

Co Conductivity

Introduction / Testers

Definition of Conductivity

Conductivity is the ability of a material to conduct electric current. The principle by which instruments measure conductivity in solution is simple—two plates are placed in the sample, a potential is applied across the plates (normally a sine wave voltage), and the current that passes through the solution is measured. Conductivity (G), the opposite of resistivity (R), is determined from the voltage and current values according to Ohm's law.

$$G = 1/R = \text{amps/volts}$$

Units of Measurement

The basic unit of conductance is the siemen (S), also called the mho. Since cell geometry affects conductivity values, standardized measurements are expressed in (S/cm) to compensate for variations in electrode dimensions.

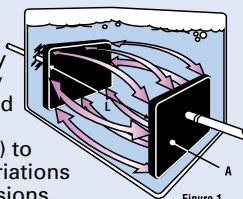


Figure 1

If the cell constant (K) is 1 cm^{-1} , the specific conductivity is the same as the measured conductivity of the solution. If other cell constants are used, the meter will automatically compensate for the change in geometry. To save room, cm^{-1} is not shown when cell constants are listed.

Although we specify conductivity ranges in μS or mS , due to space limitations these ranges should be understood to reflect specific conductivity in $\mu\text{S}/\text{cm}$ or mS/cm , respectively.

$$1 \mu\text{S}/\text{cm} = 0.001 \text{ mS}/\text{cm} = 0.000001 \text{ S}/\text{cm} = 1 \mu\text{mho}/\text{cm}$$

Conductivity Meter Calibration and Cell Maintenance

Conductivity meters and cells should be calibrated to a standard solution before using. Select a standard that is closest to the conductivity of the solution to be measured.

Polarized or fouled electrodes must be replatinized or cleaned to renew active surface of the cell. In most situations, hot water with a mild liquid detergent is an effective cleanser. Acetone easily cleans most organic matter, and chlorous solutions will remove algae, bacteria, or molds. Do not use abrasives to clean an electrode. Replace the cell if all else fails.

Conversions:

Multiply to get	→	to get
$\mu\text{S}/\text{cm}$	1	$\mu\text{mho}/\text{cm}$
mS/cm	1000	$\mu\text{S}/\text{cm}$
$\mu\text{S}/\text{cm}$	0.4–1.0	ppm

More info

Look for these icons for a quick reference of what each meter can read.

CON TDS RES SAL pH DO °C/°F

CON = Conductivity
TDS = Total Dissolved Solids
RES = Resistivity
SAL = Salinity
pH = Hydrogen ion activity
DO = Dissolved Oxygen
°C/°F = Units of temperature

Important features to consider...

- **Autorangeing:** Meter automatically selects the most accurate range for measurement. There is no need to manually change the range.
- **TDS conversion factor:** When a solution does not have a similar ionic content to natural water or salt water, then a TDS conversion factor is needed to automatically adjust the TDS readings.
- **Temperature compensation:** A cell with built-in temperature sensor allows the meter to make adjustments to the conductivity or TDS readings based on changes in solution temperature.
- **Adjustable temperature coefficients:** Alcohols and pure water are affected by changes in temperature differently than typical samples. An adjustable temperature coefficient allows the user to compensate for the properties of the measured solution.
- **Adjustable cell constant:** Adjusts the measurement to reflect use of a cell with a constant other than $K = 1.0$. Wide range meters may except cells between $K = 0.01$ and 10 .

GO to page(s) 296

Order conductivity calibration solutions and accessories from page 361.

OAKION® SaltTestr™ 11

SAL °C/°F

Ideal for spot checking salt-based samples

- IP67-rated waterproof housing
- Factory calibrated against NaCl standards

Push-button calibration provides easy and precise field calibration. Hold function freezes measurement for viewing and recording.

Specs & Ordering Info

ISO9001:2000 CERTIFIED SUPPLIER CE

Catalog number		KH-35662-52
Range	Salinity	0.0 to 10.00 ppt (g/L)
	Temperature	32 to 122°F (0 to 50°C)
Resolution	Salinity	0.10 ppt
	Temperature	0.1°F (0.1°C)
Accuracy	Salinity	±1% full-scale, 0.00 to 7.00 ppt; ±3% full-scale over 7.00 ppt
	Temperature	±0.9°F (0.5°C)
Temperature compensation	Automatic	
Power	Four alkaline batteries (included)	
Dimensions	6½" L x 1½" W x 1½" H	
Price		

KH-35661-17 Replacement sensor

KH-00653-89 Oakton calibration solution;
8974 μS (4487 ppm NaCl), 500 mL

KH-09377-16 Replacement batteries, Pack of 6



35662-52

OAKION® Continuous Conductivity Monitors

These easy-to-use instruments provide months of carefree, continuous monitoring!

- Push-button microprocessor-based operation—no trim pots to adjust
- Built-in, 12 mm x 115 mm ATC conductivity cell with 10-ft cable
- Bright red, easy-to-read 3-digit LED display



35660-00

Specifications & Ordering Information

ISO9001:2000 CERTIFIED SUPPLIER CE

Catalog number		KH-35660-00	KH-35660-02	KH-35660-04
Range		0.0 to 10.0 mS	0.0 to 990 μS	0.0 to 150 μS
Resolution		0.1 mS	10 μS	1 μS
Accuracy		±0.2 mS	±20 μS	±2 μS
Calibration	One point, 30% of slope adjustment			
Temperature compensation	2% per °C			
Power	100 to 240 VAC to 9 VDC adapter (built-in)			
Dimensions	Monitor	3½" L x 3½" W x 1¼" H		
	Cell	5¾" L x ½" (12 mm) dia with 10-ft cable		
Price				

KH-35820-64 Compression fitting for in-line installations,

OAKION® Dual-Range Waterproof TDSTestr® 11 and ECTestr™ 11

Dual-range measurements increase application range

- Replaceable sensor prolongs the life of your instrument
- Single or one point per range calibration
- Auto shutoff, low-battery indicator, error messages

Never watch a tester sink to the bottom of your tank or pond! These waterproof testers float, so there's no need to worry. Valox® housing and stainless steel electrodes offer good chemical compatibility and durability. Model 35662-30 features automatic standard recognition for calibration ease.

What's included: protective plastic storage case, lanyard, and batteries.



Belt-loop carrying case 35624-45 (solutions and Testr sold separately)

New

Dual range

CON TDS °C/F

Specifications & Ordering Information

ISO9001:2000 CERTIFIED SUPPLIER



Catalog number	KH-35662-10		KH-35662-30	
Description	TDSTestr 11 Dual Range		ECTestr 11 Dual Range	
Range	Conductivity	0 to 2000 ppm; 0 to 10.0 ppt	0 to 2000 µS; 0 to 20.00 mS	
	Temperature	32 to 122°F (0 to 50°C)	32 to 122°F (0 to 50°C)	
Resolution	Conductivity	10 ppm; 0.10 ppt	10 µS; 0.10 mS	
	Temperature	0.1°F (0.1°C)	0.1°F (0.1°C)	
Accuracy	Conductivity	±1% full scale	±1% full scale	
	Temperature	±0.9°F (±0.5°C)	±0.9°F (±0.5°C)	
Temperature compensation	Automatic, 0 to 50°C; 2% per °C		Automatic, 0 to 50°C; 2% per °C	
Calibration	One or two points			
Power	Four 1.5 V alkaline batteries (included), 150 hours continuous use			
Display	4-digit LCD, dual line		4-digit LCD, dual line	
Dimensions	6½"L x 1½" dia		6½"L x 1½" dia	
Price				



Replaceable sensor

Testrs with pin-style sensor now measures and displays temperature.



KH-35661-17 Repl. sensor for above pin-style testers

KH-09377-16 Repl. batteries, Pack of 6

KH-35624-45 Carrying case

KH-35661-70 Calibration kit, includes two each of TDS calibration solution pouches (447, 1413, 2764, and 15,000 µS), two rinse water pouches, sample jar, and foam-lined carrying case. Use with

OAKION® Multirange Waterproof Cup-Style TDSTestr® 11+ and ECTestr™ 11+

Operate as either a cup-style or dip-style tester for greater flexibility

- Automatically or manually select measuring range
- Waterproof, dustproof housings float
- Push-button calibration, HOLD function, and error messages

Use these testers for either cup-style or dip-style measurements. For cup style, pour a small amount of your sample directly into the sensor cup until it overflows; for dip style, simply immerse tester tip into sample. Replaceable sensor lets you reuse meter body many times over. Valox® housing and stainless steel electrodes for good chemical compatibility.

Note: Before measuring, calibrate tester as either cup style or dip style (depending on intended method of use).

What's included: protective plastic storage case, lanyard, and batteries.

Specifications & Ordering Information

ISO9001:2000 CERTIFIED SUPPLIER



Catalog number	KH-35662-15		KH-35662-35	
Description	TDSTestr 11+ Multirange		ECTestr 11+ Multirange	
Range	Conductivity	0 to 200.0, 0 to 2000 ppm; 0 to 10.00 ppt	0 to 200.0, 0 to 2000 µS; 0 to 20.00 mS	
	Temperature	32 to 122°F (0 to 50°C)	32 to 122°F (0 to 50°C)	
Resolution	Conductivity	0.1, 1 ppm; 0.01 ppt	0.1, 1 µS; 0.01 mS	
	Temperature	0.1°F (0.1°C)	0.1°F (0.1°C)	
Accuracy	Conductivity	±1% full scale	±1% full scale	
	Temperature	±0.9°F (±0.5°C)	±0.9°F (±0.5°C)	
Temperature compensation	Automatic, 0 to 50°C; 2% per °C		Automatic, 0 to 50°C; 2% per °C	
Calibration	Push-button calibration, one to three points		Push-button calibration, one to three points	
Power	Four 1.5 V alkaline batteries (included), >150 hours continuous use			
Display	4-digit LCD, dual line		4-digit LCD, dual line	
Dimensions	6½"L x 1½" dia		6½"L x 1½" dia	
Price				



Features cup-style sensor—draw or grab samples anywhere!

New

Multirange

CON TDS °C/F



Testrs come with protective plastic case

Testrs with cup-style sensors have greater range and resolution than pin-style Testrs



Co Conductivity

Handheld Meters

OAKTON® Acorn® CON 6, TDS 6, and SALT 6 Meters

CON TDS SAL °C



CON 6 meter
35606-10

Autoranging conductivity or TDS with temperature measurements

- CON 6 and TDS 6 have five auto-ranging measurement modes—up to 200.0 mS (200.0 ppt)
- Temperature readout in °C with the push of a button
- Rubber boot with built-in stand protects meter and adds functionality

These microprocessor-based meters feature easy, push-button operation that offers high accuracy at an extremely affordable price. A quick and easy single-point calibration covers all five ranges with the CON 6 and TDS 6 meters; for greater precision, single-points can be calibrated within each of the five measurement ranges. The SALT 6 features single-point calibration; calibrate using 4487-ppm calibration solution 00653-89 (sold on page 361).

Additional features include a convenient HOLD function and auto-off function that shuts meter off after 20 minutes of nonuse. Programming functions allow customization of meter for temperature compensation, temperature coefficient, normalization, cell constant, and conductivity-to-TDS conversion factor (TDS 6) for better accuracy in varying applications.

Meters include: protective rubber boot with stand, fast-response conductivity/TDS/temperature probe (K = 1.0), and four AAA batteries.

Kits include: protective rubber boot with stand, fast-response conductivity/TDS/temperature probe (K = 1.0), conductivity calibration packets, sample bottles, rinse bottle, hard plastic carrying case, and four AAA batteries.



SALT 6 (35606-20) is ideal for measuring brines and aquaculture systems.



Rubber boot protects meter and doubles as a stand.



