

Dissolved oxygen monitoring

BAMOPHOX 450



Panel mounting (main device)



Wall mounting (main device)

- Alphanumeric back lighted LCD display
- Friendly using menu
- Scales:
0...100% or mg/L through configuration
- Temperature compensation
Automatic or manual
- 2 analogical outputs 0/4-20mA
galvanic insulated
- 3 independent relay outputs (NO contacts)
- 1 alarm system dysfunction or timer relay
- 1 input to switch the regulation on Stand-by
- 2 models available:
Panel mounting 72 x 144
Wall mounting IP 65
- OPTIONS:
RS 422 /J-BUS + LOGGER
Extension for 2nd measurement input

EXTENSION TERMINAL

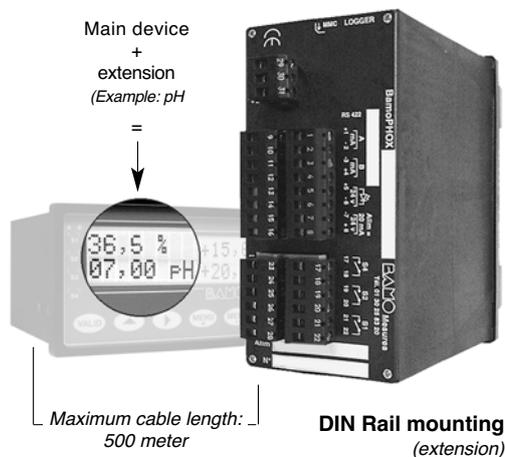
An extension terminal (wall, panel mounting or DIN rail mounting):

- Allows a second measurement parameter (pH, Conductivity, Chlorine, Turbidity, Flow, and 4-20 mA, depending of the model)
- The data from this blind device are displayed on the main device (2nd line display)
- A 4 wires shielded cable is necessary to link both devices (maximum length of 500m)
- The options RS422 and the data logger are shared between both BAMOPHOX.

DESCRIPTION

The BAMOPHOX 450 offers a large range of applications for dissolved oxygen measurement in waste water monitoring, pharmaceutical industry, etc.

It has a high flexibility on use mixing different built-in programmes for regulation, thresholds, temperature compensation, and alarms. The 2 lines back lighted display, 16 alphanumerical characters, gives an easy measurement and temperature reading in any conditions. It also displays the configuration menu and settings of thresholds, analogical outputs, operation data modes, calibration steps. To allow a quick and easy diagnostic after configuration a simulation program is built-in with direct actuation on contacts outputs, analogical outputs and PID regulation. A copy of the signal on the 4-20 mA output is galvanic insulated; it can be set up within the all range of the parameter. Temperature measurement is also available on a 4-20 mA output (this output is not available when PID regulation is in use).



