



Cole-Parmer®

Electrochemistry & Water Analysis Products

Rely on Value & Quality of Oakton



OAKTON®

pH | Ion | Conductivity | Dissolved Oxygen

Value.

Features you want at an affordable price.

Quality.

Accurate, reliable results in a durable easy-to-use design

Selection.

Choose from meters that take you from the lab to the field, including handheld and benchtop models.

Cole-Parmer India

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pH 700 Meter

OUR MOST ECONOMICAL BENCHTOP METER-NOW WITH A SPACE-SAVING FOOTPRINT AND EASIER-TO-READ DISPLAY!

ISO9001:2000
CERTIFIED SUPPLIER



3 year
warranty
meter only



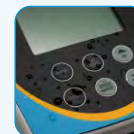
Electrode holder can be mounted to either side



Nonskid footpads



Shown with electrode holder.



Splashproof keypad



Quick-reference card

Low cost plus high performance – This meter offers laboratory-quality readings for a very economical cost

Compact design uses less benchspace – Meter is 40% smaller to fit into today's crowded laboratories

Oversized display – Dual display shows both pH (or mV) and temperature

Up to five-point pH calibration with auto buffer recognition – Calibrate at 1.68, 4.01, 7.00, 10.01, and 12.45 for high accuracy across the entire measuring range

Selectable buffer sets – Choose from USA or NIST buffer sets

Switch from pH to mV readings with a button press

Features 0.1 mV resolution for ORP measurements

Available with removable electrode holder – Holds electrode firmly in place

Selectable manual or automatic temperature compensation – For high accuracy with or without a temperature sensor

Built-in memory function – Stores up to 100 pH, mV, or relative mV readings with corresponding temperature

Hold function, "Ready" indicator, diagnostic error messages

Slide-out instruction card for quick reference

Temperature compensation: selectable manual or automatic from 0 to 100°C (32 to 212°F)

Operating temperature: 5 to 45°C (41 to 113°F), noncondensing humidity

Memory: up to 100 sets, pH and temperature

Output: None

Power: 100/240 VAC, 50/60 Hz. using AC adapters (included). AC adapters are UL and CSA listed.

Display: 3 1/4" x 2 7/8" (8.3 x 6.2 cm) dual LCD with temperature and mode annunciators

Dimensions

Meter: 6 1/8" x 6 7/8" x 2 3/4" (15.5 x 17.5 x 6.9 cm)

Boxed: 9" x 12 3/4" x 5" (23 x 35 x 12.5 cm)

Weight

Meter only: 1.4 lb (0.6 kg);

Boxed: 4 lb (1.8 kg)

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

Specifications

Mode	pH	mV	Temperature
Range	-2.00 to 16.00 pH	±2000 mV	0 to 100.0°C (32 to 212°F)
Resolution	0.01 pH	0.1 mV from ±199.9 mV, 1 mV beyond ±199.9 mV	0.1°C or 0.1°F
Accuracy	±0.01 pH	±0.2 mV from ±199.9 mV, ±2 mV beyond ±199.9 mV	±0.3°C (±0.5°F)
Calibration	Up to 5 points (USA: 4.01; 7.00; 10.01, 12.45 or NIST: 1.68, 4.01, 6.86; 9.18, 12.45); auto-buffer recognition	Offset up to ±150 mV	Offset 0.1°C increments up to ±5°C

Ordering Information

Catalog number	Description	Included
MK-15944-90	pH 700 meter kit	Meter, single-junction pH electrode, temperature probe, integrated electrode holder, and AC adapter



Education



Laboratory

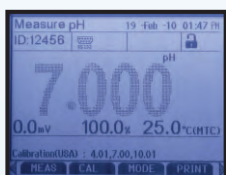
pH 2700 Meter

ADVANCED METERS THAT MEET GLP REQUIREMENTS

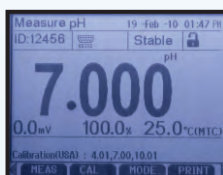
ISO9001:2000
CERTIFIED SUPPLIER



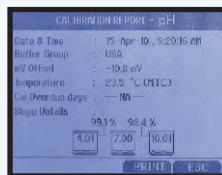
3 year
warranty
meter only



Unstable reading is faded



Reading turns solid when stable.