CON 6 meter kit
35606-71

Specifications & Ordering Information

ISO 9001:2000
CERTIFIED SUPPLIER

CE 3 year
warranty
Meter only

Catalog number		KH-35606-10	KH-35606-71	KH-35606-15	KH-35606-76	KH-35606-20	KH-35606-78
Description		CON 6 meter	CON 6 meter kit	TDS 6 meter	TDS 6 meter kit	SALT 6 meter	SALT 6 meter kit
Range	Conductivity	0 to 20.00, 0 to 200.0, 0 to 2000 µS; 0 to 20.00, 0 to 200.0 mS		0 to 10.00, 10 to 100.0, 100 to 1000 ppm; 1.00 to 10.00, 10.0 to 100.0, up to 200.0 ppt*		1 to 50.0 ppt, 0.1 to 5.00%	
	Temperature	-10.0 to 110.0°C		-10.0 to 110.0°C		-10.0 to 110.0°C	
Resolution	Conductivity	0.01, 0.1, 1 µS; 0.01, 0.1 mS		0.01, 0.1, 1 ppm; 0.01, 0.1 ppt		0.1 ppt, 0.01%	
	Temperature	0.1°C		0.1°C		0.1°C	
Accuracy	Conductivity	±1% full-scale		±1% full-scale		±1% full-scale	
	Temperature	±0.5°C		±0.5°C		±0.5°C	
Temperature compensation		Automatic or manual from 0.0 to 50.0°C		Automatic or manual from 0.0 to 50.0°C		Automatic or manual from 0.0 to 50.0°C	
Temperature coefficient		Adjustable from 0 to 3% per °C		Adjustable from 0 to 3% per °C		Adjustable from 0 to 3% per °C	
Normalization temperature		20°C or 25°C, selectable		20°C or 25°C, selectable		20°C or 25°C, selectable	
Cell constant (K)		Selectable, 0.1, 1, and 10		Selectable, 0.1, 1, and 10		1.0	
Conductivity-to-TDS/salt conversion factor		—		0.4 to 1.00 adjustable		Nonlinear compensation	
Calibration points		5 maximum, one per range		5 maximum, one per range		One point in 1 to 50 ppt range	
Power		Four AAA batteries (included)		Four AAA batteries (included)		Four AAA batteries (included)	
Battery life		100 hours continuous use		100 hours continuous use		100 hours continuous use	
Display		4-digit LCD, single line		4-digit LCD, single line		4-digit LCD, single line	
Dimensions		Meter: 5 1/2" L x 2 3/4" x 1 1/16" Probe: 5 1/8" L x 5/8" dia with 36" cable		Meter: 5 1/2" L x 2 3/4" x 1 1/16" Probe: 5 1/8" L x 5/8" dia with 36" cable		Meter: 5 1/2" L x 2 3/4" x 1 1/16" Probe: 5 1/8" L x 5/8" dia with 36" cable	
Price							

*Depending on TDS factor setting

Accessories

KH-35606-53 Conductivity probe, K = 0.1

KH-35606-55 Replacement conductivity probe, K = 1.0

KH-35606-57 Conductivity probe, K = 10

KH-35632-97 Carrying case. Includes one rinse bottle and three sample bottles

KH-35606-80 Replacement rubber boot

KH-17090-30 NIST-traceable calibration certificate for conductivity meter

KH-00653-89 Calibration solution for SALT 6 meter, 4487 ppm NaCl

KH-09376-00 Replacement batteries, AAA. Pack of 12

OAKION® CON 11 and CON 110 Conductivity/TDS/Meters

Multifunctional—use as a benchtop laboratory meter or as a handheld in the field

CON TDS °C/°F

- Store and recall up to 50 measurements with °C temperature (CON 11 meter) or up to 100 measurements with °C or °F temperature (CON 110 meter)
- CON 110 meter features RS-232 output—download data to a computer or printer!
- CON 110 meter includes FREE PC Datalog Assist Software to import data into popular spreadsheet programs

The CON 11 and CON 110 meters feature dual-line LCD that allows viewing of conductivity or TDS and temperature simultaneously. Both models allow selection between manual and automatic temperature compensation (ATC) for correct values, even with changing solution temperatures. Normalization temperature and temperature coefficients are also customizable.

Selectable auto-ranging function selects the correct range for best resolution and fastest response. Calibrate the meters with a single or multi-point calibration for greater linearity. Calibration points can be automatically selected from programmed standard values or manually entered values specific for the application.

Selectable cell constants of 0.1, 1.0, or 10.0 and adjustable TDS conversion factors between 0.4 to 1.0 can be set for accurate and precise measurements in applications from pure water to solutions up to 200 mS. Use the built-in stands for benchtop operation or use battery power for handheld field operation. Meters operate up to 200 hours on a single set of batteries and have a selectable auto-off function that shuts down the meter after 20 minutes of nonuse. Select meter kits for storage and field operation.

Meters include: conductivity cell 35608-50 and batteries. CON 110 meter also includes Datalog Assist PC software on CD-ROM.

Meter kits include: conductivity cell 35608-50, calibration solution pouches (four each of 447 µS, 1413 µS, 2764 µS, and 15,000 µS), four rinse pouches, sample bottles, batteries, and hard side carrying case. CON 110 meter kit also includes Datalog Assist PC software on CD-ROM.



CON 11 meter
35607-40

Specifications & Ordering Information

ISO9001:2000
SUPPLIER CERTIFIED

CE

3 year
warranty
Meter only

Catalog number	KH-35607-40	KH-35607-80	KH-35607-45	KH-35607-85
Description	CON 11 meter	CON 11 meter kit	CON 110 meter	CON 110 meter kit
Range	Conductivity	0 to 19.99, 20.0 to 199.9, 200 to 1999 µS; 2.00 to 19.99, 20.0 to 199.9 mS		
	TDS	1.00 to 9.99, 10.0 to 99.9, 100 to 999 ppm; 0 to 9.99, 10.0 to 99.9 ppt		
	Temperature	-10.0 to 110.0°C		-10.0 to 110.0°C (14 to 230°F)
Resolution	Conductivity	0.01, 0.1, 1 µS; 0.01, 0.1 mS		0.01, 0.1, 1 µS; 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01, 0.1 ppt		0.01, 0.1, 1 ppm; 0.01, 0.1 ppt
	Temperature	0.1°C		0.1°C (0.1°F)
Accuracy	Conductivity	±0.2 µS, ±2 µS, ±20 µS, ±0.2 mS, ±2 mS		±0.2 µS, ±2 µS, ±20 µS, ±0.2 mS, ±2 mS
	TDS	±0.1 ppm, ±1 ppm, ±10 ppm, ±0.01 ppt, 0.1 ppt		±0.1 ppm, ±1 ppm, ±10 ppm, ±0.01 ppt, 0.1 ppt
	Temperature	±0.5°C		±0.5°C (0.9°F)
Temperature compensation	Automatic or manual from 0 to 100°C		Automatic or manual from 0 to 100°C	
Temperature coefficient	0.0 to 10.0%/°C		0.0 to 10.0%/°C	
Conductivity-to-TDS factor	0.4 to 1.0		0.4 to 1.0	
Output	—		RS-232	
Data storage	50 data sets		100 data sets	
Power/battery life	Four AAA alkaline batteries, optional AC/DC adapter 9 V, 200 mA/>200 hours		Four AAA alkaline batteries, optional AC/DC adapter 9 V, 200 mA/>200 hours	
Display	Dual-line LCD		Dual-line LCD	
Dimensions	7 1/8" L x 3 1/2" W x 1 5/8" H		7 1/8" L x 3 1/2" W x 1 5/8" H	
Price				



CON 110 meter kit
35607-85

Accessories

KH-35615-07 Adapter, 110 VAC

KH-35615-08 Adapter, 220 VAC

KH-35615-09 RS-232 cable, 9 pin

KH-17090-30 NIST-traceable calibration certificate for conductivity meter

KH-09376-00 Replacement batteries, AAA. Pack of 12

Conductivity Cells; dip cells with 2 1/2-ft cable

Catalog number	Cell constant (K)	Body/electrode	Maximum temperature	Price
KH-35608-55	0.1	Epoxy/platinum	90°C	
KH-35608-50	1.0	Utem®/Stainless steel	90°C	
KH-35608-51	10	Epoxy/platinum	90°C	

Technical info

EC and TDS Measurement

Electrochemical measurement of total dissolved solids (TDS) is determined by multiplying the electrical conductivity (EC) by a conversion factor, usually between 0.4 to 1.0. The factor is specific to the dissolved solids and can change with concentration. Measuring unknown solution or a variable mixture of salts is difficult. Since the factor can be variable, TDS may not be as precise and repeatable as EC. While TDS is useful for certain applications, EC is often preferred over TDS for these reasons.

Co Conductivity

Waterproof Handheld Meters

CON TDS SAL RES DO pH mV ISE °C/°F



35408-02

New

Accessories

KH-35408-50 Conductivity cell, 2-electrode, K = 0.1

KH-35408-52 Replacement Conductivity cell, 2-electrode, K = 1

KH-35408-54 Conductivity cell, 2-electrode, K = 10

KH-35408-56 Conductivity cell, 4-electrode, K = 0.3

KH-35640-50 Replacement DO probe with 10-ft cable

KH-35640-52 DO probe with 25-ft cable

KH-35640-54 DO probe with 50-ft cable

KH-35640-56 DO probe with 100-ft cable

KH-35640-80 Replacement membrane kit; two membrane caps and one bottle of electrolyte solution

KH-35816-71 "All-in-One" pH electrode with built-in ATC; single-junction, epoxy body, 2.5-ft cable with BNC connector

KH-35816-72 "All-in-One" pH electrode with built-in ATC; double-junction, epoxy body, 2.5-ft cable with BNC connector

KH-35805-23 Submersible pH electrode; single-junction, ABS plastic housing, BNC connector, 10-ft cable

KH-35418-05 ATC probe. Use for temperature compensation with any pH electrode without built-in ATC

KH-35418-83 Universal adapter, 110/220 VAC

KH-09376-01 Replacement batteries, AA. Pack of 4

OAKION® Waterproof Handheld Multiparameter Meters

Single or multiple parameter models for all of your conductivity measurement needs

- Programmable "calibration due" date for increased data integrity
- Stores up to 500 data points with time-and-date stamp for GLP compliance
- Wireless download of data via IrDA port

These top-of-the-line waterproof meters offer single or multiparameter measurement capabilities to meet all of your testing needs. The IP67-rated housing allows use in dirty and wet environments without harm to the meter. Store up to 500 data points and download to computer or printer with the infrared (IrDA) wireless technology—no need for additional cords. User-selectable "calibration due" and set point alarms, automatic or manual standards recognition, and single- or multiple-point calibration provide flexibility in meeting your data quality objectives. The large backlit, graphic LCD shows the measured value and units, temperature, time, battery life, and menu options.

What's included: four AA batteries; order optional universal power adapter for use in a lab.

Specifications

ISO9001:2000
CERTIFIED SUPPLIER



3 year
warranty
Meter only

Parameter	Units	
Range	Conductivity	0 to 500 mS
	TDS	0 to 500 ppt (TDS factor dependent)
	Salinity	0 to 80 ppt
	Resistivity	0 to 20.00 MΩ
	Dissolved oxygen	0 to 600%; 0 to 90 mg/L
	Barometric pressure	Automatic compensation, 450 to 825 mm Hg
	pH	-2.00 to 19.99
	mV	-2000 to 2000
	ISE	0.001 to 99,900 ppm, molar, or mg/L
	Temperature	14 to 230°F (-10 to 110°C)
Resolution	Conductivity	0.05% full-scale
	TDS	0.05% full-scale
	Salinity	0.05% full-scale
	Resistivity	0.05% full-scale
	Dissolved oxygen	0.1%, 1%; 0.01 mg/L
	Barometric pressure	1 mm Hg
	pH	0.1, 0.01, 0.001
	mV	0.1, 1
	ISE	2 or 3 digits
	Temperature	0.1°F to 199.9°F; 1.0°F from 200 to 230°F (0.1°C)
Accuracy	Conductivity	±1% full-scale
	TDS	±1% full-scale
	Salinity	±1% full-scale
	Resistivity	±1% full-scale
	Dissolved oxygen	±2%; ±0.2 mg/L
	Barometric pressure	±1%
	pH	±0.002
	mV	±0.2, ±2.0
	ISE	±0.5% full-scale (monovalent), ±1% full-scale (divalent)
	Temperature	±0.9°F (±0.5°C)
Salinity correction	Manual input 0 to 45 ppt, automatic correction	
Temperature compensation	Automatic or manual, 0 to 100°C, linear or pure water for conductivity	
Calibration	Automatic/manual and single/multipoint standard recognition; programmable "cal due" alarm	
Temperature coefficient	0 to 10.0%/°C for conductivity	
Conductivity-to-TDS factor	0.4 to 1.0 for conductivity	
Data storage	500 data sets	
Output	IrDA/ RS-232C	
Display	Dot-matrix LCD with backlighting	
Power	Four AA batteries (included) or optional universal AC adapter	
Dimensions	3¼"W x 7¼"H x 2¼"D	

Ordering Information

ISO9001:2000
CERTIFIED SUPPLIER



3 year
warranty

Catalog number	Description	Model	Parameters measured	Price
KH-35408-02	Meter only	CON 600	Conductivity, TDS, temperature	
KH-35408-00	Meter with probe 35408-52			
KH-35408-12	Meter only	CON 610	Conductivity, TDS, salinity, resistivity, temperature	
KH-35408-10	Meter with probe 35408-52			
KH-35433-02	Meter only	CD 650	Conductivity, TDS, salinity, resistivity, dissolved oxygen, temperature	
KH-35433-00	Meter with probes 35408-52 and 35640-50			
KH-35431-02	Meter only	PC 650	Conductivity, TDS, salinity, resistivity, pH, mV, ISE, temperature	
KH-35431-00	Meter with probes 35816-71 and 35408-52			
KH-35434-02	Meter only	PCD 650	Conductivity, TDS, salinity, resistivity, dissolved oxygen, pH, mV, ISE, temperature	
KH-35434-00	Meter with probes 35816-71, 35408-52, and 35640-50			

OAKION® Waterproof CON 400 and CON 410 Conductivity/TDS Meters

Floating, waterproof meters are perfect for either indoor or outdoor applications!

- Store up to 50 measurements with temperature
- Selectable °F/°C, auto-off, auto-endpoint, and HOLD
- Real-time clock time/date stamps readings in memory and calibration points—meets GLP guidelines
- Adjustable cell constant expands conductivity and TDS ranges

This meter has push-button calibration for up to five points and selectable manual or automatic temperature compensation.

What's included: conductivity/TDS cell 35608-50 and batteries.



IP67-rated meters can float!

