

Portavo 907 Multi Oxy

The only solution you need for optical oxygen measurement Multiparameter analyzer for digital pH/ORP, conductivity, and oxygen sensors with Memosens technology

Portavo 907 Multi Oxy optionally features a powerful Li-ion rechargeable battery that can be charged via USB directly in the device. The clear sensor diagram provides an at-a-glance view of the sensor condition.

Comprehensive Data Logger

The following logger types can be selected:

- Manual logging
- Time-controlled logging at set intervals
- Signal-controlled logging of process variables and temperatures
- Combined time- and signal-controlled logging
- Threshold-controlled logging with pre-trigger

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

User-Friendly Software

Portavo 907 Multi Oxy proves that high functionality and ease of use do not exclude one another. It guides you step by step through the calibration procedure. Technical terms are clearly explained in the context help.

Multi-Channel Function for Simultaneous Operation of 2 Sensors

If equipped with the multi-channel option, Portavo 907 Multi Oxy can be used for simultaneous measurements using 2 flexibly combined sensors. The multi-channel function is added to the functionality of the data logger.

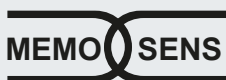


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Facts and Features

- Use with SE 340 optical oxygen sensor
- High-resolution color graphic display
Transflective, even when exposed to direct sunlight
- Li-ion rechargeable battery
- Integrated pressure measurement to compensate for air pressure fluctuations
- Micro USB port and Paraly SW 112 operating software
- Sensor quiver protects the sensor from drying out and damage
- High-performance polymer housing ensures low water absorption and high impact resistance
- Intelligent data logger with 10,000 entries and graphic display
- IP 66/67 protection
- Mineral glass screen can still be read perfectly after many years
- Multi-channel function
- New add-on functions, such as a new pH calibration procedure, user management, sensor check, and calibration of the temperature probe, are available as options.



Original size

Specifications

Optical oxygen input	M12 socket for SE 340 sensor or Memosens sensors		
	OXY measuring ranges	Saturation	0.000 ... 200.0 %
	at 20 °C / +68 °F	Concentration	000 µg/l ... 20.00 mg/l
		Partial pressure	0.0... 1000 mbar
	Response time	t90 < 30 s	t99 < 60 s
	Measurement error ^{1,2,3)}	Zero signal < 0.1 % of final saturation value	
	Measuring cycle	Approx. 1 s	
	Measurement error ^{1,2,3)}	< 0.1 % of measured value	
	Temperature range ⁴⁾	0 ... +50 °C / +32 ... +122 °F	
	Measurement error ^{1,2,3)}	Temperature ± 0.2 K	
Sensor adjustment	Automatic calibration in air, adjustable relative humidity		
	Zero calibration		
	Max. gauge pressure	2.5 bar	
	Immersion depth	Min. 60 mm	Max. 25 m
Storage	Quiver		
Temperature input	2 x Ø 4 mm for integrated or separate temperature probe		
	Measuring ranges	NTC 30 kΩ	-20 ... +120 °C / -4 ... +248 °F
		Pt1000	-40 ... +250 °C / -40 ... +482 °F
	Measuring cycle	Approx. 1 s	
	Measurement error ^{1,2,3)}	< 0.2 K (Tamb = +23 °C +73.4 °F); TC < 25 ppm/K	
Memosens pH input (also ISFET)	M8 socket, 4-pin, for Memosens laboratory cable, and M12 socket, 8-pin		
	Display ranges ⁴⁾	pH	-2.000 ... +16.000
		mV	-2000 ... +2000 mV
		Temperature	-50 ... +250 °C -58 ... +482 °F
Memosens ORP input	M8 socket, 4-pin, for Memosens laboratory cable, and M12 socket, 8-pin		
	Display ranges ⁴⁾	mV	-2000 ... +2000 mV
		Temperature	-50 ... +250 °C -58 ... +482 °F
	Sensor adjustment ^{*)}	ORP calibration (zero offset)	
	Permissible calibration range	ΔmV (offset)	-700 ... +700 mV
Sensor adjustment ^{*)}	pH calibration		
Operating modes ^{*)}	Calimatic	Calibration with automatic buffer recognition	
	Manual	Manual calibration with entry of individual buffer values	
Calimatic buffer sets ^{*)}	Data entry	Data entry of zero point and slope	
	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 condition of the sensor		
	Evaluation of	Zero point/slope, response time, calibration interval	

