The Art of Measuring. Knick

User Manual
English

Portavo® 902 PH

Latest Product Information: www.knick.de

Return of products under warranty
Please contact our Service Team before returning a defective device.
Ship the cleaned device to the address you have been given.
If the device has been in contact with process fluids, it must be decontaminated/ disinfected before shipment. In that case, please attach a corresponding certificate, for the health and safety of our service personnel.

Disposal
Please observe the applicable local or national regulations concerning the disposal of "waste electrical and electronic equipment".

Registered trademarks
The following names are registered trademarks. For practical reasons they are shown without trademark symbol in this manual.

- Calimatic®
- Memosens®
- Paraly®
- Portavo®
- Sensocheck®
- Sensoface®

Table of Contents

Package Contents

Check the shipment for transport damage and completeness.
The package of the Portavo 902 PH includes:

- The Portavo 902 PH incl. 4 AA batteries and premounted quiver
- Carrying strap
- Quickstart instructions in various languages
- Specific test report
- Safety instructions
- Data carrier with detailed user manuals

Specific Test Report

CD-ROM

Complete documentation:

- User manuals in different languages
- Safety instructions
- Certificates
- Quickstart guides

Safety Instructions

In official EU languages and others.

- EC Declarations of Conformity

Quickstart Guides

Installation and first steps:

- Operation
- Menu structure
- Calibration
- Error messages and recommended actions

Various languages on CD-ROM and on our website:
www.knick.de

The Portavo 902 PH is a portable pH meter. A plain-text line on the high-contrast LCD screen makes operation virtually self-explanatory.
The meter stands out by the following features:

- Use of digital Memosens sensors
- Memosens sensors and DIN pH sensors can be used on one device.
- A detachable quiver protects the sensor and prevents it from drying out. Furthermore, it can be used for calibration.
- The rugged housing is made of a high-performance polymer. It provides high impact resistance and dimensional stability even when exposed to extreme moisture.

- Scratch-proof clear glass display, perfectly readable even after years
- Very long operating times with one set of batteries (4 x AA)
- Sensoface icons provide single-glance information on the sensor condition (page 27)
- Calibration with "Calimatic" automatic buffer recognition (page 16)
- Manual calibration by entering individual buffer values
- Real-time clock and indication of battery charging level
- At measuring temperatures from -20 to +100 °C the temperature detector can be automatically identified.

Value-Added Features

Memosens

The Portavo 902 can communicate with Memosens sensors. When these digital sensors are connected to the meter, they are automatically identified and indicated by the logo shown on the right. Furthermore, Memosens allows the storage of calibration data, which will be available and can still be used when the sensor is connected to another Memosens-capable device.

Sensoface

Sensoface provides quick information on the sensor condition. The three "smiley" faces as shown on the right represent the sensor condition during measurement and after a calibration. When the condition deteriorates, an "INFO …" message gives a hint to the cause.

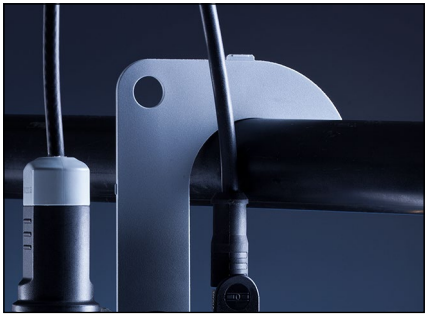
Automatic calibration with Calimatic

Calimatic is a very convenient method for pH calibration with automatic buffer recognition. You only have to select the buffer set with the buffers used. The buffers can then be used in any order.

As delivered, this calibration method is preset. It can be adjusted or disabled in the configuration menu.

Protective Cover

The front of the meter is protected by a cover, which can be completely flipped over and secured to the back for operation. A label on the inner side of the cover explains the control functions and device messages.