BAMO MESURES

22, Rue de la Voie des Bans - Z.I. de la Gare - 95100 ARGENTEUIL

Tél : (+33) 01 30 25 83 20 - Web : www.bamo.fr

Fax : (+33) 01 34 10 16 05 - E-mail : info@bamo.fr

Dissolved oxygen monitoring
BAMOPHOX 450

19-05-2008

450 I1 02 B

OXY

450-02/1

CARACTERISTIQUES TECHNIQUES

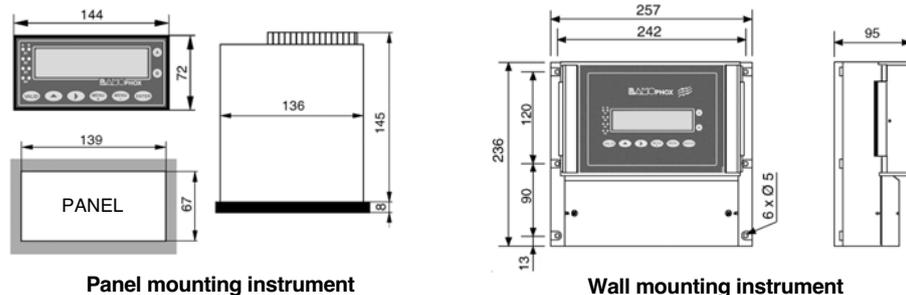
Displayed parameters:	Measurement values pH/ORP - Configuration Menu - Temperature value
Display:	Back lighted - 2 lines of 16 alphanumeric characters ; 9,2 mm high
Indication:	LED alarms status
Configuration:	8 push buttons keyboard on the front - Keyword protected
Scales:	0 to 100% – or mg/L
Accuracy/measurement:	± 0.3%
Accuracy/temperature:	± 0.3°C
Probe input:	screw connectors, IP40
T° compensation:	Automatic with an input for a 3 wires Pt 100 Ohm/0°C range, 0...100°C Manually from 0...100°C
Relay outputs:	4 closing contacts (Silver alloy), voltage free
Thresholds:	3 programmable independent thresholds - with adjustable hysteresis 0...100% and adjustable timer from 0 to 9999 sec
Output relay (S4)	Common alarm signal for: - Too long injection - Temperature out of range: - over scale measurement or open loop - Pt 100 Ω dysfunction or probe cleaning function
Contact:	Initial resistance 100 milliOhm as a maximum (voltage drop 6 V DC 1 A) Rated at 831 V AC / 3 A / 277 V AC ; 90 W / 3 A / 30 V DC Switching capacity (minimum) 100 mA, 5 V DC (depending of switching frequency, ambient conditions, accuracy) Mechanical life time (minimum) 5 x10 ⁶ operations (180 commutation/min) Electrical life time (minimum) 2 x10 ⁵ (20 comm./min) [3 A, 125 V AC], [3 A, 30 V DC] and 10 ⁵ (evaluated charge) for 3 A, 125 V AC
ON/OFF Regulation:	Pulse time 0...9999 sec - High and low proportional bandwidth, high and low dead zone.
PID Regulation:	Proportionality 0...200%, - Integrant and Derivative: 0...999 second
Calibration sequence:	Regulation on standby, relay outputs inhibited, analogical outputs stand on last values
Self-cleaning program:	Frequency and duration settings, with regulation inhibited and analogical outputs standing on last values
Measurement output:	0/4-20 mA (maxi 600 Ω) proportional to measurement, galvanic insulated
T° output / PID:	0/4-20 mA (max 600 Ω), scaling 0...100°C, galvanic insulated
Program testing:	simulation through the menu on measurement, temperature, PID and relays outputs
Main power supply:	230 V AC / 50-60 Hz [other on request] - Consumption 10 VA
Models:	Panel mounting, IP65, 72 x 144 mm, connections on screw terminal IP40 DIN Rail mounting, connections on screw terminal IP40, only for blind monitor Wall mounting, IP65, cable glands, connections on screw terminal

OPTION (RS 422 + Logger)

Communication:	RS422 output, J-BUS link, binary slave mode, 2400 to 9600 bauds
Data Logger:	Cycle average measurement record, with a programmable period, 150 000 records maxi on MMC (multi media card) / External driver necessary

DIMENSIONS

Extension terminal:
identical to the panel
or wall mounting
BAMOPHOX



Panel mounting instrument

Wall mounting instrument

CODE NUMBERS AND REFERENCES

Code	Reference	Designation
450 300	BAMOPHOX450 E	Panel mounting 72 x 144 - IP 65 front panel - screw terminal IP40
450 301	BAMOPHOX450 E/A	Panel mounting 72 x 144 / Extension blind monitor - screw terminal IP40
450 303	BAMOPHOX450 D/A	DIN Rail mounting / Extension, blind monitor - screw terminal IP40
450 350	BAMOPHOX450 E LOG BUS	Panel mounting 72 x 144 / RS422 + logger - IP 65 front panel - screw terminal IP40
450 400	BAMOPHOX450 M	Wall mounting - IP 65 - cable glands, connections on screw terminal
450 401	BAMOPHOX450 M/A	Wall mounting - IP 65 / Extension, blind monitor - cable glands, connections on screw terminal
450 450	BAMOPHOX450 M LOG BUS	Wall mounting - IP 65 / RS 422 + LOGGER - cable glands, connections on screw terminal

BAMO MESURES

22, Rue de la Voie des Bans - Z.I. de la Gare - 95100 ARGENTEUIL
Tél : (+33) 01 30 25 83 20 - Web : www.bamo.fr
Fax : (+33) 01 34 10 16 05 - E-mail : info@bamo.fr

Dissolved oxygen monitoring
BAMOPHOX 450

19-05-2008

450 I1 02 B

OXY

450-02/2