35608-10

ISO9001:2000
CERTIFIED SUPPLIER

CE 3 year warranty
Meter only

Specifications & Ordering Info

Catalog number		KH-35608-00	KH-35608-10
Description		Waterproof CON 400 conductivity meter	Waterproof CON 410 conductivity/TDS meter
Range	Conductivity	0.00 to 19.99, 0.0 to 199.9, 0 to 1999 μ S; 0.00 to 19.99, 0.0 to 199.9 mS	0 to 9.99, 10 to 99.9, 100 to 999 ppm; 1 to 9.99, 10 to 99.9, 100 to 200 ppt
	TDS	—	—
	Temperature	0 to 100°C (32 to 212°F)	
Resolution	Conductivity	0.01 μ S, 0.1 μ S, 1 μ S, 0.01 mS, 0.1 mS	
	TDS	—	
	Temperature	0.1°C or °F	
Accuracy	Conductivity	±1.0% full-scale	
	TDS	—	
	Temperature	±0.3°C (±0.5°F)	
Temperature compensation		Automatic or manual from 0 to 50°C	
Temperature coefficient		Adjustable from 0.0 to 10.0% per °C	
Conductivity-to-TDS factor		—	Adjustable from 0.4 to 1.0
Cell constant (K)		Selectable; 0.1, 1, 10	
Power/battery life		Four AAA batteries (included)/50 hours continuous	
Display		Dual-line LCD	
Dimensions		3½"W x 7¾"H x 1¾"D	
Price			

Accessories

Calibration Kit includes four each of TDS calibration solution pouches (447 μ S, 1413 μ S, 2764 μ S, and 15.0 mS), four rinse water pouches, and hard plastic carrying case with room for your meter. Case measures 11½"L x 14"W x 3"H.

KH-35607-69 Calibration kit

Plastic Body Conductivity/TDS Cells feature a two-band stainless steel sensor and built-in temperature sensor. Measure 5"L x ½" dia with a 36" cable.

KH-35608-55 Conductivity cell, K = 0.1

KH-35608-50 Replacement conductivity cell, K = 1.0

KH-35608-51 Conductivity cell, K = 10

KH-09376-00 Replacement batteries; AAA

OAKION® Waterproof pH/CON 10 pH/Conductivity Meters

No more headaches with multiple probes—
one probe does it all!

- Toggle between conductivity and pH with a button press
- Features automatic buffer recognition, auto-off, and HOLD

The waterproof, dustproof model 35630-02 with IP67-rated housing includes a three-in-one multi-sensor probe that measures pH, conductivity, and temperature with 10-ft submersible cable. Three-point pH calibration with auto buffer recognition and four-point conductivity calibration provide high accuracy.

Meter includes: three-in-one probe and batteries.

Meter kit includes:

meter, three-in-one probe, calibration solution pouches (three each pH 4.01, 7.00, 10.00; two each conductivity 447 μ S, 1413 μ S, 2764 μ S, 15,000 μ S), three rinse water pouches, sample bottle, batteries, and hard carrying case.



Meter 35630-02 floats!

ISO9001:2000
CERTIFIED SUPPLIER

CE 3 year warranty
Meter only

Specifications & Ordering Info

Catalog number		EK-35630-02	EK-35630-62
Description		Waterproof pH/CON 10 meter	Waterproof pH/CON 10 meter kit
Range	Conductivity	0.0 to 19.99, 0 to 199.9, 0 to 1999 μ S; 0 to 19.99 mS	
	pH	0.00 to 14.00 pH	
	Temperature	0 to 100°C	
Resolution	Conductivity	0.01, 0.1, 1.0 μ S; 0.01 mS	
	pH	0.01 pH	
	Temperature	0.1°C	
Accuracy	Conductivity	±1% full scale or ±1 digit	
	pH	±0.01 pH	
	Temperature	±0.5°C	
Calibration	Conductivity	Up to four points (one per range)	
	pH	Up to three points (4.01, 7.00, 10.00)	
	Temperature	Offset 0.1°C increments to ±5°C	
Temperature compensation		Automatic from 0 to 50°C	
Temperature coefficient		Fixed at 2.0% per °C	
Cell constant (K)		1.0	
Power/battery life		Four AAA batteries (included)/100 hours continuous	
Display		Dual LCD	
Dimensions		3½"W x 7¾"H x 1¾"D	
Price			

Down-Well Probes are available for use with the pH/CON 10 meters. Probe body measures 1¾" in diameter. All include a waterproof connector. Probes measure pH, conductivity, and temperature.



35630-52

Catalog number	Description	Cable length	Price
EK-35630-52	Down-well probe	10 ft	
EK-35630-54		25 ft	
EK-35630-56		100 ft	

Co Conductivity

Waterproof Handheld Meters

OAKTON® Waterproof pH/CON 300 Deluxe pH/Conductivity Meter

Separate pH and conductivity/TDS probes allow for greater flexibility

- IP67-rated pH/CON 300 meter floats!
- Dual display of pH, conductivity or TDS plus temperature (°F/°C selectable)
- Perform five-point pH and conductivity (TDS) calibration for better accuracy

Features include automatic pH buffer recognition, auto ranging for conductivity/TDS measurements, auto-off, HOLD, and selectable temperature (°C or °F). Meter recalls previous calibration data and pH electrode slope and offset.

Meter includes: double-junction combination pH electrode 59001-70, conductivity/temperature probe 35608-50, and four AAA batteries.

Meter kit includes: meter; single-junction pH electrode 59001-65, conductivity/temperature probe 35608-50, calibration solution pouches (three each of pH 4.01, 7.00, 10.00 and two each of conductivity 447 μ S, 1413 μ S, 2764 μ S, 15,000 μ S), three rinse water pouches, sample bottle, batteries, and hard carrying case.



35631-00



Specifications & Ordering Info

Catalog number	EK-35631-00	EK-35631-60
Description	pH/CON 300 meter	pH/CON 300 meter kit
Range	Conductivity	0.0 to 19.99, 0 to 199.9, 0 to 1999 μ S; 0 to 19.99, 0 to 199.9 mS
	TDS	0.00 to 9.99, 10.0 to 99.9, 100 to 999 ppm; 1.00 to 9.99, 10.0 to 99.9, 100 to 200 ppt
	pH	-2.00 to 16.00
	Temperature	0.0 to 100.0°C (32 to 212°F)
Resolution	Conductivity	0.01, 0.1, 1 μ S; 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01, 0.1, 1 ppt
	pH	0.01 pH
Accuracy	Temperature	0.1°C or °F
	Conductivity	±1% full-scale
	TDS	±1% full-scale
	pH	±0.01 pH
Temperature compensation	Automatic or manual from 0 to 100°C	
Conductivity temperature coefficient	Adjustable from 0.0 to 10% per °C	
Conductivity-to-TDS factor	Adjustable from 0.4 to 1.0	
Power	Four 1.5 V AAA batteries (included)	
Display	Dual LCD	
Dimensions	7½" L x 3½" H x 1¾" D	
Price		

Accessories

EK-35630-69 Calibration kit. Includes calibration solution pouches (three each of pH 4.01, 7.00, 10.00 and two each of conductivity 447 μ S, 1413 μ S, 2764 μ S, 15,000 μ S); three rinse water pouches; sample bottle; and hard carrying case

EK-35805-24 pH electrode, double junction, gel-filled; epoxy body, BNC connector, 10-ft cable

EK-35608-57 Conductivity/temperature probe, with built-in ATC element, 16-ft cable (for measurements to 19.99 mS)

EK-59001-70 Replacement combination pH electrode, double junction, gel-filled. Epoxy body, BNC connector, 3-ft cable

EK-35608-50 Replacement conductivity/temperature probe, with built-in ATC element, 3-ft cable

VARIO Conductivity Meters

CON TDS RES SAL °C/°F

Custom touch screen LCD for ease of use

- Measure conductivity, TDS, resistivity, or salinity
- Linear or non-linear temperature compensation for greater accuracy
- Store 50 data sets with measured value, temperature, time and date, and ID number

The VARIO conductivity meters provide benchtop features and performance with the flexibility of a waterproof handheld meter. The meter has an ergonomic, non-slip rubber housing that makes one-handed operation easy. The large, touch screen LCD indicates the measured parameter and temperature (°F or °C) simultaneously and provides the ability to change modes, recall data, and activate the other meter functions.

Select meter 19706-30 for general-purpose measurements; the meter uses the specialized TetraCon® 325 four-electrode cell for greater accuracy over a large measurement range. **19706-30** Meter 19706-32 uses a two-electrode cell and flowcell that are ideal for natural and ultrapure water measurements. The 50 data set storage is GLP-compliant with time- and date-stamp along with sample identifier. Selectable reference temperatures, temperature compensation curves, TDS factors, and calibration intervals provide great flexibility for a variety of applications. The meter also functions as an alarm, stopwatch, or timer!

What's included: conductivity cell, KCl standardization solution, battery, and hard carrying case.



New

Specifications & Ordering Info



Catalog number	KH-19706-30	KH-19706-32
Description	Vario Meter for general-purpose measurements	Vario Meter for ultrapure and natural water measurements
Range	Conductivity	1 μ S to 200 mS
	TDS	0 to 1999 mg/L
	Resistivity	0.000 to 1.999, 19.99, 199.9, 1999 k Ω ; 0.00 to 19.99, 199.9, 1999 M Ω
	Temperature	23.0 to 212.0°F (-5.0 to 105.0°C)
Resolution	Conductivity	0.1 μ S to 0.1 mS
	TDS	1 mg/L
	Resistivity	0.001, 0.01, 0.1, 1 k Ω ; 0.01, 0.1, 1 M Ω
Accuracy	Temperature	0.1°F/0.1°C
	Conductivity	±0.5%
	TDS	±1 mg/L
	Resistivity	±1%
Temperature compensation	Automatic (linear or non-linear) or none	
Temperature coefficient	Selectable 0.001 to 3% per °C	
Conductivity-to-TDS factor	Selectable 0.4 to 1.0	
Output	None	
Data storage	50 data sets with time- and date-stamp	
Power	One AA battery (included)	
Battery life	500 hours	
Display	Custom touch screen LCD	
Housing	Waterproof (IP65) PVC	
Dimensions	3¼" W x 5½" H x 1½" D	
Price		

KH-09376-01 Replacement batteries; AA. Pack of 4

Waterproof Conductivity Meter Kits

Five measured parameters from one meter!

- Four-electrode conductivity cell offers high degree of accuracy over wide measuring range
- Auto-ranging over five measurement ranges
- Built-in real-time clock assists with GLP-conforming documentation and monitoring calibration intervals
- Meter kit 19706-24 features RS-232 capability.

What's included: four-electrode conductivity cell 19707-80, conductivity standard, and carrying case.



Kit includes meter and case conductivity cell.



Specifications & Ordering Information

Catalog number	KH-19706-12	KH-19706-24
Range	Conductivity	0.0 to 199.9 µS, 0 to 1999 µS; 0.00 to 19.99 mS, 0.0 to 199.9 mS, 0 to 500 mS
	TDS	0 to 1999 mg/L
	Salinity	0.0 to 70.0 ppt
	Resistivity	0.000 to 1999 MΩ
	Temperature	-5.0 to 105.0°C (23 to 221°F)
Accuracy	Conductivity	±0.5% of reading ±1 digit
	TDS	±1 mg/L ±1 digit
	Salinity	±0.1 ppt for 0 to 42.0 ppt, better than ±3% of reading for 42.1 to 70.0 ppt
	Resistivity	± 0.5% of value ± 1 digit
Temperature	±0.1°C ±1 digit	
Temperature compensation	Automatic or manual, linear/nonlinear, off	
Output	—	RS-232 and 0 to 2 V analog
Data storage	500 data sets	
Power	Four AA batteries	Four AA batteries or 100 to 240 VAC with optional power supply
Price		

Four-Electrode Conductivity Cells

Catalog number	Cell constant (K)	Body	Electrode	Cable length	Application	Price
KH-19707-80	0.475	Epoxy	Graphite	3 m	Field and lab	
KH-19707-82				10 m	Field	
KH-19707-84				20 m	Field	

Accessories

- [KH-53105-62](#) Power supply, universal; 100–240 VAC
- [KH-53105-70](#) Protective rubber meter housing
- [KH-53105-71](#) Optional armored sleeve for cells
- [KH-53105-56](#) RS-232 interface cable and software for 19706-24

Heavy-Duty Conductivity Meter

Portable, rugged, waterproof—great for use in the lab, plant, or field

- Built-in rechargeable battery provides up to 800 hours of operation—ideal for field use
- Adjustable temperature coefficient and reference temperature
- Meter accepts probes with cable lengths up to 100 m (330 ft)

What's included: universal AC adapter, rechargeable battery, and carrying strap. Order conductivity cells separately below.



19707-20 shown with optional probe 19707-80



Specifications & Ordering Information

Catalog number	KH-19707-20	
Range	Conductivity	0.00 to 19.99, 0.0 to 199.9, 0 to 1999 µS; 0.00 to 19.99, 0.0 to 199.9, 0 to 500 mS
	TDS	0 to 1999 mg/L
	Salinity	0.0 to 70.0 ppt
	Temperature	-5.0 to 99.9°C
Accuracy	Conductivity	±0.5% of measured value ±1 digit
	TDS	±2% of reading ±1 digit (from 15 to 35°C)
	Salinity	±0.1 ppt from 0.0 to 42.0 ppt
	Temperature	±0.1°C ±1 digit from -10 to 50°C
Temperature compensation	Automatic, manual, off	
Output	RS-232	
Power	110 to 220 VAC, rechargeable NiCd battery	
Display	LCD, 2 1/2"W x 1 1/2"H	
Dimensions	9 1/16"W x 7 1/2"H x 3 3/8"D	
Price		

Conductivity Cells

Choose from two- or four-electrode cells. Four-electrode cells give a broader measuring range, greater accuracy, and do not need platinization. Probes with cable lengths up to 100 m (330 ft) are available—call our Application Specialists for more information.

