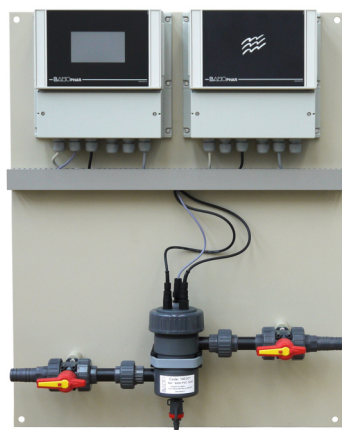


pH/mV meter BAMOPHAR 107



Wall-mounted or panel-mounted version



Option: on panel-mounted

- Color touch screen
- 2 measuring scales:
0...14pH or $\pm 1000\text{mV}$
- Temperature compensation:
Automatic or manual
- 2 outputs 0/4...20mA (pH and $^{\circ}\text{C}$)
- 4 relays (Thresholds, alarm and/or control)
- Options:
Data logger + Modbus RTU RS422 connection
Modbus TCP/IP - RJ45 connection
Extension unit for second measuring parameter

APPLICATIONS

Measurement of pH or ORP, alarms and/or control for water treatments, chemical industries, industrial applications.

Example

- Electroplating industry
- Process water treatment
- Wastewater treatment (e.g. pH neutralization)
- Well water or run-off water monitoring
- pH control for swimming pools, spas or aquariums
- Alarm on refrigeration systems (NH_3)

DESCRIPTION

The device is equipped with a color touch screen for the display of a multilingual menu - user friendly and intuitive. It provides easy reading of measurement, temperature and state of the thresholds. It displays a menu with all parameters for configuration of analogue outputs, thresholds and operating/control mode. In order to facilitate its commissioning, a programming menu can simulate the measurement, acting on the measurement analog outputs and PID, as well as on the thresholds.

Analogue output reflects the measurement and may be scaled all along the range. Temperature analogue output is available as well as a 4...20mA signal.

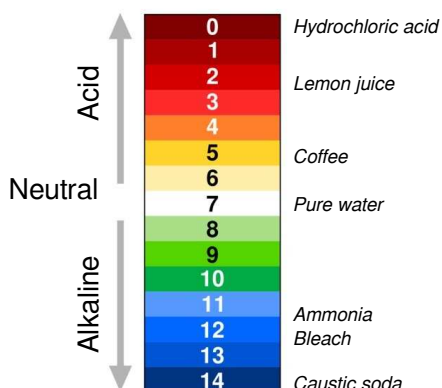
A complete measuring system includes:

- pH/mV-meter BAMOPHAR
- One pH or ORP electrode (see data sheet)
- One electrode holder (see data sheet)
- Accessories: pH/ORP cable, connectors, buffers (see data sheet)
- Option: Temperature probe (see data sheet)

For any information and special request: please contact us.

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

- Allows a second measuring parameter (pH, flow-rate, conductivity, etc.)
(The measurement is displayed and programmed on the main unit)
- Connected to main unit with two-pair shielded cable
(Cable length between both devices: max. 500m)
- RS422 and data logger of main unit are shared between both units



pH scale

BAMO INTERNATIONAL

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pH/mV meter
BAMOPHAR 107

22-05-2026

D-107.01-EN-AJb

pH

107-01 /1

TECHNICAL FEATURES

End-user interface:

- Color touch screen 4.3", resolution 480x272 pixels
- Display of measurements, menus, temperature, relay status
- Configuration - Access-code protected
- Language: French, English, Italian, German, Polish

pH/ORP electrode signal input:

Measuring scales	0...14pH as pH-meter or ± 1000 mV as mV-meter
Accuracy	± 0.03 pH or ± 3 mV
Input impedance	$> 10^{13}\Omega$
Sensor signal input	For coaxial connector (9054) on panel-mounted and DIN-rail models or screw terminal for wall mounting model

Temperature compensation:

Automatic	By 3-wire Pt100 sensor over a 0...100 °C range
Manual	0...100 °C, by configuration

Relay outputs:

Relays	4 contacts N.O., potential free
Configurable thresholds	S1, independent threshold, to set up for measurement or temperature S2, independent threshold, to set up for measurement or temperature S3, independent threshold, to set up for measurement or temperature or external function S4, threshold to set up for alarm function (time exceeded, pH out of range, Pt100 sensor defective) or for cleaning function
Contact initial resistance	100m Ω max. (voltage drop 6V DC, 1A)
Switching power	831VA AC, 3A, 277V AC; 90W, 3A, 30V DC
Switching capacity (min.)	100mA, 5V DC (100mA, 5V DC, variable according to switching frequency, environmental conditions and accuracy)

Analogue outputs:

Measurement output	0/4...20mA (max. 600 Ω) proportional to measurement
Temperature output / PID	0/4...20mA (max. 600 Ω), scaling 0...100 °C This output is not available when PID control function is operating

Functions:

Time-proportional control	Adjustable cycle time from 0 to 9999 seconds High and low proportional bandwidths High and low dead zones
PID control	Adjustable proportionality from 0 to 200%, Integral and Derivative: 0 to 999 seconds
Calibration routine	Calibration: 2 points, pH 7 for asymmetry (0mV), pH (choose a buffer) for the slope (%) Recommendation: Use a high buffer solution (pH 10) to measure an alkaline solution, or a low buffer solution (pH 4) to measure an acidic solution. <i>Relay outputs are inhibited during calibration and analogue outputs on standby at latest values</i>
Auto-cleaning menu	Adjustable cycle time and cleaning time <i>Relay outputs are inhibited during cleaning and analogue outputs held at their last values</i>
Program Testing	Simulation on measurement (pH or ORP), temperature, PID and thresholds

