

As sensitivity to H₂O₂ will decline over time it's important to check the sensor's response to H₂O₂ after a calibration with SO₂. The following document describes the bump test procedure for the WatchGas PDM+ using actual H₂O₂.

Calibration

The WatchGas PDM+ H₂O₂ can be calibrated using sulfur dioxide (SO₂) as surrogate gas. A correction factor of 1.0 can be used. So, when using 20 ppm of SO₂ set the span value to 20 ppm. Please refer to the PDM+ user manual for calibration instructions.

Bump test requirements

This bump test requires:

1. WatchGas PDM+ H₂O₂
2. Gloves and safety goggles
3. 100 ml beaker (or similar)
4. 3wt% H₂O₂ solution in water (higher concentrations can also be used)
5. Ambient temperature in between 20-30°C.

Bump test procedure

1. Take adequate safety measures when working with the H₂O₂ solution, such as gloves, protective clothing and safety goggles. Also, refer to the MSDS.
2. Turn on PDM+. Check if the gas reading is stable at 0.0 ppm H₂O₂.
3. Fill beaker with 40 ml 3wt% H₂O₂ in H₂O. Alternatively, smaller volumes can be used when working with a smaller beaker. Always ensure some space between the H₂O₂ solution and the PDM+.
4. Place the PDM+ on top of the beaker containing the H₂O₂ solution, as seen in the picture. Wait for 60 seconds.
5. The reading on the PDM+ should be over 1.0 ppm (default alarm limit) within these 60 seconds.

If the PDM+ does not reach the threshold value within 60 seconds, retest with another solution of H₂O₂ and/or perform another calibration using SO₂.

When the test continues to fail, please contact WatchGas support or your local distributor.

