

SulfiLogger H₂S sensor

Zero calibration

Disclaimer

The SulfiLogger™ H₂S sensor can be zero calibrated if needed.

Please pay attention to all warning statements (⚠) in this document before attempting to perform this calibration.

⚠ *The zero calibration is not part of the SulfiLogger™ H₂S sensor's standard calibration procedure and it should not be performed as part of a regular maintenance routine.*

The zero calibration should only be performed if there is a suspicion that the measurements are too high when no hydrogen sulfide is present.

Before initiating the zero calibration, it is necessary to test if the zero calibration is advisable by checking the readings in an atmosphere free of hydrogen sulfide.

Testing if the zero calibration is advisable

Extract the sensor from its measurement location, clean it, and leave it powered on for at least 12 hours in a stable environment at room temperature conditions free of hydrogen sulfide. When 12 hours have passed, the sensor should be measuring close to 0.

If the measurements are above 1% of the sensor's full measurement range (etc. more than 10 ppm for a 0-1000 ppm sensor, or more than 0.05 mg/L for a 0-5 mg/L sensor), then it is advisable to perform the zero calibration.

If the measurements are below 1% of the sensor's full measurement range, then it is not advisable to perform the zero calibration.

⚠ *The zero calibration should only be performed if the sensor's measurements are above 1% of the full measurement range when no hydrogen sulfide is present.*

Zero calibration procedure

Perform the following 4 steps to zero calibrate the sensor. The procedure is illustrated in Fig. 1.

⚠ *Before initiating the zero calibration, follow the steps described in the section "Testing if the zero calibration is advisable".*

- 1) With the sensor powered on, place and hold a magnet in the upper-right corner of the sensor's marking plate to activate the zero calibration mode. The zero calibration mode is successfully activated when the sensor's indicator light changes to a pattern of alternating red and green flashes.
- 2) Hold the magnet still at this spot and count 15 flashes. You must count all flashes – both the red and the green ones – until you reach 15 flashes in total.
- 3) Remove the magnet.
- 4) Repeat this procedure several times (at least 3 times) until the indicator light changes to a pattern of continuous green flashes while the magnet is held on the spot. Remove the magnet. You have now zero calibrated the SulfiLogger™ H₂S sensor.

Fig. 1 Zero calibration procedure

