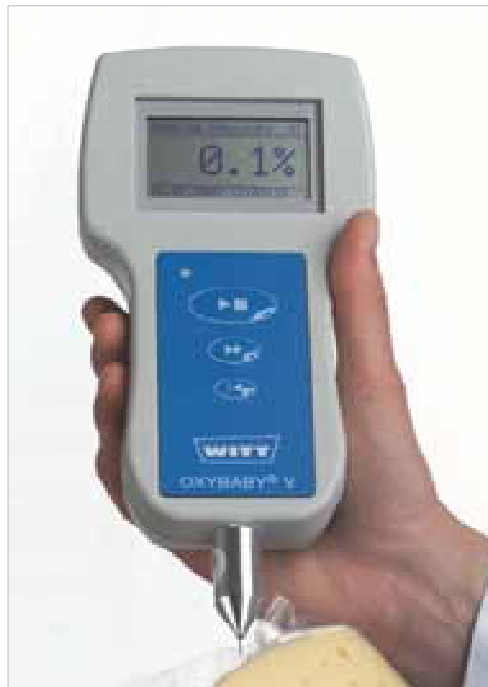




Instruction Manual OXYBABY[®] V



Issue: 29.11.2004

This issue is not subject to change management

WITT-TECHNOLOGY FOR GASES

© Copyright WITT-GASETECHNIK GmbH & Co KG, 2004, all rights reserved

MAP all in one hand

GAS MIXING



KM range

- easy handling
- constant quality
- high process reliability
- maximum hygiene
- for 2 or 3 gases



KM+ range

- remote control
- tamper proof
- high mixing accuracy
- linkable (e.g.CAN-Bus)
- for 2 or 3 gases

GAS FLOW CONTROL



KD range

- up to 30% gas savings
- integrated O₂ analysis
- electronic gas flow control

GAS ANALYSIS



MFA range

- analysis of smallest packages
- fast measuring results
- recording of results
- easy handling



Oxybaby[®]V range

- one-hand operation
- minimal sample gas required
- fast response time
- recording of measurements
- multilingual menu guide

PACKAGE CHECK



Leak-Master range

- detection of smallest leaks
- reliable packaging process
- minimal response time
- for different pack sizes
- recording of results

PRODUCTS FROM WITT

1	Table of contents	
1	Table of contents.....	3
2	Introduction	4
3	Accessories	4
4	Functional description	4
5	Power supply	5
6	Operating modes.....	5
	6.1 Sample-hold operation	5
	6.2 Continuous operation.....	5
7	Operation	6
	7.1 Open / close needle cover	6
	7.2 Switch on	6
	7.3 Perform an analysis.....	6
	7.4 Switch off	6
	7.5 Programme options	7
	Measurement and display mode.....	7
	Select product	7
	Show logged data	7
	Send logged data	7
	Delete all logged data	7
	Set / rectify date and time	8
	Select operating mode.....	8
	Calibration, zero calibration	8
	Calibration, span calibration	8
	Select language	8
	Rotate display	8
8	Calibration.....	9
	8.1 Zero calibration	9
	8.2 Span calibration	9
9	Technische Daten.....	10
10	Servicing / maintenance	10
	10.1 Replace O ₂ sensor	11
11	Error messages / warnings.....	11
12	Readout data from OXYBABY®	11

2 Introduction

The OXYBABY® is an ergonomically shaped cordless oxygen analyser suitable for single hand operation. The measurement range is 0 Vol.-% to 100 Vol.-% O₂ in mixtures of non-flammable gases. It is intended to be used for analysing the residual oxygen contents in food packages and similar applications.

The unit shall not be used in locations with a prevailing explosive atmosphere. It shall not be used for analysing gas mixtures containing flammable gases.

The OXYBABY® is equipped with an internal memory for 100 measurement data. Data will be kept in the memory even when the analyser is switched off. The measurement data can be transferred to a PC using the WITT-Logger PC software which is optionally available.

To protect the operator the OXYBABY® is equipped with an automatic needle cover.

