



 **Cole-Parmer®**

LABORATORY PH ELECTRODES

SUPERIOR VALUE
COMPREHENSIVE SELECTION
UNSURPASSED CUSTOMER SUPPORT



Cole-Parmer® Laboratory pH Electrodes

COLE-PARMER IS YOUR SINGLE SOURCE FOR ALL PH ELECTRODE NEEDS

VALUE FROM A TRUSTED NAME!

- Reduce cost when you replace current electrodes with Cole-Parmer's top-of-the-line pH electrodes
- Save up to 25% over the expensive brands but without sacrificing quality
- Cole-Parmer-brand electrodes have been on the market for over 25 years
- All of our electrodes are backed by either a six-month or one-year warranty against manufacturer defects



COMPREHENSIVE SELECTION TO MEET ALMOST ANY REQUIREMENT!

- Our low-cost electrodes are so tough and economical you can "use and toss" as needed! Great for less forgiving uses like teaching labs or field work
- Mid-priced refillable electrodes offer the fast response and stability your analytical laboratory demands
- Cole-Parmer's top-of-the-line, temperature-stable electrodes feature state-of-art reference technology that virtually eliminates pH drift and maintains accurate and stable readings—even with sample temperature changes from 25 to 80°C
- Flushable-junction electrodes allow you to clean the junction with a push of the button—ideal for testing wastewater, viscous samples, slurries, and other materials that can ruin conventional electrodes



ELECTRODES BUILT TO WORK WITH *YOUR* METER!

- Cole-Parmer® pH electrodes are compatible with the meter you already have!
- Extend the life of your favorite pH meter; the one you like and know how to use
- Our pH electrodes will work with most current brands of pH meters—including Oakton®, Thermo Electron Corporation (Orion®), Fisher's accumet®, VWR®'s sympHony®, WTW®, Hanna®, Hach®, Horiba®, Mettler Toledo®, Corning® Electrochemistry, and many others
- Select from electrodes with interchangeable BNC, U.S. Standard, or radiometer cables. Save time and effort by leaving the cable attached to your meter and changing the electrode without going behind the meter. Electrodes without cables are easier to store, too. Use with 1980's pH meters from Orion Research, Beckman Instruments®, Corning Electrochemistry, and Radiometer
- Our exclusive low-cost, "All-in-One" electrodes features brand-specific automatic temperature compensation (ATC) capabilities. They include the correct temperature element and connection for use with Orion A-series, Corning Electrochemistry, Mettler Toledo, WTW, and many other meter brands.

All-in-One electrode connections



Find the Right Electrode for the Job

LET COLE-PARMER'S APPLICATION EXPERTS HELP YOU MAKE THE CORRECT ELECTRODE CHOICE—THE FIRST TIME, EVERY TIME!

- Our Applications Specialists have the experience necessary to ensure the electrode they recommend will be the correct electrode for the job—99.97% customer satisfaction on recommended products!
- Our specialists can also help troubleshoot your entire pH measuring system—including meter, current electrode, and accessories—to ensure the accuracy and reliability of your results
- Our experts have working backgrounds in such diverse fields as chemistry, environmental science, food & beverage, life science, pharmaceutical/biotech, and quality assurance
- In addition, each specialist receives extensive hands-on product training to keep them up-to-date with the latest technologies and the products we sell



TRY OUR ONLINE pH ELECTRODE PARAMETRIC SEARCH

Simply select your preferences for electrode type, specifications, and application, and this selection wizard will quickly return a list of electrode options that fulfill your requirements. Easy-to-use, fast, and available any time you need help!

To access the ColeParmer.com pH Electrode Parametric Search program, visit www.coleParmer.com/pH_electrodes.



A Cole-Parmer® Electrode for Every Application!

GENERAL-PURPOSE ELECTRODES

deliver performance and savings in the laboratory, classroom, the field, or anywhere a no-frills electrode will get the job done.



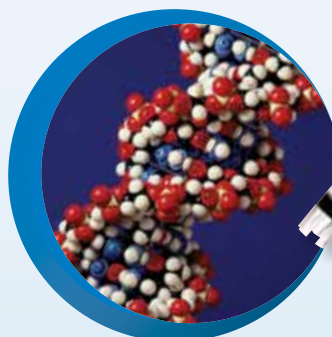
LABORATORY ELECTRODES

feature extra-long and slender necks for measuring pH directly in test tubes, NMR tubes, flasks, bottles, and many other vessels commonly found in your lab.



CALOMEL ELECTRODES

eliminate harmful precipitation with organic compounds, proteins, Tris buffer, and solutions with metals. Perfect for life science, pharmaceutical, and biotech applications.



FLAT-BULB ELECTRODES

are the solution when you need to make low-volume or surface measurements. Also commonly used for electrophoresis gels.



A Cole-Parmer® Electrode for Every Application!



