pH/mV Meter
BAMOPHAR 107

Panel mounting

Wall mounting

- **Color touch-sensitive screen**
- **2 existing scales:**
    0 ... 14 pH or ±1000 mV
- **Temperature compensation:**
    Automatic or manual
- **2 outputs 0/4-20mA (pH and T °C)**
- **4 relays (Thresholds, alarm and/or regulation)**
- **OPTIONS:**
    RS 422 /J-BUS + LOGGER
    Extension terminal for 2nd measuring parameter

APPLICATIONS

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

Example
- Electroplating industry
- Processed water treatment
- wastewater treatment (e.g. pH neutralization)
- Groundwater or runoff water survey
- Swimming pool pH regulation (or spa or fish tank)
- Alarming on cooling plant (NH_3)
- Etc.

DESCRIPTION

BAMOPHAR displays on a color touch-sensitive screen a multilingual friendly using menu. The reading is easy for measurement, temperature and relay status. It displays a menu with all parameters for configuration of analogue outputs, thresholds and regulation mode. For a safe start-up a test menu allow a simulation of regulation actuating all outputs and PID, relay outputs.

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

BAMOPHAR 107 offers high flexibility on use through configurations of parameters for regulation, thresholds, temperature compensation and alarms.

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

- Allows a second measuring parameter (pH, flow-rate, conductivity, etc.)
  Data from this blind unit are displayed on the main unit
- Connected to main unit with 2 x2 wires shielded cable
  (Cable length between both devices: max. 500 m)
- RS422 and Data Logger of main unit are shared between both units

Panel mounting unit + Extension unit

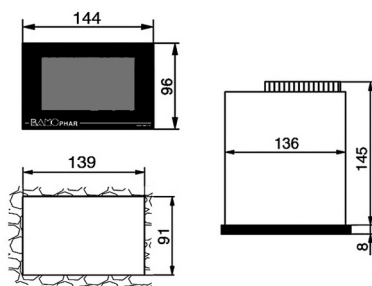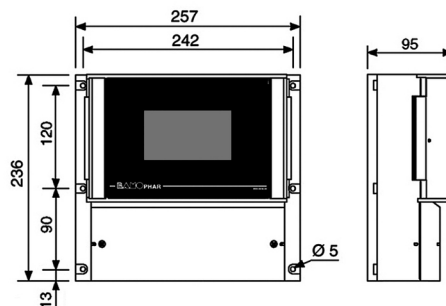| pH/mV Meter **BAMOPHAR 107**	**pH**
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TECHNICAL FEATURES

End-user interface	Color touch-sensitive screen 4.3'', resolution 480x272 pixels Display of measurements, menus, temperature, relay status Configuration - Keyword protected
Measuring scales	0 ... 14 pH as pH-meter or ± 1000 mV as mV-meter
Accuracy	±0.03 pH or ±3 mV
Input impedance	$>10^{13}$ Ω
Sensor signal input	For coaxial connector (9054) on panel and rail mounting devices Screw connector on wall mounting devices
Temperature compensation	
Automatic	Input for sensor Pt 100 Ω at 0 °C, range 0 to 100 °C
Manual	From 0 to 100 °C, by configuration
Relay outputs	4 contacts N.O., voltage 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 alarming function Too long injection - Timer exceeded pH value out of range Temperature sensor defect or electrode cleaning mode
Contact Initial resistance	100 mΩ max. (voltage drop 6 V DC 1 A)
Switching power	831 VA AC / 3 A / 277 V AC 90 W / 3 A / 30 V DC
Switching capacity (min.)	100 mA, 5 V DC (100 mA, 5 V DC (depends of frequency, ambient conditions)
Mechanical lifetime (min.)	5×10^6 operations (180 op./min)
Electrical lifetime (min.)	2×10^5 (at 20 op./min) for 3 A 125 V AC, 3 A 30 V DC - 10^5 (estimated load) for 3 A 125 V AC
ON/OFF Regulation	Adjustable cycle time from 0 to 9999 s, high and low proportional bandwidths, high and low dead zones
PID Regulation	Adjustable proportionality from 0 to 200%, Integrant and Derivative: 0 to 999 s
Calibration routine	Relay outputs inhibited, Analogue outputs on standby at latest values
Auto-cleaning menu	Settings of frequency and duration, relay outputs inhibited, analogue outputs on standby at latest values
Measurement output	0/4 - 20 mA (max. 600 Ω) proportional to measurement
Temperature output / PID	0/4-20 mA (max. 600 Ω), scaling 0…100°C This output is not available when PID regulation function is operating.
Program Testing	Simulation through the menu on measurement, temperature, PID and relays output
Main power supply	230 V AC / 50-60 Hz (others on request) - Consumption 10 VA
Models	Panel mounting, 96x144 mm, Front IP65, screw terminal IP40 Wall mounting, IP65, cable glands, screw terminal

OPTION (RS 422 + Logger)

Interface	RS422 output, J-BUS link - Binary slave mode - 2400 to 9600 bauds
Data Logger	Record of cycle average measurement - 150 000 records max. on memory card.

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DIMENSIONS

144
96
139
91
136
145
8

BamoPHAR ... E, E/A, D/A, E LOG BUS

257
242
95
236
120
90
13
Ø 5

BamoPHAR ... M, M/A, M LOG BUS

CODE NUMBERS AND REFERENCES

Code	Reference	Description
107 500	BAMOPHAR107 E	Panel mounting 96x144 mm - Front IP 65; Rear IP 40
107 501	BAMOPHAR107 E/A	Panel mounting 96x144 m- Extension, blind monitor
107 503	BAMOPHAR107 D/A	Rail mounting, IP40 - Extension, blind monitor
107 505	BAMOPHAR107 E LOG BUS	Panel mounting 96x144 m - RS422 + LOGGER - Front IP 65; Rear IP 40
107 520	BAMOPHAR107 M	Wall mounting, IP 65, cable glands
107 521	BAMOPHAR107 M/A	Wall mounting, IP 65, cable glands - Extension, blind monitor
107 524	BAMOPHAR107 M LOG BUS	Wall mounting, IP 65, cable glands - RS 422 + LOGGER

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