Hook

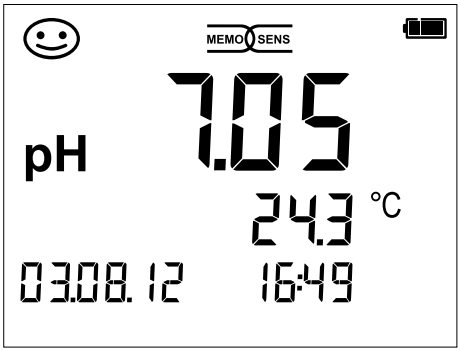
A fold-out hook on the back allows suspending the meter. This leaves your hands free for the actual measurement. The **rating plate** is located beneath the hook.

Protective Cover and Hook Combined

Cover and hook can be joined together to form a benchtop stand allowing comfortable and fatigue-free working at a lab bench or desk.

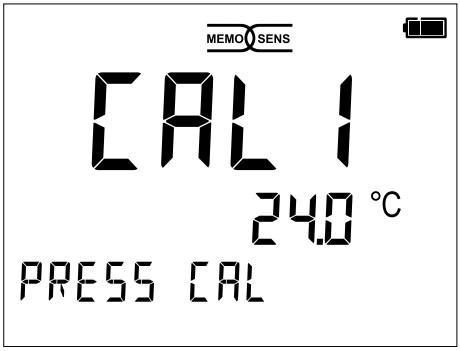
Display

The meter has a three-line display for representing alphanumeric information such as measurement and calibration data, temperatures and date/time.
Additional information is provided by means of icons (Sensoface, battery icon, etc.).
Some typical displays are shown below.

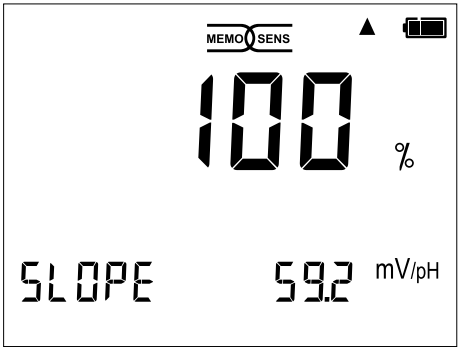


Measuring
(display of measured value, temperature, date and time)

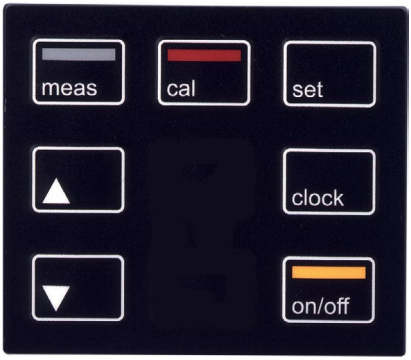
Clock
(display of hours and minutes, seconds and date).



Calibration – step 1



End of calibration
(display of slope)



Keypad

The keys of the membrane keypad have a noticeable pressure point.

They have the following functions:

on/off	Switches the meter on and displays the device and calibration data (see Start-Up)
meas	Switches the meter on / Activates measuring mode
cal	Starts calibration
set	Activates configuration/ Confirms entries
clock	Displays time and date, allows setting the clock using **set**
▲ ▼	When this icon is displayed, you can use the arrow keys for navigation.

Check the shipment for transport damage and completeness (see Package Contents).

NOTICE!

Do not operate the device when one of the following conditions applies:

- the device shows visible damage
- the device fails to perform the intended function
- prolonged storage at temperatures above +70 °C / +158 °F
- severe transport stresses

In this case, a professional routine test must be performed.
This test should be carried out at our factory.

Inserting the Batteries

With four AA batteries, the Portavo has an operating time of over 1000 h.
Open the battery compartment on the rear of the device. Be sure to observe the correct polarity when inserting the batteries (see markings in the battery chamber). Close the battery compartment cover and screw it handtight.

A battery icon in the display indicates the battery power level:

	Icon fully filled	Batteries at full capacity
	Icon partially filled	Battery capacity is sufficient
	Icon empty	Battery capacity not sufficient; calibration is possible
	Icon blinks	Max. 10 operating hours remaining, measurement is still possible **NOTICE!** It is absolutely necessary to replace the batteries.

