Conductivity Measurement



Portavo 907 Multi Cond

Multiparameter portable meter with additional analog conductivity measurement capability. For all digital Memosens pH, conductivity and oxygen sensors and for analog 2- and 4-electrode sensors.

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 sensors can be used on one device
- IP 66 / IP 67 protection
- The mineral glass display is perfectly readable even after years

Knick >



Conductivity input, analog	Multi-contact for 2-/4-electrode sensors with integrated temp detector			
Conductivity input, unalog	Measuring ranges	SE 202 sensor:	0.01 200 μS/cm	
	Decimal places*)	SE 204 sensor:	0.05 to 500 mS/cm	
	2-electrode sensors:	0.1 μS • c 200 mS • c ⁵)	
	4-electrode sensors:	0.1 μS • c 1000 mS • c ⁵⁾		
	Permissible cell constant	0.005 200.0 cm ⁻¹ (adjustable)		
	Measurement error ^{1,2,3)}	$< 0.5 \%$ meas.val. $+ 0.4 \mu S \cdot c^{5)}$		
Temperature input	2 x 4 mm dia. for integrated or separate temperature detector			
	Measuring ranges	NTC 30 kΩ	-20 +120 °C	
	3 3	Pt 1000	-40 +250 °C	
	Measuring cycle	Approx. 1 s		
	Measurement error ^{1,2,3)}	< 0.2 K (Tamb = 23 °C); T	C < 25 ppm/K	
Conductivity input, Memosens	M8 socket, 4 pins, for Memosens lab cable			
, , ,	Measuring range	SE 215 MS sensor	10 μS/cm 20 mS/cm	
Conductivity input	Measuring cycle	Approx. 1 s		
	Temperature compensation	Linear 0 20 %/K, reference temp. adjustable nLF: 0 120 °C		
		NaCl		
		HCI (ultrapure water with traces) NH3 (ultrapure water with traces) NaOH (ultrapure water with traces)		
Display resolution ⁵⁾ (autoranging)	Conductivity	0.001 μS/cm	(c < 0.05 cm ⁻¹)	
		0.01 μS/cm	$(c = 0.05 \dots 0.2 \text{ cm}^{-1})$	
		0.1 μS/cm	$(c > 0.2 \text{ cm}^{-1})$	
	Resistivity	00.00 99.99 MΩ • 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)	
	HCI	0.00 9.99 % by wt	(-20 50 °C)	
	NaOH	0.00 9.99 % by wt	(0 100 °C)	
	H2SO4	0.00 9.99 % by wt	(-17 110 °C)	
	HNO3	0.00 9.99 % by wt	(-17 50 °C)	
Sensor standardization	Cell constant	Input of cell constant with simultaneous display of		
		conductivity value and t		
	Input of solution	Input of conductivity of the calibration solution with simultaneous display of cell constant and		
			ay or cell constant and	
	Auto	temperature Automatic determination of the cell constant with		
	Adio	KCl solution or NaCl solution		
		solution of maci solu		

Memosens pH input (also ISFET)	M8 socket, 4 pins, for Memosens lab cable		
	Display ranges ⁴⁾	рН	-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, cali	ibration interval

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Memosens input, oxygen	M8 socket, 4 pins, for Memosens lab cable		
	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	
Sensor standardization	Automatic calibration in air, humidity adjustable		
	Zero calibration		
Storage	in quiver		
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 multi-contact socket for 2- and 4-electrode sensors		

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User interface	Straightforward menu navigation with graphic icons and detailed operating		
Languages	instructions in plain text		
Languages Status indicators	German, English, French, Spanish, Italian, Portuguese, Russian		
Graphic display	For battery power level, logger		
	QVGA TFT display with white backlighting		
Keypad	[on/off], [meas], [enter], [▲], [▶], [▲], [▼]		
2	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	
Manage		numbers and annotations	
MemoLog calibration data logger	Up to 100 Memosens calibration records can be saved		
(Memosens only)	– recording viewable on the display		
	– directly retrievable via Me		
		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 Memoser	ns) Manufacturer, sensor type, serial number, wear,	
		operating time	
	Calibration data	Calibration date, zero, slope, or cell constant, resp.	
	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 Requi	rements)	
	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		
телен эмергу	4 x rechargeable NiMH batteries		
	1x Li-ion battery, USB chargeable		
Nominal operating conditions	Ambient temperature	-10 +55 °C	
	Transport/Storage	-25 +70 °C	
	temperature	25 17 0	
	Relative humidity	0 95 %, short-term condensing allowed	
Housing	Material	PA12 GF30 + TPE	
5	Ingress protection	IP66/67 with pressure compensation	
	Dimensions	Approx. (132 x 156 x 30) mm	
	Weight	Approx. (132 x 130 x 30) mm	
	weight	πρρίολ. 300 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