

Atmospheric oxygen sensors for devices of the GMH369x series

closed sensor type



- suitable for under and over pressure
- for using in gas-tight systems

Application:

Suitable for measuring in normal atmosphere and in systems without or with slight under or over pressure. The sensor type features a screw thread and can be built in gas-tight in almost every system directly resp. with tube-adaptor

GGO 369

for universal application

GGO 370

NEW

sensor for diving application

GGO 369 S

O₂ sensor for high CO₂ concentration

Specification:

Application:

Specific features:

Measuring range:

Partial oxygen pressure:

Oxygen concentration:

Temperature:

Response time: t_{90}

Operating conditions:

Ambient pressure:

Over-/under-pressure:

Storage temperature:

Operation life:

Sensor:

Connection:

Dimensions of housing:

Weight:

Scope of supply:

sensor, tube-adaptor, flow diverter

Spare elements, accessories:

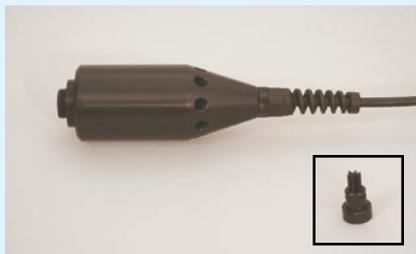
GOEL 369 spare sensor element for replacement by user

GOEL 370 spare sensor element for replacement by user

GOEL 369 S spare sensor element for replacement by user

ESA 369 spare tube-adaptor M16x1, for tubes with a inner-diameter of 15mm

open sensor type



- suitable for air- or gas-stream
- quick temperature compensation

Application:

Because of the special sensor construction the measuring gas streams optimally around the sensor and escapes through holes in the housing into the air. No pressure build-up at slight streaming of the probe, that falsify the result of measurement. Particularly suitable for measuring of gas out of gas-bottle etc. Even measuring indoor-gas concentration is possible.

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Storage temperature:

Operation life:

Sensor:

Connection:

Dimensions of housing:

Weight:

Scope of supply:

sensor, tube-adaptor, flow diverter

Options: (for all types)

cable length 4m upcharges

cable length 10m upcharges

Residual oxygen meas. device

for quick and cost-effective measurement of residual oxygen



GMH 3691 GOG

Application:

Essentially there, where delicate products are conserved by low-oxygen atmospheres (protective gas), this instrument is suitable to check the residual oxygen content.

- packaging industry
- food industry

Specification: (summary)

Meas. range: 0,0 ... 100,0 % O₂ (O₂-concentration)

Accuracy: (whole system - during carefully calibration and measuring)

1-point-calibration: $\pm 0,2 \% O_2 \pm 1$ digit
(for concentrations < 10%)

2-point-calibration: $\pm 0,1 \% O_2 \pm 1$ digit
(for concentrations < 10%)

Oxygen probe: Oxygen-partial pressure probe, built in external sensor housing

Response time: $t_{90} < 10$ sec., depending on temperature

Operation life: warranty for sensor element 12 months (appropriate application and ambient pressure)

Working pressure: 0,5 to 2,0 bar abs.

Over-/under-pressure: max. 0,25 bar

Working temperature: 0 to 50°C (sensor), -20 to 50°C (device)

Relative humidity: 0 to +95%RH (non-condensing)

Storage temperature: -15 to 60°C (sensor), -20 to 70°C (device)

Power supply: 9V battery type IEC 6F22

Dimensions case: approx. 394 x 294 x 106 mm

Weight: approx. 1400g (cpl. set)

for additional technical data refer to GMH3691 and GGO369

Scope of supply:

Instrument GMH3691, hand pump with air tube, GOG oxygen sensor with penetration needle, case GKK3500, spare needle $\varnothing 0,9$ mm, rubber foam

Spare elements, accessories:

GOG-SET Set without instrument

Scope of supply: GOG oxygen sensor with penetration needle, hand pump with air tube, case GKK3500, spare needle and 40 rubber foam sticker

GOEL 369 spare sensor element

GOG-N needle, $\varnothing 0,9$ mm (5 pieces)

GOG-A rubber foam sticker (40 pieces)

ST-R1 device protection bag with cut-out for probe connection

for add. accessories p.r.t. page 40/41

Compact air oxygen meas. device



GOX 100

for universal applications

- 1-Button Calibration
- Automatic Power-Off
- Min-/max- value memory
- Incl. sensor GOEL 369

GOX 100T NEW

for diving applications

- 1-Button Calibration
- MOD-Display (Maximum Operating Depth)
- HOLD function
- Incl. sensor GOEL 370

Specification:

Meas. range: 0,0 ... 100,0 % O₂

Accuracy: ± 0,1 % O₂ ± 1 digit

Sensor Connection: jack-connector cable

Sensor: Oxygen-partial pressure probe, mounted in external sensor housing

Warranty: 12 months

Working pressure: 0,5 to 2,0 bar absolute

Over-/under-pressure: max. 0,25 bar

Working temperature: 0 to 50°C (sensor GOX 100)

0 to 45°C (sensor GOX 100T)

-20 to 50°C (device)