Calibration documentation can be printed as needed.



Takes up less bench space – Overall footprint is nearly 40% smaller than other benchtop meters

Oversized liquid crystal display with bright backlighting – Easier viewing under all lighting conditions

Dynamic reading stability indication shows when your measurement is stable – Eliminates guesswork from unstable readings

Auto pH buffer recognition for up to 6-point calibrations – Choose USA, NIST, DIN or custom buffer sets

Up to 500 point nonvolatile memory with time-and-date stamp – Meets Good Laboratory Practice (GLP) requirements

Bidirectional RS-232 – For easy data transfer to your computer

Calibration documentation – Allows you to display, download, or print out calibration details like date and time, buffer values, offset, and slope

Cal-due alarms – Visual and audible reminders when recalibration is needed

Audible out-of-range alarms – Indicate when a reading is above or below a user - settable range

Electrode status – Provides the diagnostics needed to determine when electrode service or replacement is needed

Password protection – Prevents unauthorized setup and calibration

Temperature compensation: manual or automatic from 0 to 100°C (32 to 212°F)

Operating temperature: 0 to 50°C (32 to 122°F), noncondensing humidity

Memory: up to 500 data sets with time/date stamp

Output: RS-232, 9-pin female

Power: universal 110/240 VAC, 50/60 Hz with adapter; UL/CSA listed

Display: 3 1/4" X 2 7/16" (8.3 x 6.2 cm) graphic LCD with backlight

Dimensions

Meter: 6 1/8" x 6 7/8" x 2 3/4" (15.5 x 17.5 x 6.9 cm)

Boxed: 12" x 9" x 5" (30.8 x 15.5 x 12.4 cm)

Weight

Meter only: 1.4 lb (0.6 kg);

Boxed: 4 lb (1.8 kg)

Specifications

Mode	pH	mV	Temperature
Range	-2.000 to 20.000 pH	±2000.0 mV	0.0 to 100.0°C (32.0 to 212°F)
Resolution	0.001, 0.01, 0.1 pH	0.1 mV	0.1°C or °F
Accuracy	±0.002 + 1 LSD	±0.2 mV	±0.3°C (±0.5°F)
Calibration	Up to 6 (USA, NIST, DIN, or custom buffer sets)	Offset up to +150 mV	—
Connectors	BNC	BNC	2.5 mm phono



Laboratory

Ordering Information

Catalog number	Description	Included
MK-35420-20	pH 2700 meter kit	Meter, pH electrode 35805-04, ATC temperature probe 35613-13, 60-mL of electrode fill solution, electrode holder, and AC adapter



Pharmaceuticals

MK-35805-04 Replacement combination pH electrode, double-junction, glass body, refillable

MK-35420-01 RS-232 cable

MK-22050-58 RS-232 to USB adapter (requires 35420-01)

CON 700 and 2700 Meters

ECONOMY AND ADVANCED METERS FOR BENCHTOP CONDUCTIVITY MEASUREMENT

- Space-saving design takes up less room on the bench than other meters
- Large display lets you see your measurements from across the lab

Economical Oakton CON 700 meter is an affordable way to take consistent, accurate conductivity measurements in your laboratory. Meter reads 0 to 200.0 mS across five ranges—autoranging features gives the best resolution for your measurements. Memory stores up to 100 readings for later retrieval. 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 pull-out reference guide provide useful features for the lab.

Oakton CON 2700 meter has advanced features for GLP-compliant readings—all calibration and stored data are stamped with time/date. Advanced setup options allow you to customise the meter to your needs. Informative display shows measurements together with temperature, electrode status, calibration points, time, and date all at once! Bright backlight helps you view readings under all conditions. Visual stability indicator informs you when measurements have stabilised, eliminating guesswork. Nonvolatile memory stores up to 500 data sets. Programmable functions include data logging intervals, limit alarms, and password protection. Data is easily exported to a computer via RS-232 port. Order RS-232 cable and optional RS-232 to USB adapter separately below.

What's included: conductivity/temperature probe 35608-74 (CON 700) or 35412-10 (CON 2700), electrode stand, and universal 240 VAC power supply.

