

# OAKTON®

pH/mV/Relative mV/°C

## pH 1000 Meter

This precise laboratory benchtop meter **collects, stores and manages data automatically!** It's ideal when documentation is critical.

### Features RS-232/printer output

meter manually or automatically downloads data to a printer, or to a computer in a form ready to import into spreadsheet software!

### Sends readings on programmed time intervals

select intervals from 1 min to 23 hrs, 59 min

### Select up to five customizable calibration points

choose your own calibration points, or use the built-in auto buffer recognition of five common pH buffers for faster calibration

### Calculates slope and offset of electrode automatically

check electrode quality and conform to standard test method quality checks

### Displays last calibration date and time

ideal for GLP compliance

### High/low set point alarms

signal readings outside your preset limits or when your timed reaction has ended

### Stores up to 16 sets of readings with date and time

store readings either manually or on programmable real-time intervals from 1 min to 23 hrs, 59 min—download them later

### Built-in real time clock

### Analog recorder output

create hard copies of your readings—send data either on regular timed intervals or manually

### Selectable 0.01/0.1 pH resolution

0.01 for more precise readings and 0.1 for faster readings

### Manual or automatic temperature compensation

for high accuracy with or without a temperature sensor

### Selectable "Ready" indicator, Hold function

ISO 9001  
vendor  
CERTIFIED

3 year  
warranty  
meter only

CE



*Top:* The pH 1000 meter is designed for laboratory benchtop use. It is less sensitive to electronic noise, which gives you stable, repeatable readings.

*Lower left:* Use the pH 1000 meter with an optional portable printer to provide you with a printed record of your readings and calibration data.

*Lower right:* Connect this meter to your PC and download data in a format ideal for importing into spreadsheet software.



**Download data to a computer or printer on timed intervals.** The pH 1000 benchtop meter makes collecting large volumes of measurements easy. Simply hook the meter to a computer or printer, and let the meter perform the data entry for you! Each data set includes the pH or mV reading with temperature, date and time. This meter comes with free software that lets you download data to your computer in a format that is easy to import into spreadsheet programs.

The pH 1000 meter features up to five customizable calibration points, memory, a built-in real-time clock, a large dual display that shows pH (or mV) and temperature readings, and a water-resistant membrane keypad. It includes a slide-out instruction card that stores underneath the meter for quick reference.

The pH 1000 meter is supported by a full selection of OAKTON calibration buffers, electrodes and accessories. See the back of this sheet for ordering information and complete specifications.

OAKTON® ...setting the standard, again and again™

Large dual display shows pH, temperature and clear indicators which signal mode and meter status.



Back panel has quick connections for pH, temperature, computer and recorder output.



Slide-out instruction card with quick keypad functions stores neatly below meter.



Optional printer generates a permanent record of your measurement values.



Calibration solutions are available in economical bottles or convenient pouches with a tear-off top (order separately).



## pH 1000 Benchtop Meter

### • Applications •

**Timed Applications:** determine titration curves—use the meter's RS-232 output with a computer or printer to automatically record data on timed intervals. You can program the meter to store readings internally or on a PC, or to print readings to a printer, manually, automatically, or whenever the reading is stable.

**Industrial Laboratory Applications:** Ideal for testing the pH of fluids from water conditioning plants, cooling towers, plating and finishing operations, food processing (for HACCP compliance), and the printing and chemical industries. Also use in quality assurance testings, especially where GLP data management is required. Meter is suitable for most ASTM and EPA test procedures.

**ORP Applications:** Use with ORP electrode (model WD-35805-13; order below) to monitor plating operations, ozonation system efficiency, and other redox measurements.

### • Specifications •

Type	pH	mV	Temperature
Range	-2.00 to 15.99 pH	±2000 mV or relative mV	0 to 100°C
Resolution	0.01 pH/0.1 pH (selectable)	0.1 mV from ±399.9 mV, 1 mV beyond ±399.9 mV	0.1°C
Accuracy	±0.01 pH	±0.2 mV from ±399.9 mV, ±2 mV beyond ±399.9 mV	±0.5°C
Calibration	Up to five customizable calibration points. Or, use auto buffer recognition at 1.68, 4.01, 7.00, 10.00, 12.45	Offset up to ±2000 mV	Offset up to ±5°C
Connectors	BNC	BNC	mini phono plug

Power: 9 VDC, 500 mA; using AC adapter (included); choose from 110 VAC, 60 Hz or 220 VAC, 50 Hz models. AC adapter is CSA and UL listed.

