

E1E Series

Stationary Working Electrode Product Guide

Part # Style: AFE1E050XX

(XX = disk electrode material, e.g. GE = edge plane pyrolytic graphite and GB = basal plane pyrolytic graphite)

Warnings



Caution:

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



Thermal Stability:

Electrode may only be used from $10^{\circ}C$ to $25^{\circ}C$. Extreme temperatures will damage the electrode seal.



Chemical Compatibility:

For pyrolytic graphite disk electrode materials (basal plane or edge plane), the disk is epoxy-sealed. Organic solvents can attack and damage epoxy.

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Description

The E1E 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.

The top end of the shaft has a recess which accepts a standard banana plug connector. An inert fluoropolymer shroud protects the lower portion of the shaft.

The electrode is narrow enough to fit through a 14/20 standard taper port. A Teflon mounting adapter which fits a 14/20 port is included. This adapter slides along the shaft, permitting the electrode to be vertically positioned within an electrochemical cell. It can be removed if a different configuration of the electrode is desired, therefore it is an optional component of the E1E series electrodes.

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. The electrode should only be used at temperatures from 10°C to 25°C. Exposing the electrode to temperatures outside this range may create a leak between the electrode material and the shroud.

Photograph

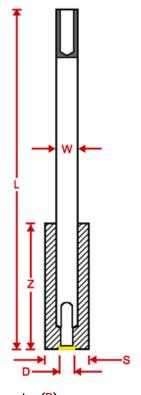


Maintenance

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 (sold separately) which includes various alumina slurries and polishing pads is available.

Diagram



Disk Diameter (D): 5.0 mm

Shroud Diameter (S): $12.0 \ mm$

Overall Length (L): 152 mm.

Shroud Length (\overline{Z}): 38 mm

Upper Shaft OD (W): 8.0 mm

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