Specifications

Memosens input, oxygen	M8 socket, 4-pin, for Memosens laboratory cable, or M12 socket for Memosens sensors						
	Display ranges ⁴⁾ <table border="0"> <tr> <td>Saturation</td> <td>0.000 ... 200.0 %</td> </tr> <tr> <td>Concentration</td> <td>000 µg/l ... 20.00 mg/l</td> </tr> <tr> <td>Partial pressure</td> <td>0.0... 1000 mbar</td> </tr> </table>	Saturation	0.000 ... 200.0 %	Concentration	000 µg/l ... 20.00 mg/l	Partial pressure	0.0... 1000 mbar
Saturation	0.000 ... 200.0 %						
Concentration	000 µg/l ... 20.00 mg/l						
Partial pressure	0.0... 1000 mbar						
	Temperature range ⁴⁾ -20 ... +150 °C / -4 ... +302 °F						
Sensor adjustment	Automatic calibration in air, adjustable relative humidity, automatic ambient pressure compensation Zero calibration						
Storage	In quiver						
Connections	2 x socket Ø 4 mm for separate temperature probe 1 x M8 socket, 4-pin, for Memosens laboratory cable 1 x micro USB-B for data transmission to PC 1 x M12, 8-pin, for Memosens sensors or SE 340 (optical oxygen)						
Air pressure measurement	700 ... 1100 hPa						
Device operation	Easy-to-use menu navigation with graphic symbols and detailed user hints in plain text						
Languages	German, English, French, Spanish, Italian, Portuguese						
Sensoface	Status display (friendly, neutral, sad)						
Status indicators	For battery condition, logger						
Graphic display	QVGA TFT display with white backlighting						
Keypad	[on/off], [meas], [enter], [◀], [▶], [▲], [▼] 2 softkeys with context-dependent assignment						
Data logger	Space for 10,000 entries 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)	Can save up to 100 Memosens calibration records – recording can be shown on the display – directly readable via MemoSuite (USB): Manufacturer, sensor type, serial no., zero point, slope, calibration date						
Communication	USB 2.0 Profile HID, driverless installation Usage Data transfer and configuration via the Paraly SW 112 software						
Diagnostic functions	Sensor data (Memosens only) Manufacturer, sensor type, serial number, wear, operating time Calibration data Calibration date, zero point, slope Device self-test Automatic memory test (FLASH, EEPROM, RAM) Device data Device type, software version, hardware version						
Data retention	Parameter, calibration data > 10 years						

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Specifications

EMC	EN 61326-1 (General requirements)	
	Emitted interference	Class B (residential)
	Interference immunity	Industrial applications
	EN 61326-2-3 (Particular requirements for transducers)	
RoHS conformity	According to Directive 2011/65/EU	
Power supply	4 x AA (Mignon) alkaline batteries or 1 x Li-ion rechargeable battery (rechargeable via USB)	
Rated operating conditions	Ambient temperature	-10 ... +55 °C / +14 ... +131 °F
	Transport/Storage temperature	-25 ... +70 °C / -13 ... +158 °F
	Relative humidity	0 ... 95 %, brief condensation permissible
Housing	Material	PA12 GF30 + TPE
	Protection	IP 66/67 with pressure compensation
	Dimensions	Approx. 132 x 156 x 30 mm / 5.2 x 6.14 x 1.18 inches
	Weight	Approx. 500 g / 1.10 lbs

*) User-defined

1) At rated operating conditions

2) ± 1 digit

3) Plus sensor error

4) Ranges dependent on sensor

5) c = cell constant

Portavo 907 Multi Oxy Product Line

Portavo 907 Multi Oxy

Order no.



Portavo 907 Multi Oxy for measurement using digital Memosens sensors for pH/ORP, conductivity (contacting or toroidal), and oxygen or using the SE 340 optical oxygen sensor, incl. Paraly SW 112 configuration software with USB connector cable and USB adapter (A female to B male) for printer connection.

Portavo 907
Multi Oxy

Portavo 907SET-MULTI-LDO



Portavo 907 Multi Oxy, SE 340 optical oxygen sensor, ZU 0934 field case, incl. USB connector cable

907SET-MULTI-LDO

Oxygen sensor



The SE 715 oxygen sensor with Memosens plug-in system requires little maintenance and is equipped with a temperature probe. It features high long-term stability, a fast response, and low flow dependence. The sensor is designed for the simultaneous measurement of dissolved oxygen and temperature.

SE 715 MS

Optical oxygen sensor



Thanks to its optical measuring function and digital data transmission, the SE 340 oxygen sensor is ideal for use with the Portavo 907. It is sturdy and waterproof (IP 68), and, with its extremely fast response time, suitable for a wide range of applications. A further plus point is the beveled membrane, which is both free from incident flow and easy to clean. With a 1.5 m / 4.92 ft fixed cable.