Connecting a Sensor

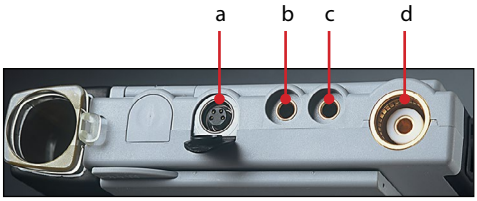
The Portavo 902 PH provides several connections so that many types of sensors can be used for measurement. Note that only **one** sensor may be connected to the meter at a time. The meter automatically recognizes a connected Memosens sensor and switches accordingly. Memosens is signaled in the display.

Separate temperature probe

Note: Temperature measurement using a separate temperature probe is only possible when no Memosens sensor is connected.
After power-on, a separate temperature probe is automatically recognized.
When you want to replace the temperature probe, you must switch off the meter and then switch it on again.

NOTICE!

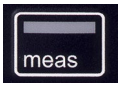
Always make sure that a sensor is connected to the meter before starting measurement.
Explanation: The analog pH input of the Portavo is an electrometer amplifier with an extremely high-impedance. When the sensor is not in contact with the medium or not connected to the meter, electric charges on the input can generate arbitrary, stable pH or mV values which will be shown in the display.



Connections

a - M8, 4 pins for Memosens sensors
b - Temperature probe GND
c - Temperature probe
d - pH socket (DIN 19 262)

Memosens sensors have a **cable coupling**, which allows convenient replacement of sensors while the cable remains connected to the meter. The connecting cable is connected to socket **a** (M8, 4 pins for Memosens sensors).



Switching On the Meter

When you have connected the sensor, you can switch the meter on by pressing the **on/off** or **meas** key.

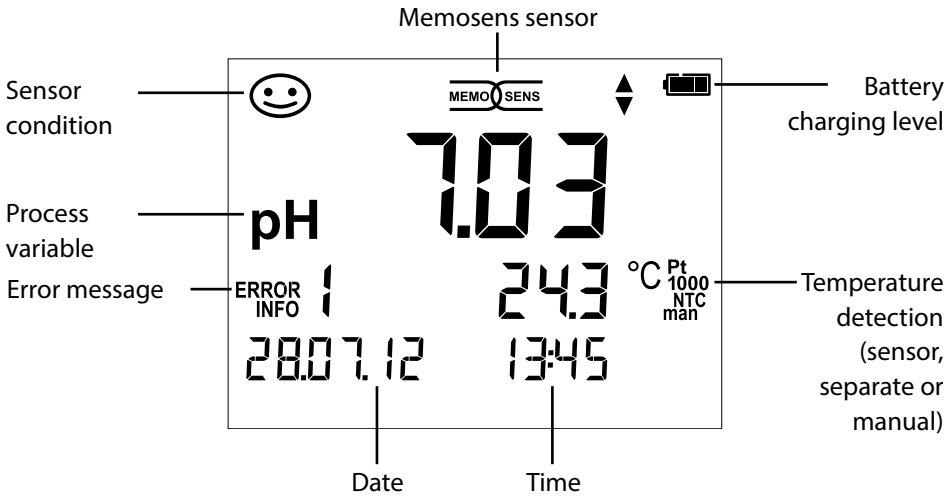
When the meter is switched on with the **on/off** key, first a self test is performed and then the calibration data and settings are displayed before the meter switches to measuring mode.

When the meter is switched on with the **meas** key, it immediately switches to measuring mode.

Depending on the connected sensor and the specific measuring task, several steps for configuration and calibration must be performed as described on the following pages.

Icons

Important information about the state of the device:



pH Configuration

Prior to measurement, a configuration should be performed to match the connected sensor and the desired measurement performance. Furthermore, you can select the suitable calibration method.
The following table gives you an overview. Factory settings are shown in **bold print**.

Measurement
↓ **set**

"Setup" display — Select using arrow keys, confirm by pressing **set**.