Input impedance: >10<sup>12</sup> Ω

Temperature compensation: selectable manual or automatic from 0 to 100°C

pH slope adjustment range: 80 to 120%

Recorder output: ±2000 mV (directly proportional to input)

RS-232 specifications:

Baud rate: 2.4; 4.8; 9.6 and 19.2 kbps selectable.

Stop bit: 1 or 2 selectable.

Parity: odd (1); even (2); or none (0) selectable.

Computer requirements: 386 and above that can run Microsoft Windows® 95 or higher, hard disk with approx. 500 KB free disk space, EGA monitor or above, 9-pin serial port connecting cable, mouse.

**Printer requirements:** Set up to receive 8 data bits, select baud rate, parity and stop bits to match meter, or make meter match printer's set up. Select the printer to accept serial data.

**Output connectors:**

Recorder: mini-pin (submini phono plug)

RS-232/printer: 9 pin female

**Display:** Dual display of measurement (pH, mV or relative mV) plus temperature and mode annunciators

**Error messages:** Diagnose operator error, electrode error, and meter error. Pull-out instruction card decodes message.

**Operating temperature:** 0 to 50°C, non condensing humidity

**Dimensions:**

Meter: 9" x 7" x 2.375" (23 x 18 x 6 cm)

Boxed: 15.5" x 10" x 3.5" (39 x 25 x 9 cm)

**Weight:** Meter only: 1.25 lbs (0.6 kg); Boxed: 3 lbs (1.4 kg)

### • Ordering Information •

#### pH 1000 Meter

Each meter includes AC adapter, software and instructions.

##### Meter only

WD-35616-02 pH 1000 meter, 110 VAC, 60 Hz

WD-35616-07 pH 1000 meter, 220 VAC, 50 Hz

##### Meter with temperature probe (WD-35615-05) only

WD-35616-01 pH 1000 meter, 110 VAC, 60 Hz

WD-35616-06 pH 1000 meter, 220 VAC, 50 Hz

##### Meter with single-junction pH electrode (WD-35801-00) and separate temperature probe (WD-35615-05)

WD-35616-00 pH 1000 meter, 110 VAC, 60 Hz

WD-35616-05 pH 1000 meter, 220 VAC, 50 Hz

##### Meter with "All in One" combination temperature sensor/ single-junction pH electrode (WD-35801-71)

WD-35616-03 pH 1000 meter, 110 VAC, 60 Hz

WD-35616-08 pH 1000 meter, 220 VAC, 50 Hz

#### pH "Singles" Calibration Buffer Pouches

Each single-use pouch contains 20 ml of fresh calibration solution (see picture below left). ±0.01 pH accuracy at 25°C. Certified to NIST traceable standards. Shpg wt 1 lb (0.5 kg). Box of 20.

WD-35653-01 pH "Singles", 4.01

WD-35653-02 pH "Singles", 7.00

WD-35653-03 pH "Singles", 10.00

WD-35653-00 pH "Singles", rinse water

WD-35653-04 pH "Singles", assortment pack, 5 each of pH 4.01; 7.00; 10.00 and rinse water

#### pH Calibration Buffer Solution Bottles

1 pint of calibration solution each. ±0.01 pH accuracy at 25°C. Certified to NIST traceable standards. Shpg wt 1.3 lbs (0.6 kg).

WD-00654-01 pH 1.68 calibration buffer

WD-00654-00 pH 4.01 calibration buffer

WD-00654-04 pH 7.01 calibration buffer

WD-00654-08 pH 10.01 calibration buffer

WD-00654-12 pH 12.45 calibration buffer

#### Portable Printer

Create permanent records of your data. This printer's compact size and rechargeable battery pack make it the perfect printer for both field use and crowded benchtop space.

WD-35622-00 Rechargeable printer, 110 VAC

WD-35622-05 Rechargeable printer, 220 VAC

#### Electrodes

WD-35805-04 Laboratory pH electrode, double junction, glass body, refillable. 110 mm x 12 mm dia

WD-35801-00 pH electrode, single junction, epoxy body, 146 mm L x 12 mm dia

WD-35615-05 Temperature (ATC) probe, 304 SS, 114 mm L

WD-35801-71 "All-in-One" combination pH/temperature probe, single junction, epoxy body. 147 x 12 mm dia

WD-35805-13 ORP electrode, single junction, epoxy body, 146 mm L x 12 mm dia

WD-35617-50 Benchtop electrode holder, 360° pivot, holds four electrodes (up to 12 mm dia) and temperature probe. Box dimensions: 9"L x 15"W x 10"H. Shpg wt 4 lbs

OAKTON offers many other pH and ORP electrodes—contact your OAKTON distributor for more information.

### • ORDER FROM •