SE 340

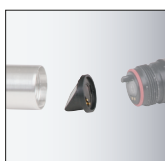
Sensor protection / calibration cap



Sensor protector that also serves as a calibration beaker for the SE 340 optical oxygen sensor.

ZU 0911

Protective cap



Sensor cap, spare part for the SE 340 optical oxygen sensor.

ZU 0913

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Portavo 907 Multi Oxy Product Line


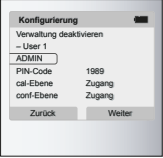

pH/Pt1000 sensor		Order no.
	Digital Memosens pH sensor Polymer body, ceramic junction, length 120 mm / 4.72 inches	SE 101 MS
pH/Pt1000 sensor		
	Digital Memosens pH sensor Glass body, ceramic junction, length 110 mm / 4.33 inches	SE 102 MS
pH/Pt1000 sensor		
	Digital Memosens pH puncture sensor Polymer body, length 90 mm / 2.36 inches	SE 104 MS
2-electrode sensor		
	Digital conductivity sensor with Memosens technology Stainless steel body, length 120 mm / 4.72 inches	SE 202-MS
2-electrode sensor		
	Digital conductivity sensor with Memosens technology Polymer body, length 120 mm / 4.72 inches	SE 615/1-MS
Toroidal conductivity sensor (digital)		
	with dairy pipe DN 50 process connection	SE 680N-C1N4U00M
	with Varivent DN 50 process connection	SE 680N-V1N4U00M
	with 2" clamp process connection	SE 680N-J2N4U00M
	with process connection for für ARF 210/215	SE 680N-K8N4U00M

Portavo 907 Multi Oxy Product Line

Memosens cable	Order no.	
	Measuring cable for digital sensors with Memosens connector Length 1.5 m / 4.92 ft	CA/MS-001XFA-L
	Measuring cable for digital sensors with Memosens connector Length 2.9 m / 9.51 ft	CA/MS-003XFA-L
	Measuring cable for digital sensors with M12 socket, 4-pin, M8 connector, 4-pin, length 1.5 m / 4.92 ft	CA/M12-001M8-L
Adapter	Adapter for 12 mm / 0.47 inch industrial sensors with PG 13.5 thread.	ZU 0939
		
Base stand	Base stand for accepting up to 3 sensors with base plate made of stainless steel	ZU 6953
		
Sensor quiver	5 pcs., replacement, for leak-proof storage of sensors	ZU 0929
		
Sturdy field case	For device and sensor	ZU 0934
		
Li-ion rechargeable battery	Li-ion rechargeable battery (USB chargeable with Portavo 904, 907, and 908 only)	ZU 0925
		
Flow cell	For SE 715 oxygen sensor with flexible tube connections	ZU 0284
		






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Portavo 907 Multi Oxy Product Line

Maintenance kit		Order no.
	Electrolyte, 3 membrane caps for amperometric oxygen sensors	ZU 0879
TAN Options		
	Cal SOP calibration method: User management, sensor check, temperature adjustment (offset)	SW-P001
	Temperature adjustment (offset)	SW-P002
	Multi-channel function	SW-P003
Software		
	PC software for configuration and firmware update (free download at www.knick.de)	

Portavo 907 Multi Oxy Product Line





CaliMat pH Buffer Solutions

		Quantity	Order no.
	pH 2.00 (20 °C / 68 °F)	250 ml	CS-P0200/250
	pH 4.00 (20 °C / 68 °F)	250 ml	CS-P0400/250
		1000 ml	CS-P0400/1000
	pH 7.00 (20 °C / 68 °F)	250 ml	CS-P0700/250
		1000 ml	CS-P0700/1000
	pH 9.00 (20 °C / 68 °F)	250 ml	CS-P0900/250
		1000 ml	CS-P0900/1000
	pH 12.00 (20 °C / 68 °F)	250 ml	CS-P1200/250

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Portavo 907 Multi Oxy Product Line

CaliMat pH Buffer Solutions

		Quantity	Order no.
	Set pH 4.00 (20 °C / 68 °F)	3 x 250 ml	CS-PSET4
	Set pH 7.00 (20 °C / 68 °F)	3 x 250 ml	CS-PSET7
	Set pH 9.00 (20 °C / 68 °F)	3 x 250 ml	CS-PSET9
	Set pH 4.00 / 7.00 / 9.00 (20 °C / 68 °F)	3 x 250 ml	CS-PSET479
	KCl solution, 3 molar	250 ml	ZU 0062