3 Accessories

The OXYBABY® is delivered with the following accessories:

Quantity	Description	WITT part no.
1	Carrying case	800507400
1	Mains adapter	850003200
100	Foam pads, sheet	800507900
2	Injection needle, in storage container	800499700 800286100
2	Filter, pore size 0,45 µm	800462800
1	Instruction manual for OXYBABY® V and OXYBABY® Terminal PC software on CD-ROM WITT-Logger PC software on CD-ROM (demo-version, clearing by option)	595000001

4 Functional description

The OXYBABY® is intended to be used for measuring residual oxygen concentrations in MAP packs and similar applications. The sample gas is drawn into the instrument by a built-in pump and fed to an electro-chemical O₂-sensor where the O₂ contained in the sample gas generates a small electrical voltage proportional to the O₂ concentration. The voltage signal from the sensor is measured, and the corresponding O₂ concentration is calculated and shown on the display.

The measured O₂ concentration, with date and time of measurement are automatically recorded after the analysis has been finished. The internal memory is a ring type buffer, i.e. once the memory is full, the oldest data will be automatically deleted when a new measurement value is stored. Memory occupancy is indicated by a segment bar shown in the bottom line of the display.

The useful life of the O₂ sensor is approx. 1.5 to 2 years at normal ambient conditions (21 Vol.-% O₂, 20°C). The lifetime of the sensor will decrease if the O₂ concentration increases above 21 Vol.-%.

The OXYBABY® is equipped with an automatic pressure compensation to prevent incorrect analyses resulting from changes in ambient pressure or gas pressures in the packaging.

5 Power supply

The instrument utilises a battery pack with two build-in high quality rechargeable batteries for power supply (Type: Rechargeable Ni-MH batteries, size AA, 1800 mAh). Empty batteries are signalled by an audible warning signal and display of the error message **battery low**. Additionally, a battery symbol shown in the right bottom of the display indicates the charging status of the batteries.



In this case no further analyses should be performed as measurement accuracy may be impaired.

Connect the OXYBABY® to the charging device and recharge batteries.

The service life of the battery pack is approximately 2 to 3 years. It can be replaced when required.

Use only genuine spare parts!


To purchase a new battery pack please refer to Part number: 800.517100.

6 Operating modes

The OXYBABY® can be used in two different operating modes:

6.1 Sample-hold operation

Following to the start of the measurement the measurement programme runs automatically. A gas sample is drawn from the packaging and the O₂ concentration is measured. Sample time is 6 seconds. The sampling is automatically stopped when the sample time has elapsed. The measured O₂ concentration, and date and time of measurement are automatically recorded after the analysis has been finished.

The measurement time can be extended by pressing  while the measurement is taken.

6.2 Continuous operation


After start of the measurement sample gas is continuously drawn from the packaging and the O₂ concentration is continuously being analysed.

During measurement the operating mode (permanent) is shown in the first line of the display. The currently measured O₂ concentration (Vol.-%) is shown in the middle of the display.

Date and time of last recorded analysis are shown in the lower line of the display.



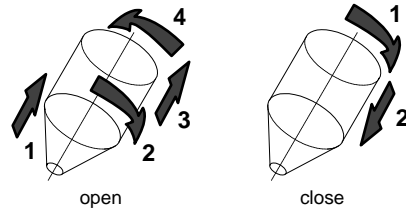
During continuous operation the currently measured O₂ concentration will be recorded every 10 seconds.


The measurement can be stopped at any time by pressing . The latest measured O₂ concentration, and date and time of measurement are automatically recorded.

7 Operation


 **Note !**
Please charge batteries (approx. 2 hours) prior to first use.

7.1 Open / close needle cover






 **Recommendation !**
Open the needle cover only immediately before performing a measurement. Close needle cover immediately after each measurement.

7.2 Switch on


- Press  to switch the instrument on.
- The following data will appear in the display: Software version and serial number of the instrument. Subsequently the display will show the message "last sample", the latest measured O₂ concentration, and date and time of latest measurement.


7.3 Perform an analysis

- Press  to start O₂ measurement.
- Press  to stop O₂ measurement (only in continuous operating mode necessary).
- The latest measured O₂ concentration is shown in the display.

 **During continuous operation the latest measured O₂ concentration, and date and time of measurement are automatically recorded every 10 seconds.**

7.4 Switch off

- Press  for 2 seconds.
- The instrument is automatically purged and subsequently switched off.