Display 1		**pH x.xx** | pH x.xxx | mV | (°C for analog pH only
Display 2		**OFF** | date + time | date | time
CAL Timer		**OFF** | 1 ... 99 days
CAL		**CALIMATIC**|Manual|DATA INPUT|(ISFET-Zero)| ORP OFFSET (for pH/ORP combo electrode)|FREE CAL
CAL POINTS		1 | 2 | 3 | **1-2-3** (for CALIMATIC, Manual, FREE CAL)
BUFFER SET (CALIMATIC, FREE CAL)	set	-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
Auto OFF		**OFF** | 0.1h | 1h | 6h | 12h
Temp Unit		**°C** | °F
Time Format		**24h** | 12h
Date Format		**dd.mm.yy** | mm.dd.yy
TAN TEMP CAL		(TAN input required, option; see page page 23)
Default		**NO** | YES (reset to factory settings)

▲ This icon prompts you to select a menu item using the arrow keys –
▼ the selection is confirmed by pressing **set**.

CALIMATIC Calibration

(Calibration with automatic buffer recognition)

The calibration method is selected in the configuration menu. Calibration is required to adjust the sensor to the meter. It is indispensable for achieving comparable and reproducible measurement results.

Measurement

↓ **cal**

CAL
CALIMATIC

Calibration method, the number of calibration points and the buffer set have been selected in the configuration menu.

↓

CAL **1**/2/3
PRESS CAL

Dip sensor in **1st**/2nd/3rd buffer solution.
It does not matter which buffer solution is taken first.

↓ **cal**

pH, mV value,
temperature

↓

Depending on the number of calibration points, the procedure described above for CAL **1**/2/3 is repeated.

mV value blinks until calibration is completed, then successive display of:
CAL DATA
1/2/3 CAL POINTS
ZERO POINT
SLOPE
Then the meter switches to measuring mode.

Note: To abort calibration, you can press **meas** at any time.
This will be confirmed by the "CAL ABORTED" display message.
Exception: When you have selected "CAL POINTS 1-2-3" and the first calibration step has been completed, the calibration process cannot be stopped any more.

DATA INPUT Calibration

(Calibration by entering known sensor values)

The calibration method is selected in the configuration menu.

Measurement

↓ **cal**

CAL
DATA INPUT

↓

ZERO POINT — Use ▲▼ to select the value for the zero point.

↓ **cal**

SLOPE — Use ▲▼ to select the value for the slope.

↓ **cal**

The calibration data will be displayed successively:
Date and time
ZERO POINT
SLOPE
Then the meter switches to measuring mode.

Note: To abort calibration, you can press **meas** at any time.

MANUAL Calibration

The calibration method is selected in the configuration menu.

Measurement

↓ **cal**

CAL
MANUAL

The number of calibration points has been selected in the configuration menu.

↓

CAL **1**/2/3
PRESS CAL

↓ **cal**

pH display blinks
PRESS CAL

Take the temperature-corrected pH value from the buffer description and enter it using ▲▼.

↓ **cal**

mV display blinks

↓

Depending on the number of calibration points, the procedure described above for CAL **1**/2/3 is repeated.

mV value blinks until calibration is completed, then successive display of:
CAL DATA
1/2/3 CAL POINTS
ZERO POINT
SLOPE
Then the meter switches to measuring mode.

Note: To abort calibration, you can press **meas** at any time. This will be confirmed by the "CAL ABORTED" display message. Exception: When you have selected "CAL POINTS 1-2-3" and the first calibration step has been completed, the calibration process cannot be stopped any more.

ORP OFFSET Calibration

– available with pH/ORP combo sensor connected –

Selected in the configuration menu.

Measurement

↓ **cal**

CAL
ORP OFFSET

You can specify an offset for the ORP value measured by the sensor.

After calibration has been activated, the following values are listed in the display:
- ORP setpoint (in mV)
- temperature measured by sensor
- measured ORP value (in mV)

↓ **cal**

ORP setpoint blinks

Use ▲▼ to adjust the value for ORP.

↓ **cal**

Calibration is performed, the offset value is indicated.
Automatic return to measuring mode.

TEMP. OFFSET Calibration (Option)

Temperature calibration (offset)

Selected in the configuration menu.

Measurement

↓ **cal**

CAL
TEMP. OFFSET

You can specify an offset for the temperature measured by the sensor.