Relative humidity: 0 to +95%RH

Power supply: 9V battery type IEC 6F22

Power consumption: approx. 120µA (over 2500 h)

Display: 3½-digit, 13mm high LCD-display

Housing: ABS-enclosure, front side IP65

Dimensions: approx. 106 x 67 x 30 mm

Weight: approx. 185g

Features: BAT, Auto-Power-Off

Scope of supply:

Device incl. sensor, T-piece, flow diverter

Options:

- **LACK** encapsulated PC board
(for applications where condensation is possible)

Spare peaces, accessories:

GOEL 369 spare sensor for GOX 100

GOEL 370 spare sensor for GOX 100T

ESA 369 spare tube-adaptor

ZOT 369 spare T-piece

GKK 252 case (235 x 185 x 48 mm)
with foam lining

for add. accessories p.r.t. page 40/41

Air oxygen measuring device



GMH 3691 Sensor not included - please order separately!

Specification:

Measuring ranges:

Oxygen concentration: 0,0 ... 100,0 % O₂
(gaseous)

Partial oxygen pressure: 0 ... 1100 hPa O₂

Temperature: -5,0 ... 50,0 °C

Accuracy: (device) (at nominal temperature = 25°C)

Oxygen concentration: ±0.1% ±1digit

Partial oxygen pressure: ±1 hPa ±1digit

Temperature: ±0.1°C ±1digit

Oxygen electrode: for suitable sensores
p.r.t. page 31

Sensor connection: 6-pin screened Mini-DIN-socket.

Display: two 4 digit LCDs (12.4mm or 7mm high), as well as additional arrows.

Pushbuttons: 6 membrane keys for ON/OFF-switch, selection of meas. range, min- and max-value memory, hold-function, calibration etc.

Working temperature: 0 to +50°C

Relative humidity: 0 to +95%RH (non-condensing)

Storage temperature: -20 to +70°C

Interface: serial interface, direct connection to RS232 or USB interface of a PC via electrically isolated interface converter GRS3100 or GRS3105 resp. USB3100 (p.r.t. accessories).

Power supply: 9V-battery, type IEC 6F22 (included), as well as additional d.c. connector for external 10.5-12V direct voltage supply. (suitable power supply: GNG10/3000)

Power-Off-function: 1...120min (can also be deactivated).

Power consumption: approx. 1.5 mA

Low battery warning: Δ and 'bAt'

Dimensions: 142 x 71 x 26 mm (H x W x D)

Impact-resistant ABS plastic housing, membrane keyboard, transparent panel. Front side IP65, integrated pop-up clip.

Weight: approx. 160 g (cpl. with battery)

Functions:

Min-/Max-value memory: max. and min. values will be memorized.

Hold function: by pressing a button the current meas. value will be memorized.

Alarm: integrated limit detector for min. or max. alarm.

Temperature compensation: automatic via temperature sensor, integrated in probe housing.

Air pressure compensation: The O₂ concentration will be compensated according to the abs. atmospheric pressure set (500...2000hPa).

- Double display for oxygen and temperature
- Measured units: O₂-concentration and O₂-partial pressure
- Alarm detector with integrated horn
- Automatic temperature compensation
- Min./Max. value memory, Hold function
- Serial interface, device can be connected to bus system (up to 5 devices can be connected to one PC interface)
- Battery and d.c. operation
- Wide range of application
- Most simple calibration in atmospheric air

Calibration: 1-point calibration: extremely simple quick calibration in atmospheric air. (press button to compensate unit to 20.9%).

2-point calibration: first point at atmospheric air (20.9%), second point freely selectable

Application: Wide range of application for your home, job and hobby! For example:

- **Bio chemistry:** Oxygen monitoring in breeding chambers for cell cultures. Monitoring of fermenting process of fruits in fermentation plants etc.

- **Medicine:** Monitoring of oxygen concentration in respirators; checking of breathing, monitoring of oxygen concentration in incubators, oxygen tents etc.

- **Food technology:** Monitoring of residual oxygen in packages (e.g. coffee, tea, etc.). Monitoring of oxygen content during production processes.

- **Safety technology, safety at work:** Oxygen monitoring in mines/pits, underground parking lots, wine cellars, cooling chambers, greenhouses or stores. Oxygen monitoring or alarm in case of danger of suffocation when working in tanks, wells etc.

- **Air conditioning and ventilation technology:** Oxygen measurements, air quality monitoring, measuring of oxygen concentration in enclosed air conditioning systems, etc.

- **Sport:** Checking of oxygen content in compressed air breathing apparatuses (diving, etc.), oxygen monitoring for gliding.

The device can only be used to check during these applications. -> no substitute for approved monitoring device!

Accessories:

Suitable sensores p.r.t. page 31

GKK 3000 case (275 x 229 x 83 mm)
with punched lining suitable for GMH3xxx

GRS 3100 interface converter,
electrical isolated, for RS232

GRS 3105 interface converter
with 5 connection points, electr. isolated, for the
connection of 5 GMH3xxx to one PC (RS232).

ST-R1 device protection bag
with cut-out for probe connection

for add. accessories p.r.t. pages 39 - 41