Catalog number	Cell constant (K)	Body	Electrode	Cable length	Application	Price
Two-electrode conductivity cell with flow-through adapter						
KH-19706-62*	0.1	Steel	Steel	1 m	Ultra-pure water	
Four-electrode conductivity cells with integrated temperature sensor						
KH-19707-80*	0.475	Epoxy	Graphite	3 m	Field and lab	
KH-19707-82*				10 m	Field	
KH-19707-84*				20 m	Field	

*Armored sleeve 53105-71 is available below left.

Accessories

- [KH-53105-57](#) RS-232 printer cable
- [KH-19706-76](#) Data collection software

Co Conductivity

Handheld / Benchtop Meters

Orion® 3-Star Conductivity Meters

Rugged meters that accept either two- or four-electrode probes

- Easy-to-use, three-button operation
- Meets all U.S. Pharmacopoeia (USP) requirements
- Bright, backlit LCD with ready indicator

New

These single-channel meters provide reliable and accurate conductivity, TDS, salinity, resistivity, and temperature measurements for soil and water analysis in the lab or the field. The meters can record and store up to 10 password-protected methods and calibrations for consistent operation with multiple users. Additional methods and software updates can be downloaded via the Internet. The meters store up to 200 data points with time-and-date stamp for GLP compliance. Download the data to a printer or computer using the optional RS-232 cable. The benchtop meter allows the addition of the optional auto stirrer to mix samples without using a stir plate and stir bar.



Portable meter
19704-30

Portable meter includes: batteries. Portable meter kit also includes four-electrode conductivity cell with 5-ft cable, conductivity standards, and hard field carrying case.

Benchtop meter includes: universal power adapter. Benchtop meter kit also includes four-electrode conductivity cell with 5-ft cable, conductivity standards, and benchtop electrode stand.

Accessories

KH-19704-70 Waterproof conductivity probe; four-cell, K = 0.475, mini-DIN locking 5-ft cable

KH-19704-72 Waterproof conductivity probe; four-cell, K = 0.475, mini-DIN locking 10-ft cable

KH-19704-74 Conductivity electrode; two-cell, K = 0.1 with flow cell for pure water applications, mini-DIN locking 5-ft cable

KH-58823-45 Stirring probe for benchtop meter

Russell Portable Conductivity Meter

Simple operation yet accurate results

- 1-, 2-, or 3-point calibration (one per range)
- Auto-ranging capabilities determines appropriate measurement range
- Automatic or manual temperature compensation

The Russell RL060C portable conductivity meter is an affordable, rugged meter that can be used in the plant or the field. The splashproof keypad and large LCD provide easy viewing of measurement and error codes. Simple four-button operation makes this the meter of choice for many applications.

What's included: conductivity probe, rubber boot with stand, and four AAA batteries.

New



CON TDS SAL RES °C



Portable meter only

Benchtop meter only

Meter only

Specifications & Ordering Info

ISO 9001:2000
SUPPLIER CERTIFIED



Catalog number	KH-19704-30	KH-19704-34	KH-19704-40	KH-19704-44
Description	Portable meter only	Portable meter kit	Benchtop meter only	Benchtop meter kit
Range	Conductivity	0.00 to 3000 mS, auto resolution with cell constant dependence		
	TDS	0 to 19999 mg/L		
	Salinity	0.01 to 80.0 ppt NaCl equivalent, 0.01 to 42.0 ppt practical salinity		
	Resistivity	0.0001 to 100 MΩ		
	Temperature	-5 to 105°C		
Resolution	Conductivity	4 significant digits down to 0.001 μS/cm, cell constant dependent		
	TDS	1 mg/L		
	Salinity	0.01 ppt		
	Resistivity	0.0001 MΩ		
	Temperature	0.1 up to 99.9°C, 1.0 over 99.9°C		
Accuracy	Conductivity	±0.5% ±1 digit or 0.01 μS/cm, whichever is greater		
	TDS	±0.5% ±1 digit		
	Salinity	±0.1% ±1 digit		
	Resistivity	0.5% ±1 digit		
	Temperature	±0.1°C		
Temperature compensation	Non-linear function (nLF) or linear 0.0 to 10.0 %/°C			
Output	Via optional waterproof bidirectional RS-232 stereo jack, optional USB interface connector			
Data storage	200 data points with time-and-date stamp			
Power	Four AA batteries (included)		115/230 VAC adapter (included) or four AA batteries	
Display	Custom-backlit LCD			
Housing	IP67		IP54	
Dimensions	3 3/4"W x 9"H x 1 3/4"D		6 5/8"W x 9 1/4"H x 1 3/4"D	
Price	-	-	-	-

KH-58823-50 Electrode stand for benchtop meter

KH-58823-52 Electrode stand for portable meter

KH-58822-40 RS-232 cable for computer and printer

KH-58822-45 Cable adapter from RS-232 to USB

KH-53101-73 Protective jacket for portable meter.

Impact resistant; with electrode storage sleeves

KH-17090-30 NIST-traceable calibration certificate for conductivity meters

GO to page(s) 296

For conductivity standards.

CON °C

ISO 9001:2000
SUPPLIER CERTIFIED



Specifications & Ordering Info

Catalog number	KH-19704-80	
Range	Conductivity	0 to 199.9, 0 to 199 μS; 0 to 19.99 mS
	Temperature	0.0 to 100.0°C
Resolution	Conductivity	0.1, 1 μS; 0.01 mS
	Temperature	0.1°C
Accuracy	Conductivity	±1% full-scale
	Temperature	±0.5°C
Temperature compensation	Automatic or manual	
Temperature coefficient	2%/°C	
Power/battery life	Four AAA batteries (included), >100 hours	
Display	Custom LCD	
Housing	Splash resistant	
Dimensions	3 5/8"W x 6 1/8"H x 1 5/8"D (15.6 x 8.5 x 4.1 cm)	
Price	-	-

KH-19704-82 Replacement conductivity probe;

Analog Conductivity, Resistivity, TDS, and Multiparameter Meters

- Maintenance-free built-in electrodes—no replatinizing required
- Automatic temperature compensation

CON TDS RES pH

Analyze your samples on-site with these portable meters. All feature automatic temperature compensation and built-in cell cup. Cup contains self-maintaining electrodes that never need replatinizing. Optional conductivity range extender (sold below right) expands range by a factor of 10. Minimum sample volume is 25 mL.

A Analog Conductivity Meters

Choose from one, three, or four ranges.

B Analog Conductivity/Resistivity Meter

Use this meter to test both standard and high-purity water samples. Meter has five conductivity ranges and one resistivity range.

C Analog Total Dissolved Solids Meters

Available with one or three ranges.

D Analog pH/Conductivity Meter

Get accurate, on-the-spot measurements of pH and conductivity with this compact meter. Meter features analog display of conductivity measurements from 0 to 10,000 μS in four ranges. Meter also includes a pH sensor that measures pH from 2.0 to 12.0 pH.

The optional calibration kit 01489-51 includes a large foam-lined carrying case; 2-oz bottles of pH 4, 7 and 10 buffers; and a 7000 μS conductivity standard.

CE **2** year warranty
Meter only

Specifications & Ordering Information

Key	A			B		C		D
Catalog number	KH-01489-10	KH-01489-20	KH-01489-35	KH-01489-30	KH-01489-15	KH-01489-25	KH-01489-62	
Range	Conductivity	0 to 5000 μS	0 to 50 μS , 0 to 500 μS , 0 to 5000 μS	0 to 10 μS , 0 to 100 μS , 0 to 1000 μS , 0 to 10,000 μS	0 to 0.5 μS , 0 to 5 μS 0 to 50 μS , 0 to 500 μS 0 to 5000 μS	—	—	0 to 10,000 μS
	Resistivity	—	—	—	2 to 30 $\text{M}\Omega$	—	—	—
	TDS	—	—	—	—	0 to 5000 ppm	0 to 50 ppm, 0 to 500 ppm 0 to 5000 ppm	—
	pH	—	—	—	—	—	—	2.0 to 12.0 pH
Resolution	Conductivity	0.2 μS	0.2 μS	0.2 μS	—	—	—	0.2 μS
	Resistivity	—	—	—	0.2 $\text{M}\Omega$	—	—	—
	TDS	—	—	—	—	0.2 ppm	0.2 ppm	—
	pH	—	—	—	—	—	—	± 0.2 pH
Accuracy	Conductivity	$\pm 2\%$ full-scale	$\pm 2\%$ full-scale	$\pm 2\%$ full-scale	$\pm 2\%$ full-scale	—	—	$\pm 2\%$ full-scale
	Resistivity	—	—	—	$\pm 2\%$ full-scale	—	—	—
	TDS	—	—	—	—	$\pm 2\%$ full-scale	$\pm 2\%$ full-scale	—
	pH	—	—	—	—	—	—	—
Temperature compensation	Automatic from 50 to 160°F (10 to 71°C)	Automatic from 50 to 160°F (10 to 71°C)	Automatic from 50 to 160°F (10 to 71°C)	Automatic from 32 to 120°F (0 to 49°C)	Automatic from 50 to 160°F (10 to 71°C)	Automatic from 50 to 160°F (10 to 71°C)	Automatic from 50 to 160°F (10 to 71°C)	
Power	One 9 V battery (included)		Two 9 V batteries (included)		One 9 V battery (included)		Two 9 V batteries (included)	
Battery life	Two years (approximately)							
Dimensions	3½" L x 4" W x 4½" H							
Price								

Accessories for All Meters

KH-01489-50 Range extender increase conductivity range by 10x (for example, 0 to 50,000 μS for 01489-10)

KH-01489-48 Plastic sided foam-lined carrying case

KH-09376-04 Replacement batteries, 9 V. Pack of four

Accessories for Model 01489-62 only

KH-01489-51 Calibration kit

KH-01489-63 Replacement pH sensor

Co Conductivity

Waterproof Portable Meters, Digital

TechPro II™, Waterproof Conductivity/TDS and pH Multiparameter Meters

Simple operation—rinse and fill cell cup and push button to display measurement

CON TDS pH °C/°F

- New waterproof ABS housing that floats
- Push-button calibration
- Automatic temperature compensation to 25°C (77°F)

The TechPro II series of meters provide conductivity, or conductivity and pH measurements for applications such as boilers and cooling towers, reverse osmosis, pools and spas, pulp and paper, and many other industries.

The meters require only a 1.2-mL sample for pH measurement and a 5-mL sample for conductivity measurements. Both the temperature-compensated measurement of interest and the sample temperature is displayed on the four-digit LCD. The meters have autoranging function for greater resolution of your conductivity measurements between 0 and 9999 μ S or 10 to 20.00 mS. Model 19707-07 features an internal, non-refillable pH sensor that protects the glass pH bulb from breakage while allowing field replacement.



New

4PII and 6PII Waterproof Multiparameter Meters

IP67 Valox® housing—submersible down to 3 feet

CON TDS RES pH ORP °C/°F

- Four-digit LCD reads to 9999 μ S/ppm
- Also measure pH and ORP with model 19401-22

These meters are simple and easy to use—just add your sample to the built-in cell cup, push the parameter key, and take a reading. Autoranging function automatically selects from five conductivity or TDS ranges.

Factory-calibrated meters have conductivity-to-TDS conversion curves for NaCl, 442, and KCl standards stored in memory. You can also calibrate using your own calibration values. Automatic temperature compensation with adjustable temperature coefficients up to 9.99%/°C provides accurate and precise measurements. Easily store and recall up to 100 measurements with time-and-date stamp. Nonvolatile memory retains all data and can be IR downloaded via uDock™ accessory ordered separately below. See page 361 for Myron L conductivity standards.

New



19401-22

Specifications & Ordering Information



Catalog number		KH-19401-12	KH-19401-22
Description		4PII meter	6PII meter
Range	Conductivity	0 to 9.99, 10 to 99.99, 100 to 999.9, 1000 to 9999 μ S; 10.00 to 200 mS (autoranging)	
	TDS	0 to 9.99, 10 to 99.99, 100 to 999.9, 1000 to 9999 ppm; 10.00 to 200 ppt	
	Resistivity	10 to 100, 100 to 1000 k Ω ; 1 to 30 M Ω	
	pH	—	0 to 14.00 pH
	ORP	—	\pm 999 mV
Resolution	Temperature	32 to 160°F (0 to 71°C)	
	Conductivity	0.01, 0.1, 1 μ S; 0.01 mS	
	TDS	0.01, 0.1, 1 ppm; 0.01 ppt	
	Resistivity	0.01, 0.1 k Ω ; 0.01 M Ω	
	pH	—	0.01 pH unit
Accuracy	ORP	—	1 mV
	Temperature	0.1°F (0.1°C)	
	Conductivity	\pm 1% of reading	
	TDS	\pm 1% of reading	
	Resistivity	\pm 1% of reading	
Temperature compensation	pH	—	\pm 0.01 pH
	ORP	—	\pm 1 mV
	Temperature	\pm 0.2°F (\pm 0.1°C)	
Temperature compensation	Automatic from 0 to 71°C; adjustable from 0 to 9.99% per °C		
Power	One 9 V battery (included)		
Battery life	> 100 hours (5000 readings)		
Dimensions	2¾"W x 2½"H x 7¾"D		
Price	-		

Accessories

KH-19401-30 uDock accessory package, transfers data to computer. Includes docking station, USB cable, and software

KH-19401-50 Replacement pH/ORP sensor, for 6PII meter, model 19401-22

KH-19401-60 Soft protective case, blue nylon with belt clip

KH-19401-70 Hard protective case, contains calibration solutions

KH-09376-04 Replacement batteries, 9 V. Pack of 4

Specifications & Ordering Information



Catalog number		KH-19707-05	KH-19707-07
Description		Model TP1	Model TPH1
Range	Conductivity	0 to 9999 μ S; 10 to 20.00 mS	
	TDS	0 to 9999 ppm; 10 to 20.00 ppt	
	pH	—	0 to 14
	Temperature	0 to 71°C (32 to 160°F)	
Resolution	Conductivity	1 μ S; 0.01 mS	
	TDS	1 ppm; 0.01 ppt	
	pH	—	0.01
	Temperature	0.1°C/°F	
Accuracy	Conductivity	\pm 1% of reading	
	TDS	\pm 1% of reading	
	pH	—	\pm 0.02
	Temperature	\pm 1°C	
Temperature compensation	Automatic, 0 to 71°C (32 to 160°F)		
Power/battery life	One 9 V battery (included)/ >100 hours		
Housing	IP67/NEMA 6 waterproof		
Dimensions	7¾" x 2¾" x 2½"		
Price	-		

Accessories

KH-19401-60 Carrying case, soft sided

KH-19070-50 Replacement pH sensor for model 19707-07

KH-09376-04 Replacement batteries, 9 V. Pack of 4

GO to page(s) 296

For MYRON L conductivity standards.



