



E1X (PTFE) Series

Stationary Working Electrode
Product Guide

Part # Style: AFE1XFP030XXRTF

(XX = disk electrode material, e.g. AU = gold, PT = platinum, GC = glassy carbon, etc.)

Warnings



Caution:

Do not attempt to use this electrode as a rotating disk electrode.



Thermal Stability:

Electrode may only be used from 10°C to 25°C. Extreme temperatures will damage the electrode seal.



Chemical Compatibility:

If the disk electrode material is pyrolytic graphite (basal plane or edge plane), then the disk is sealed with epoxy. Organic solvents may attack and damage this epoxy.

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Description

The E1X Series disk electrode is designed for use as the working electrode in a routine voltammetry experiment. This disk electrode has a robust design based on a sturdy stainless steel shaft which is protected by a shroud composed of polytetrafluoroethylene (PTFE, or more commonly Teflon). This fluoropolymer is compatible with a wide range of organic solvents, acids, and bases.

At the top of the electrode is a standard banana binding post. Connection to the electrode may be made using a banana plug or by pushing a wire through the binding post and tightening the knurled plastic to secure the wire.

The electrode is narrow enough to fit through a 14/20 standard taper port or a #7 threaded port. A PTFE adapter, which fits the 7 mm OD of the electrode and mates to a 14/20 port, is available (sold separately). This detachable adapter slides along the shaft, permitting the electrode to be vertically positioned within an electrochemical cell.

Maintenance

After using the electrode, clean it with distilled water and replace the protective cover to prevent the electrode surface from being scratched. Periodically, the electrode surface will need to be polished. An electrode polishing kit with various alumina slurries and polishing pads is available (sold separately).

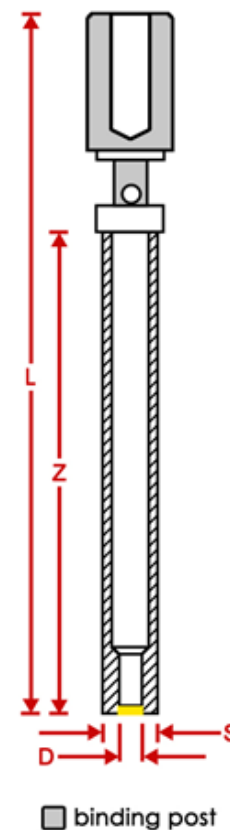
Leak Testing

The shroud is tightly sealed around the circumference of the working electrode material. The electrode is guaranteed to be leak-free at the time of shipment (each electrode is shipped with a copy of the factory leak test results). Leak testing is performed at ambient (room) temperature. Exposing the electrode to temperatures less than 10°C or greater than 25°C may create a leak between the electrode material and the shroud.

Photograph



Diagram



Disk Diameter (D): 3-7 mm*

Shroud Diameter (S): 7.0 mm

Overall Length (L): 137 mm

Shroud Length (Z): 110 mm

*Custom Sizes Available

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