**Selectable Manual or Automatic Temperature Compensation** 

Selectable automatic endpoint

Hold function, "Ready" indicator,

automatically freezes reading when stable

diagnostic error messages

Fully diagrammed manual,

# OAKION® pH/Conductivity/TDS/°C pH/CON 510 Meter

This economical benchtop meter measures pH, mV, conductivity, TDS and temperature. It's ideal for water quality testing in the lab!



## Measure pH, mV, conductivity, TDS and temperature with one benchtop meter!

The OAKTON pH/CON 510 meter provides an economical way to read several parameters in your laboratory. Its advanced setup mode lets you view calibration values for both pH and conductivity (TDS), select pH buffer set (USA or NIST), view pH electrode slope and offset, view effective conductivity cell constant per range, and much more!

This meter uses separate probes, which lets you select specialty probes for different applications. The waterresistant membrane keypad protects components from accidental spills. Slide-out instruction card stores underneath the meter for quick reference.

The pH/CON 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.

plus slide-out instruction card for quick reference

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 and ATC probe.



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).



Bulletin Multi C1R1

# pH/CON 510 Benchtop Meter

### Applications

Environmental / Agricultural Applications: Use this meter in ecology studies, aquaculture, and hydroponics.

one point per range

(up to 5)

*Industrial applications:* Use this meter to check metal finishing, cooling tower water, printing fountain solutions, boiler water, brines, rinse tanks, ponds, pollution control, recirculating systems, and waste water.

**Water Quality Testing:** This meter is great for analyzing water hard water, drinking water, effluent water, and incoming process water. It's ideal for all types of quality assurance and water quality testing.

**Laboratory Applications:** Use in all types of food analysis, quality assurance testing, and any lab where GLP data management is required. **Educational Applications:** This economical meter is ideal for quick pH, conductivity, and TDS checks in labs and schools.

### Specifications TDS m۷ Conductivity На Temperature 0.00 to 19.99 μS; 0.0 to 199.9 μS; 0.00 to 9.99 ppm; 10.0 to 99.9 ppm; 0 to 100°C / 0 to 1999 µS; Range 100 to 999 ppm; -2.00 to 16.00 pH -600 to +600 mV 32 to 212°F 0.00 to 19.99 mS; 1.00 to 9.99 ppt; 0.0 to 199.9 mS 10.0 to 99.9 ppt; 100 to 200 ppt 0.01 μS; 0.1 μS; 1 μS, 0.01 ppm; 0.1 ppm; 1 ppm; 0.1 mV from ±199.9 mV; Resolution 0.01 pH 0.1°C or °F 0.01 mS; 0.1 mS 0.01 ppt; 0.1 ppt; 1 ppt 1 mV beyond ±0.2 mV from ±199.9 mV; ±1% full scale ±1% full scale ±0.01 pH ±0.5°C or °F Accuracy ±2 mV beyond up to 5 points: select NIST

(1.68, 4.01, 6.86, 9.18, 12.45)

or USA (1.68, 4.01, 7.00,

10.00, 12.45) buffer sets

Power: 9 VDC, 500 mA with AC adapter (included). Choose from 110 VAC, 60 Hz or 220 VAC, 50 Hz models. AC adapter is CSA/UL listed.

Input impedance: >10<sup>12</sup> Ω

Calibration

Temperature Compensation:

Selectable manual or automatic from 0 to 100°C

Conductivity cell constant (K): fixed at 1.0 Conductivity temperature coefficient:

one point per range

(up to 5)

adjustable from 0.0 to 10.0% per °C

Conductivity-to-TDS conversion factor: adjustable from 0.4 to 1.0 Normalization temperature: adjustable from 15  $^{\circ}$ C to 30  $^{\circ}$ C

Display: Dual display of pH, mV, conductivity, or TDS with temperature (in  $^{\circ}$ C or  $^{\circ}$ F)

offset up to

±5°C or °F

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

Operating Temperature: 0 to 50°C (32 to 122°F), 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/CON 510 Meter

Each meter includes an electrode holder arm, power adapter, and instructions. Three-year warranty on meters only.