IQ Scientific Waterproof Conductivity Meters

Waterproof, chemical-resistant enclosures that float

- Large, easy-to-read LCD with LED backlight
- Automatic conductivity cell recognition

These meters offer five-range conductivity or six-range TDS measurements, depending upon meter, with autoranging capabilities and ability to calibrate a single point in each range. The meters automatically recognize the four-electrode conductivity probe that is connected for greater accuracy and ease of use. Order the optional rubber holster to protect meter from accidental damage.

The IQ340 Meter measures conductivity and temperature. Meter only 99360-40 allows you to order a conductivity probe ideal for your anticipated measurement levels. Meter with probe 99360-42 comes with electrode 99360-29 with a K = 0.5 cell for general-purpose measurements. Meter kit 99360-44 comes with the meter, probe 99360-29, rubber holster, soft-sided carrying case, and conductivity calibration solutions.

The IQ350 Meter measures conductivity, TDS, or salinity and temperature. Meter with probe 99360-52 comes with electrode 99360-29 with a K = 0.5 cell for general-purpose measurements. Meter kit 99360-54 comes with meter, probe 99360-29, rubber holster, soft-sided carrying case, and conductivity calibration solutions.

CON TDS SAL °C/°F

New

IQ350
measures
conductivity,
TDS,
salinity and
temperature

3 year
warranty
Meter only



Catalog number	KH-99360-40	KH-99360-42	KH-99360-44	KH-99360-50	KH-99360-52	KH-99360-54
Description	IQ340 meter only	IQ340 meter with electrode	IQ340 meter kit	IQ350 meter only	IQ350 meter with electrode	IQ350 meter kit
Range	Conductivity	0.00 μ S to 199.9 mS (autoranging)		0.00 μ S to 199.9 mS (autoranging)		0.00 ppm to 200 ppt (autoranging)
	TDS	—		—		0 to 80 ppt
	Salinity	—		—		0 to 212°F (0 to 100°C)
	Temperature	0 to 212°F (0 to 100°C)		0 to 212°F (0 to 100°C)		—
Resolution	Conductivity	0.01 μ S to 0.1 mS		0.01 μ S to 0.1 mS		0.01 ppm to 1 ppt
	TDS	—		—		0.1 ppt
	Salinity	—		—		0.1°F (°C)
	Temperature	0.1°F (°C)		0.1°F (°C)		—
Accuracy	Conductivity	\pm 1% full-scale or \pm 1 digit		\pm 1% full-scale or \pm 1 digit		\pm 1% full-scale or \pm 1 digit
	TDS	—		—		\pm 0.1 ppt
	Salinity	—		—		\pm 0.5°C
	Temperature	\pm 0.5°C		\pm 0.5°C		—
Temperature compensation	Manual or automatic from 0 to 100°C			Manual or automatic from 0 to 100°C		
Temperature coefficient	Selectable, from 0.4 to 10% per °C			Selectable, from 0.4 to 10% per °C		
Power/Battery life	Four AA batteries (included) / 200 hours continuous			Four AA batteries (included) / 200 hours continuous		
Housing	NEMA 4X (IP67) waterproof, chemical resistant, floating			NEMA 4X (IP67) waterproof, chemical resistant, floating		
Dimensions	3½"W x 8"H x 2"D			3½"W x 8"H x 2"D		
Price						

Accessories

KH-99360-32 Rubber holster

KH-99360-38 Conductivity calibration solutions.

Includes 50 mL each of 100 μ S, 1000 μ S, 10,000 μ S, and 53 mS (35 ppt)

KH-99360-39 Carrying case and calibration kit

Four-Electrode Conductivity Cells, 30 K Ω thermistor, 3-ft cable

Catalog number	Cell constant (K)	Body material	Electrode material	Price
KH-99360-27	0.3	Ultem	Stainless steel	
KH-99360-29	0.5	Epoxy	Graphite	
KH-99360-30	1	Epoxy	Platinum	

"Cardy" Twin Conductivity/Salinity Meter

Easily measure samples as small as 100 μ L!

- Measures conductivity and features salinity conversion from 0 to 1.1%
- Functions include one-touch calibration, auto-hold, low-battery indication, and auto shut-off (after 60 minutes of nonuse)
- Temperature alarm alerts you when sample falls outside temperature range

Built-in sensor lets you measure by dipping the tip into the sample or by placing a sample directly on the sample pad. **Note:** Meter requires the included solutions for calibration (order replacement solution kit below).

Catalog number	KH-05751-10
Range	0 to 199 μ S; 0.20 to 1.99 mS; 2.0 to 19.9 mS
Resolution	1 μ S; 0.01 mS; 0.1 mS
Accuracy	\pm 2% full-scale, \pm 1 digit
Temperature compensation	Automatic from 5 to 35°C; 2% per °C at 25°C
Power	Two CR-2032 3 V batteries (included)
Battery life	500 hours continuous
Display	2½-digit LCD
Dimensions	5½"L x 1½"W x 5/8"H
Price	



Accessories

KH-05751-52 Replacement sensor cartridge

KH-05751-70 Replacement solution kit includes four bottles of DI water and four bottles of calibration solutions (1410 μ S)

KH-09376-17 Replacement batteries;
CR-2032 lithium, 3 V. Pack of 6

Co Conductivity

Waterproof Handheld Meters

Waterproof Multiparameter Meters

Large LCD shows temperature and conductivity, pH, or mV simultaneously

- Self diagnostic function ensures reliable measurements
- Nonvolatile memory stores all calibration data and up to 300 measurements
- Download measurements with optional RS-232 cable

Waterproof meters feature IP67-rated housing for care-free operation in the field or in the lab. Download data using RS-232 capability—order cable 19600-65 separately below. Order digital conductivity simulator 19600-30 to calibrate your meter without having to use liquid standards.

Select D-54 meter to measure pH, temperature, ORP, and conductivity. Select ES-51 meter to measure conductivity, resistivity, and salinity.

What's included: D-54 includes meter, soft-side case with strap, and batteries. Order electrodes separately below. ES-51 includes meter, conductivity electrode (99591-96), soft-side case with strap, and batteries.

Specifications & Ordering Information

ISO9001:2000
CERTIFIED SUPPLIER

3 year
warranty
Meter only

Catalog number	KH-19600-20		KH-19600-05	
Description	D-54 Multiparameter		ES-51 Conductivity	
Range	Conductivity	K = 0.1, 0.0 μ S to 19.99 mS; K = 1.0, 0.00 mS to 199.9 mS; K = 10, 0.00 mS to 1999 mS		0.00 to 4.00%
	Salinity	—		K = 0.1, 500 to 19.99 k Ω ; K = 1.0, 50 to 1.999 k Ω ; K = 10, 5 to 0.1999 k Ω
	Resistivity	—		—
	pH	0.00 to 14.00		—
	ORP	-1999 to 1999 mV		—
Resolution	Conductivity	0.05% full scale		0.05% full-scale
	Salinity	—		0.01%
	Resistivity	—		\pm 0.5% full-scale
	pH	0.01		—
	ORP	1 mV		—
Accuracy	Conductivity	\pm 0.5% full-scale, \pm 1 digit		\pm 0.5% full-scale, \pm 1 digit
	Salinity	—		\pm 0.5% full-scale, \pm 1 digit
	Resistivity	—		\pm 0.5% full-scale, \pm 1 digit
	pH	\pm 0.01 \pm 1 digit		—
	ORP	\pm 1 mV \pm 1 digit		—
Temperature compensation	Automatic (range depends on conductivity cell used; see table below)		\pm 0.1°C \pm 1 digit	
Output	RS-232		RS-232	
Data storage	300 data sets		300 data sets	
Power	One 9 V battery (included)		One 9 V battery (included)	
Display	Dual 3½-digit LCD		Dual 3½-digit LCD	
Housing	IP67		IP67	
Dimensions	3"W x 7"H x 2¼"D		3"W x 7"H x 2¼"D	
Price				



D-54 multiparameter meter 19600-20
(conductivity cell sold separately).



ES-51 conductivity meter
19600-05



Digital conductivity
simulator 19600-30

Conductivity Cells

Catalog number	Description	Cell constant (K)	Temperature range	Minimum sample	Usable area (L x dia)	Fits tubing size (ID)	Price
KH-99591-96	Plastic dip cell	1	0 to 80°C	30 mL	86 mm x 16 mm	—	
KH-19600-60	Glass dip cell	0.1	0 to 60°C	70 mL	111 mm x 23 mm	—	
KH-19600-61	Glass dip cell	1	0 to 100°C	15 mL	86 mm x 12 mm	—	
KH-19600-62	Glass dip cell	10	0 to 60°C	70 mL	111 mm x 28 mm	—	
KH-19600-70	Flow-thorough cell	0.1	0 to 60°C	10 mL	79 mm x 18 mm	8 mm (5/16")	
KH-19600-71	Flow-thorough cell	1	0 to 60°C	16 mL	141 mm x 18 mm	8 mm (5/16")	
KH-19600-72*	Flow-thorough cell	10	0 to 60°C*	4 mL	158 mm x 18 mm	8 mm (5/16")	
KH-19600-82*	Micro-flow cell	10	0 to 60°C*	0.25 mL	66 mm x 12 mm	3 mm (1/8")	

*Temperature compensation not provided with these cells

Accessories

[KH-19600-30](#) Digital conductivity simulator

[KH-99591-70](#) RS-232 serial cable and software

[KH-99591-54](#) pH electrode, 3-in-1 with plastic body

[KH-99591-53](#) ORP electrode

[KH-09376-01](#) Replacement batteries, AA. Pack of four

Hach® Waterproof Conductivity/TDS/Salinity Meter

Housed in a chemical-resistant, dustproof, and waterproof case, this meter is ready for your most demanding applications

- Ultra-fast response—get your result within seconds
- IP67-rated housing—waterproof, rugged, and it floats!
- Large backlit LCD with anti-glare coating

Four-band conductivity cell (included) covers the entire measuring range of the meter—reduces the effects of polarization. Stores up to 99 data points; download data to a printer or computer via the docking station 59005-50 (order separately below).

What's included: sensION™ four-band conductivity cell (19604-50), beakers, and batteries.



Cole-Parmer Conductivity Meters

Submersible cell and cable

Meters display conductivity from 0 to 20,000 $\mu\text{S}/\text{cm}$ in five ranges. Break-resistant nickel dip cell with six-foot cable (included) features an internal thermistor for automatic temperature compensation. Choose from benchtop or field models; both are available with your choice of analog or digital readout.

Analog field meter 01500-20 is built into carrying case. Digital field meter 01500-32 lifts out of carrying case for easy use. Meters accept optional power adapters (sold separately below) for 115 or 220 VAC line power (adapters include 6-ft cord with plug).

What's included: three standardizing solutions, deionized water, and batteries. Field models also come with a high-impact, water-resistant carrying case.



Digital field meter 01500-32

Analog benchtop meter 01500-05

Specifications & Ordering Information

ISO9001:2000
CERTIFIED SUPPLIER



Catalog number		KH-19604-00
Description		sensION™ 5
Range	Conductivity	0 to 199.9 μS , 200 to 19,999 μS , 2 to 19.99 mS, 20 to 199.9 mS
	TDS	0 to 50,000 mg/L
	Salinity	0 to 43 g/L
	Temperature	-10 to 110 °C
Resolution	Conductivity	0.1 μS , 1 μS , 0.01 mS, 0.1 mS
	TDS	3 significant digits
	Salinity	0.1 g/L
	Temperature	$\pm 0.1^\circ\text{C}$
Accuracy	Conductivity	$\pm 0.5\%$ FS (first three ranges), $\pm 1\%$ FS (upper range)
	TDS	$\pm 0.5\%$ FS
	Salinity	± 0.1 ppt (within applicable temperature range)
	Temperature	$\pm 0.5^\circ\text{C}$
Temperature compensation	Automatic	
Output	One-way RS-232	
Power	Four AA batteries (included); 110 VAC with docking station 59005-50; 220 VAC with docking station 59005-55	
Display	Custom LCD	
Dimensions	3 ¹ / ₁₆ "W x 8 ¹ / ₂ "H x 1 ¹ / ₂ "D	
Price		

Accessories

KH-59005-50 Docking station for RS-232 connection. Converts meter to AC power for 110 VAC operation

KH-59005-55 Docking station for RS-232 connection. Converts meter to AC power for 220 VAC operation

KH-19604-50 Replacement cell, K = 0.45

KH-09376-01 Replacement batteries, AA. Pack of four

Specifications & Ordering Information



Catalog number		KH-01500-05	KH-01500-15	KH-01500-20	KH-01500-32
Range	Conductivity	0 to 20 μS			
	Temperature	0 to 50°C	0 to 100°C	0 to 50°C	0 to 100°C
Resolution	Conductivity	2% full-scale	1% full-scale	1% full-scale	0.1% full-scale
	Temperature	0.1°C			
Accuracy	Conductivity	$\pm 2\%$ full scale			
	Temperature	$\pm 1.0^\circ\text{C}$			
Temperature compensation	Automatic (with cell) from 0 to 50°C				
Power	Four AA batteries; 115 or 220 VAC with respective optional power adapters		Eight AA batteries	Factory-installed rechargeable batteries	
Display	6" analog	3 ¹ / ₂ -digit LCD	6" analog	3 ¹ / ₂ -digit LCD	
Battery life	200 hours				
Dimensions	6"W x 5"H x 4"D			12"W x 4"H x 8"D	
Price					

KH-01500-50 Adapter, 110 VAC.