After calibration has been activated, the following values are listed in the display:
- temperature setpoint
- temperature measured by sensor
- offset (display in K)

↓ **cal**

Temperature setpoint value blinks.

Use ▲▼ to adjust the temperature setpoint value.

↓ **cal**

Calibration is performed, the offset value is indicated.
Automatic return to measuring mode.

FREE CAL Calibration

(Free selection of calibration method)

FREE CAL calibration is selected in the configuration menu.

Measurement

↓ **cal**

CAL
CALIMATIC blinks

Use ▲▼ to select the required calibration method (CALIMATIC, DATA INPUT, ORP OFFSET (with pH/ORP combo sensor connected), TEMP. OFFSET (Option) or MANUAL).

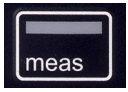
↓ **cal**

Perform the selected calibration as described on the previous pages.

Once you have completed all preparations, you can start with the actual measurement.

Keys for measurement

1) Connect the desired sensor to the meter. Some sensors require a special preparation. Please proceed according to the operating instructions for the sensor.
2) Switch the meter on using the **on/off** or **meas** key.
3) Depending on the measurement method and the sensor used, immerse the sensing part of the sensor in the medium to be measured.
4) Watch the display and wait for the reading to stabilize.



Switching the Measured Value Display

During measurement, you can toggle between pH and mV display by pressing the **meas** key. With a pH/ORP combo sensor connected, the display toggles between pH and ORP (rH).

Adjusting the Temperature

When you connect a sensor without temperature detector, you can manually adjust the temperature for measurement or calibration:

1) Press **meas** to access measuring mode.
   The adjusted temperature will be displayed.
2) Set the desired temperature value using the ▼ or ▲ arrow.
   Holding the key depressed changes the temperature value at high speed.

Enabling Options / TAN Input

When you have bought "Option 002 Temperature Calibration", you receive a document with a code (TAN) for enabling this option on your device.
Press the **set** key to access the configuration mode.
Use the arrow keys to select the "TAN TEMP CAL" function where you can enter the TAN for enabling the option.

↓ **set**

TAN TEMP CAL	**set**	Press the **set** key.

↓ **set**

Enter the TAN code.

First digit blinks.	▲ ▼	Set value.

↓ **set**

Next digit blinks.	▲ ▼	Set value.

↓ **set**

...	▲ ▼	Set value, press **set** to save the TAN.

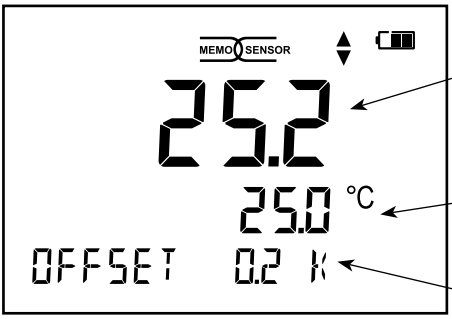
After correct input of the TAN, the device signals "PASS" – The option is now available.

Option 002 Temperature Calibration

Selecting the temperature calibration (TEMP. OFFSET)

In measuring mode, press the **set** key.
1) Select **CAL** (calibration) and confirm by pressing **set**.
2) Select the **TEMP. OFFSET** calibration mode and confirm by pressing **set**.

Performing the temperature calibration (TEMP. OFFSET)
In measuring mode, press the **cal** key.
Press **cal** once more to activate the function:



Use the ▲▼ keys to enter the reference value.

Temperature value currently measured by the sensor

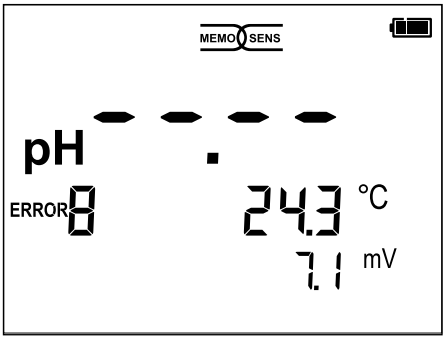
Indication of currently adjusted offset value.
Press **cal** to save the reference value.

