

# pH/mV meter BAMOPHOX 106



Panel mounting (main device)



Wall mountig (main device)

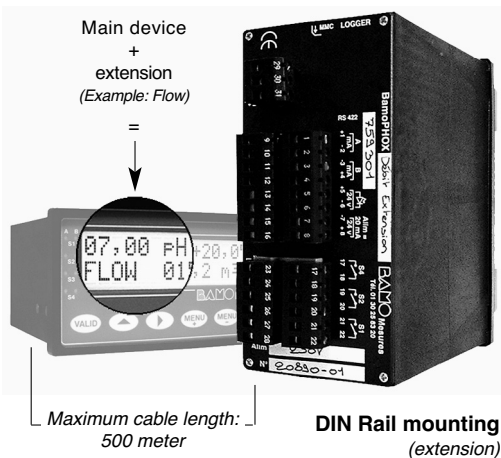
- pH/ORP programmable monitor and regulator
- Alphanumeric back lighted LCD display
- Friendly using menu
- Scales:  
0 - 14 pH and  $\pm 1000$  mV through configuration
- Temperature compensation  
Automatic or manual
- 2 analogical outputs 0/4-20mA galvanic insulated
- 4 relay outputs (Normally Open contacts)
- 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 2<sup>nd</sup> 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 (second 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 106 offers high flexibility on use mixing different built-in programmes for regulation, thresholds, temperature compensation, and alarms. The 2 lines back lighted display, 16 alphanumeric 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).

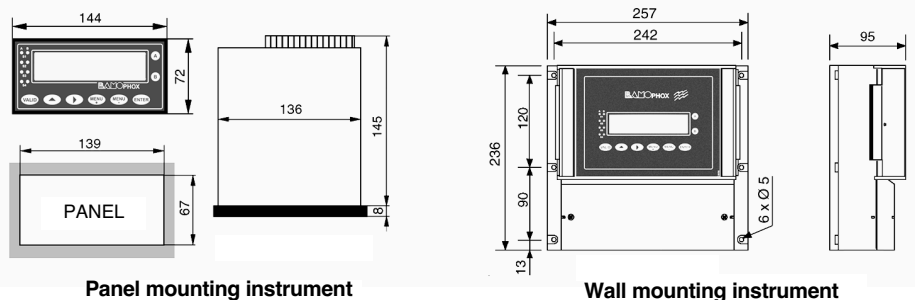


## TECHNICAL FEATURES

|                                 |  |
|---------------------------------|--|
| 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 front face - Keyword protected  |
| Scales:                         | 0 to 14 pH pH-meter configuration / $\pm 1000$ mV ORP-meter configuration  |
| Accuracy:                       | $\pm 0,03$ pH or $\pm 3$ mV  |
| Input impedance:                | $>10^{13} \Omega$  |
| Probe input:                    | coaxial connector, code 9054   |
| Temperature compensation:       | Automatic with an input for a 3 wires Pt 100 Ohm/0°C range, 0...100°C<br>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: <ul style="list-style-type: none"> <li>- Too long injection</li> <li>- Temperature out of range:</li> <li>- pH&gt;14 or open loop</li> <li>- Pt 100 <math>\Omega</math> dysfunction or probe cleaning function</li> </ul>   |
| Contact:                        | Initial resistance 100 m $\Omega$ as a maximum (voltage drop 6 V DC 1 A)<br>Rated at 831 V AC / 3 A / 277 V AC ; 90 W / 3 A / 30 V DC<br>Switching capacity (minimum) 100 mA, 5 V DC (depending of switching frequency, ambient conditions, accuracy)<br>Mechanical life time (minimum) 5 x10 <sup>6</sup> operations (180 commutation/min)<br>Electrical life time (minimum) 2 x10 <sup>5</sup> (20 comm./min) [3 A, 125 V AC], [3 A, 30 V DC] and 10 <sup>5</sup> (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 $\Omega$ ) proportional to measurement, galvanic insulated   |
| Temperature output / PID:       | 0/4-20 mA (max 600 $\Omega$ ), 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<br>Idem DIN Rail mounting, only for blind monitor<br>Wall mounting, IP65, cable glands, connections on screw terminal  |
| <b>OPTION (RS 422 + Logger)</b> |  |
| Communication:                  | RS422 output, J-BUS link, binary slave mode, 2400 to 9600 bauds  |
| Data Logger:                    | Cycle average measurement record, with a programmable period, 150000 records maxi on MMC (multi media card) / External driver necessary  |

## DIMENSIONS

**Extension terminal:**  
identical to the panel  
or wall mounting



## CODES AND REFERENCES

| Code    | Reference             | Designation  |
|---------|-----------------------|--|
| 106 500 | BAMOPHOX106 E         | Panel mounting 72 x 144 - IP 65 front panel - screw terminal IP40                              |
| 106 501 | BAMOPHOX106 E/A       | Panel mounting 72 x 144 / Extension blind monitor - screw terminal IP40                        |
| 106 503 | BAMOPHOX106 D/A       | DIN Rail mounting / Extension, blind monitor - screw terminal IP40                             |
| 106 550 | BAMOPHOX106 E LOG BUS | Panel mounting 72 x 144 / RS422 + logger - IP 65 front panel - screw terminal IP40             |
| 106 800 | BAMOPHOX106 M         | Wall mounting - IP 65 - cable glands, connections on screw terminal                            |
| 106 801 | BAMOPHOX106 M/A       | Wall mounting - IP 65 / Extension, blind monitor - cable glands, connections on screw terminal |
| 106 850 | BAMOPHOX106 M LOG BUS | Wall mounting - IP 65 / RS 422 + LOGGER - cable glands, connections on screw terminal          |

# BAMO MESURES

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pH/mV meter  
**BAMOPHOX 106**

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106 I1 01 D

pH

106-01/2