OAKTON®

pH/mV/Ion/°C

Ion 510 Meter

A benchmark in economical pH, mV and direct ion concentration measurement without sacrifice of quality and performance!

Simple to use
preprogrammed calibration points make meter easy to use

Direct readout of ion concentration in ppm
resolution to 0.01 ppm

Dual display
shows measured parameter and °C in pH / mV modes; ion concentration and mV (electrode output) in ion mode

Simultaneous display of ppm and mV electrode output in the ion mode
verify electrode operation while taking measurements

Selectable buffer sets and three-point pH calibration with auto buffer recognition
choose from USA or NIST buffer sets

Works with all Ion Selective Electrodes
±1999 mV range covers the vast majority of ISEs

Built-in electrode stand holds electrode firmly in place

Features 0.1 mV resolution for ORP measurements

Selectable manual or automatic temperature compensation
for highest accuracy in any situation

Built-in memory function
Stores up to 50 pH, mV or ion readings

Analog recorder output
create hard copies of your readings

Hold function, "Ready" indicator, diagnostic error messages

Fully diagrammed manual, plus slide-out instruction card for quick reference







Top: The pH 510 meter includes built-in electrode stand and handy slide-out instruction card.

Bottom left: Use the recorder output to create hard copy records of your data.

Bottom right: This meter works with almost all Ion Selective Electrodes with a BNC connector.

Measure pH, mV, direct ion concentration and temperature at an economical price!

The pH 510 meter provides stable, accurate measurements in pH, mV, ion (in ppm) and temperature. Preprogrammed ion calibration points makes this meter easy to use—you'll be ready to take readings in minutes! Memory function stores and recalls a combination of 50 pH, mV, relative mV and ion readings.

The pH 510 meter features a large dual display that shows pH or mV and temperature readings or ppm and mV electrode output in the ion mode. The water-resistant membrane keypad protects components from accidental spills. Slide-out instruction card stores underneath the meter for quick reference.

The pH 510 meter is supported by a full selection of OAKTON calibration buffers, electrodes, ion selective electrodes and accessories. See the back of this sheet for ordering information and complete specifications.

Large dual display shows pH or mV plus temperature readings or ppm and mV, and indicators which signal function and meter status.



Back panel has quick connections for electrode, ATC probe, and recorder output.



Slide-out instruction card with trouble shooting tips and a keypad reference stores neatly at bottom of meter.



Sturdy built-in electrode holder keeps your probe steady and away from the sides of your container.



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



Ion 510 Benchtop Meter

• Applications •

ISE applications: Use this meter with any of 20 types of ISE electrodes to take direct measurements of ion concentration. Titration methods allow measurement of many additional types of ions.

Water Quality Testing: Use for quick fluoride level checks and tests on priority pollutants and contamination.

Environmental / Agricultural Applications: Use for checking nutrient levels in aquariums, aquaculture and hydroponics.

Educational Applications: These economical, sturdy meters are ideal for quick, accurate checks in labs and schools.

Laboratory / Industrial Applications: Use for water hardness testing or other ions in feed or wastewater, sewage treatment, soil testing, fertilizer testing, plant tissue testing, food processing (check sodium, potassium levels), geological testing, and metal plating. Also use in the paper/pulp or pharmaceutical industries.

• Specifications •

	Ion	mV	pH	Temperature
Range	0.01 to 1999 ppm	–1999 to +1999 mV	0.00 to 14.00 pH	0.0 to 100.0 °C
Resolution	0.01 ppm from 0.01 to 0.99 ppm 0.1 ppm from 1.0 to 199.9 ppm 1 ppm from 200 to 1999 ppm	0.1 mV from ±199.9 mV 1 mV beyond ±199.9 mV	0.01 pH	0.1 °C
Accuracy	±0.5% of reading	±0.2 mV from ±199.9 mV ±2 mV beyond ±199.9 mV	±0.01 pH	±0.3 °C
Calibration	2 or 3 points, 0.1; 1; 10; 100 ppm (minimum 2 points)	Offset up to ±150 mV	Up to 3 points (USA: 4.01; 7.00; 10.01 or NIST: 4.01, 6.86; 9.18); auto-buffer recognition	Offset 0.1°C increments up to ±5°C

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: $>10^{12}\ \Omega$

Temperature Compensation: Selectable manual or automatic from 0 to 100°C

Memory: up to 50 sets

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

Recorder output connector: mini pin (subminiature phono plug)

Display: Dual display of pH or mV with temperature or ppm with mV electrode output 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 •

Ion 510 Meters

All meters include AC adapter, built-in electrode holder and instructions.

