Portavo 904 pH

Portable and robust analyzer for pH and ORP measurement

Up to 5,000 values can be recorded using the integrated data logger. Using the USB port and the Paraly SW 112 software, the logger data can be easily transferred to a PC for analysis.

Tailor-Made pH Calibration

Cal SOP

pH sensors can be tested using the SOP calibration procedure with up to 3 calibration points. The third buffer is used as a verification buffer. You can pick and choose the buffer set for each calibration point and also set the sequence.
You can use your own buffer solutions or choose from a list of commercially available buffer sets, e.g., CaliMat, NIST and DIN. For the verification buffer, a maximum permitted deviation (delta pH) is entered.

Security Package Included

User management

The professional user management regulates access to the device and the sensor.

- Increased security for configuration, calibration and measurement data
- No unauthorized interventions during the operating cycle
- Up to 4 user profiles can be entered
- Different access rights can be established

Depending on user experience, the role profile can be selectively defined for configuring the device and sensor as well as for calibrating the sensor. The risk of changing settings inadvertently is clearly minimized in this way.

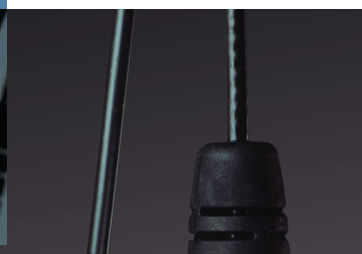
More Safety During Operation

Memosens sensors can be assigned directly to the Portavo 908 Multi.
As such, data saved in the sensor can be consulted, including

Sensor type
TAG
Group

Unique sensor-to-device assignment reduces potential errors. This ensures that only the right sensors are used for the selected measuring point.



Facts and Features

- Memosens sensors or analog sensors for pH or ORP measurement can be used on one device.
- A sensor quiver protects the sensor from damage and drying out
- Robust housing with IP66/67, also for outdoor use
- Li-ion battery – charged directly via USB
- Data logger with 5,000 values
- Micro USB port and Paraly SW 112 software
- Tailor-made pH calibration Cal SOP
- User management for access control
- Sensor check for clear sensor-to-device assignment via sensor type, TAG or "Group"
- Temperature probe adjustment in the Memosens sensor (offset correction)

3-year warranty!

MEMOSENS

Original size

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 / 32 ... 86 °F)	
	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 / –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, ISFET input	M8 socket, 4 pins, for Memosens lab cable		
	Display ranges[4)]	pH	–2.000 ... 16.000
		mV	–2000 ... 2000 mV
		Temperature	–50 ... 250 °C / –58 ... 482 °F
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	
	Cal-SOP (TAN option)	Software option SW-P001: Defining the pH buffers and the sequence of the calibration steps; defining the delta deviation for the verification buffer	
	Temperature calibration (TAN option)	Software option SW-P002 for temperature probe adjustment in the Memosens sensor (offset correction)	
Calimatic buffer sets*)	–01– Mettler-Toledo	2.00/4.01/7.00/9.21	
	–02– Knick CaliMat	2.00/4.00/7.00/9.00/12.00	
	–03– Ciba (94)	2.06/4.00/7.00/10.00	
	–04– NIST technical	1.68/4.00/7.00/10.01/12.46	
	–05– NIST standard	1.679/4.006/6.865/9.180	
	–06– HACH	4.01/7.00/10.01/12.00	
	–07– WTW techn. buffers	2.00/4.01/7.00/10.00	
	–08– Hamilton	2.00/4.01/7.00/10.01/12.00	
	–09– Reagecon	2.00/4.00/7.00/9.00/12.00	
	–10– DIN 19267	1.09/4.65/6.79/9.23/12.75	
	–U1– (User)	loadable via Paraly SW 112	
Permissible calibration range	Zero point	6 ... 8 pH	
	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

Memosens ORP input	M8 socket, 4 pins, for Memosens lab cable	
	Display ranges[4]	mV –2000 ... 2000 mV Temperature –50 ... 250 °C / –58 ... 482 °F
Sensor standardization*)	ORP calibration (zero adjustment) Permissible cal. range	ΔmV (offset) –700 ... 700 mV
	Temperature calibration (TAN option)	Software option SW-P002 for temperature probe adjustment in the Memosens sensor (offset correction)
Connections	2 x socket, 4 mm dia., for separate temperature probe 1 x M8 socket, 4 pins, for Memosens lab cable 1 x micro USB-B for data transmission to PC 1 x pH socket, to DIN 19262	
Display	LCD STN 7-segment display with 3 lines and icons Status indicators Notices	For battery power level, logger Hourglass
Keypad	[on/off], [cal], [meas], [set], [▲], [▼], [STO], [RCL], [clock]	
Data logger	5,000 memory locations Recording	Manual, interval- or event-controlled
MemoLog calibration data logger (Memosens only)	Up to 100 Memosens calibration records can be saved Recording Viewable on the display	Directly retrievable via MemoSuite or Paraly SW 112 (USB) Manufacturer, sensor type, serial no., zero, slope, calibration date
Communication	USB 2.0	
	Profile Usage	HID, driverless installation Data exchange and configuration via Paraly SW 112 software
Diagnostic functions	Sensor data (Memosens only) Calibration data Device self-test Device data	Manufacturer, sensor type, serial number, operating time Calibration date; zero and slope Automatic memory test (FLASH, EEPROM, RAM) Device type, software version, hardware version
Data retention	Parameters, calibration data > 10 years	
EMC	EN 61326-1 (General Requirements) Emitted interference Immunity to interference EN 61326-2-3	Class B (residential environment) Industrial applications
RoHS conformity	According to directive 2011/65/EU	
Power supply	4 x AA alkaline batteries 4 x AA NiMH battery or 1 x Li-ion battery, USB chargeable Operating time	Approx. 1000 h (alkaline)
Nominal operating conditions	Ambient temperature Transport/Storage temp. Relative humidity	–10 ... 55 °C / 14 ... 131 °F –25 ... 70 °C / –13 ... 158 °F 0 ... 95 %, short-term condensing allowed
Housing	Material Protection Dimensions Weight	PA12 GF30 + TPE IP 66/67 with pressure compensation Approx. 132 x 156 x 30 mm / 5.2 x 6.14 x 1.18 inches Approx. 500 g / 1.10 lbs

* user-defined
1) at nominal operating conditions
2) ± 1 count
3) plus sensor error
4) ranges depending on Memosens sensor