 **The OXYBABY® provides an automatic switch off feature. It will be automatically switched off if no operations (e.g. operation of a key or performing a measurement) were performed for more than 2 minutes.**

7.5 Programme options

The OXYBABY® offers a number of programme options which can be selected by pressing the key located in the middle of the key pad.


Key	Display	Programme options														
<p>1x</p>		<p>Measurement and display mode</p> <p>After switch on the unit enters automatically the measurement and display mode. The result of the latest analysis is shown in the display.</p> <p>Date and time of measurement and actual memory occupancy are shown in the bottom lines of the display. Occupied memory space is indicated by dark filled segments of the bar, free memory space is indicated by non filled bar segments.</p> <p>A battery symbol indicates the actual charging status of the batteries, i.e. a dark coloured battery means: fully charged.</p>														
<p>1 x</p>		<p>Select product</p> <p>The current selected product is shown in the lower line of the display.</p> <p>Press to start product selection.</p> <p>Select another product with .</p> <p>Confirm the selected product with .</p> <p>To edit product names it is necessary to connect the OXYBABY® to your computer by an interface cable (optional available). The product names are edited by the WITT-software «OXYBABY® - Terminal» and transmitted to the OXYBABY®.</p> <p>Press to return to the measurement and display menu.</p>														
<p>2x</p>	<table border="1"> <thead> <tr> <th>Record</th> <th>100-95</th> </tr> </thead> <tbody> <tr><td>0.8%</td><td>31.07. 08:09:24</td></tr> <tr><td>0.7%</td><td>31.07. 08:07:15</td></tr> <tr><td>0.3%</td><td>31.07. 08:05:35</td></tr> <tr><td>10.8%</td><td>31.07. 07:05:54</td></tr> <tr><td>10.4%</td><td>30.07. 07:01:24</td></tr> <tr><td>0.1%</td><td>30.07. 06:05:15</td></tr> </tbody> </table>	Record	100-95	0.8%	31.07. 08:09:24	0.7%	31.07. 08:07:15	0.3%	31.07. 08:05:35	10.8%	31.07. 07:05:54	10.4%	30.07. 07:01:24	0.1%	30.07. 06:05:15	<p>Show logged data</p> <p>Press :</p> <p>An analysis trend chart will be displayed.</p> <p>With the six latest recorded measurement data will be displayed in tabular form with date and time of measurement. Repeatedly press to successively display remaining data.</p> <p>The first line in the display will show: record and number of records (e.g. 100-95 for latest six measurement data).</p> <p>In case of no recorded measurement data the bottom line in the display will show: no data in memory.</p> <p>The restricted space of the OXYBABY® -display does not allow to show the records together with product names. This relation is saved internally and can be evaluated with the WITT-Logger programme (see chapter 12).</p> <p>Press to return to the log data selection menu. Press to return to the measurement and display menu.</p>
Record	100-95															
0.8%	31.07. 08:09:24															
0.7%	31.07. 08:07:15															
0.3%	31.07. 08:05:35															
10.8%	31.07. 07:05:54															
10.4%	30.07. 07:01:24															
0.1%	30.07. 06:05:15															
<p>3x</p>		<p>Send logged data</p> <p>This menu option enables you to transfer the measurement data recorded in the OXYBABY® to a PC. For data transfer the OXYBABY® must be connected to the computer by an interface cable (optional available), and the WITT-Logger programme must be started on the PC (please refer to chapter 12 for details, the WITT-logger release code is optional available).</p> <p>Start data transfer by pressing .</p> <p>During data transfer the message sending will be shown in the lower line of the display.</p> <p>Once the data transfer has been finished the message sended will be displayed.</p> <p>Press to return to the measurement and display menu.</p>														
<p>4x</p>		<p>Delete all logged data</p> <p>This menu option enables you to completely delete all measurement data recorded in the OXYBABY®.</p> <p>In case of no recorded measurement data the bottom line in the display will show: no data in memory.</p> <p>Press to acknowledge selection: All recorded data will be deleted.</p> <p>Press to return to the measurement and display menu.</p>														