CON TDS SAL RES °C/°F



CON 2700 meter 35412-00

ISO 9001:2000
CERTIFIED SUPPLIER

CE

3 year
warranty
meter only



CON 700 meter 35411-00

Specifications

Catalog number		MK-35411-00	MK-35412-00
Description		CON 700	CON 2700
Range	Conductivity	0.0 to 20.00, 0 to 200.0, 0 to 2000 μ S; 0 to 20.00, 0 to 200.0 mS	0.0 to 20.00, 0 to 200.0, 0 to 2000 μ S; 0 to 20.00, 0 to 500.0 mS
	TDS	0.00 to 100.0 ppt	0.050 to 500.0 ppt
	Salinity	—	0.0 to 80.0 ppt
	Resistivity	—	2.000 Ω to 20.0 M Ω
	Temperature	0.0 to 100.0°C (32.0 to 212°F)	0.0 to 100.0°C (32.0 to 212°F)
Resolution	Conductivity	0.01, 0.1, 1 μ S; 0.01, 0.1 mS	0.01, 0.1 μ S; 0.001, 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01, 0.1 ppt	0.01, 0.1 ppm; 0.001, 0.01, 0.1 ppt
	Salinity	—	0.01, 0.1 ppm; 0.001, 0.01, 0.1 ppt
	Resistivity	—	0.01 M Ω , 0.001, 0.01 k Ω , 0.01, 0.1 Ω
	Temperature	0.1°C or °F	0.1°C or °F
Accuracy	Conductivity	±1% full-scale	±1% full-scale
	TDS	±1% full-scale	±1% full-scale
	Salinity	—	±1% full-scale
	Resistivity	—	±1% full-scale
	Temperature	±0.5°C (±0.9°F)	±0.3°C (±0.5°F)
Temperature compensation		Automatic or manual, adjustable from 0.0 to 10% per °C/°F	Automatic or manual, adjustable from 0.0 to 10% per °C/°F
Cell constant (K)		Select from K = 0.1, 1.0, or 10	0.010 to 10.000
Conductivity-to-TDS factor		Adjustable from 0.4 to 1.0	Adjustable from 0.4 to 1.0
Data logging		100 data sets	500 data sets
Output		—	RS-232
Display		8.3 x 6.2 cm, custom LCD	8.3 x 6.2 cm, graphic LCD with backlight
Dimensions (L x W x H)		15.5 x 17.5 x 6.9 cm	15.5 x 17.5 x 6.9 cm

Ordering Information

Catalog number	Cell constant (K)	Body/electrode
2-cell conductivity probes for CON 700 or CON 2700 meters		
MK-35608-72	0.1	Epoxy/platinum
MK-35608-74	1.0	Ultem®/stainless steel
MK-35608-76	1.0	Glass/platinum
MK-35608-78	10	Epoxy/platinum
for CON 2700 meter only 4-cell conductivity probes		
MK-35608-90	0.1	Epoxy/platinum
MK-35412-10	1.0	Epoxy/graphite
MK-35608-92	1.0	Glass/platinum
MK-35608-94	10	Epoxy/platinum

TECHNICAL info!

2-cell vs 4-cell conductivity probes Most conductivity meters use either 2-cell or 4-cell conductivity probes. 2-cell probes feature electrode surfaces made of platinum, titanium, gold-plated nickel, or graphite, and are good for general applications. 4-cell electrodes use a reference voltage to compensate for any polarization or fouling of the electrode plates. The reference voltage ensures measurements indicate actual conductivity independent of electrode condition, resulting in higher accuracy.

- MK-35420-01 RS-232 cable for 2700 series meters
- MK-22050-58 RS-232 to USB adapter (requires cable 35420-01)

Benchtop PC 700 and 2700 Meters

MULTIPARAMETER BENCHTOP METERS ARE AN ALL-IN-ONE SOLUTION FOR LABORATORY RESEARCH WORK

Economical PC700 for basic laboratory use

Advanced PC2700 for research grade use with ion capability

Oakton pH/CON 700 meters are economical solutions for most laboratory multiparameter measurement needs. The 700-series meter features pH auto-buffer recognition for both USA and NIST buffer sets, automatic or manual temperature compensation, and selectable temperature units. Previous calibration points, electrode slope and offset, and conductivity / TDS cell constants are stored in memory for quick and easy retrieval. You can also store up to 100 data sets in the meter's memory for retrieval later.