Meter only

WD-35619-22 Ion 510 meter, 110 VAC

WD-35619-27 Ion 510 meter, 220 VAC

Meter with double-junction pH electrode (WD-35805-04) and separate temperature probe (WD-35613-05)

WD-35619-20 Ion 510 meter, 110 VAC

WD-35619-25 Ion 510 meter, 220 VAC

Meter with "All in One" combination temperature sensor/ single-junction pH electrode (WD-35811-71)

WD-35619-23 Ion 510 meter, 110 VAC

WD-35619-28 Ion 510 meter, 220 VAC

ISE Electrodes — Laboratory Grade

These electrodes include 15 ml of reference electrolyte and a filling pipette. Each ISE is glass body, double junction (except WD-35802-00, single junction) and has BNC connector. Shpg wt: 0.5 lb (0.2 kg).

WD-35802-00 Ammonia (NH_3) electrode

WD-35802-03 Ammonium (NH_4^+) electrode

WD-35802-13 Chloride (Cl^-) electrode

WD-35802-19 Fluoride (F^-) electrode

WD-35802-31 Nitrate (NO_3^-) electrode

WD-35802-43 Sodium (Na^+) electrode

WD-35802-09 Calcium (Ca^{+2}) electrode

WD-35802-25 Lead (Pb^{+2}) electrode

WD-35802-15 Copper (Cu^{+2}) electrode

WD-35802-49 Water Hardness electrode

ISE Solution Kits

These kits contain the solutions and accessories necessary for calibration and sample preparation. Shpg wt 1 lb (0.5 kg).

WD-35802-50 Ammonia (NH_3) solution kit

WD-35802-53 Ammonium (NH_4^+) solution kit

WD-35802-63 Chloride (Cl^-) solution kit

WD-35802-69 Fluoride (F^-) solution kit

WD-35802-79 Nitrate (NO_3^-) solution kit

WD-35802-93 Sodium (Na^+) solution kit

WD-35802-59 Calcium (Ca^{+2}) solution kit

WD-35802-75 Lead (Pb^{+2}) solution kit

WD-35802-65 Copper (Cu^{+2}) solution kit

WD-35802-99 Water Hardness solution kit

pH Electrodes

WD-35811-71 "All-in-One" combination pH/temperature probe, epoxy body, single junction, 5.2"L x 0.47" OD (12 mm) with 3-ft cable. Shpg wt 0.5 lb

WD-35811-72 "All-in-One" combination pH/temperature probe, epoxy body, double junction, 5.2"L x 0.47" OD (12 mm) with 3-ft cable. Shpg wt 0.5 lb

WD-35613-05 Temperature probe, 304 SS, 3-ft cable, Valox cap. Shpg wt 0.15 lb

WD-35801-00 pH electrode, epoxy body, single junction, 5.2"L x 0.47" OD (12 mm) with 3-ft cable. Shpg wt 0.5 lb

WD-35805-04 pH electrode, double junction, refillable, glass-body 5.2"L x 0.47" OD (12 mm) with 3-ft cable. Shpg wt 0.5 lb

Calibration Solutions

"Singles" pH Calibration Pouches, box of 20. Each airtight pouch contains 20 ml of fresh, premixed pH buffer or rinse water. Accuracy ±0.01 pH at 25°C. Shpg wt 1 lb (0.5 kg).

WD-35653-01 pH 4.01 calibration pouches

WD-35653-02 pH 7.00 calibration pouches

WD-35653-03 pH 10.00 calibration pouches

WD-35653-00 Rinse water pouches

WD-35653-04 Assortment pack; five each of pH 4.01, 7.00, 10.00, and rinse water pouches

pH Calibration Buffer Bottles, one pint premixed calibration solution. Accuracy ±0.01 pH at 25°C. Shpg wt 1 lb (0.5 kg)

WD-00654-00 pH 4.01 buffer

WD-00654-04 pH 7.01 buffer

WD-00654-08 pH 10.01 buffer

OAKTON offers a wide selection of pH, ORP and ISE electrodes; contact your OAKTON distributor for more information.

• ORDER FROM •

Bulletin pH C6R1

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