For models 01500-05 and -15

KH-01500-55 Adapter, 220 VAC.

For models 01500-05, -15, and -32

KH-01500-60 Replacement nickel cell for all meters

KH-09376-01 Replacement batteries; AA.

For models 01500-05, -15, and -20. Pack of four

GO to page(s) 296

Order calibration solutions for your conductivity meters from page 296.

GO to ColeParmer.com

ColeParmer.com/Conductivity

Our Parametric Search helps you find the ideal selection FAST!



Co Conductivity

Waterproof Handheld Meters

CON TDS SAL DO °C

Required System Components

- 1 Meter
- 2 Probe(s)
- 3 Cable(s)

New



Pro2030
DO/conductivity/
temperature meter
59352-14



YSI Professional Series DO/Conductivity Meters

Modular meters allow configuration to your specific application

- Combine meter, probes, and cable lengths to meet your needs
- Handheld design offers menu-driven software for added convenience
- Backlit graphic display and keypad

The YSI® Professional series provides plug-and-play capabilities to give you a meter with as much functionality as needed. Build your own system by ordering the meter, probe(s), and cable(s) you need without having to purchase additional meters or unnecessary accessories.

Easy-to-use meters feature graphic display with detailed messages and instructions that translate to less time reading manuals. Display and keypad are backlit, making them ideal for low-light situations. Rugged rubber over-molded case protects meters during use. Meters are IP67 waterproof-rated, even without the battery lid.

The DO meters accept either classic polarographic or "instant-on" galvanic DO sensors with screw-on membrane caps for ease of maintenance. These meters also feature selectable two-point DO calibration and automatic barometric compensation for greater accuracy.

Conductivity meters feature automatic salinity compensation. Conductivity measurements are performed with a four-electrode conductivity cell for accurate measurements over the entire range.

1 Specifications & Ordering Information for YSI Professional Series Meters

ISO9001:2000
CERTIFIED SUPPLIER

3 year
warranty
Meter only

Catalog number	KH-59352-04		KH-59352-06		KH-59352-14	
Description	Pro20		Pro30		Pro2030	
Parameters	Single parameter; DO/temperature		Single parameter; Conductivity/temperature		Dual parameter; DO/conductivity/temperature	
Range	Dissolved oxygen	0 to 50 mg/L	—		0 to 50 mg/L	
	Barometer	Automatic, 375 to 825 mm Hg	—		Automatic, 375 to 825 mm Hg	
	Conductivity	—	0 to 200 mS		0 to 200 mS	
	TDS	—	0 to 100 g/L		0 to 100 g/L	
	Salinity	—	0 to 70 ppt		0 to 70 ppt	
Resolution	Temperature	-5 to 100°C	-5 to 100°C		-5 to 100°C	
	Dissolved oxygen	0.1 or 0.01 mg/L (selectable)	—		0.1 or 0.01 mg/L (selectable)	
	Barometer	0.1 mm Hg	—		0.1 mm Hg	
	Conductivity	—	0.001 to 0.1 mS (range dependent)		0.001 to 0.1 mS (range dependent)	
	TDS	—	4 digits		4 digits	
Accuracy	Salinity	—	0.01 ppt		0.01 ppt	
	Temperature	0.01°C	0.01°C		0.01°C	
	Dissolved oxygen	±2% of reading or ±0.2 mg/L, whichever is greater (±6% of reading above 20 mg/L)	—		±2% of reading or ±0.2 mg/L, whichever is greater (±6% of reading above 20 mg/L)	
	Barometer	±3 mm Hg within ±15°C from calibration point	—		±3 mm Hg within ±15°C from calibration point	
	Conductivity	—	±0.5% of reading or ±0.001 mS		±0.5% of reading or ±0.001 mS	
Temperature compensation	Automatic, -5 to 100°C (-5 to 45°C for DO)					
Display	Four-line backlit, graphic LCD					
Power	Two 1.5 V C alkaline batteries (included)					
Dimensions	3¼"W x 8½"H x 2¼"D					
Price	-					

2 Probes for YSI Professional Series Meters*

Cat. no.	Description	Price
KH-59352-32	Galvanic dissolved oxygen	
KH-59352-34	Polarographic dissolved oxygen	

*Conductivity probe is included with cables for Pro30 and Pro2030 meters.

KH-99852-80 DO membrane kit;
fast response polyethylene, 1.25 mil.
Pack of 6 cups

KH-05519-61 DO membrane kit;
Teflon®, 1.0 mil. Pack of 6 cups

3 Cables for YSI Professional Series Meters

All cables include a temperature probe. Cables for Pro30 and Pro2030 meters also include a conductivity probe.

Compatible with meter	Pro20 (DO/temperature) [†]		Pro30 (Conductivity/temperature)		Pro2030 (DO/conductivity/temperature)	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
Cable length						
4 m	KH-59352-44		KH-59352-52		KH-59352-80	
10 m	KH-59352-46		KH-59352-54		KH-59352-82	
20 m	KH-59352-48		KH-59352-56		KH-59352-84	
30 m	KH-59352-50		KH-59352-58		KH-59352-86	

[†]DO/temperature cables up to 100 meters can be special ordered; contact an Application Specialist for details.



Model 3100 and Model 3200 Benchtop Conductivity Meters

YSI Model 3100 (19755-00 and -20)

CON TDS RES SAL °C

Meter measures temperature, salinity, and conductivity. It runs a self-diagnostic test sequence every time you turn it on to ensure smooth operation. The instrument uses forced-current measurement technology, and other features include direct-reading digital display adjustable temperature coefficient, reference temperature, and automatic temperature compensation. Order conductivity cell separately below.

YSI Model 3200 (19755-10 and -30)

CON TDS RES SAL °C

Meter measures temperature, salinity, TDS, conductivity, and resistance and exceeds USP 24 specifications. Resistance ratio technology (RRT) compares the resistance of the sample to a calibrated resistor within the meter for unmatched accuracy. Store up to 100 points; RS-232 interface for data access. The microprocessor-based instrument offers linear and non-linear temperature compensation options—great for ultrapure water analysis. High and low alarms can be programmed for process applications. Order conductivity cell separately below.



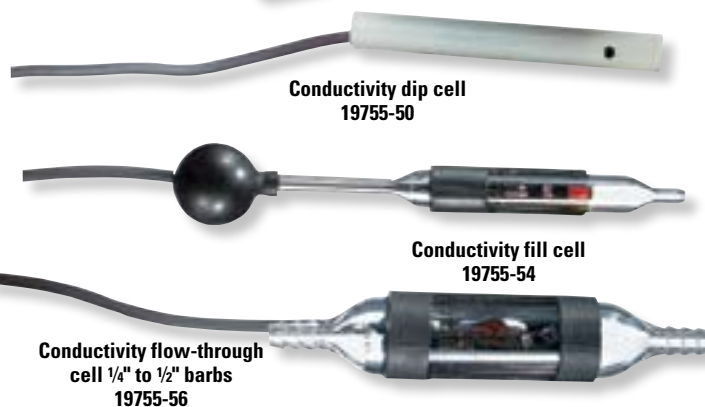
19755-10

Specs & Ordering Information

ISO9001:2000 CERTIFIED SUPPLIER



Catalog number	KH-19755-00	KH-19755-20	KH-19755-10	KH-19755-30
Description	YSI model 3100		YSI model 3200	
Range	Conductivity	0 to 499.9, 0 to 4999 μ S; 0 to 49.99, 0 to 499.9 mS	0 to 0.9999, 0.95 to 9.999, 9.5 to 99.99, 95 to 999.9, 950 to 9999 μ S; 9.5 to 99.99, 95 to 999.9 mS	0 to 0.9999, 0.95 to 9.999, 9.5 to 99.99, 95 to 999.9 mS 0.95 to 3 S
	TDS	—	0 to 19,999 mg/L	—
	Salinity	0 to 80 ppt	0 to 80 ppt	—
	Resistivity	—	0 to 29.9 M Ω (5 ranges)	—
	Temperature	5 to 95°C	—5 to 100°C	—
Resolution	Conductivity	1.0, 0.1 μ S 0.01, 1.0 mS	0.0001, 0.001 μ S 0.01, 0.1, 1.0 μ S 0.01, 0.1 μ S, 0.01 S	—
	TDS	—	1 mg/L	—
	Salinity	0.1 ppt	0.1 ppt	—
	Resistivity	—	0.0001 μ S to 0.01 S	—
	Temperature	0.1°C	0.01°C	—
Accuracy	Conductivity	\pm 0.50%	\pm 0.30%, \pm 0.20%, \pm 0.10%, \pm 0.10%, \pm 0.10%, \pm 0.10% \pm 0.30%, \pm 1.0%	—
	TDS	—	\pm 0.50% full-scale	—
	Salinity	\pm 2% full-scale	\pm 0.1 ppt	—
	Resistivity	—	\pm 0.2% to \pm 1.0% full-scale	—
	Temperature	\pm 0.1°C + 1 LSD	\pm 0.1°C	—
Temperature compensation	Automatic from -5.0 to 95.0°C		Automatic/manual from -5.0 to 100.0°C	
Output	—		RS-232	
Data storage	—		100 points	
Power	115 VAC	230 VAC	115 VAC	230 VAC
Dimensions	9"W x 4 1/2"H x 9 1/2"D			
Price				



Conductivity dip cell
19755-50

Conductivity fill cell
19755-54

Conductivity flow-through
cell 1/4" to 1/2" barbs
19755-56

GO to page(s) 296

For YSI conductivity standards.



Accessories

Conductivity Cells for models 3100/3200-series meters are available in three cell configurations: dip, fill, and flow-through. Use the dip cells for quick multiple measurements. Select the fill cells when solution purity is important—simply draw a fluid sample, take a reading, and discard the sample. Pick the flow-through cells for in-line applications. All cells have a built-in thermistor for automatic temperature compensation, a seven-pin DIN connector, and a 4-ft cable.

Catalog number	Type	Cell constant (K)	Material	Price
KH-19755-50	Dip	1.0	ABS plastic	
KH-19755-52	Dip		Glass	
KH-19755-54	Fill		Glass	
KH-19755-56	Flow-through	0.1	Glass	
KH-19755-58	Dip			

Platinizing Station and Solution

Replatinize your electrodes in less than five minutes! Attach the conductivity cell to the output jacks and insert the cell into the platinizing solution (order separately below). Adjust the current control until gas bubbles begin to form at one of the electrodes. Reverse the polarity every 30 seconds and your conductivity cell will be replatinized within minutes. Replatinize any cell with spade lug or stripped wire ends.

Sturdy plastic housing protects components. Platinizing station is powered by three D batteries (included) for portability. Order platinizing solution below.

Catalog number	Description	Price
KH-01482-59	Platinizing station	
KH-01486-20	Platinizing solution, 2-oz bottle. Contains enough solution for approximately 25 applications	

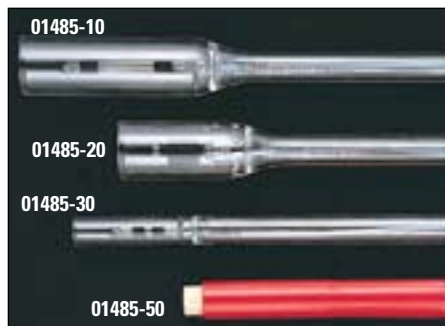
[KH-09376-03](#) Replacement batteries, size D. Pack of four

Co Conductivity

YSI Accessories / Portable Meters

Accessories for all Conductivity Meters

Dip-Style Conductivity Cells



Choose either Pyrex® glass or rugged ABS plastic cells. All are calibrated to within 1% of cell constant. Use glass microcell with fluid volumes as small as 3-mL, or plastic cells with volumes as small as 1-mL. Each cell has platinized platinum-iridium electrodes, except conductivity cell 01485-50 which has platinized nickel electrodes. Maximum OD for glass cells is 1". Maximum OD for glass microcell and plastic cells is ½". Leads are 48" long with spade lug connectors. Requires cell adapter 19755-70 sold at right for use with models 3100 or 3200 meters on facing page.

Catalog number	Cell type	Cell constant (K)	Price
KH-01485-10	Glass	1.0	
KH-01485-20	Glass	0.1	
KH-01485-30	Glass microcell	1.0	
KH-01485-40	Plastic	1.0	
KH-01485-50	Plastic	0.1	

Flow-Through Conductivity Cells



Continuously measure the conductivity of solutions at flow rates up to 7 GPM with these cells. Tapered, serrated ends fit ¼" to ⅜" ID flexible tubing. Convert both models into fill cells by blocking off one port. Each cell features a Pyrex glass chamber and stem and platinum-iridium electrodes. Leads are 48" long with spade lug connectors. Max temperature is 212°F (100°C); max pressure is 50 psi. Require conductivity cell adapter 19755-70 sold below for use with models 3100 or 3200 meters on facing page.