Oakton 2700 meter offers a more advanced user interface and more advanced measurement capabilities than the 700-series. Meter meets GLP requirements —meter stamps all calibration and stores data with time/date. Nonvolatile memory stores up to 500 data sets to simplify documenting large volumes of pH, mV, ISE, conductivity, TDS, salinity, or resistivity measurements. Data is easily exported to a computer via RS-232 port. Order RS-232 and optional RS-232 to USB adapter separately.

Meter only includes: universal 110/240 VAC power supply and electrode stand.

Meter with probes add: combination pH electrode 35805-04 and conductivity / temperature probe 35608-74 (PC 700) or 35412-10 (PC 2700).

pH mV ISE CON TDS RES SAL °C/°F



PC 2700
meter 35414-00

Specifications

Conductivity temp coefficient: adjustable from 0.0 to 10% per °F/°C

Conductivity-to-TDS factor: adjustable from 0.4 to 1.0

Conductivity cell constant: fixed at K = 1.0 cm⁻¹

Description		PC 700	PC 2700
Range	pH	-2.000 to 16.000	-2.000 to 20.000
	mV/rel mV	±2000	±2000
	ISE	—	0.001 to 19999 ppm
	Conductivity	0.0 µS to 200 mS	0.050 µS to 500.0 mS
	TDS	0.00 ppm to 100.0 ppt @ 0.5 factor (200.0 ppt @ 1.0 factor)	0.050 to 500.0 ppt
	Salinity	—	0.0 to 80.0 ppt
	Resistivity	—	2.000Ω to 20.0 MΩ
Temperature	32.0 to 212°F (0.0 to 100.0°C)	32.0 to 212°F (0.0 to 100.0°C)	
Resolution	pH	0.01 pH	0.001, 0.01, 0.1 pH
	mV/rel mV	0.1 within ±199.9 mV, 1 beyond ±199.9 mV	0.1 mV
	ISE	0.01, 0.1, 1 µS; 0.01, 0.1 mS	2 or 3 digits
	Conductivity	—	0.01, 0.1 µS; 0.001, 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01 0.1 ppt	0.01, 0.1 ppm; 0.001, 0.01, 0.1 ppt
	Salinity	—	0.1 ppt
	Resistivity	—	0.01 mΩ, 0.001, 0.01 kΩ, 0.01, 0.1Ω
Temperature	0.1°F or °C	0.1°F or °C	
Accuracy	pH	±0.01 pH	±0.002 pH
	mV/rel mV	±0.2 within ±199.9 mV, ±2 beyond 199.9 mV	±0.2 mV
	ISE	—	0.5% full scale (monovalent), 1% full scale (divalent)
	Conductivity	±1% full-scale	±1% full-scale
	TDS	±1% full-scale	±1% full-scale
	Salinity	—	±1% full-scale
	Resistivity	—	±1% full-scale
Temperature	±0.9°F (±0.5°C)	±0.5°F (±0.3°C)	
Calibration	pH	Up to 5 points (USA or NIST buffer sets)	Up to 6 (USA, NIST, DIN, or custom buffer sets)
	ISE	—	Up to 8 points
Conductivity/TDS		5 points (one point per range)	5 points (one point per range)
Temperature compensation		Automatic or manual	Automatic or manual
Data logging		100 data sets	500 data sets
Output		—	RS-232
Display		3 1/4" x 2 7/16" (8.3 x 6.2 cm) custom LCD	3 1/4" x 2 7/16" (8.3 x 6.2 cm) graphic LCD with backlight
Power		110/240 VAC universal adapter	110/240 VAC universal adapter
Dimensions (L x W x H)		6 1/8" x 6 7/8" x 2 3/4" (15.5 x 17.5 x 6.9 cm)	6 1/8" x 6 7/8" x 2 3/4" (15.5 x 17.5 x 6.9 cm)

