

# OAKTON<sup>®</sup> 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!

**Toggle between pH, mV, conductivity and TDS readings**

**Dual display shows both measured parameter and temperature (°C/°F)**

read two parameters at a glance

**Easy push-button calibration**

Five-point calibration for pH and either conductivity or TDS; temperature offset calibration

**Advanced set up mode**

recalls previous calibration points, pH electrode slope/offset, conductivity/TDS effective cell constants per range, and more

**Built-in electrode holder arm**

holds electrode firmly in place

**pH auto buffer recognition**

for fast, easy pH calibration

**Selectable auto or manual ranging for conductivity and TDS measurements**

**Adjustable conductivity-to-TDS conversion factor and temperature coefficient**

gives highest accuracy in any solution

**Selectable Manual or Automatic Temperature Compensation**

**Selectable automatic endpoint**

automatically freezes reading when stable

**Hold function, "Ready" indicator, diagnostic error messages**

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

ISO 9001  
CERTIFIED

3 year  
warranty



CE



Above: Meter includes built-in electrode stand and handy slide-out instruction card.

Bottom right: This meter is less sensitive to electronic noise, which gives you stable, repeatable benchtop readings.

Top left: Display toggles between pH, mV, conductivity or TDS readings.

Bottom left: Unique conductivity probe (included) comes apart for easy cleaning.

## 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 water-resistant 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.

OAKTON<sup>™</sup> ...setting the standard, again and again<sup>™</sup>

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).



Bulletin Multi C1R0

# pH/CON 510 Benchtop Meter

## • Applications •

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

**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 •

	Conductivity	TDS	pH	mV	Temperature
Range	0.00 to 19.99 $\mu$ S; 0.0 to 199.9 $\mu$ S; 0 to 1999 $\mu$ S; 0.00 to 19.99 mS; 0.0 to 199.9 mS	0.00 to 9.99 ppm; 10.0 to 99.9 ppm; 100 to 999 ppm; 1.00 to 9.99 ppt; 10.0 to 99.9 ppt; 100 to 200 ppt	-2.00 to 16.00 pH	-600 to +600 mV	0 to 100°C / 32 to 212°F
Resolution	0.01 $\mu$ S; 0.1 $\mu$ S; 1 $\mu$ S; 0.01 mS; 0.1 mS	0.01 ppm; 0.1 ppm; 1 ppm; 0.01 ppt; 0.1 ppt	0.01 pH	0.1 mV from $\pm$ 199.9 mV; 1 mV beyond	0.1°C or °F
Accuracy	$\pm$ 1% full scale	$\pm$ 1% full scale	$\pm$ 0.01 pH	$\pm$ 0.2 mV from $\pm$ 199.9 mV; $\pm$ 2 mV beyond	$\pm$ 0.5°C or °F
Calibration	one point per range (up to 5)	one point per range (up to 5)	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	—	offset up to $\pm$ 5°C or °F

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

**Temperature Compensation:**

Selectable manual or automatic from 0 to 100°C

**Conductivity cell constant (K):** fixed at 1.0

**Conductivity temperature coefficient:**

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°C to 30°C

**Display:** Dual display of pH, mV, conductivity, or TDS with temperature (in °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  $\mu$ S**  
(11.6 ppm KCl, 10.7 ppm NaCl, 14.74 ppm 442)

**WD-00653-16 Calibration solution bottle, 84  $\mu$ S**  
(40.38 ppm KCl, 38.04 ppm NaCl, 50.50 ppm 442)

**WD-00653-47 Calibration solution bottle, 447  $\mu$ S**  
(225.6 ppm KCl, 215.5 ppm NaCl, 300.0 ppm 442)

**WD-00653-18 Calibration solution bottle, 1413  $\mu$ S**  
(744.7 ppm KCl, 702.1 ppm NaCl, 1000 ppm 442)

**WD-00653-89 Calibration solution bottle, 8974  $\mu$ S**  
(5101 ppm KCl, 4487 ppm NaCl, 7608 ppm 442)

**WD-00653-50 Calibration solution bottle, 15,000  $\mu$ S**  
(8759 ppm KCl, 8532 ppm NaCl, 13,455 ppm 442)

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

## • ORDER FROM •

**"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-35653-10 Conductivity "Singles", 447  $\mu$ S**

**WD-35653-11 Conductivity "Singles", 1413  $\mu$ S**

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

**WD-35653-13 Conductivity "Singles", 15,000  $\mu$ S**

### 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