Meter only. Electrode and conductivity cell not included.

WD-35610-12 pH/CON 510 meter, 110 VAC WD-35610-17 pH/CON 510 meter, 220 VAC

Meter with single-junction pH electrode and conductivity/temp probe.

WD-35610-10 pH/CON 510 meter, 110 VAC

WD-35610-15 pH/CON 510 meter, 220 VAC

### **Calibration Solutions**

**Calibration solution bottles**. 1 pint calibration solution. pH solutions have  $\pm 0.01$  pH accuracy at 25°C. Conductivity solutions have  $\pm 1\%$  accuracy at 25°C and include NaCl, KCl and 442 TDS conversion factors. Shpg wt 1.1 lb (0.5 kg).

WD-00654-00 Calibration solution bottle, pH 4.01

WD-00654-04 Calibration solution bottle, pH 7.00

WD-00654-08 Calibration solution bottle, pH 10.00 WD-00653-23 Calibration solution bottle, 23 uS

(11.6 ppm KCl, 10.7 ppm NaCl, 14.74 ppm 442)

WD-00653-16 Calibration solution bottle, 84 µS

(40.38 ppm KCl, 38.04 ppm NaCl, 50.50 ppm 442)

WD-00653-47 Calibration solution bottle, 447 µS

(225.6 ppm KCl, 215.5 ppm NaCl, 300.0 ppm 442) WD-00653-18 Calibration solution bottle, 1413 µS

(744.7 ppm KCl, 702.1 ppm NaCl, 1000 ppm 442)

WD-00653-89 Calibration solution bottle, 8974 µS

(5101 ppm KCl, 4487 ppm NaCl, 7608 ppm 442) **WD-00653-50 Calibration solution bottle, 15,000 μS**(8759 ppm KCl, 8532 ppm NaCl, 13,455 ppm 442)

"Singles" calibration solution pouches. Each pouch contains 20 ml of fresh, calibration solution. pH "Singles":  $\pm 0.01$  pH accuracy at 25°C. Conductivity "Singles":  $\pm 1\%$  accuracy at 25°C; include NaCl, KCl and 442 TDS conversion factors. 20 pouches/box. Shpg wt 1.1 lb (0.5 kg).

WD-35653-01 pH "Singles"; pH 4.01

WD-35653-02 pH "Singles"; pH 7.00

WD-35653-03 pH "Singles"; pH 10.00 WD-35653-00 pH "Singles"; rinse water

WD-35653-04 pH "Singles" assortment pack; five each

of pH 4.01, 7.00, 10.00, and rinse water pouches

WD-35653-09 Conductivity "Singles", 10  $\mu$ S

WD-35653-10 Conductivity "Singles", 447 µS

WD-35653-11 Conductivity "Singles", 1413 μS

WD-35653-12 Conductivity "Singles", 2764  $\mu S$ 

WD-35653-13 Conductivity "Singles", 15,000 µS

### Accessories

All probes listed have 3 ft cable. Shpg wt 0.5 lb (0.2 kg) each.

WD-35801-00 Replacement pH electrode single junction, epoxy body, sealed, 5.75"L x 0.5" (12 mm) dia

WD-35608-50 Replacement combination conductivity/TDS/ temperature probe K=1.0, 5"L x 0.6" (16 mm) dia.

WD-35805-01 pH electrode double junction, epoxy body, sealed, 5.75"L x 0.5" (12 mm) dia

WD-35805-13 ORP electrode, single junction, epoxy body, sealed, 5.75"L x 0.5" (12 mm) dia

WD-35808-71 "All-in-One" combination pH/temperature probe single junction, epoxy body, sealed, 5.75"L x 0.5" (12 mm) dia

WD-35618-05 Temperature probe. Provides ATC for pH when used with pH electrodes without ATC element

used with pH electrodes without ATC element

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

### ORDER FROM