Ordering Information

Catalog number	Model	DESCRIPTION	Precalibrated meters Catalog Number
MK-35413-00	PC 700	Meter with pH and conductivity/temperature probes	MK-35413-01
MK-35414-00	PC 2700	Meter with pH and conductivity/temperature probes	MK-35414-01

MK-35805-04 Replacement combination pH electrode; double-junction, glass body, refillable, 3.3-ft (1-m) cable
MK-35608-74 Replacement conductivity/temperature probe for 700-series meter; 2-cell, K=1.0, Ultem®/stainless steel with ATC
MK-35412-10 Replacement conductivity/temperature probe for 2700-series meter; 4-cell, K = 1.0, epoxy/graphite
MK-35420-01 RS-232 cable for 2700-series meter
MK-22050-58 RS-232 to USB adapter (requires 35420-01 cable)

pH 5+ and 6+ Handheld Meters

THESE RUGGED, COMPACT METERS OFFER HIGH ACCURACY AT AN EXTREMELY AFFORDABLE PRICE!



Meters include protective rubber boot and a built-in stand.

ISO9001:2000
CERTIFIED SUPPLIER



3 year
warranty
meter only



Simple push-button operation – So fast and easy, anyone can use it

Toggle between pH and temperature in °C with a press of a button

Three-point pH calibration – Choose from standard US, NIST, and pure water; gives you high +0.01 pH accuracy

Auto buffer recognition – Automatically identifies the correct pH buffer for rapid calibration

Calibration instructions are printed on back of meter – For quick reference and added convenience

Automatic temperature compensation (ATC) – For the highest accuracy in changing temperature conditions

Hold and Auto-off functions

Built-in stand for benchtop or long-term use

Protective boot – Helps shield your meter from drops and dings

Meter kits available – Contain everything you need for calibration and measurement packaged in a hard carrying case—the best option.

pH 6+ also features

Measurements in pH, mV, and °C – Use for ORP (Redox) measurements

Temperature compensation:

automatic from 0.0 to 100.0°C

Operating temperature:

0 to 50°C (32 to 122°F)

Power: four 1.5 V AAA batteries (included), >70

hours continuous use

Dimensions

Meter: 5 1/2" L x 2 3/4" W x 1 3/8" H (14 x 7 x 3.5 cm)

Boxed: 9 1/4" L x 6 1/2" W x 3" H (23.5 x 16.5 x 7.5 cm)

Weight

Meter: 0.9 lb (0.4 kg);

Boxed: 1 lb (0.5 kg)

Specifications

Model	pH 5+ and pH 6+ meters		pH 6+ meter only
	pH	Temperature	mV
Range	0.00 to 14.00 pH	0.0 to 100.0°C	±1000 mV
Resolution	0.01 pH	0.1°C	1 mV
Accuracy	±0.01 pH	±0.5°C	±2 mV
Calibration	Up to 3 buffer values: choose from standard US, NIST, and pure water buffer values	Offset 0.1°C increments	±20 mV

Ordering Information

Catalog number	Description	Included
MK-35613-54	pH 5+ meter kit	Meter; single-junction, epoxy-body pH electrode; temperature probe 35613-05; pH buffer pouches (pH 4.01, 7.00, 10.00; and rinse water), sample bottles, protective rubber boot; batteries; and hard carrying case
MK-35613-24	pH 6+ meter kit	

Accessories

MK-35804-00 Replacement pH electrode

MK-35613-05 Replacement ATC probe



Water Quality Testing



Lithographic Processes



Education

Combination pH and ORP Electrodes

OUTSTANDING PERFORMANCE AT AN ECONOMICAL PRICE!

- Compatible with all Oakton brand pH meters

Oakton combination electrodes are available in a variety of styles to meet the needs of your application. Epoxy electrodes are impact resistant and provide excellent durability for field applications. Glass electrodes withstand aggressive chemicals. Choose junction and tip style based on the needs of your application. All electrodes feature Ag/AgCl reference cells.

What's included: direct-connect models include a BNC connector. Other models add a 3.3-ft (1-m) cable.