Key	Display	Programme options
5x 	<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">date and time</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">23.01.2002 17:25:08</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">date and time</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">23.01.2002 13:38:26</div>	<p>Set / rectify date and time</p> <p>The current date and time are shown in the lower line of the display.</p> <p>This menu option enables you to adjust date and time setting (e.g. after replacement of batteries).</p> <p>Press to acknowledge selection:</p> <p>Date and time are shown in the lower line of the display. A dark bar appears on top of the first digits (day).</p> <p>Press until the correct figure is shown, and press to acknowledge new date. The bar will move to the next character set (month). Continue with date and time adjustment until all data have been correctly set.</p> <p>Press to return to the measurement and display menu.</p>
6x 	<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">operation mode</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">sample hold</div>	<p>Select operating mode</p> <p>Press to acknowledge selection:</p> <p>The upper line in the display identifies the currently selected operating mode (e.g. sample hold). A dark bar will appear on top of the last line shown in the display.</p> <p>Press to switch to an alternative operating mode (e.g. permanent).</p> <p>Press when the desired operating mode is shown to confirm selection.</p> <p>Press to return to the measurement and display menu.</p>
7x 	<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">calibration</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: center;">0.0%</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">zero gas</div>	<p>Calibration, zero calibration</p> <p>Supply zero gas to the OXYBABY® (100 % N2 or CO2).</p> <p>Caution ! The zero gas must not contain any O₂!</p> <p>Press to start calibration.</p> <p>The message "calibration" will start to flash.</p> <p>Wait until an audible signal is given.</p> <p>The new calibration setting is stored and the concentration reading in the display is adjusted to 0.0 %.</p> <p>Press to return to the measurement and display menu.</p> <p>The calibration can be stopped at any time by pressing . You will then return to the measurement / display menu without storing a new calibration setting.</p>
8x 	<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">calibration</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: center;">20.9%</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">test gas</div>	<p>Calibration, span calibration</p> <p>Span calibration is performed using ambient air as test / calibration gas.</p> <p>Make sure that the needle of the OXYBABY® is not clogged and that the room is well ventilated (O₂ concentration = 20,9 Vol.-%).</p> <p>Press to start calibration.</p> <p>The message "calibration" will start to flash.</p> <p>Wait until an audible signal is given.</p> <p>The new calibration setting is stored and the concentration reading in the display is adjusted to 20.9 %.</p> <p>Press to return to the measurement and display menu.</p> <p>The calibration can be stopped at any time by pressing . You will then return to the measurement / display menu without storing a new calibration setting.</p>
9x 	<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">language</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: center;">*</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">Deutsch</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">language</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">english</div>	<p>Select language</p> <p>The currently selected language (German, English, French, Italian, Spanish, Netherlands, Polish, Finnish or Swedish) is shown in the lower line of the display.</p> <p>Press to acknowledge selection:</p> <p>The current language setting (e.g. German) is shown in the lower line of the display. A dark bar appears on top of the language.</p> <p>Press until the correct language is shown, and press to confirm new language setting.</p> <p>Press to return to the measurement and display menu.</p>
10x 	<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">rotate display</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: center;">*</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">not rotated</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">rotate display</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: center;">*</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">not rotated</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: right;">rotated</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: center;">*</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px; text-align: right;">rotate display</div>	<p>Rotate display</p> <p>The currently used setting either "not rotated" or "rotated" is shown in the lower line of the display. This option is for handle the OXYBABY® with needle to- or from the user.</p> <p>Press to acknowledge selection:</p> <p>The actual mode (e.g. not rotated) is shown in the lower line of the display. A dark bar appears on top of the mode.</p> <p>Press to retrieve the alternative display orientation (e.g. "rotated"), and press to confirm new orientation.</p> <p>Press to return to the measurement and display menu.</p>



You can exit all menu options of OXYBABY® without changes to the current settings and return to the measurement / display menu by pressing !

8 Calibration

 **The OXYBABY® shall be calibrated on a regular schedule ensure precise measurement at the point of use. For most applications a weekly calibration is sufficient; for highest accuracy the calibration should be performed prior to start of the measurements! Exposure of the instrument to major changes in environmental conditions (e.g. strong vibration during transport or major changes in temperature) will render a re-calibration necessary!**

The OXYBABY® is calibrated at two settings:


- Zero calibration is performed using an O₂ concentration of 0 Vol.-% (e.g. N₂ or CO₂).
- Zero calibration is performed using an O₂ concentration 20,9 Vol.-% (air).