Models:

Models	Panel-mounted enclosure, 96 x 144 mm, Front IP65, rear IP40 Wall mounting, IP65, cable glands
Main power supply	Standard: 100-240 V AC, 50/60 Hz, 15 W max at 50 °C Option: 18-36 V DC, 15 W max at 50 °C Others on request
Sensor power supply	24V DC (galvanically isolated), max. power 2W
Storage temperature	-10...+70 °C
Operating temperature	-5...+50 °C

Option 1: Logger + Modbus RTU RS422 connection

RS 422 Modbus link output - Slave binary mode - 2400 to 9600 baud
Automatically averaged storage of the measurement at the programmed interval
Over a million SD card recordings

Option 2: Modbus TCP/IP - RJ45 connection

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

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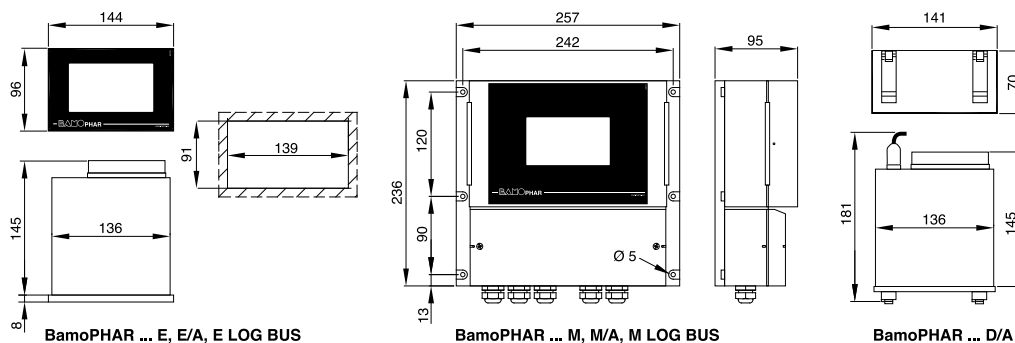
pH/mV meter
BAMOPHAR 107

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pH

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CODE NUMBERS AND REFERENCES

Code	Reference	Housing	Logger/Modbus RS or Modbus TCP/IP
107 500	BAMOPHAR 107 E	Panel-mounted	No
107 501	BAMOPHAR 107 E/A	Panel-mounted without display*	No
107 503	BAMOPHAR 107 D/A	DIN without display*	No
107 505	BAMOPHAR 107 E LOG BUS	Panel-mounted	Logger + Modbus RTU RS422 connection
107 506	BAMOPHAR 107 E MODBUS TCP/IP	Panel-mounted	Modbus TCP/IP RJ45 connection
107 520	BAMOPHAR 107 M	Wall	No
107 521	BAMOPHAR 107 M/A	Wall mounting without display*	No
107 523	BAMOPHAR 107 M MODBUS TCP/IP	Wall	Modbus TCP/IP RJ45 connection
107 524	BAMOPHAR 107 M LOG BUS	Wall	Logger + Modbus RTU RS422 connection
Accessories for the LOGGER versions:			
106 559	SD card reader		
106 560	Replacement SD card		
Spare parts			
106 957	BAMOPHOX and BAMOPHAR fuses (pack of 5) - 500 mA (for new models with black circuitry)		
106 959	BAMOPHOX and BAMOPHAR fuses (pack of 5) - 160 mA (for older models with a green circuit)		

* Must be connected to a BAMOPHAR box with display



BAMOPHAR E (panel mounted)



BAMOPHAR M (wall mounted)

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pH/mV meter
BAMOPHAR 107

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D-107.01-EN-AJb

pH

107-01/3

TO COMPLETE THE SYSTEM

BAMO offers a complete measurement solution, including the following elements:

- pH/mV meter (BAMOPHAR 107)
- pH or ORP electrode
- Electrode holder
- Accessories: pH/ORP cable, connector and buffer solutions
- Optional: Temperature sensor

pH/ORP electrodes

In general, our industrial electrodes are compatible with all pH measuring devices thanks to their S7 connector. They are fastened and sealed with a Pg13.5 screw connection.

These electrodes are designed for use in a wide range of industrial applications, such as neutralisation, decyanisation, acidic or alkaline environments, monitoring of cooling circuits, electroplating, etc.

Detailed information on our entire range of pH/ORP electrodes, including their technical data, can be found in their data sheets.



pH electrodes

Electrode holder

The electrode holders we manufacture are suitable for a wide range of applications:

- For 1 to 3 pH/rH electrodes
- Materials: PVC, PPH, PVDF, STAINLESS STEEL
- Connections: flanges, unions, or solvent-weld spigots for in-line holders, and with or without an adjustable sliding flange for immersion holders.
- Other options: automatic spray-cleaning system, integrated Pt100 probe, water-retaining cup, probe holder at the edge of the basin, float system, etc.



In-line holder (PPH)

They are used to position the electrode in the process, protect it and facilitate maintenance.



Float system



Immersion holder (+ retaining bucket)



Basin edge holder

All data sheets are available on our website at www.bamo.eu.

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pH/mV meter
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pH

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