Key	Description	Reference junction	Type	Maximum temperature	Length x dia (mm)	Catalog number
Glass-body combination pH electrodes						
A	For dirty samples	Double	Refillable	212°F (100°C)	110 x 12	MK-35805-04
B	Spear tip for piercing semi-solids and foods, for dirty samples		Sealed		110 x 8	MK-35805-18
Epoxy-body combination pH electrodes						
C	General-purpose	Single	Sealed	158°F (70°C)	110 x 12	MK-35801-00
D	General-purpose, direct connect	Single	Sealed	176°F (80°C)	155 x 12	MK-35804-00
E	For dirty samples	Double	Sealed	176°F (80°C)	110 x 12	MK-35805-01
F	For dirty samples, direct connect	Double	Sealed	176°F (80°C)	155 x 12	MK-35804-02
G	For dirty samples, flushable junction	Double	Refillable	176°F (80°C)	110 x 12	MK-35805-09
Epoxy-body combination ORP electrodes						
H	General-purpose	Single	Sealed	176°F (80°C)	110 x 12	MK-35805-13
	For dirty samples	Double				MK-35805-15

MK-35803-74 Reference fill solution for refillable electrodes. 4 M KCl. 125-mL bottle

Tips for pH Buffers

Solutions of known pH value, buffers allow you to adjust your testing system to measure your samples' unknown pH more precisely. For best accuracy:

- Perform standardizations with fresh buffer solutions. Never pour used buffer back into the bottle; always discard after using.
- Use buffers that frame the pH range of the samples you are testing—i.e., directly above and below the expected value of your sample.
- Match the temperature of the buffer to the temperature of the samples. For example, if your samples are at 50°C, warm your buffers to 50°C using a beaker in a water bath.
- Calibrate your system before each use or set of uses.

Oakton pH Buffer Solutions



00654-00

00654-04

00654-08

pH	Catalog number	Qty
4.01	MK-00654-00	500 ml
7.00	MK-00654-04	500 ml
10.00	MK-00654-08	500 ml
Assortment Pack - pH 4.01, 7.00 and 10.00	MK-05942-10	500 ml each

- Oakton® buffers for meters with 0.01 resolution
- The buffers are standardized against NIST-traceable pH references within 0.01 pH at 25°C
- Store buffers away from direct sunlight
- Labelled with pH vs. temperature tables for accurate calibration
- Lot numbers and expiration dates on individual bottles

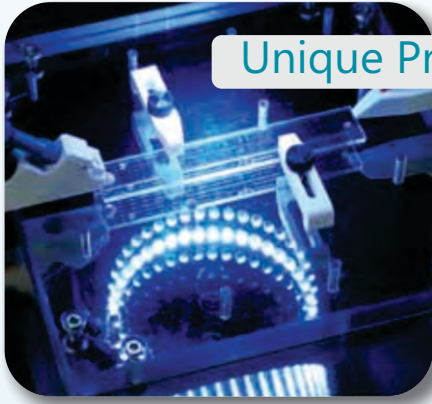
4

Ordering Information

Easy Ways to Order

Call 022-6716-2222 Web ColeParmer.in

Fax 022-6716-2211 E-mail info@ColeParmer.in



Unique Products.



Exceptional Service.



Technical Support.

Tech Tip

Maintaining a pH electrode is critical to ensure proper and reliable measurement of your samples.

Calibrating an Electrode

pH electrodes must be calibrated periodically to ensure accurate, repeatable measurements. Our pH calibration buffers include solutions standardized against NIST-certified pH references for calibrating meters with resolution up to 0.01 pH.

Conditioning an Electrode

Prior to using your electrode for the first time, remove the protective cap from the bottom of the sensor and rinse the electrode with distilled or deionised water.

Place the electrode in a beaker containing electrode storage solution. Soak for 20 minutes.

After conditioning the sensor for 20 minutes, rinse the electrode with distilled or deionized water. The electrode is now ready for calibration and to measure pH.

Storage of an Electrode

Always keep your pH electrode moist. We recommend that you store your electrode in a solution of 4 M KCl (00653-04). If 4 M KCl is not available, use a pH 4 (00654-00) or pH 7 (00654-04) buffer solution.



Cole-Parmer India

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