Press  to select the corresponding calibration point. Press  to start calibration.

 **Please do not move the instrument during calibration!**


8.1 Zero calibration

- A suitable zero gas cylinder, equipped with a pressure reducer shall be used as calibration gas source (=Inert gas, without O₂!). Connect a hose to the outlet of the pressure reducer.
- Adjust minimum possible pressure and flow at the outlet of the pressure reducer / hose and discharge the gas through the hose unobstructedly to ambient.
- After the system pressure reducer / hose has been sufficiently purged with the zero gas (e.g. ambient air has been replaced) insert needle into the aperture of the hose so that a sample of the zero gas flow can be drawn into the instrument. Start calibration "zero gas".

 **Make sure that the needle is inserted into hose such that the gas flow through it is not obstructed and that no pressure will build up!**

- Wait until an audible signal is given.
- The OXYBABY® automatically records and adjusts the calibration value. Simultaneously the figure shown in the display is corrected to 0,0 %.
- Keep needle properly inserted into the hose until the calibration has been finished.

8.2 Span calibration

 **For best accuracy perform span calibration with fresh ambient air! The calibration shall be performed with clean, dry and oil-free air to prevent sensor damage!**

- Start span calibration.
- Make sure that there is no pressure build-up at the needle tip (=gas inlet).
- Wait until an audible signal is given.
- The OXYBABY® automatically records and adjusts the calibration value. Simultaneously the figure shown in the display is corrected to 20,9 %.



Caution !

Make sure that the measuring cell is not pressurised during while performing calibration and/or measuring routines.

The sample gas shall always be drawn into the instrument at atmospheric pressures (=ambient pressure).

 **Non-observation of the above may result in incorrect measurements and / or damage of the instrument. Never draw fluid into the instrument!**

9 Technical Data

Measurement range:	0 to 100 Vol.-% O ₂ in inert gases
Sample volume:	4 ml
Sample time:	6 seconds
Accuracy:	0,1 % absolute at O ₂ concentrations ≤ 10 Vol.-% < 1 % relative at O ₂ concentrations 10-100 Vol.-% at 20°C respectively at calibration conditions (measured)
Useful life sensor:	approx. 2 years in air
Resolution:	0,1%
No. of samples:	>> 500, completely charged battery (2 NI-MH accumulators, size AA, 1800 mAh)
Enclosure rating:	IP 20
Soiling index:	2
Temperature:	0 to 50 °C (operation), -20 to 70 °C (storage)

10 Servicing / maintenance

The OXYBABY® requires only minimum maintenance and will operate very reliably for many years if you follow the following instructions:

- Use only clean and flawless filters.
Contaminated filters can obstruct sample gas flow through the sensor. Contaminated and / or broken filters cannot adequately remove contaminants from the sample gas.
- Check sample gas flow through the needle occasionally.
If the needle is clogged no sample gas will be supplied to the sensor resulting in incorrect measurements. Replace clogged, bent or otherwise damaged needles immediately.
- Clean the OXYBABY® only with soft, dry or damp cloth.
Never use solvents. Never rinse the unit with water or solvents.
- Avoid major changes in temperature and/or condensation of water vapour on the unit. In the case that water condensate developed, please remove the lower part of the housing (refer to sensor replacement) and let the unit dry at normal ambient conditions (room temperature). The unit should not be switched on until sufficiently dried.
- Avoid impact of shock or strong vibration on the unit.
- Calibrate the OXYBABY® on a regular schedule, preferably prior to start of the measurements.

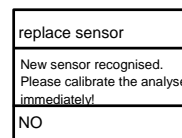
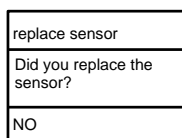
10.1 Replace O₂ sensor

- The following message appears in the display:
To purchase a new sensor please refer to:
Part number: 800515100.
- Switch the instrument off.
- Remove the 6 screws located on the rear of the instrument and open the housing.
- Remove slotted screw located at the O₂ sensor.
- Remove tubes from the O₂ sensor.
- Carefully remove O₂ sensor from the instrument.
- Unplug electrical connections at the O₂ sensor.
- Unscrew sensor by turning the corrugated cap nut anti clockwise.
- Insert new O₂ sensor following the above instructions in reverse direction.



