

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..1000.0 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 connect-
ed 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 (suita-
ble 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 (O₂ 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*

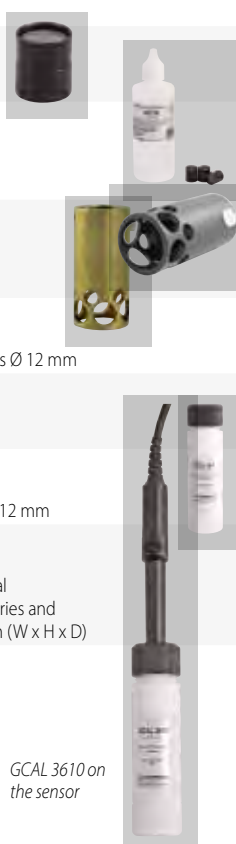
Protective cap for depth measurement for sensors Ø 12 mm

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