Press the **clock** key to access the clock mode. Date and time will be displayed in the format as set in the configuration menu.
To set the clock, proceed as follows:

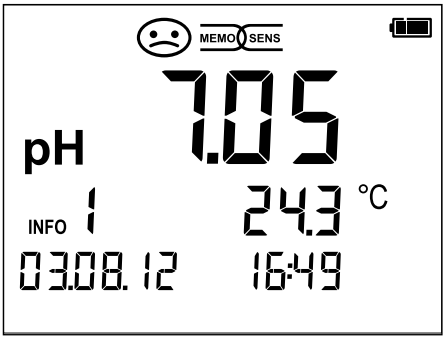
Display of time+date		
↓ **set**		
Hour display blinks SET HOUR	▲ ▼	Set value.
↓ **set**		
Minute display blinks SET MINUTE	▲ ▼	Set value.
↓ **set**		
Second display blinks and shows 00	**set**	Clock is started, the seconds count up.
↓ **set**		
Year display blinks SET YEAR	▲ ▼	Set value.
↓ **set**		
Month display blinks SET MONTH	▲ ▼	Set value.
↓ **set**		
Day display blinks SET DAY	▲ ▼	Set value.
↓ **set**		
Display of corrected time+date		

26 Error Codes and Device Messages

Error messages are indicated as "ERROR …" on the display. Information on the sensor condition is indicated by the "Sensoface" icon (friendly, neutral, sad) possibly accompanied by an info message ("INFO …").



Example of an error message:
ERROR 8 (identical calibration media)



Example of a "Sensoface" message:
INFO 1 (cal timer expired)

Sensoface (the "smiley" icon) provides information on the sensor condition (maintenance request). Measurement can still be performed. After a calibration, the corresponding Sensoface icon (friendly, neutral, sad) is shown together with the calibration data. Otherwise, Sensoface is only visible in measuring mode.

The most important error messages and "Sensoface" info messages are shown on the inside of the protective cover.
A complete list of messages and their meanings is provided in the following tables.

"Sensoface" Messages

The "Sensoface" icon provides information on the sensor condition:

Sensoface	Meaning
	Sensor is okay
	Calibrate the sensor soon
	Calibrate or replace the sensor

The "neutral" and "sad" Sensoface icons are accompanied by an "INFO …" message to give a hint to the cause of deterioration.

Sensoface	Message	Cause
	INFO 1	Calibration timer
	INFO 3	Sensocheck
	INFO 5	Zero / Slope
	INFO 6	Response time
	INFO 7	ISFET: Operating point (asymmetry potential)
	INFO 8	ISFET: Leakage current
	INFO 9	ORP offset

Error Messages

The following error messages can be shown in the display.

Message	Cause	Remedy
 blinks	Battery empty	Replace batteries
ERROR 1	pH value out of range	Check whether the measurement conditions correspond to the adjusted measuring range.
ERROR 2	ORP value out of range	
ERROR 3	Temperature value out of range	
ERROR 4	Sensor zero point too high/low	Thoroughly rinse the sensor and re-calibrate. If this does not help, replace the sensor.
ERROR 5	Sensor slope too high/low	
ERROR 8	Calibration error: Identical buffers	Use a buffer solution with a different nominal value before starting the next calibration step.
ERROR 9	Calibration error: Buffer unknown	Make sure that you use the same buffer set as configured.
ERROR 10	Cal media interchanged	Repeat calibration.
ERROR 11	Measured value unstable Drift too high	Leave the sensor in the liquid until the temperature is stable. If this does not help, replace the sensor.
ERROR 14	Time and date invalid	Set time and date
ERROR 18	Configuration invalid	Restart,reset to factory settings (Setup: DEFAULT YES), configure and calibrate. If this does not help, send in the device for repair.
ERROR 19	Factory settings error	Device defective, send it in.
ERROR 21	Sensor error (Memosens)	Connect operational Memosens sensor.