Do not damage hoses and cables when reassembling the device.

- Switch the instrument on:
Simultaneously press keys and and hold till the display shows:



- Press to select **YES** and press .
- The OXYBABY[®] recognises the new sensor and issues an audible signal.
- Press and return to the measurement and display menu.
- Calibrate the instrument. Please refer to chapter 8 for instructions.

11 Error messages / warnings



In case of an error a warning signal will sound. The corresponding flashing error message will appear on the display!

Error message	Cause	Remedy
● zero gas high	● O ₂ concentration in supplied gas $\geq 7,0$ Vol.-%	● supply gas with 0 Vol.-% O ₂
● test gas low	● O ₂ concentration in supplied gas $\leq 7,0$ Vol.-%	● supply gas with 20,9 Vol.-% O ₂
● battery low	● battery empty	● charge batteries
● sensor not OK	● O ₂ -sensor defective	● replace O ₂ -sensor
● EPROM not OK	● internal electrical failure	● send unit to authorised service agent or manufacturer for repair

12 Readout data from OXYBABY[®]

To readout and record your analysis data you are encouraged to use the WITT-Logger, a software programme specifically developed by WITT-GASETECHNIK. The WITT-Logger provides a simple and comfortable tool to record and further evaluate the measured data.

You will find further information on the WITT-Logger, like e.g. system requirements, installation and operation, on the CD delivered with your OXYBABY[®].

To purchase a new interface cable please refer to Part number: 595.000003.



The WITT-Logger PC programme is fully operational. 5 analysis results will be recorded per session, subsequently the programme will be switched into the demo-mode. Please contact WITT-GASETECHNIK to receive a release code which will provide full operability of the programme.

REPAIR INSTRUCTIONS OXYBABY V

1) Defective charger, charging circuit or storage battery

After having plugged in the charging cable:

- 1.1) Charging lamp illuminated → all O.K.!
- 1.2) Charging lamp extinguishes after a short time:
 - a) charging battery recharged → all O.K.!
 - b) storage battery defective → return the analyser to the manufacturer
- 1.3) Charging lamp not illuminated
 - a) charger defective → return the analyser to the manufacturer
 - b) charging circuit defective → return the analyser to the manufacturer



red charging
lamp
illuminated

picture 1

2) Needle or filter blocked

Consequence:

- 1) No difference between the measurements in the ambient air and in the packaging.
- 2) Measurement with zero gas (remove filter and needle in advance; see picture 2)
 - a) measurement not O.K. → return analyser to manufacturer
 - b) measurement OK → see repair

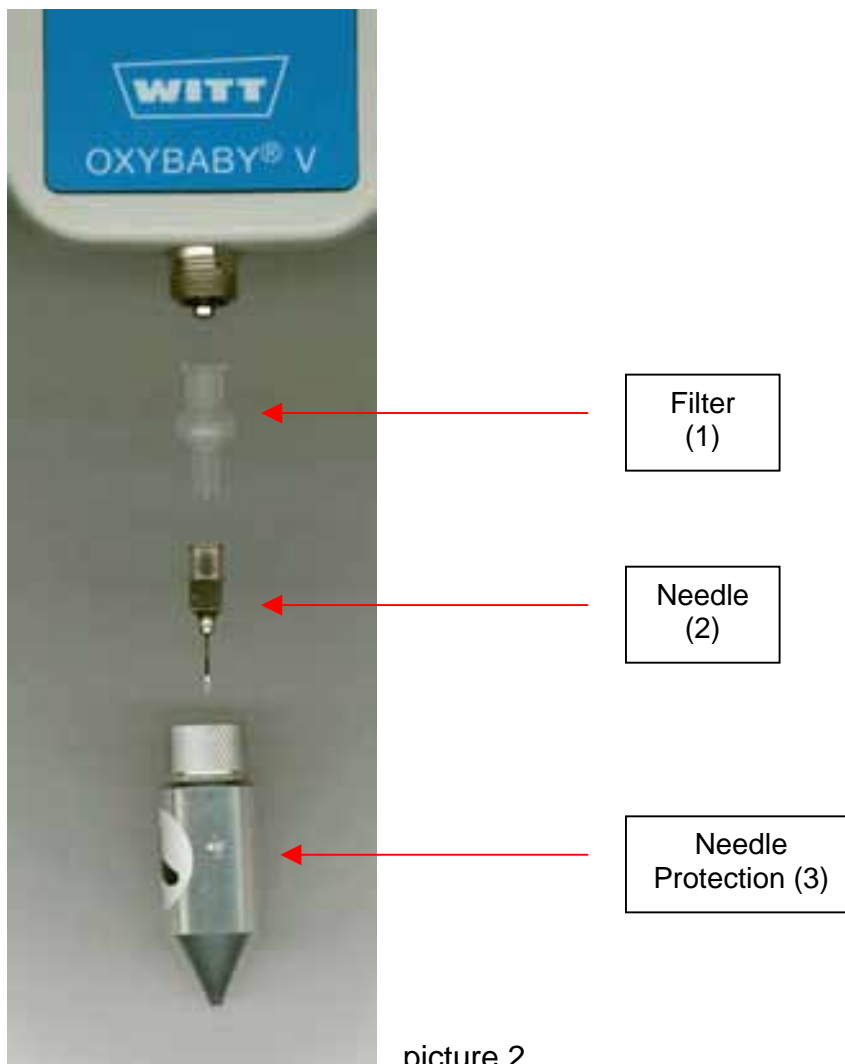
Repair:

- 2.1) Turn the needle protection anti-clockwise (3)
- 2.2) Remove the filter (1)
- 2.3) Check needle on flow and take care that it will not be blocked (2)

If the error cannot be removed → return analyser to manufacturer !



Attention : THE OXYBABY SHOULD NEVER BE USED WITHOUT FILTER !!!



picture 2

3) Defective Pump

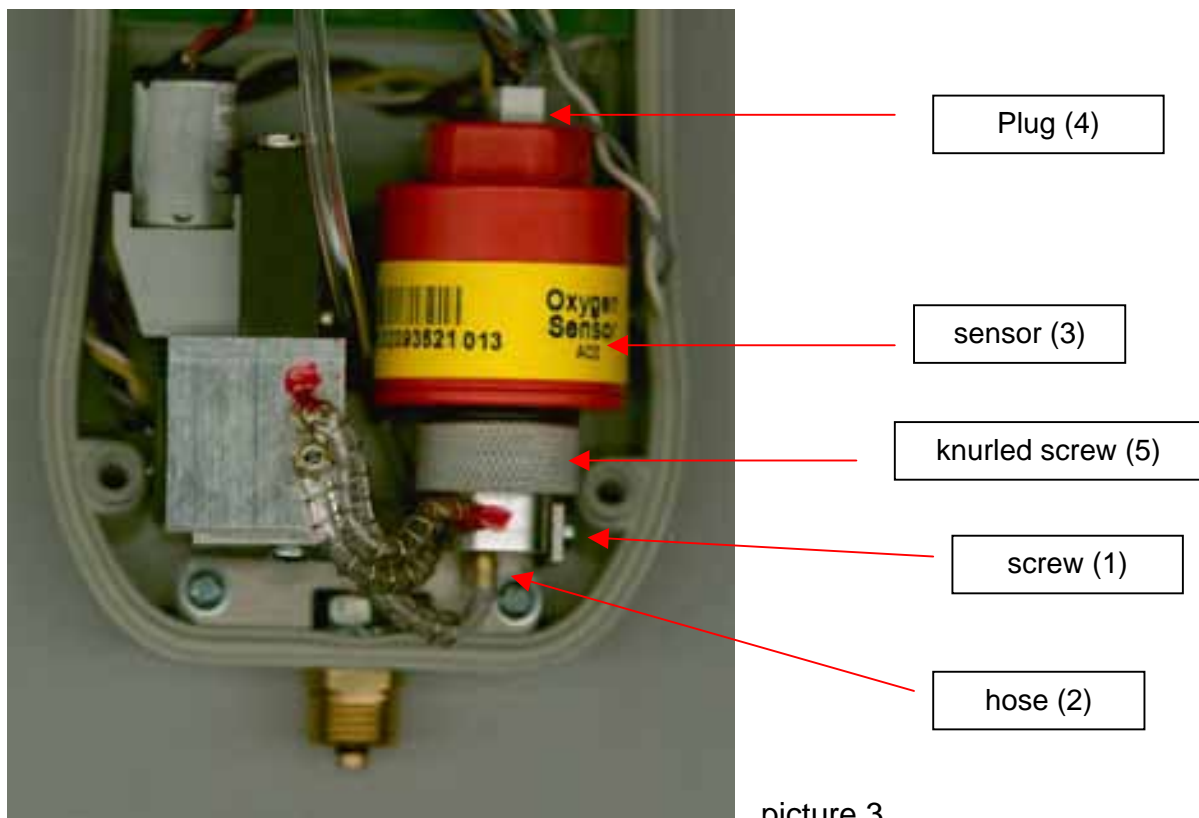
If the analyser does not "zoom" after having started the measurement
→ return the analyser to manufacturer !

