



Portavo 907 Multi pH

Multiparameter portable meter with additional analog pH measurement capability. For all digital Memosens pH, conductivity and oxygen sensors and for analog pH electrodes.

The only portable device for all Memosens parameters. Also for conventional analog sensors. The powerful Li-ion battery can be charged in the device via USB. The clear network diagram provides an at-a-glance view of the sensor condition.

Comprehensive data logger

The following logging types can be selected:

- Manual logging
- Time-controlled logging at a fixed interval
- Signal-controlled logging of measured value and temperature
- Combined time- and signal-controlled logging
- Threshold-controlled logging with pre-trigger

The data logger for up to 10,000 entries records point of measurement, annotation, sensor ID, sensor serial number (Memosens), primary value, temperature, time stamp and device status.

User-friendly software

Portavo 907 proves that a high level of functionality and easy use are not mutually exclusive. It proceeds step by step through the calibration procedure. Technical terms are clearly explained in the context-sensitive help.

Facts

- High-resolution color graphic display
- Transflective and sunlight readable
- Li-ion battery
- Micro USB port and Paraly SW 112 software
- A sensor quiver protects the sensor from damage and drying out
- The high-performance polymer housing ensures low water consumption and high impact resistance
- Intelligent data logger with 10,000 entries and graphical representation
- Memosens sensors and analog pH sensors can be used on one device (e.g flat-membrane sensors)
- IP 67 / IP 66 protection
- The mineral glass display is perfectly readable even after years



LITHIUM
TECHNOLOGY

MEMO SENS

3 years
warranty!

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

Specifications

Conductivity input, Memosens	M8 socket, 4 pins, for Memosens lab cable or		
	Measuring range	SE 215 MS sensor	10 $\mu\text{S}/\text{cm}$... 20 mS/cm
	Measuring cycle	Approx. 1 s	
	Temperature compensation	Linear 0 ... 20 %/K, reference temp. adjustable	
		nLF: 0 ... 120 °C	
		NaCl	
		HCl (ultrapure water with traces)	
		NH ₃ (ultrapure water with traces)	
		NaOH (ultrapure water with traces)	
Display resolution ⁵⁾ (autoranging)	Conductivity	0.001 $\mu\text{S}/\text{cm}$	($c < 0.05 \text{ cm}^{-1}$)
		0.01 $\mu\text{S}/\text{cm}$	($c = 0.05 \dots 0.2 \text{ cm}^{-1}$)
		0.1 $\mu\text{S}/\text{cm}$	($c > 0.2 \text{ cm}^{-1}$)
	Resistivity	00.00 ... 99.99 $\text{M}\Omega \cdot \text{cm}$	
	Salinity	0.0 ... 45.0 g/kg	(0 ... 30 °C)
	TDS	0 ... 1999 mg/l	(10 ... 40 °C)
	Concentration	0.00 ... 9.99 % by wt	
Concentration determination	NaCl	0.00 ... 9.99 % by wt	(0 ... 60 °C)
	HCl	0.00 ... 9.99 % by wt	(-20 ... 50 °C)
	NaOH	0.00 ... 9.99 % by wt	(0 ... 100 °C)
	H ₂ SO ₄	0.00 ... 9.99 % by wt	(-17 ... 110 °C)
	HNO ₃	0.00 ... 9.99 % by wt	(-17 ... 50 °C)
Sensor standardization	Cell constant	Input of cell constant with simultaneous display of conductivity value and temperature	
	Input of solution	Input of conductivity of the calibration solution with simultaneous display of cell constant and temperature	
	Auto	Automatic determination of the cell constant with KCl solution or NaCl solution	

Specifications

Memosens input, oxygen	M8 socket, 4 pins, for Memosens lab cable												
	<table border="0"> <tr> <td>Display ranges⁴⁾</td> <td>Saturation</td> <td>0.000 ... 1000.0 %</td> </tr> <tr> <td></td> <td>Concentration</td> <td>000 µg/l ... 100.00 mg/l</td> </tr> <tr> <td></td> <td>Partial pressure</td> <td>0.0 ... 2000 mbars</td> </tr> <tr> <td></td> <td>Temperature meas. range⁴⁾</td> <td>-20 ... 150 °C</td> </tr> </table>	Display ranges ⁴⁾	Saturation	0.000 ... 1000.0 %		Concentration	000 µg/l ... 100.00 mg/l		Partial pressure	0.0 ... 2000 mbars		Temperature meas. range ⁴⁾	-20 ... 150 °C
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	Concentration	000 µg/l ... 100.00 mg/l											
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Sensor standardization	Automatic calibration in air, humidity adjustable												
Storage	Zero calibration												
Connections	in quiver												
	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												

Specifications

User interface	Straightforward menu navigation with graphic icons and detailed operating instructions in plain text	
Languages	German, English, French, Spanish, Italian, Portuguese, Russian	
Status indicators	For battery power level, logger	
Graphic display	QVGA TFT display with white backlighting	
Keypad	[on/off], [meas], [enter], [◀], [▶], [▲], [▼]	
	2 context-sensitive softkeys	
Data logger	10,000 memory locations	
	Recording	Manual, interval- and/or event-controlled with limit value and pre-trigger, management of tag numbers and annotations
MemoLog calibration data logger (Memosens only)	Up to 100 Memosens calibration records can be saved	
	– Recording viewable on the display	
	– 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, wear, operating time	
	Calibration data	Calibration date, zero, slope
	Device self-test	Automatic memory test (FLASH, EEPROM, RAM)
	Device data	Device type, software version, hardware version
	Parameters, calibration data > 10 years	
Data retention	EN 61326-1 (General Requirements)	
EMC	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	
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

5) c = cell constant