

# Dissolved oxygen monitor BAMOWIZ 452



- Graphic color touch-sensitive screen
- Dissolved oxygen monitoring:  
0... 20 mg/l ; 0 ... 500 %
- 1 Input for BAMOX 453 probe
- 1 Analogue output 0/4-20 mA
- 3 Relays (Trigger points, Alarm)
- 2 Analogue inputs 4-20 mA

## APPLICATIONS

The BAMOWIZ 452 offers a reliable and accurate measurement solution for the dissolved oxygen concentration (ODO) in the fields of water treatments:

- Water treatment station (e.g.: Aeration basin)
- Rivers, lakes
- Fish farming and aquaculture

## DESCRIPTION

Associated with the BAMOX 453 probe (data-sheet 453-01), the BAMOWIZ 452 allows the measurement, continuously, of oxygen dissolved concentration in the water. With this set, the atmospheric pressure, water temperature and conductivity, are considered to display a reliable and accurate measurement (compensated).

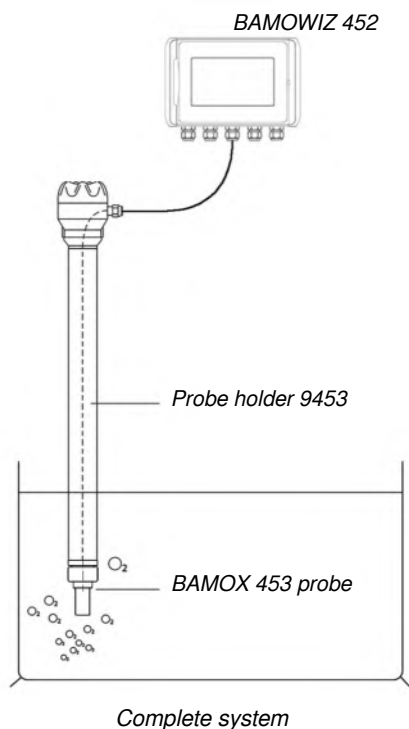
BAMOWIZ has a colour touch-sensitive screen to navigate through an intuitive and multilingual menu; It procures a large display for easy readings of measurements and operating status. To facilitate commissioning, a menu acting on the analog output and the thresholds is used to simulate the measurement.

The BAMOWIZ 452 has two more inputs; Both as 4-20 mA analogue signal (power supplied to sensors).

One of the 3 measurements can be transmitted through the 4-20mA output.

A complete system includes:

- A dissolved oxygen monitor BAMOWIZ 452
- A dissolved oxygen optical probe BAMOX 453 (data-sheet 453-01)
- A probe holder 9453 (data-sheet 453-01)
- An extension cable (between probe holder and monitor) type C8B



## CODE NUMBERS AND REFERENCES

Code	Reference	Description
452 001	BAMOWIZ 452	Dissolved oxygen monitor for BAMOX 453 probe

**BAMO** INTERNATIONAL

22, Rue de la Voie des Bans · Z.I. de la gare · 95100 ARGENTEUIL

Tel +33 (0)1 30 25 83 20 Web [www.bamo.eu](http://www.bamo.eu)

Fax +33 (0)1 34 10 16 05 E-mail [export@bamo.fr](mailto:export@bamo.fr)

Dissolved oxygen monitor  
**BAMOWIZ 452**

04-02-2021

D-452.01-EN-AB

OXY

452-01 /1

## TECHNICAL FEATURES

### Interface

Screen	Graphic color touch-sensitive; size 4/3 480 x 272 pixels
Languages	English; French; German; Polish; Portuguese; Spanish Alphanumeric touch keyboard dedicated for each language

### Inputs:

Digital signal	1 Input for probe BAMOX 453
Analogue signals	2 Inputs of 4–20 mA; 2-wire; 12 V DC / 0 ... 20 mA (Load: 50 Ω)

### Parameters of measurement compensation:

Temperature	Automatic: Built-in NTC (inside the probe BAMOX 453)
Atmospheric pressure	Manually between 500 and 1100 hPa
Salinity	Manually between 0 to 60 g/kg

### Outputs:

Output signal	1 Analogue output 4–20 mA (with or without linearization)
Relays	3 N.O. contacts, potential free
Adjustable trigger points	1 to 8 trigger points, to assign at 2 or 3 relays
Switching power	3 A / 250 V AC
Hysteresis	Adjustable from 0 to 100 %
Delay	Adjustable from 0 to 9999 s

### Other operations:

- Linearization (20 points) on 1 input signal 4-20 mA
- Bargraph display of each measurement signal
- Display of Minima and Maxima values

