Oxygen Measurement

Portavo 907 Multi Oxy

The all-in-one solution for optical oxygen measurement. Multiparameter device for digital pH, conductivity and oxygen sensors with Memosens technology

The only portable device for all Memosens parameters. 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.

The data logger for up to 10,000 entries records measuring point, 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.
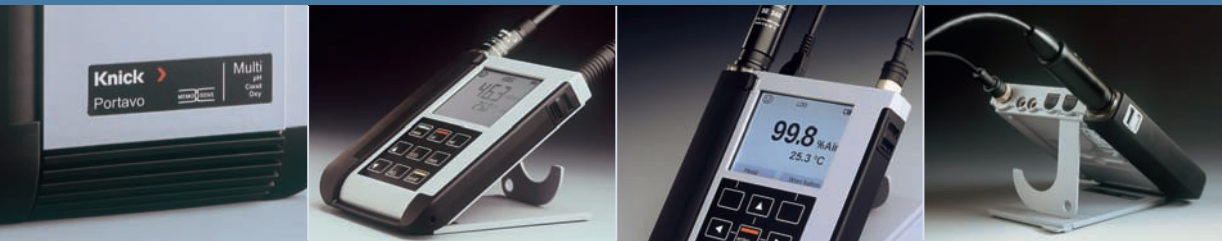
Facts

- High-resolution color graphic display
- Transflective and sunlight readable
- Li-ion battery
- Optical oxygen sensor
- Integrated pressure measurement for compensating air pressure fluctuations
- 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 absorption and high impact resistance
- Intelligent data logger with 10,000 entries and graphical representation
- IP 66/67 protection
- The mineral glass display is perfectly readable even after years

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

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pO₂ 0 to 400 mbar
Tamb 0 to 50 °C

Knick ›
Portavo Multi

99.8 %Air 25.3 °C

97.1 % Air

60.0 °C

Menü   Wert halten

enter

meas   on/off

LITHIUM TECHNOLOGY

MEMO SENS

3 years
warranty!

Original size

Specifications

Optical oxygen input	M12 socket for SE 340 sensor or Memosens sensors		
	OXY meas. ranges at 20 °C	Saturation	0.000 ... 200.0 %
		Concentration	000 µg/l … 20.00 mg/l
		Partial pressure	0.0 … 1000 mbars
	Response time	t90 < 30 s	
		t99 < 60 s	
	Measurement error[1,2,3]	Zero signal < 0.1 % full saturation	
	Measuring cycle	Approx. 1 s	
	Measurement error[1,2,3]	< 0.1 % meas. val.	
	Temperature meas. range[5]	0.0 … 50.0 °C	
	Measurement error[1,2,3]	Temperature ± 0.2 K	
Sensor standardization	Automatic calibration in air, humidity adjustable		
	Zero calibration		
	Max. overpressure	2.5 bars	
	Immersion depth	min. 60 mm	
		max. 25 m	
Storage	Quiver		
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 and M12 socket, 8 pins		
	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 and M12 socket, 8 pins		
	Display ranges[4]	mV	-2000 … +2000 mV
		Temperature	-50 … +250 °C
	Sensor standardization[*]	ORP calibration (zero adjustment)	
	Permissible calibration range	∆mV (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 M12 socket for Memosens sensors		
	Measuring range	SE 215 MS sensor	10 μS/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)	
		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	$(c = 0.05 … 0.2$ cm$^{-1})$
		0.1 μS/cm	$(c > 0{,}2$ 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)
	HCl	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 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 or M12 socket for Memosens sensors	
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, automatic compensation of ambient pressure 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 M12, 8 pins, for Memosens sensors or SE 340 (optical oxygen)	
Air pressure measurement	700 … 1100 hPa	

Specifications

User interface	Straightforward menu navigation with graphic icons and detailed operating instructions in plain text	
Languages	German, English, French, Spanish, Italian, Portuguese, Russian	
Sensoface	Status indication (friendly, neutral, sad)	
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
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	
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 sensor

5) c = cell constant