Portavo 904 Cond

Portable, sturdy process analyzer for conductivity measurement.

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

Security Package, Including
User Management

Professional user management regulates access to the device and the sensor.

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

Depending on the user's experience, the role profile can optionally be defined for configuration of the device and sensor or for sensor calibration. This clearly minimizes the risk of inadvertently changing settings.

Greater Reliability During Operation

Memosens sensors can be assigned directly to the Portavo using the data stored in the sensor, such as
Sensor type
TAG
Group

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

Facts and Features

- Memosens sensors or analog sensors for conductivity measurement can be used with one device
- Sensor quiver protects the sensor from drying out and damage
- Can be used with toroidal conductivity sensors with Memosens protocol
- Sturdy housing with IP66/67 protection, also suitable for outdoor use
- Li-ion rechargeable battery – USB chargeable
- Data logger with 5,000 values
- Micro USB port and Paraly SW 112 operating software
- Mineral glass screen can still be read perfectly after many years
- User management for access control
- Sensor verification for clear assignment of the sensor to the device via sensor type, TAG, or group
- Temperature detector adjustment in the Memosens sensor (offset correction)

Conductivity Measurement

MEMO SENS

3-year warranty

Original size

Specifications

Conductivity input, analog	Multi-contact for 2-/4-electrode sensors with integrated temperature detector		
	Measuring ranges	SE 202 sensor: SE 204 sensor:	0.01 ... 200 µS/cm 0.05 ... 500 mS/cm
		2-electrode sensors: 4-electrode sensors:	0.1 µS • c ... 200 mS • c[4)] 0.1 µS • c ... 1000 mS • c[4)]
	Permissible cell constant	0.005 … 200.0 cm^{-1} (adjustable)	
	Measurement error[1,2,3)]	< 0.5 % of measured value + 0.4 µS • c[4)]	
Temperature input	2 x Ø 4 mm for integrated or separate temperature detector		
	Measuring ranges	NTC 30 kΩ Pt1000	–20 ... 120 °C / –4 ... 248 °F –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	
Conductivity input, Memosens	M8 socket, 4-pin, for Memosens laboratory cable		
Conductivity input	Measuring cycle	Approx. 1 s	
	Temperature compensation	Linear 0 ... 20 %/K, adjustable reference temp. nLF: 0 ... 120 °C / 32 ... 248 °F NaCl (ultrapure water with traces) HCl (ultrapure water with traces) NH3 (ultrapure water with traces) NaOH (ultrapure water with traces)	
Display resolution (autoranging)	Conductivity[4)]	0.001 µS/cm 0.01 µS/cm 0.1 µS/cm	(c < 0.05 cm^{-1}) (c = 0.05 ... 0.2 cm^{-1}) (c > 0.2 cm^{-1})
	Resistivity	00.00 ... 99.99 MΩ • cm	
	Salinity	0.0 ... 45.0 g/kg	(0 ... 30 °C / 32 ... 86 °F)
	TDS	0 ... 5000 mg/l	(10 ... 40 °C / 50 ... 104 °F)
	Concentration	0.00 … 100 wt%	
Concentration determination	NaCl	0 - 26 wt% (0 °C / 32 °F) ... 0 - 28 wt% (100 °C / 212 °F)	
	HCl	0 - 18 wt% (-20 °C / -4 °F) ... 0 - 18 wt% (50 °C / 122 °F)	
	NaOH	0 - 13 wt% (0 °C / 32 °F) ... 0 - 24 wt% (100 °C / 212 °F)	
	H_2SO_4	0 - 26 wt% (-17 °C / -1.4 °F) ... 0 - 37 wt% (110 °C / 230 °F)	
	HNO_3	0 - 30 wt% (-20 °C / -4 °F) ... 0 - 30 wt% (50 °C / 122 °F)	
	H_2SO_4	94 - 99 wt% (-17 °C/ -1.4 °F) ... 89 - 99 wt% 115 °C / 239 °F)	
	HCl	22 - 39 wt% (-20 °C / -4 °F) ... 22 - 39 wt% (50 °C / 122 °F)	
	HNO_3	35 - 96 wt% (-20 °C / -4 °F) ... 35 - 96 wt% (50 °C / 122 °F)	
	H_2SO_4	28 - 88 wt% (-17 °C / -1.4 °F) ... 39 - 88 wt% (115 °C / 239 °F)	
	NaOH	15 - 50 wt% (0 °C / 32 °F) ... 35 - 50 wt% (100 °C / 212 °F)	
Sensor adjustment	COND cell constant	Input of cell constant with simultaneous display of conductivity value and temperature	
	CONDI cell constant	Input of cell constant with simultaneous display of installation factor and zero point	
	Solution input	Input of calibration solution conductivity with simultaneous display of cell constant and temperature	
	Auto	Automatic determination of cell constant with KCl or NaCl solution	
	Temperature calibration (TAN option)	Software option SW-P002 for temperature detector adjustment in the Memosens sensor (offset correction)	

Conductivity Measurement

Specifications

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 multi-contact socket for analog 2- and 4-electrode sensors	
Display	LCD STN 7-segment display with 3 lines and icons	
	Status indicators	For battery condition, logger
	Notices	Hourglass
Keypad	[on/off], [cal], [meas], [set], [▲], [▼], [STO], [RCL], [clock]	
Data logger	Space for 5,000 entries	
	Recording	Manual, interval- or event-controlled
MemoLog calibration data logger (Memosens only)	Can save up to 100 Memosens calibration records – 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, operating time
	Calibration data	Calibration date; cell constant
	Device self-test	Automatic memory test (FLASH, EEPROM, RAM)
	Device data	Device type, software version, hardware version
Data retention	Parameter, calibration data > 10 years	
EMC	EN 61326-1 (General requirements)	
	Emitted interference	Class B (residential)
	Immunity to interference	Industrial applications
	EN 61326-2-3	
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)	
	Operating time	Approx. 1000 h (alkaline)
Rated operating conditions	Ambient temperature	–10 … 55 °C / 14 … 131 °F
	Transport / storage temp.	–25 … 70 °C / -13 … 158 °F
	Relative humidity	0 … 95 %, brief condensation permissible
Housing	Material	PA12 GF30 (silver gray RAL 7001) + TPE (black)
	Ingress protection	IP66/67 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) c = cell constant