### Electrical specifications

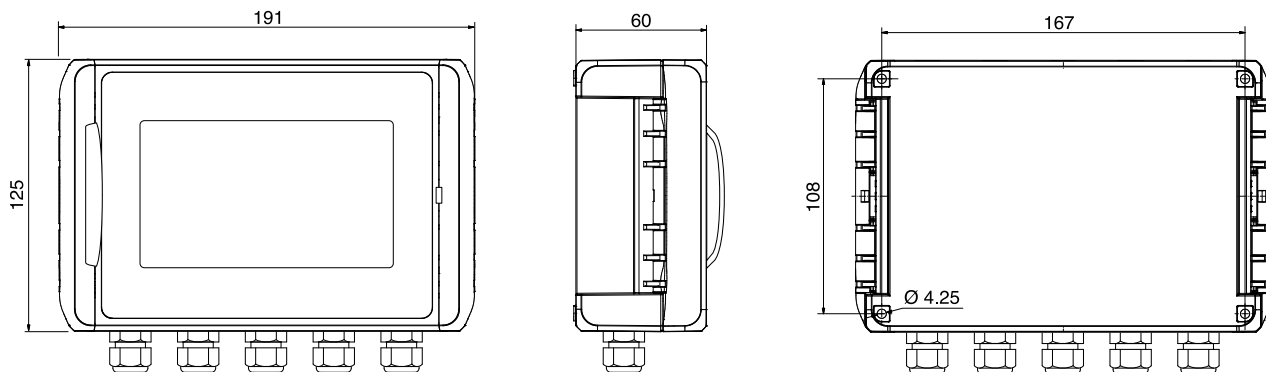
Main power	100 ... 240 V AC 50/60 Hz
Consumption	Max. 5 VA
Cable connections	Screw terminals
Cable inlets	5 Cable glands, PG 9

### Environnement

Mounting	Wall mount cabinet, in ABS; IP 65
Ambient temperature	-10 ... +50 °C

**EC Conformity:** The instrument meets the legal requirements of the current European Directives.

## DIMENSIONS



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**452-01 /2**

# Dissolved oxygen optical probe BAMOX 453



- Optic-luminescent measurement
- Range: 0 to 20 mg/l
- Easy and reduced maintenance
- Temperature compensated signal
- Body: Or stainless steel, or titanium

## APPLICATIONS

- Urban wastewater treatments (nitrifying / denitrifying process)
- Treatment of industrial effluents
- Monitoring of surface waters, coastal waters, aquariums
- Fish farming and aquaculture (fresh water, sea water)
- Drinkable water

## DESCRIPTION

The BAMOX 453, dissolved oxygen sensor, applies the optical luminescence measurement technology approved by ASTM International Method D888-05.

This method confers many advantages:

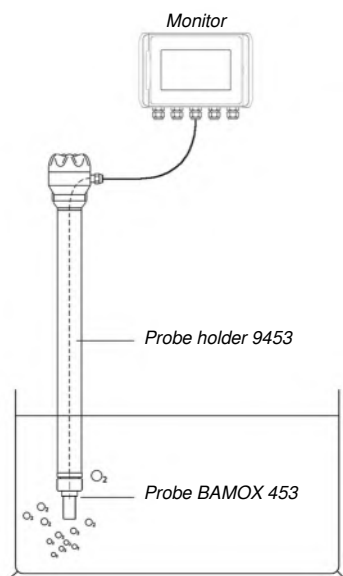
- High accuracy even for a low concentration of oxygen
- Reduced operating cost: Interchangeable sensor-end
- Optimized maintenance: No signal drift
- Easy commissioning: No necessary calibration
- Suitable for all environments: No consumption of oxygen
- Simplified installation: Direct immersion (no flow-cell)

With the integrated pre-amplifier and digital signal, the sensor is highly resistant to electrical noise. The measured value of dissolved oxygen is automatically compensated of variations of temperature, pressure and salinity, then transmitted to the monitor BAMOWIZ 452 (data-sheet 452-01)

The sensor-end is easy to replace for an easier maintenance task. The compact and robust probe is available or in passivated 316 L stainless steel, or in titanium for applications in seawater and corrosive environments.



BAMOWIZ 452



Complete system

## CODE NUMBERS AND REFERENCES

Code	Reference	Description
453 001	BAMOX 453 I	AISI 316 L probe
453 002	BAMOX 453 Ti	Titanium probe
<b>Accessories</b>		
453 010	9453	Probe holder, PVC Ø50 (L = 0.5 to 2 m)
130 112	9358 PE	PE adjustable flange for probe holder Ø 50
453 110	C4B	Extension cable (4 wires)
453 100	CM12	M12 female connector
453 120	C4B-20/ CM12	Extension cable: 20 m with connector M12
453 130	C4B-30/ CM12	Extension cable: 30 m with connector M12
<b>Spare parts</b>		
453 911	BAMOX 453 I/SP	Sensor end for AISI 316 L probe
453 912	BAMOX 453 Ti/Sp	Sensor end for titanium probe

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22, Rue de la Voie des Bans · Z.I. de la gare · 95100 ARGENTEUIL  
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 Fax +33 (0)1 34 10 16 05 E-mail [export@bamo.fr](mailto:export@bamo.fr)

Dissolved oxygen optical  
probe  
**BAMOX 453**

02-06-2021

D-453.01-EN-AC

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453-01 /1