4) Defective Sensor:

During calibration of the upper point the condition of the sensor will be controlled simultaneously. If the sensor is defective, one is called on to replace the sensor.

Instructions:

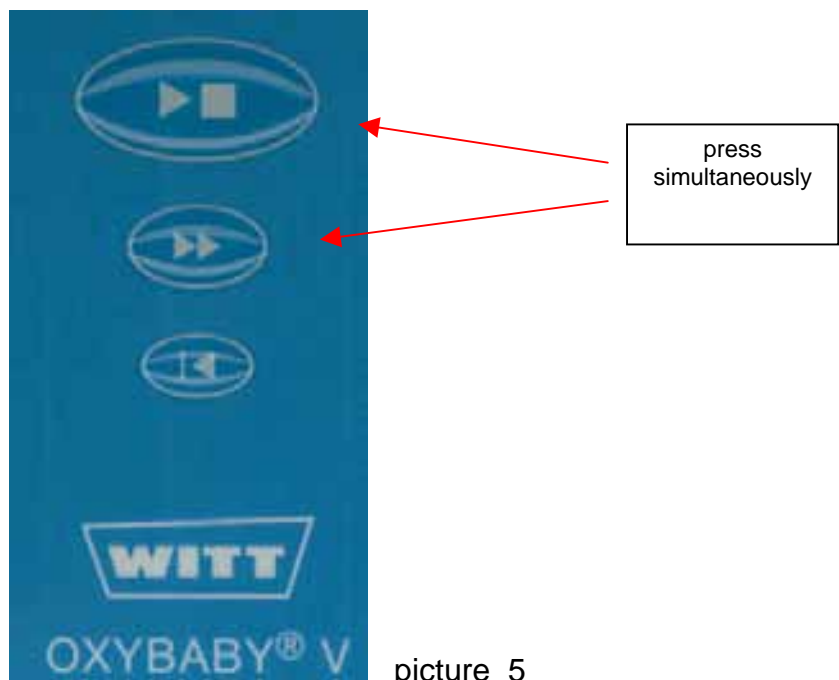
- 4.1) Open the analyser on the rear. (6 screws have to be detached)
- 4.2) Loosen the marked screw on the sensor . (see item (1))
- 4.3) Remove the hose (marked accordingly) from the sensor. (see item (2))
- 4.4) Remove the sensor carefully. (see item (3))
- 4.5) Detach carefully the plug from the round sensor part (see item (4))
- 4.6) Hold the sensor and turn the knurled screw anti-clockwise (see item (5))
- 4.7) Replace the new sensor in reverse.



picture 3



- **Attention:** The sensor must be screwed up until the sensor thread is completely disappeared in the knurled screw.
- **Attention:** The spring (over the hose) must be moved to the sensor
- **Attention:** All hoses (without any breaks) must be removed to the analyser.
- **Attention:** If a new sensor has been installed, the "basis calibration" must be done. Proceed as follows:
 - Switch off the analyser
 - Press both upper push-buttons as long as the following sentence will be displayed: Did you install a new sensor ?
 - Press the middle push-button → "Yes" will be displayed
 - → Press the upper bush-button in order to confirm this.



- Now you will be requested to calibrate the analyser → Proceed as described in the operating instructions (standard calibration)