Dissolved oxygen monitor
BAMOPHOX 451

Panel mounting *(main device)*

Wall mountig *(main device)*

- **Alphanumeric back lighted LCD display**

- **Friendly using menu**

- **Data-Logger on MMC card**

- **1 input for sensor AQUAPLUS**

- **Scales: 0 to 500 % or mg /l**

- **2 analogical outputs 0/4-20 mA, galvanic insulated**

- **3 relay outputs**

- **1 relay output for alarm on system or for timer**

- **1 input to set on stand-by the regulation**

- **Wall mounting IP 65 or panel mounting**

- **OPTION:**
    Extension for 2nd measurement signal

451

EXTENSION TERMINAL

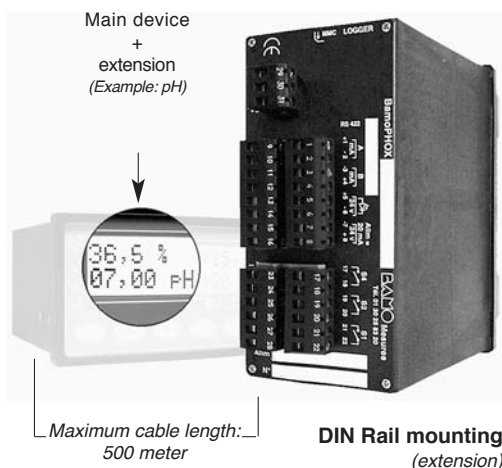An extension terminal (wall or panel mounting):

- Allows a second measurement parameter (pH, Flow, Conductivity, etc.)
- Data from this blind device are displayed on the main device *(second line display)*.
- A 4 wires shielded cable is used to link both devices *(longest length is 500m)*
- The Data-logger is shared between both BAMOPHOX.
- May be fitted inside a cabinet on a rail DIN.

DESCRIPTION

BAMOPHOX 451 in use with the sensor AQUAPLUS offers a high grade measurement and survey of dissolved oxygen for WWTP, pharmaceutical industry, fish breeding, etc.

Mixing different built-in programmes for regulation, thresholds, temperature compensation, and alarms, BAMOPHOX 451 offers a high flexibility on use to the operator.

To allow a quick and easy diagnostic after configuration a simulation program is built-in with direct actuation on contacts outputs and analogical outputs. A copy of the signal is available on the 4-20 mA output; it is galvanic insulated; it can be set up within the complete measuring range. Temperature measurement is also available on a 4-20 mA output.

Main device
+
extension
(Example: pH)

Maximum cable length: 500 meter

DIN Rail mounting *(extension)*

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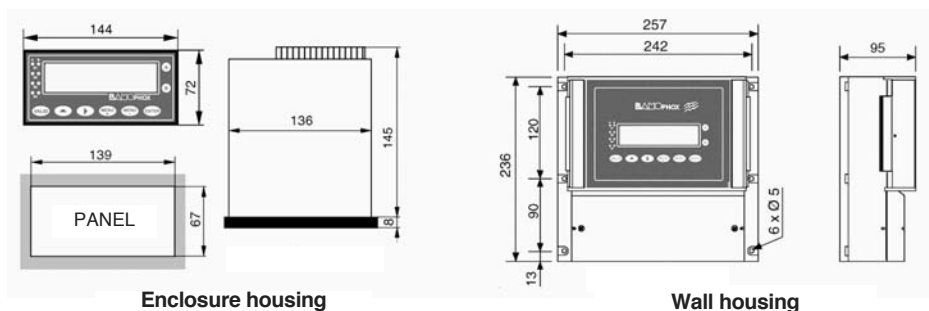
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TECHNICAL FEATURES

Displayed parameters:	Measurement values - Configuration Menu - Temperature value
Display:	Back lighted - 2 lines of 16 alphanumerical characters ; 9.2 mm high
Indication:	LED alarms status
Programming:	8 push buttons keyboard on front face - Keyword protected
Measuring range:	0 to 500% or mg/L
Accuracy	Input DO: ± 0.1% from 0 to 200 % ; ±1% from 200 to 500 %
	Input temperature: ± 0.3 %
Input signal:	For sensor AQUAPLUS, screw connectors
Temperature compensation:	Automatic: input for 1 sensor Pt 100 Ohm/0°C, range 0 …+100°C
	Manual: programming in the menu temperature between 0 and 100°C

4 output relays:	4 closing contacts (Silver alloy), voltage free
	Initial resistance 100 mΩ 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

3 Relays S1, S2 & S3	Thresholds: 3 programmable independent thresholds - with adjustable hysteresis 0…100%
	and adjustable timer from 0 to 9999 s
	On/Off Regulation: High and low proportional bandwidth, high and low dead zones
	PID regulation: proportionality 0…200%, - Integrant and Derivative: 0…999 second

Output relay (S4):	Common alarm signal for:
	- System malfunction
	- Temperature out of range
	- Pt 100 Ω dysfunction or probe cleaning function
	- Signal, over-range or opened loop

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), galvanic insulated
Temperature output/ PID:	0/4-20 mA (max 600 Ω), scalable on 0…100°C, galvanic insulated
Program Testing:	Simulation through the menu on measurement, temperature, PID and relay 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
	Wall mounting, IP65, cable glands, connections on screw terminal
Data-Logger:	Cycle average measurement record, with a programmable period,
	150000 records maxi on MMC (multi-media-card) / External driver necessary

DIMENSIONS

Enclosure housing

Wall housing

CODES NUMBERS AND REFERENCES

Code	Reference	Description
451 350	BAMOPHOX451 E LOG	Panel mounting 72 x 144 / LOGGER - Face avant IP 65 - Bornier IP 40
451 450	BAMOPHOX451 M LOG	Boîtier mural / LOGGER - Raccordement sur bornier par entrées câble PE

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