

## OXYGEN MEASURING DEVICES FOR DISSOLVED OXYGEN IN LIQUIDS



## HIGHLIGHTS:

- Automatic air pressure compensation
- Salinity correction
- Simple calibration in atmospheric air

MEAS. UNITS: O<sub>2</sub>-CONCENTRATION O<sub>2</sub>-SATURATION  
AND O<sub>2</sub>-PARTIAL PRESSURE (GMH3651 ONLY)

## ADDITIONAL FUNCTIONS GMH 3651:



## GMH 3611

Art. no. 605922

Handheld instrument for dissolved oxygen incl. sensor, sensor with 4 m cable

## GMH 3651

Art. no. 605924

Handheld instrument for dissolved oxygen with data logger incl. sensor, sensor with 4 m cable

## Specifications:

## Measuring range: (device)

**O<sub>2</sub>-concentration:** 0.00 ... 70.00 mg/l (ppm)  
(resolution selectable)

**O<sub>2</sub>-saturation:** 0.0 ... 600.0 % O<sub>2</sub>  
(resolution selectable)

**O<sub>2</sub>-partial pressure:** 3651: 0 ... 1200 hPa O<sub>2</sub>  
(0.0 ... 427.5 mmHg)

**Temperature:** 0.0 ... 50.0 °C

**Pressure:** 3611: 10 ... 1200 hPa abs.  
3651: 300 ... 5000 hPa abs. or  
0 ... 100.0 m water column\*  
(with pressure port)

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

**Oxygen:** ±1.5 % of m.v. ±0.2 mg/l  
(0 ... 25 mg/l) or  
±2.5 % of m.v. ±0.3 mg/l  
(25 ... 70 mg/l)

**Temperature:** ±0.1 °C ±1 digit

**Pressure:** ±0.5 % FS ±1 digit  
±3 hPa or 0.1 % of m.v.  
±2 hPa (750 ... 1100 hPa)

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

**Sensor:** Active membrane type.  
Electrode-Ø front: approx. 12 mm,  
overall length: approx. 220 mm,  
anti buckling glanding, neck collar:  
Ø approx. 20 mm, 4 m connection  
cable with Mini-DIN-plug

**Response time:** 95 % in 10 s,  
depends on temperature

**Operation life:** approx. 3 years, depends on  
maintenance

**Working temperature:** 0 ... +40 °C

**Working pressure:** max. 3 bar  
Operating pressure sensor GWO  
3600 max. 3000 hPa rel. or 4000  
hPa pay attention to abs.!

**Flow rate:** min. 30 cm/s

**Display:** 2 x 4 digit LCDs (12.4 / 7 mm high)

**Interface:** serial interface, direct connection  
to RS232 or USB interface of a PC  
via electrically isolated interface  
converter.

**Power supply:** 9 V-battery as well as additional d.c.  
connector for external 10.5 ... 12 V  
direct voltage supply. (suitable  
power pack: GNG10/3000)

**Battery life:** approx. 500 h

**Housing:** impact-resistant ABS, membrane  
keyboard, transparent panel, inte-  
grated pop-up clip for table top or  
suspended use.

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

**Weight:** approx. 300 g (incl. battery and  
probe)

**Scope of supply:** Device incl. electrode, GWOK01  
and KOH electrolyte, battery,  
calibration protocol, manual

## Additional functions:

**Temperature compensation:**  
automatic via temperature sensor integrated in electrode.

**Air pressure compensation:**  
automatic via integrated pressure sensor. Display of current  
air pressure.

**Correction of salinity:**  
autom. salinity value can be set via keyboard from  
0.0 ... 70.0

**Calibration:**  
1-point calibration: extremely simple quick calibration in  
atmospheric air.  
additional at GMH 3651: 2- and 3-point-calibration

**Calibration interval:**  
The device asks for a recalibration after a selectable time  
period (1 - 365 days or inactive).  
GMH 3651: additional calibration history

**Analog output (GMH 3651 only):**  
0 ... 1 V, freely adjustable

**Alarm (GMH 3651 only):**  
2 Alarm (O<sub>2</sub> and temperature) with separate alarm limits,  
Alarm horn / visual / interface

**Data logger (GMH 3651 only):**  
cyclic: 10.000 data sets, manual: 1.000 data sets  
(with measuring point input, 40 adjustable measuring  
point texts or measuring point numbers)

## Variants:

## GMH 3611-L10

Art. no. 606233

Handheld instrument for dissolved oxygen with sensor  
with 10 m cable length

## GMH 3611-L30

Art. no. 415157

Handheld instrument for dissolved oxygen with sensor  
with 30 m cable length

## GMH 3651-L10

Art. no. 606105

Handheld instrument for dissolved oxygen with data  
logger with sensor with 10 m cable length

## GMH 3651-L30

Art. no. 606106

Handheld instrument for dissolved oxygen with data  
logger with sensor with 30 m cable length

## Accessories and spare parts:

see next page

\* There is the possibility for hydrostatic depth measurements  
with special accessories (upon request / pressure connection).  
This allows in combination with the logger function e.g. com-  
fortable recordings of oxygen profiles in waters.