Accessories

Item	Order No.
Robust field case (for meter, sensor, various small parts and user manual)	ZU 0934
Replacement quiver (5 units)	ZU 0929
Memosens lab cable, M8, 4 pins	CA/MS-001XFA-L

Please visit our website for more information on our product range: www.knick.de

pH Sensors

Please visit our website for more information on our product range: www.knick.de

Temperature detectors

Note: When a Memosens sensor is connected, the temperature detector of the Memosens sensor is used. When no Memosens sensor is connected, the Portavo 902 PH can be used as a temperature meter.

Pt1000 temperature detector	ZU 6959

Memosens sensors have a **cable coupling**, which allows convenient replacement of sensors while the cable remains connected to the meter.

Knick CaliMat Buffer Solutions

Ready-to-use quality pH buffer solutions

pH value (20 °C)	Quantity	Order No.
2.00 ± 0.02	250 ml	CS-P0200/250
4.00 ± 0.02	250 ml	CS-P0400/250
	1000 ml	CS-P0400/1000
	3000 ml	CS-P0400/3000
7,00 ± 0,02	250 ml	CS-P0700/250
	1000 ml	CS-P0700/1000
	3000 ml	CS-P0700/3000
9.00 ± 0.02	250 ml	CS-P0900/250
	1000 ml	CS-P0900/1000
	3000 ml	CS-P0900/3000
12.00 ± 0.05	250 ml	CS-P1200/250
Buffer sets		
Set 4.00	3 x 250 ml	CS-PSET4
Set 7.00	3 x 250 ml	CS-PSET7
Set 9.00	3 x 250 ml	CS-PSET9
Set 4.00, 7.00, 9.00	250 ml each	CS-PSET479
KCl solution	250 ml	ZU 0960

pH/mV input	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)
	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	NTC30 temp detector	-20 … +120 °C
	Pt1000 temp detector	-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	M8 socket, 4 pins, for Memosens lab cable	
Display ranges [4)]	pH	-2.00 … +16.00
	mV	-2000 … +2000 mV
	Temperature	-50 … +250 °C
Memosens pH input ISFET	M8 socket, 4 pins, for Memosens lab cable	
Display ranges [4)]	pH	-2.00 … +16.00
	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

*) 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

Sensor standardization *)	pH calibration	
Operating modes *)	CALIMATIC	Calibration with automatic buffer recognition
	MANUAL	Manual calibration with entry of individual buffer values
	DATA INPUT	Data entry of zero and slope
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
Permissible calibration range	Zero point	pH 6 … 8
	With ISFET: Operating point (asymmetry)	-750 … +750 mV
	Slope	approx. 74 … 104 %
	(possibly restricting notes from Sensoface)	
Calibration timer *)	Interval 1 … 99 days, can be switched off	
Sensoface	Provides information on the sensor condition	
Evaluation of	zero/slope, response, calibration interval	

*) User-defined

Connections	1 x pH socket, DIN 19 262 2 x 4-mm socket for separate temperature detector 1 x M8 socket, 4 pins, for Memosens lab cable
Display	LCD STN 7-segment display with 3 lines and icons
Sensoface	Status indication (friendly, neutral, sad)
Status indicators	Battery power level
Notices	Hourglass
Keypad	[on/off], [cal], [meas], [set], [▲], [▼], [clock]
Diagnostics functions	
Sensor data (Memosens only)	Manufacturer, sensor type, serial number, 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/EC
Power supply	
Portavo 902	4 x AA alkaline batteries
Operating time	Approx. 1000 h (alkaline)
Nominal operating conditions	
Ambient temperature	-10 … +55 °C
Transport/ Storage temperature	-25 … +70 °C
Relative humidity	0 … 95 %, short-term condensing allowed
Housing	
Material	PA12 GF30 (silver gray RAL 7001) + TPE (black)
Protection	IP 66/67 with pressure compensation
Dimensions	Approx. (132 x 156 x 30) mm
Weight	Approx. 500 g

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Knick
Elektronische Messgeräte GmbH & Co. KG
Beuckestr. 22
14163 Berlin
Germany

Phone: +49 30 80191-0
Fax: +49 30 80191-200
Email: info@knick.de
Web: www.knick.de

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TA-209.2PH-KNE02 20170201 Software version: 1.x