

Technical Information

Zero-point gel COY8

For reliable and easy verification, calibration and adjustment of the zero point of oxygen sensors



Application

- The oxygen-depleting zero-point gel enables straightforward and reliable verification, calibration and adjustment of the zero point of oxygen sensors.
- Thanks to its ease of application, it is used both in the field and in the lab: Once the aluminum pouch has been opened, the vial containing the ready-made zero-point gel can be taken out and used immediately. No additional preparation is required.
- Once it has been removed from the aluminum pouch, the gel can be used within 24 hours for verification, calibration and adjustment.

Your benefits

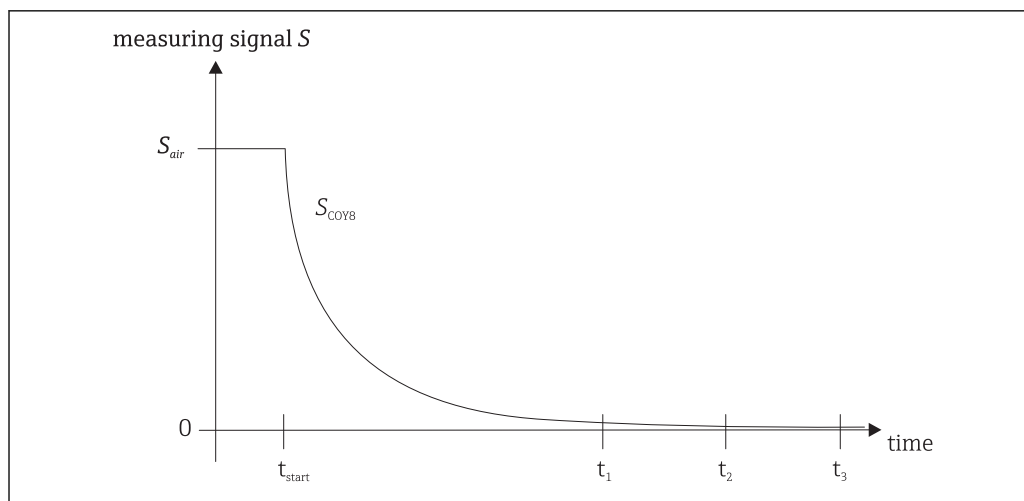
- Straightforward and reliable verification, calibration and adjustment of the zero point of oxygen sensors.
- No preparation, gel is supplied ready-made.
- Long shelf life if unopened, packed in aluminum pouch.
- Can be used reliably within 24 hours after opening the aluminum pouch.
- The gel is also suitable for verifying the zero point of chlorine sensors.

Function and system design

Operating principle

The zero-point gel can be used to check the quality of the zero point of an oxygen sensor. The oxygen-depleting zero-point gel enables straightforward and reliable verification, calibration and adjustment of the zero point of oxygen sensors.

If the sensor is operated in air, it provides the appropriate measuring signal " S_{air} ". After the sensor has been inserted into the zero-point gel, the signal " S_{COY8} " starts to drop from the " t_{start} " point. The value approaches the zero point:



A0027459-EN

1 Standardized sensor signal

Sensor verification, calibration and adjustment meet the increasingly strict requirements regarding the quality of the zero point:

t_1 - Verification of sensor signal

The residual signal is in the range of $< 5\%$ of S_{air}

t_2 - Calibration of sensor signal

The residual signal is in the range of $< 2\%$ of S_{air}

t_3 -Adjustment of sensor signal

The residual signal is in the range of $< 1\%$ of S_{air}



The sensor signal should be in a suitably stable and steady state (i.e. in accordance with the requirements for stability).



The percentages shown are drawn from practical experience and can be adjusted based on the customer or application.

	Verification	Calibration	Adjustment
Rate of change of measuring signal S	high	average	low
Residual signal	$< 5\%$ of measuring signal S	$< 2\%$ of measuring signal S	$< 1\%$ of measuring signal S
Typical times	$t_1 \geq 1 \text{ min}$	$t_2 \geq 30 \text{ min}$	$t_3 \geq 60 \text{ min}$
Definition	Checking the general function of the measuring point.	Comparing the actual value to the expected value.	Adjusting the zero point after a sufficiently long stabilization period.

Performance characteristics

- Life span once aluminum pouch has been opened: 24 hours.
- Storage life if unopened (packed in aluminum pouch) max. 24 months (see inscription on label).

Environment

Ambient temperature	+10 to +45 °C (+50 to +113 °F)
Storage temperature	0 to 50 °C (32 to 120 °F)

Mechanical construction

Depending on version:

- 25 ml (for sensors with shaft diameter of 12 mm)
- 100 ml (for sensors with shaft diameter of 40 mm)

Materials

Bottle:
PET

Contents:

- Water
- Cellulose
- Traces of oxygen-depleting components



Safety information:

This product is not classified as a hazardous material. Additional information can be found on the MSDS safety data sheet. According to our experience and the information available to us, this product is not damaging to health if used correctly and in the designated manner.



Disposal information:

The zero-point gel can be disposed of as regular household waste in accordance with the official regulations.

Ordering information

Product page	www.endress.com/coy8
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Product Configurator

The navigation area is located on the right of the product page.

1. Under "Device support" click "Configure your selected product".
 - ↳ The Configurator opens in a separate window.
2. Select all the options to configure the device in line with your requirements.
 - ↳ In this way, you receive a valid and complete order code for the device.
3. Export the order code as a PDF or Excel file. To do so, click the appropriate button at the top of the screen.

Scope of delivery

- Bottle containing zero-point gel, volume as per order code
- Packed individually in labeled aluminum pouches, quantity as per order code
- Documentation for zero-point gel

www.addresses.endress.com
