

# ResOx Residual Oxygen Measuring System



- Attractive price-performance ratio
- Quick measurement readings (approx. 20 s)
- Slim sensor housing enables easy handling, hose length allows freedom of movement
- With data logger: Measured values can be analysed on the PC with USB adapter and software (accessories)
- Watertight (IP 65 / IP 67)
- Pressure compensation

## Available in two versions:

### ResOx 5695-H

Residual oxygen measuring system  
 (for gases with elevated CO<sub>2</sub> percentage, sensor GOEL 370)

### ResOx 5695-L

Residual oxygen measuring system  
 (for precise measuring in gases with more than 35 % vol. or less than 0.3 % vol. O<sub>2</sub>, sensor GOEL 381)

## General information

New measuring system with new gas pump for greater measuring convenience – can now also be used in rigid packages and packages with low quantities of gas.  
 The filter membrane protects the sensor from suctioning in particles or fluid unintentionally.

## Use

For quality control of MAP food product packages and comparable applications

## Scope of delivery

Ready-to-operate system: Measuring device GMH 5695, incl. battery, sensor housing with pressure connection, incl. sensor element GOEL 370 or 381, gas pump GS 150, incl. battery, operating manual, as well as brief application instructions, hoses/T-piece, 2 membrane filters, 2 GOG-N puncture needles Ø 0.9 mm, 1 GOG-B set (45 pcs. adhesive seal) for rigid as well as soft packaging. Delivery in the practical GKK 3700 case.

## Technical data

<b>Measuring channels</b>	: Oxygen, temperature, air pressure
<b>Measurement ranges O<sub>2</sub></b>	: 0.0 ... 100.0 % vol. O <sub>2</sub> or display in hPa O <sub>2</sub> /mmHg O <sub>2</sub>
<b>Temperature</b>	: 0.0 ... 50.0 °C
<b>Air pressure</b>	: 300 ... 5000 hPa (sensor: 500 ... 2000 hPa)
<b>Additional functions</b>	: Min/Max function – for convenient measuring of the final value Pressure compensation in the gas path – negative pressure in the package/ on the sensor is compensated
<b>Applicable sensors</b>	: GOEL 370, 381
<b>Connections on the device</b>	
<b>Sensor</b>	: 7-pin bayonet Pressure port for hoses with inside Ø 4 mm
<b>Output/ext. supply</b>	: OUT socket: – Interface 38400 baud – Analogue output 0–1 V, adjustable – Ext. supply 5 V
<b>Calibration</b>	: Quick calibration on air at the push of a button or 2-point/3-point calibration (air +0% and 100%)
<b>GLP</b>	: Calibrating interval, calibration history
<b>Data logger</b>	: Automatic: 10,000 data records, selectable cycle: 1 s ... 60 min Manual: 1000 data records with measuring point input
<b>Pump</b>	: Battery operated membrane pump with input/output port
<b>Max. negative pressure</b>	: Approx. –360 mbar
<b>Delivery rate</b>	: With membrane filter: approx. 80 ml/min
<b>Connection</b>	: Pressure port for hoses with inside Ø 4 mm
<b>Additional features</b>	: Device and sensor are watertight (IP 65, IP 67), protective armouring, backlighting

## Data sheet

## Handheld measuring devices

### Ordering code

ResOX 5695 –  1.

1. Device	
H	<b>ResOx 5695-H residual oxygen measuring system</b> for gases with elevated CO <sub>2</sub> percentage, sensor GOEL 370
L	<b>ResOx 5695-L residual oxygen measuring system</b> for precise measuring in gases with more than 35 % vol. or less than 0.3 % vol. O <sub>2</sub> , sensor GOEL 381)

### Accessories and consumable items

1.	<b>GOG-A, Art. no. 603043</b>
	Adhesive cellular foam seals for soft packages (40 pcs.)
2.	<b>GOG-B, Art. no. 610013</b>
	Adhesive seals for rigid as well as soft packages (45 pcs.)
3.	<b>GOG-N, Art. no. 603047</b>
	Puncture needle, Ø 0.9 mm (5 pcs.)
4.	<b>Membrane filter, Art. no. 601599</b>
	Membrane filter prevents unintentional suctioning in of particles or fluid
5.	<b>GS 150, Art. no: 610005</b>
	Gas pump for gas sampling
6.	<b>GOEL 370, Art. no.: 601490</b>
	Spare sensor element, long-life, for gases with elevated CO <sub>2</sub> percentage
7.	<b>GOEL 381, Art. no.: 610035</b>
	Spare sensor element, precise also for gases with more than 35 % or less than 0.3 % vol. O <sub>2</sub>
8.	<b>GAK 5100, Art. no: 601095</b>
	Interface adapter
9.	<b>GSOFT 3050, Art. no.: 601336</b>
	Read-out software



### Components

No.	
①	Measuring device GMH 5695 incl. battery
②	Sensor housing with pressure connection, incl. GOEL sensor
③	Gas pump GS 150 incl. battery
④	Hose set
⑤	Membrane filter
⑥	GOG-N puncture needles, diameter 0.9 mm
⑦	GOG-B: 45 pcs. adhesive seals

### Quick measurement

- Apply adhesive seal
- Puncture with needle
- Switch on the pump
- Read the minimum value after approx. 20 s

Calibration service with calibration certificate ISO-WPO3

### Selection of the sensor element

Sensor element	GOEL 381 Standard for ResOx 5695-L	GOEL 370 (rev 2) Standard for ResOx 5695-H
Range of application	<b>Protective gases in general, precise measurements with extremely low measuring value (e.g. &lt;math&gt;0.5\% \text{ vol. O}_2&lt;/math&gt;) and over 35 % vol. O<sub>2</sub></b>	<b>Protective gases with high CO<sub>2</sub> concentration and oxygen content &lt;math&gt;&lt;35\% \text{ vol. O}_2&lt;/math&gt;</b>
Continuous use at high CO <sub>2</sub> values	–	+++
Brief use in CO <sub>2</sub>	+	+++
Use up to 100 % vol. O <sub>2</sub>	+++	–
Suitability for measuring under 0.5 vol.% O <sub>2</sub>	+++	+
Speed / T90	++ / <math><10 \text{ s}</math>	++ / <math><10 \text{ s}</math>
Service life / hours per vol.% O <sub>2</sub> / on air	+ / 500,000 % h / >2 years	++ / 1,200,000 % h / max. 6 years
Measuring range	O <sub>2</sub> partial pressure	0 ... 1100 hPa
	O <sub>2</sub> concentration	0.0 ... 100.0 % vol. O <sub>2</sub>
		0 ... 350 hPa
		0.0 ... 35.0 % vol. O <sub>2</sub> (reduced accuracy above this concentration)