Catalog number	KH-01482-50	KH-01482-52
Cell constant (K)	1.0	0.1
For solutions	>20 µS	<20 µS
Working volume	15 mL	30 mL
Overall length	5¾"	5¾"
Maximum OD	¾"	1"
Price		

Conductivity Cell Adapter

Required for any conductivity cell listed on this page with YSI meters models 3100 and 3200 shown on the facing page.

Catalog number	Description	Price
KH-19755-70	Conductivity cell adapter	

YSI Calibration Set



Calibrate your conductivity meter for more accurate AC conductance and AC or DC resistance measurements. Seven precision calibrators with banana plugs make calibrations convenient and quick.

To calibrate your meter, select a calibrator that gives a mid- or full-scale reading on your meter (see table below) and connect it to your meter where the conductivity cell normally connects. Set includes NIST certificate of traceability. Calibration set requires conductivity cell adapter 19755-70 sold at left.

Cat. no.	Description	Price
KH-01482-60	Calibration set includes seven calibrators	

EcoSense EC300 Conductivity Meters

Accurate and economical handheld meter with four-electrode conductivity cell

- Water- and splash-resistant IP65 housing
- Automatic temperature compensation
- Measures conductivity, salinity, TDS, or specific conductance with temperature

The EC300 features easy-to-use interface, one-hand operation, and water-resistant case with rugged, weighted probes that can be ordered with 4- or 10-meter cable.

The rugged, four-electrode conductivity cell provides stable measurements from 0 to 200 mS with auto-ranging function that eliminates the need for multiple conductivity cell constants. Audio feedback indicates keypad entry, and nonvolatile memory retains calibrations.

What's included: 4-electrode cell, 9 V battery, and case.



INNOCAL®
INNOVATIVE CALIBRATION SOLUTIONS

KH-17090-30 NIST-traceable calibration certificate for conductivity meter

Specs & Ordering Information

ISO9001:2000
CERTIFIED SUPPLIER



1 year warranty

Catalog number	KH-19750-20	KH-19750-22
Description	EC300 with 4-m cable	EC300 with 10-m cable
Range	Conductivity	0 to 499.9, 0 to 4999 µS; 0 to 49.99, 0 to 200.0 mS
	Salinity	0.0 to 70.0 ppt
	Temperature	10 to 90°C
Resolution	Conductivity	0.1, 1 µS; 0.01, 0.1 mS
	Salinity	0.1 ppt
	Temperature	0.1°C
Accuracy	Conductivity	±(1% of reading + 2 mS), ±(1% of reading + 5 mS), ±(1% of reading + 0.05 mS), ±(2.5% of reading + 0.5 mS)
	Salinity	±0.2% full-scale
	Temperature	± 0.2°C or ±0.4%, whichever is greater
Temperature compensation	Automatic, 10K thermistor	
Temperature coefficient	0.0 to 4.0%	
Conductivity to TDS factor	Adjustable, 0.30 to 1.00	
Power	One 9 V battery (included)	
Battery life	Approximately 150 hours	
Display	Dual line, LCD	
Housing	IP65	
Dimensions	2½" W x 7½" H x 1.5" D	
Price		

[KH-09376-04](#) Replacement batteries, 9 V. Pack of 4

OAKION® CON 510 Benchtop Conductivity Meter

CON TDS °C/°F

An affordable way to take consistent, accurate conductivity measurements in your laboratory!

- Memory stores up to 50 readings for future retrieval
- Calibrate at up to five conductivity points (one per range)
- Reads 0 to 199.9 mS across five ranges—autorangeing feature gives the best resolution for your measurements



35611-00

Meter features adjustable temperature coefficient for better accuracy, and selectable cell constant for very high or low range measurements. Selectable manual or automatic temperature compensation gives greater precision. Water-resistant membrane keypad and convenient pullout reference guide provide useful features for the lab. Dual display shows conductivity and temperature and has a "ready" indicator and HOLD function.

What's included: conductivity/temperature probe 35608-50 (K = 1.0), built-in electrode stand, and 100 to 240 VAC power adapter.

Specifications & Ordering Info

ISO9001:2000
SUPPLIER CERTIFIEDCE 3 year
warranty
Meter only

Catalog number		KH-35611-00
Range	Conductivity	0.0 to 199.9, 0 to 199.9, 0 to 1999 µS; 0 to 19.99, 0 to 199.9 mS
	TDS	0.00 to 9.99, 10.0 to 99.9, 100 to 999 ppm; 1.00 to 9.99, 10.0 to 99.9, 100 to 200 ppt
	Temperature	-10 to 80°C (32 to 176°F), -10 to 100°C (32 to 212°F)*
Resolution	Conductivity	0.01, 0.1, 1µS; 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01, 0.1, 1 ppt
	Temperature	0.1°C (0.1°F)
Accuracy	Conductivity	±1% full-scale
	TDS	±1% full-scale
	Temperature	±0.5°C (±0.9°F)
Calibration	Up to 5 points (one point per range)	
Temperature compensation	Automatic or manual from 0 to 80°C	
Temperature coefficient	Adjustable from 0.0 to 10% per °C	
Cell constant	Select from K = 0.1, 1.0, or 10	
Display	Dual LCD shows measurement plus temperature	
Power	100 to 240 VAC, 50/60 Hz	
Dimensions	9"W x 2 3/8"H x 7"D	
Price		

*Temp range is 0 to 80°C with an epoxy body cell and 0 to 100°C with a glass body cell.

Conductivity Cells for CON 510 Benchtop Meter

CON 510 benchtop meter includes probe 35608-50. When measuring in the 0 to 19.99 µS range, use a cell with a constant of 0.1; when measuring in the 0 to 199.9 mS range, use a cell with a constant of 10.0. For all other ranges, use a cell with a constant of 1.0. All cells have built-in ATC element and 2 1/2-ft cable.

Catalog number	Cell constant (K)	Body/electrode	Price
KH-35608-55	0.1	Epoxy/platinum	
KH-35608-50	1.0	Utem®/Stainless steel	
KH-35608-52	1.0	Glass/platinum	
KH-35608-51	10	Epoxy/platinum	

Accessories

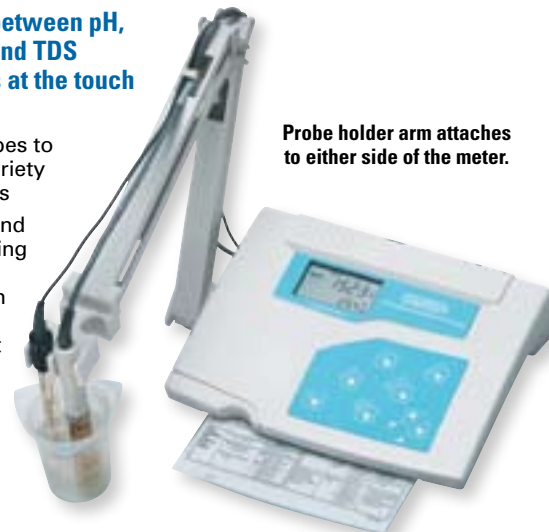
[KH-17090-30](#) NIST-traceable calibration certificate for conductivity meters

OAKION® Benchtop pH/Conductivity/TDS 510 Meter

CON TDS pH °C/°F

Easily toggle between pH, conductivity, and TDS measurements at the touch of a button!

- Separate probes to suit a wide variety of applications
- Conductivity and TDS autorangeing chooses the best resolution for each measurement



35610-10

Probe holder arm attaches to either side of the meter.

Oakton pH/Conductivity/TDS 510 meter features pH auto-buffer recognition, selectable °F/°C, HOLD, and water-resistant membrane keypad. Previous calibration points, electrode slope and offset, and conductivity/TDS cell constants are stored in memory for quick and easy retrieval.

What's included: a double-junction pH electrode with BNC connector, conductivity/TDS/temperature probe, electrode holder arm, and 100/240 VAC power adapter.

Specifications & Ordering Info

ISO9001:2000
SUPPLIER CERTIFIEDCE 3 year
warranty
Meter only

Catalog number		KH-35610-10
Range	pH	-2.00 to 16.00 pH
	Conductivity	0.0 to 199.9, 0 to 199.9, 0 to 1999 µS; 0 to 19.99, 0 to 199.9 mS
	TDS	0.00 to 9.99, 10.0 to 99.9, 100 to 999 ppm; 1.00 to 9.99, 10.0 to 99.9, 100 to 200 ppt
	Temperature	0 to 100°C (32 to 212°F)
Resolution	pH	0.01
	Conductivity	0.01, 0.1, 1 µS; 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01, 0.1, 1 ppt
	Temperature	0.1°C or °F
Accuracy	pH	±0.01
	Conductivity	±1% full-scale + 1 digit
	TDS	±1% full-scale + 1 digit
	Temperature	±0.5°C or °F
Calibration	pH	Up to 5 points (pH 1.68, 4.01, 7.00, 10.01 and 12.45)
	Conductivity/TDS	Up to 5 points (one point per range)
	Temperature	Offset in 0.1°C or °F increments
Temperature compensation	Automatic or manual from 0 to 100°C	
Conductivity temperature coefficient	Adjustable from 0.0 to 10% per °C	
Cell constant	Fixed at K = 1.0	
Conductivity-to-TDS factor	Adjustable from 0.4 to 1.0	
Display	Dual LCD shows measurement plus temperature	
Power	110/220 VAC	
Dimensions	9"W x 2 3/8"H x 7"D	
Price		

Accessories

[KH-59001-70](#) Replacement combination pH electrode; double-junction, gel-filled. Epoxy body, BNC connector
[KH-35608-50](#) Replacement conductivity cell, epoxy/stainless steel with built-in temperature sensor
[KH-35618-05](#) Temperature probe, 304 SS

Co Conductivity

Benchtop Meters

accumet® Benchtop Conductivity Meters

Measure conductivity, resistivity, salinity or TDS, and temperature

- Uses 2- or 4-cell conductivity probes
- Customizable features—adapt for specific applications



A
19551-10
AB30 Conductivity meter

A Basic Meter measures conductivity, resistivity, and TDS. One-button calibration simplifies calibration processes for more accurate measurements. LCD continuously shows the measured value, temperature, and current calibration standard in use.

Meter accepts 2- or 4-cell conductivity probes with constants of $K = 0.1, 1.0,$ and $10.$ Order meter only or as a convenient kit. Order conductivity cells separately below right. Choose probes with built-in ATC or order ATC probe 94000-62 and nontemperature compensated cells.

Specifications & Ordering Info

ISO9001:2000
SUPPLIER CERTIFIED

CE 3 year
warranty
Meter only

Catalog number		KH-19551-10	KH-19551-20	KH-19551-30
Description		AB 30 meter	XL 30 meter only	XL 30 meter kit
Range	Conductivity	0 to 3 x 105 μ S	0 to 5 x 105 μ S	
	TDS	0 to 1.8 x 105 ppm	—	
	Salinity	—	0 to 42 ppt	
	Resistivity	30 Ω to 100 M Ω	5 Ω to 100 M Ω	
	Temperature	-5 to 105°C (20 to 221°F)	-10 to 110°C (14 to 230°F)	
Resolution	Conductivity	1, 2, or 3 significant digits		
	TDS	1, 2, or 3 significant digits		
	Salinity	—	1, 2, or 3 significant digits	
	Resistivity	1, 2 or 3 significant digits		
	Temperature	$\pm 0.3^\circ$ C	$\pm 0.2^\circ$ C	
Accuracy	Conductivity	$\pm 0.5\%$ full-scale ± 1 LSD		
	TDS	$\pm 0.5\%$ of reading ± 1 LSD		
	Salinity	—	$\pm 0.5\%$ of reading ± 1 LSD	
	Resistivity	$\pm 0.5\%$ of reading ± 1 LSD		
	Temperature	$\pm 0.1^\circ$ C		
Temperature compensation		Automatic or manual from 0 to 100°C		
Temperature coefficient		0.000 to 10.000		
Output		—	USB, Ethernet, and RS-232	
Data storage		100 data sets	250 data sets	
Power		110/220 VAC 50/60 Hz		
Display		3"L x 4¼"H LCD	4½"L x 6"H full-color touch screen	
Housing		Splash-resistant plastic		
Dimensions		7½"L x 5½"W x 3¼"H	9¼"L x 6½"W x 3½"H	
Price				

CON TDS RES SAL °C/F



B
XL30 Meter
19551-20

B Advanced XL 30 Meter measures conductivity, resistivity, salinity, and temperature. Features a 4½"L x 6"H, scratch-resistant, color LCD touchscreen with ¾"H characters. Displays current measured value, stability indicator, standards in use with time/date stamp, temperature, and more.

Windows CE.net based operating system with on-screen operational prompts, recognizable icons, and context specific help screens make this meter easy to set up and use. Selectable temperature coefficients, display units, resolution, screen configurations, buffer sets, and print configurations provide flexibility for a variety of applications.

Meter accepts 2- or 4-cell conductivity probes with constants of $K = 0.1, 1.0,$ and $10.$ Order the convenient meter kit that includes an ATC cell ($K = 1.0$), or meter only with your choice of probes listed below. Choose from probes with built-in ATC or order ATC probe 94000-62 and non-temperature compensated cells.

