

OXYGEN METER FOR DISSOLVED OXYGEN IN LIQUIDS



MEASURED VARIABLES:
O₂ CONCENTRATION, O₂ SATURATION AND
O₂ PARTIAL PRESSURE (ONLY GMH3651)



HIGHLIGHTS:

- Automatic air pressure compensation
- Salinity correction
- Simple calibration

ADDITIONAL FUNCTIONS GMH 3651:



GMH 3611

Item No. 605922

Portable instrument for dissolved oxygen incl. device, sensor 4 m: GWO3600-L04, replacement GWOK 01, KOH 100

GMH 3651

Item No. 605924

Portable instrument for dissolved oxygen with data logger incl. Device, sensor 4 m: GWO3600-L04, replacement GWOK 01, KOH 100

TECHNICAL SPECIFICATIONS:

Measuring ranges: (device)

O ₂ concentration:	0.00..70.00 mg/l (ppm) (resolution can be selected)
O ₂ saturation:	0.0..600.0 % O ₂ (resolution selectable)
O ₂ partial pressure:	3651: 0..1200 hPa O ₂ (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 connection)

Accuracy: (at nominal temperature = 25 °C)

Oxygen:	± 1.5 % of meas. MW ± 0.2 mg/l (0.25 mg/l) or ± 2.5 % of meas. MW ± 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 meas. MW. ± 2 hPa (750..1100 hPa)

Sensor connection:	6-pole shielded mini-DIN socket
Sensor:	Active membrane type. Electrode Ø at the front: approx. 12 mm, total length: approx. 220 mm including kink protection, neck ring: Ø approx. 20 mm, 4 m long connection cable with mini-DIN plug.
Response time:	95 % in 10 s, depending on the temperature
Lifespan:	approx. 3 years, care-dependent
Working temperature:	0 .. + 40 °C
Operating pressure:	max. 3 bar operating pressure GWO 3600 sensor max. 3000 hPa rel. or 4000 hPa abs. Please note!
Approach velocity:	min. 30 cm/s
Display:	2 x 4-digit LCD (12.4/7 mm high)

Interface:	Serial interface, can be connected directly to the RS232 or USB interface of a PC via a galvanically isolated interface converter
Power supply:	9 V battery and additional power supply socket for external 10.5..12 V DC voltage supply (suitable power supply: GNG10/3000)
Battery life:	approx. 500 h
Housing:	Made of impact-resistant ABS, membrane keyboard, transparent panel, integrated pop-up/hanger bracket
Dimensions:	142 x 71 x 26 mm (H x W x D)
Weight:	approx. 300 g (cpl. with battery/probe)
Scope of delivery:	Device including electrode, GWOK01 and KOH replacement electrolyte, battery, test report, operating instructions

ADDITIONAL FUNCTIONS:

Temperature compensation:	automatically via the temperature sensor integrated in the electrode.
Air pressure compensation:	Automatically via integrated pressure sensor, display of the current air pressure.
Salinity correction:	automatic, the salinity value can be set from 0.0..70.0 using the buttons.
Calibration:	1-point calibration: Simple adjustment in air at the push of a button with the GMH 3651, additional 2 and 3-point calibration
Calibration interval:	after a selectable period (1 – 365 days or inactive) a recalibration is requested. GMH 3651: additional calibration history
Analog output (GMH 3651 only):	0..1 V, freely scalable
Alarm (GMH 3651 only):	2 alarm channels (O ₂ and temperature) with separate alarm limits, sounder/visual/interface alarm
Data logger (GMH 3651 only):	Cyclic: 10,000 data records, single value: 1,000 data records (with measuring point input, 40 adjustable measuring point texts or measuring point numbers)

VARIANTS:

GMH 3611-L10	Item No. 606233 Portable instruments for dissolved oxygen, device, sensor 10 m: GWO3600-L10, replacement GWOK 01, KOH 100
GMH 3611-L30	Item No. 415157 Portable instruments for dissolved oxygen, device, sensor 30 m: GWO3600-L30, replacement GWOK 01, KOH 100
GMH 3651-L10	Item No. 606105 Portable instruments for dissolved oxygen with data logger, device, sensor 10m: GWO3600-L10, replacement GWOK 01, KOH 100
GMH 3651-L30	Item No. 606106 Portable instruments for dissolved oxygen with data logger, device, sensor 30m: GWO3600-L30, replacement GWOK 01, KOH 100

ACCESSORIES OR SPARE PARTS:

see the next page

* A hydrostatic depth measurement can be made with special accessories (on request/pressure connection). Together with the logger function, very Convenient oxygen profiles in waters can be recorded.

ACCESSORIES

ACCESSORIES OR SPARE PARTS:

GMH 3611-GL

Item No. 606310

Portable instrument for dissolved oxygen, device only, without sensor

GMH 3651-GL

Item No. 606312

Portable instrument for dissolved oxygen with data logger Device only, without electrode

GWO 3600-L04

Item No. 603895

Replacement sensor for dissolved oxygen, GMH 36/OXY 36 Sensor with 4 m cable

GWO 3600-L10

Item No. 603258

Replacement sensor for dissolved oxygen, GMH 36/OXY 36 Sensor with 10 m cable

GWO 3600-L30

Item No. 603259

Replacement sensor for dissolved oxygen, GMH 36/OXY 36 Sensor with 30 m cable

GWOK 01

Item No. 601411

Replacement membrane head for GWO 3600



GAS 3600

Item No. 603497

Work set (3 replacement membrane heads and 100 ml KOH electrolyte)

GSKA 3600

Item No. 601414

Protective cap for depth measurement for sensors Ø 12 mm



GSKA 3610

Item No. 607267

Protective cap for depth measurement for sensors Ø 12 mm

KOH 100

Item No. 603356

KOH spare electrolyte, 100 ml

GCAL 3610

Item No. 611371

Calibration bottle for gel. Oxygen sensors with Ø 12 mm

GKK 3001

Item No. 611605

Case for GMH 3000 series water analysis / universal with cutouts for 1 instrument of the GMH 3xxx series and accessories for water analysis 395 x 295 x 106 mm (W x H x D)



GCAL 3610 on the sensor

OXYGEN METER SETS



GMH 3611-SET04

Item No. 474202

Portable instrument for dissolved oxygen, sensor 4 m: GWO3600-L04, replacement GWOK 01, KOH 100, protection GSKA3610, case GKK3001

GMH 3651-SET04

Item No. 474203

Portable instrument for dissolved oxygen with data logger Device, sensor 4 m: GWO3600-L04, replacement GWOK 01, KOH 100, protection GSKA3610, case GKK3001

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For further technical data see GMH 3611 and GMH 3651