

pH/mV Meter BAMOPHAR 107



Panel mounting



Wall mounting



Panel mounting unit + Extension unit

- Color touch 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

The device is equipped with a color touch screen for the display of a multilingual menu 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 regulation mode. In order to facilitate its commissioning, a programming menu can simulate the measurement, acting on the measurement analog outputs and P.I.D., 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 4-20 mA signal.

A complete measuring system includes:

- pH/mV-meter BAMOPHAR
- One pH or ORP electrode (data-sheet 150-01/03)
- One electrode holder (data-sheets 130- to 145-)
- Accessories: pH/ORP cable, connectors, buffers (data-sheet 160-01)
- Option: Temperature probe (Data-sheet 150-02)

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.)
Data from this blind unit are displayed on the main unit
- Connected to main unit with 4 wire shielded cable
(Cable length between both devices: max. 500 m)
- RS422 and Data Logger of main unit are shared between both units

TECHNICAL FEATURES

End-user interface	Color touch 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 m Ω 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 (variable according to switching frequency, environmental conditions and accuracy).
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
Program Testing	Simulation through the menu on measurement, temperature, PID and relays output
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.
Main power supply	230 V AC / 50-60 Hz (others on request) - Consumption 10 VA
Models	Panel mounting, 96x144 mm, Front IP65, rear IP40 Wall mounting, IP65, cable glands
Storage temperature	-10 ... +70 °C
Operating temperature	-5 ... +50 °C
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.

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



DIMENSIONS

CODE NUMBERS AND REFERENCES

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

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