AB30 Meter includes: ATC probe (94000-62), electrode support arm and bracket, and 110/220 VAC, 50/60 Hz power supplies.

XL 30 Meter includes: electrode support arm and bracket, and 110/220 VAC, 50/60 Hz power supplies.

XL 30 Meter kit includes: two-cell conductivity probe ($K = 1.0$) with built-in ATC probe (19550-64), electrode support arm and bracket, and 110/220 VAC, 50/60 Hz power supplies.

Conductivity Cells for accumet meters

Catalog number	Use with meter		Cell constant (K)	Electrode type	Temperature compensation	Body	Price
	AB30	XL30					
KH-19550-51	Yes	No	0.1	2 cell	No	Glass	
KH-19550-61	Yes	No			No	Epoxy	
KH-19550-63	No	Yes			Yes	Epoxy	
KH-19550-50	Yes	No	1	2 cell	No	Glass	
KH-19550-60	Yes	No			No	Epoxy	
KH-19550-64	No	Yes			Yes	Epoxy	
KH-19550-52	Yes	No	10	2 cell	No	Glass	
KH-19550-62	Yes	No			No	Epoxy	
KH-19550-65	No	Yes			Yes	Epoxy	
KH-19550-70	Yes	Yes	1	4 cell	Yes	Glass	
KH-19550-72	Yes	Yes					
KH-19550-71	Yes	Yes					
KH-19550-73	Yes	Yes	10	4 cell	Yes	Glass	Epoxy

Accessories

[KH-94000-62](#) Replacement ATC probe

Conductivity Meter Kit

Meters use either 2- or 4-electrode conductivity cells

CON TDS RES SAL °C

- Built-in real-time clock
- Features Good Laboratory Practice (GLP) supporting functions of calibration protocol and evaluation of measuring conditions
- Download data via RS-232 or analog output to computer or printer



USP 26 kits include a NIST-traceable resistor set for checking meter performance.



19707-31

Meters offer three temperature compensation modes—linear, nonlinear, or none. Temperature coefficient. Large LCD shows conductivity, temperature measurements, and sensor condition. Use with four-electrode cells for wider measuring ranges and higher resistance to errors. Order model 19707-33 to meet USP 27 testing requirements.

What's included: meter, conductivity cell with built-in temperature sensor and waterproof (IP68) plug, and plug-in universal power supply. Order RS-232 cable and software below. See page 283 for additional replacement conductivity cells. USP 27 kit includes an ultra-pure water flow-through cell with 0.1 cell constant, NIST-traceable standards and resistors, and a built-in printer.

Specifications & Ordering Info



Catalog number	KH-19707-31	KH-19707-33
Description	WTW inoLab 730 conductivity meter kit	WTW inoLab 730 conductivity meter USP 27 kit
Range	Conductivity	0.0 µS to 500 mS in five ranges
	TDS	0 to 1999 mg/L
	Salinity	0.0 to 70.0 ppt
	Resistivity	-2 Ω to 1999 MΩ
	Temperature	-5.0 to 99.9°C
Resolution	Conductivity	0.01, 0.1 µS; 1 mS
	TDS	1 mg/L
	Salinity	0.1 ppt
	Resistivity	2 Ω
	Temperature	0.1°C
Accuracy	Conductivity	±0.5% of value, ±1 digit
	TDS	±1 mg/L
	Salinity	±0.1 at 5 to 25°C, ±0.2 at 25 to 30°C
	Resistivity	±5% of value
	Temperature	±0.1°C
Temperature compensation	Non-linear, linear, none	
Temperature coefficient	Adjustable	
Output	Bidirectional RS-232 interface	
Data storage	200 readings	
Power	110 to 240 VAC; 50/60 Hz	
Display	Dual-line LCD	
Dimensions	11½"W x 2¾"H x 9½"D	
Price		

KH-53105-56 RS-232 interface cable and software, 5 ft

KH-19707-50 Replacement 4-electrode conductivity cell

Deluxe Conductivity/pH Meter

Meter measures seven different parameters!

- Ultrapure-water temperature compensation mode
- Five-point calibration
- Program meter to print data at user-defined intervals

Non-volatile memory retains calibration parameters and up to 100 data points with real-time date stamp. The meter supports Good Laboratory Practices (GLP) by displaying a calibration reminder at user-defined intervals. Bidirectional RS-232 allows data to be printed or sent to a computer.



CON TDS RES SAL pH ORP °C°F

What's included: conductivity cell (K = 1), pH probe, cell/probe holder, and 6-ft cord with plug for 115 VAC operation.



Specifications & Ordering Info

Catalog number	KH-19651-20	
Range	Conductivity	0 to 1.999 [†] , 0 to 19.99, 0 to 199.9 µS; 0 to 1.999, 0 to 19.99, 0 to 199.9 mS; 0 to 1.999, 0 to 19.99* S
	TDS	0 to 20, 0 to 200, 0 to 2000 mg/L, 0 to 20, 0 to 200, 0 to 2000 g/L,
	Salinity	0 to 99.9 ppt
	Resistivity	0 to 20 MΩ
	pH	-2 to 19.99 pH
	ORP	-1999.9 to 1999 mV
	Temperature	-10 to 105°C (14 to 221°F)
Resolution	Conductivity	0.001, 0.01, 0.1 µS; 0.001, 0.01, 0.1 mS; 0.001, 0.01 S
	TDS	0.01, 0.1, 1 mg/L; 0.01, 0.1, 1 g/L
	Salinity	0.1 ppt
	Resistivity	0.01 MΩ
	pH	0.1, 0.01, 0.001 pH
	ORP	0.1 mV
	Temperature	0.1°C (0.1°F)
Accuracy	Conductivity	±0.5% of reading, ±2 digits
	TDS	±0.5% of reading, ±2 digits
	Salinity	<35 ppt: ±1 ppt, >35 ppt: ±3 ppt
	Resistivity	—
	pH	±0.003 pH
ORP	±0.2 mV	
Temperature	±0.5°C (±1.0°F)	
Temperature compensation	Automatic from 0 to 212°F(0 to 100°C)	
Temperature coefficient	Adjustable from 0 to 4.0%/°C	
Output	1 mV/digit; bidirectional RS-232	
Data storage	100 data points	
Power	115 VAC, 50/60 Hz; or 230 VAC using optional adapter 19651-55	
Display	Graphical LCD	
Dimensions	10¾"W x 5¼"H x 9¾"D	
Price		

*Using K = 10 cell only †Using K = 0.1 cell only

Conductivity Cells; include a seven-pin DIN connector and 3-ft lead.

Catalog number	Cell constant (K)	Cell type	Material		Temperature range	Price
			Body	Electrode		
KH-19502-20	0.1	Dip style	Epoxy	Graphite	-5 to 80°C	
KH-19502-22	1					
KH-19502-24	10					
KH-19502-30	0.1	Dip style	Glass	2 Pt bands	-5 to 110°C	
KH-19502-32	1					
KH-19502-34	10					
KH-19502-42	1	Flow through	Glass	3 Pt bands	0 to 80°C	

KH-19651-55 Adapter, 230 VAC

KH-53020-52 Interface cable RS232

Co Conductivity

Calibration Solutions / Accessories

Cole-Parmer Traceable® Conductivity Solutions and Accessories

NIST-traceable calibration standards have the highest available accuracy of $\pm 0.25\%$

New

Traceable® Conductivity Calibration Standards

A Traceable to NIST standards. Each bottle is supplied with an NIST traceable certificate and information from batch testing. Also includes step-by-step calibration instructions and temperature-compensation chart. One 16-oz glass bottle.

B Traceable to NIST standards; from an ISO-17025 A2LA-accredited laboratory. Individually serial numbered and tested bottles are supplied with an A2LA NIST traceability certificate and information from individual bottle testing. Also includes step-by-step calibration instructions and temperature-compensation chart. One 16-oz glass bottle.

C One-Shot® vials; traceable to NIST standards. These convenient single-use vials eliminate contamination concerns and are ideal for the lab as well as the field. Calibration is performed in the large 3½"H x 1¼" dia, PE vial that accommodates virtually any conductivity probe. Supplied with an NIST traceable certificate and temperature-compensation chart. Pack of six vials, each containing 100 mL of conductivity solution.

Specifications & Ordering Info



Catalog number	Conductivity (µS)	Resistivity (MΩ)	TDS (ppm)	Price
A NIST certification; one 16-oz glass bottle				
KH-00652-20	1	1	0.66	
KH-00652-22	5	0.2	3.3	
KH-00652-24	10	0.1	6.6	
KH-00652-26	100	0.01	66	
KH-00652-28	1000	0.001	666	
KH-00652-30	1413	0.00071	933	
KH-00652-32	10,000	0.0001	6666	
KH-00652-34	100,000	0.00001	66,666	
B NIST/ISO 17025 A2LA certification; one 16-oz glass bottle				
KH-00652-40	1	1	0.66	
KH-00652-42	5	0.2	3.3	
KH-00652-44	10	0.1	6.6	
KH-00652-46	100	0.01	66	
KH-00652-48	1000	0.001	666	
KH-00652-50	1413	0.00071	933	
KH-00652-52	10,000	0.0001	6666	
KH-00652-54	100,000	0.00001	66,666	
C NIST certification; One-Shot® pack of six 100-mL vials				
KH-00652-60	5	0.2	3.3	
KH-00652-62	10	0.1	6.6	
KH-00652-64	100	0.01	66	
KH-00652-66	1000	0.001	666	
KH-00652-68	1413	0.00071	933	
KH-00652-70	10,000	0.0001	6666	
KH-00652-72	100,000	0.00001	66,666	
KH-00652-74	Assortment*	—	—	



A
00652-24

C
00652-62



*Assortment contains one 100-mL vial each of 10, 100, 1000, 1413, 10,000, and 100,000 µS.

Redi-Stor™ Conductivity Probe Storage Solution is ideal for storing and conditioning your conductivity probes. It preserves the probe's cleanliness, allows immediate use, and reduces contamination that can occur with storing probe in water only.

[KH-00652-80](#) Redi-Stor™ conductivity probe storage solution, 16-oz bottle

Conductivity/pH Probe Universal Flow-Through Adapter allows constant monitoring of flowing fluids with a ½" (12-mm) dip-style conductivity or pH electrode. Constructed of chemically inert PTFE with an overall size of 2¼"H x 1" dia; connectors accept tubing with a ¼" to ⅝" ID. Flow range: 0.001 to 50 mL/min. Temperature range: -73 to 260°C (-100 to 500°F). Cell volume: approx 2 to 4 mL, depending upon probe position.

[KH-00652-85](#) Conductivity/pH probe universal flow-through adapter

Conductivity Calibration Solutions

NIST-traceable standards to calibrate your conductivity or total dissolved solids (TDS) meter

All calibration solutions have a certificate of analysis available. Use solutions with 442™* concentration values (40% Na₂SO₄, 40% NaHCO₃, 20% NaCl) for most applications. Seawater or brackish water applications require solutions with NaCl concentration values. All values listed in tables are referenced to 25°C.



Note: Myron L solutions include Certificates of Analysis in package. Oakton® certificates available at www.coleparmer.com or call our Application Specialists for more information.

Specifications & Ordering Information



Catalog number	Conductivity (µS**)	Conductivity-to-TDS calibration values			Price
		ppm KCl	ppm NaCl	ppm 442	
Oakton® calibration solutions, 500 mL (17 oz); $\pm 0.5\%$ at 25°C					
KH-00653-23	23	11.6	10.7	14.74	
KH-00653-16	84	40.38	38.04	50.5	
KH-00653-47	447	226	215	300	
KH-00653-18	1413	745	702	1000	
KH-00653-15	1500	757	737	1050	
KH-00653-27	2070	1045	1041	1500	
KH-00653-20	2764	1382	1414	2062	
KH-00653-89	8974	5101	4487	7608	
KH-00606-10	12,880	7447	7230	11,367	
KH-00653-50	15,000	8759	8532	13,455	
KH-00653-32	80,000	52,168	48,384	79,688	
Myron L calibration solutions with NIST certificates, 32 oz; $\pm 1\%$ at 25°C					
KH-01489-90	23.8	—	11.08	15	
KH-01489-91	46.7	—	21.8	30	
KH-01489-92	70	—	32.8	45	
KH-01489-93	445	—	214	300	
KH-01489-94	700	—	340	478	
KH-01489-95	2060	—	1036	1500	
KH-01489-96	3900	—	2027	3000	
KH-01489-97	7000	—	3740	5687	
KH-01489-98	16,630	—	9462	15,000	
KH-01489-99	30,100	—	18,235	30,000	
YSI® calibration solutions, 32 oz; $\pm 0.5\%$ at 25°C					
KH-01482-54	1000	—	495	—	
KH-01482-56	10,000	—	5400	—	
KH-01482-58	100,000	—	—	—	

*Trademark of Myron L Company

**1 µS = 1 µmho

Conductivity Calibration Pouches

Single-use 20-mL pouches are sealed to ensure freshness—take these convenient buffer solutions anywhere! A µS-to-ppm conversion table is printed on each pack for quick reference. Accuracy is $\pm 1\%$ at 25°C.



35653-11

Catalog number	Conductivity µS	ppm KCL	ppm NaCl	ppm 442	Price/pk of 20
KH-35653-09	10	4.8	4.7	7.0	
KH-35653-10	447	226	216	300	
KH-35653-11	1413	745	702	1000	
KH-35653-12	2764	1382	1414	2062	
KH-35653-13	15,000	8759	8532	13,445	
KH-35653-00	Rinse solution	—	—	—	