will gradually return to 0 ppm (assuming clean air) and stabilize after 15 minutes on average. The H₂S readings may decrease to -1 ppm, but will also stabilize.

- A user calibrates an instrument indoors at room temperature (68°F/20°C) and then walks outdoors where the temperature is 104°F/40°C. The instrument’s carbon monoxide (CO) reading will decrease to -10 ppm after two minutes on average. As the sensor adjusts to the new ambient temperature, the CO reading will gradually return to 0 ppm (assuming clean air) and stabilize after 15 minutes on average. Hydrogen sulfide (H₂S) readings may increase to 1 ppm, but will also stabilize.

Allow the sensor and its readings to stabilize prior to performing a zero.

Assuming a standard CO low alarm set point at 35 ppm and high alarm set point at 70 ppm, the temporary sensor drift will typically not cause nuisance alarms and will not pose a safety hazard for users.

Depending on instrument configuration, alternative sensors may be available which do not exhibit the same temporary sensor drift with rapid temperature changes.

- CO/H₂S sensor – part number 17155304-J, 4-series
- CO sensor – part number 17155306-1, 6-series
- H₂S sensor – part number 17155306-2, 6-series

For additional information, visit our website at www.indsci.com or contact your local Industrial Scientific representative. Global contact information can be found at www.indsci.com/offices.

Sincerely,

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