

Portavo 904 pH

Robust, intuitive portable pH meter with data logger, USB port and lithium-ion batteries.

Up to 5,000 values can be recorded using the integrated data logger. These data can be easily transferred to a computer for analysis using the USB interface and the included Paraly SW 112 software.

Facts

- A sensor quiver protects the sensor from damage and drying out
- The high-performance polymer housing ensures low water consumption and high impact resistance
- Over 1,000 hours of measurement with a single set of batteries (4x AA)
- Li-ion battery
- Data logger with 5,000 values
- Micro USB port and Paraly SW 112 software
- Memosens sensors and analog pH sensors can be used on one device (e.g flat-membrane sensors)
- The mineral glass display is perfectly readable even after years





LITHIUM
TECHNOLOGY

MEMO SENS

3 years
warranty!

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Specifications

pH/mV input (analog)	pH socket, DIN 19 262 (13/4 mm)	
	pH range	-2 ... 16
	Decimal places ^{*)}	2 or 3
	Input resistance	1 x 10 ¹² Ω (0 ... 35 °C)
	Input current	1 x 10 ⁻¹² A (at RT, doubles every 10 K)
	Measuring cycle	Approx. 1 s
	Measurement error ^{1,2,3)}	< 0.01 pH, TC < 0.001 pH/K
	mV range	-1300 ... +1300 mV
	Measuring cycle	Approx. 1 s
	Measurement error ^{1,2,3)}	< 0.1 % meas.val. + 0.3 mV TC < 0.03 mV/K
Temperature input	2 x 4 mm dia. for integrated or separate temperature detector	
	Measuring ranges	NTC 30 kΩ -20 ... +120 °C Pt 1000 -40 ... +250 °C
	Measuring cycle	Approx. 1 s
	Measurement error ^{1,2,3)}	< 0.2 K (Tamb = 23 °C); TC < 25 ppm/K
Memosens pH input (also ISFET)	M8 socket, 4 pins, for Memosens lab cable	
	Display ranges ⁴⁾	pH -2.000 ... +16.000 mV -2000 ... +2000 mV Temperature -50 ... +250 °C
Memosens ORP input	M8 socket, 4 pins, for Memosens lab cable	
	Display ranges ⁴⁾	mV -2000 ... +2000 mV Temperature -50 ... +250 °C
	Sensor standardization ^{*)}	ORP calibration (zero adjustment)
	Permissible calibration range	ΔmV (offset) -700 ... +700 mV
Sensor standardization ^{*)}	pH calibration	
Operating modes ^{*)}	Calimatic	Calibration with automatic buffer recognition
	Manual	Manual calibration with entry of individual buffer values
	Data entry	Data entry of zero and slope
Calimatic buffer sets ^{*)}	Knick CaliMat	Ciba (94) User defined
	NIST technical	HACH Mettler-Toledo
	NIST standard	Hamilton WTW techn. buffers
	DIN 19267	Reagecon
Permissible calibration range	Zero point	6 ... 8 pH
	With ISFET:	-750 ... +750 mV Operating point (asymmetry)
	Slope	Approx. 74 ... 104 %
Calibration timer ^{*)}	Interval 1 ... 99 days, can be switched off	
Sensoface	Provides information on the sensor condition	
	Evaluation of	zero/slope, response, calibration interval
Connections	2x socket, 4 mm dia., for separate temp. detector	
	1x M8 socket, 4 pins, for Memosens lab cable	
	1x micro USB-B for data transmission to PC	
	1x pH socket, to DIN 19262	
Display	LCD STN 7-segment display with 3 lines and icons	
	Status indicators	for battery power level, logger
	Notices	Hourglass
Keypad	[on/off], [cal], [meas], [set], [▲], [▼], [STO], [RCL], [clock]	

Specifications

Data logger	5,000 memory locations Manual, interval- and/or event-controlled recording
MemoLog calibration data logger (Memosens only)	Up to 100 Memosens calibration records can be saved – directly retrievable via MemoSuite (USB) Manufacturer, sensor type, serial no., zero, slope, calibration date
Communication	USB 2.0 Profile HID, driverless installation Usage Data exchange and configuration via Paraly SW 112 software
Diagnostics functions	Sensor data (only Memosens) Manufacturer, sensor type, serial number, operating time Calibration data Calibration date; zero and slope Device self-test Automatic memory test (FLASH, EEPROM, RAM) Device data Device type, software version, hardware version
Data retention	Parameters, calibration data > 10 years
EMC	EN 61326-1 (General Requirements) Emitted interference Class B (residential area) Immunity to interference Industry EN 61326-2-3 (Particular Requirements for Transmitters)
RoHS conformity	According to directive 2011/65/EU
Power supply	4x AA batteries 4x rechargeable NiMH batteries 1x Li-ion battery, USB chargeable Operating time Approx. 1000 h (alkaline)
Nominal operating conditions	Ambient temperature -10 ... +55 °C Transport/Storage temp. -25 ... +70 °C Relative humidity 0 ... 95 %, short-term condensing allowed
Housing	Material PA12 GF30 + TPE Ingress protection IP66/67 with pressure compensation Dimensions Approx. (132 x 156 x 30) mm Weight Approx. 500 g

*) user-defined

1) According to EN 60746-1, at nominal operating conditions

2) ± 1 count

3) Plus sensor error

4) Ranges depending on Memosens sensor