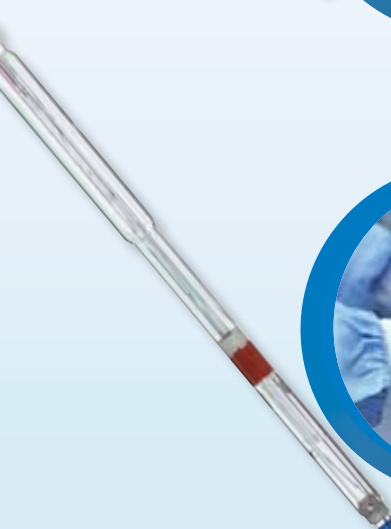
TUFF-TIP® ELECTRODES

are specially designed for the most demanding field applications. They feature a semi-domed tip that protects the pH bulb and ensures a quick response despite harsh and dirty conditions. Ideal for wastewater conditions.



SPEAR-TIPPED ELECTRODES

easily penetrate semisolid materials such as cheeses, fruits, and gelatins. Well suited for R&D in the food & beverage industry.



FERMENTATION ELECTRODES

eliminate the clogging problems typically associated with bacterial culture applications. Autoclavable electrodes are built to withstand temperatures up to 266°F (130°C); perfect for both microbial and mammalian cell fermentations.

A Cole-Parmer® Electrode for Every Application!

SOIL ELECTRODES

employ a special design for avoiding the “suspension effect” that usually hampers soil pH determination. A must-have for agricultural testing.



ION-SPECIFIC FIELD EFFECT TRANSISTOR (ISFET) ELECTRODES

feature standard BNC connectors for use with any pH meter equipped with a BNC input. The non-glass sensor is virtually unbreakable, easy to clean, and FDA approved for use in food processing plant applications.



ION-SELECTIVE ELECTRODES (ISEs)

utilize a combination electrode design to simplify your ion measurement work. No separate half-cell saves space and reduces electrode maintenance. Great for food, drinking water, wastewater, cosmetics, and many other uses.



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 Fax: 020-8574-7543
www.coleparmer.co.uk

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Call 847-549-7600 to reach our
 International Sales Department
 or contact your local dealer.



**FREE TECHNICAL
 APPLICATIONS ASSISTANCE!**

Specifications and ordering information for our most popular pH laboratory electrodes

Catalog number	Application	Description	Maximum temperature	Length x dia (mm)
Epoxy-body electrodes. Click here for our full line				
ML-59001-65	Economical general-purpose	Single-junction	176°F (80°C)	127 x 12
ML-59001-70		Double-junction		127 x 12
ML-05992-40	General-purpose lab and field	Rugged with epoxy bulb guard		148 x 12
ML-05990-65	Surface or low-volume sampling	Flat measurement surface		127 x 12
ML-05990-45	Test tube sampling	Extra-long slender neck		220 x 6
Tuff-Tip® epoxy-body pH electrodes. Click here for our full line				
ML-05992-00	Demanding field conditions	Tuff-Tip design	212°F (100°C)	110 x 12
Glass-body electrodes. Click here for our full line				
ML-05997-10	Rugged lab and field	Detachable plastic Delrin® shield	212°F (100°C)	154 x 8
ML-05998-30	Wide compatibility, high temperature	Double-junction, sealed, KNO ₃ gel-filled	248°F (120°C)	130 x 12
ML-05990-40	Flasks, bottles	Extra-long slender neck	212°F (100°C)	326 x 8
ML-05998-20	Semisolids, foods, etc	Spear tip for piercing	212°F (100°C)	159 x 8
ML-05992-62	Soil electrode; eliminates suspension effect	Extra-wide ceramic junction	176°F (80°C)	145 x 12
pH electrodes with interchangeable cables. Click here for our full line				
ML-05658-35	Flasks, bottles	Glass with extra-long thin neck	212°F (100°C)	329 x 8
ML-05658-45	General-purpose lab and field	Epoxy; extra rugged	176°F (80°C)	127 x 12
"All-in-One" temperature-compensated pH electrodes. Click here for our full line				
ML-27507-24	Compatible with Corning Electrochemistry pH meters	Sealed, gel-filled, rugged tip	176°F (80°C)	120 x 12
Fermentation pH electrodes. Click here for our full line				
ML-05993-96	Autoclavable with annular ceramic junction	Sealed, gel-filled	266°F (130°C)	210 x 12
ML-29041-54	Autoclavable with annular ceramic junction	Sealed, gel-filled	176°F (80°C)	320 x 12
Ion-selective electrodes. Click here for our full line				
ML-27504-14	Fluoride testing in drinking water	Epoxy-body, sealed, single-junction	176°F (80°C)	120 x 12
ML-27502-19	Fluoride testing in drinking water	Glass-body, refillable, double-junction	176°F (80°C)	120 x 12