



E1F Series

Stationary Working Electrode Product Guide

Part # Style: AFE1FZZZXX

(ZZZ = disk outer diameter (030-070), 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:

The electrode shroud material is made of polychlorotrifluoroethylene (Kel-F); it is incompatible with some chlorinated solvents and tetrahydrofuran.



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.

Description

The E1F 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 lower end of the shaft is protected by a shroud made from polychlorotrifluoroethylene (trade name KEL-F). This fluoropolymer is resistant to most solvents but can exhibit incompatibility with select chlorinated solvents, like chloroform and carbon tetrachloride.

The electrode is narrow enough to fit through a 14/20 standard taper port. A mounting adapter, that is sold separately, fits a 14/20 port. This adapter slides along the shaft, permitting easy vertical positioning of the electrode within an electro-chemical cell.

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.

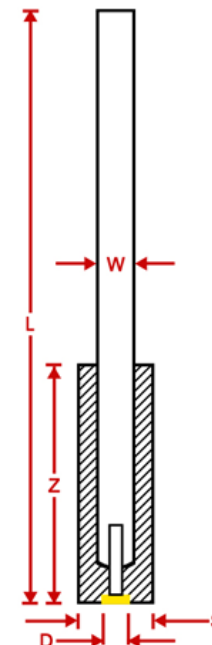
Photographs



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).

Diagram



Disk Diameter (D):	3-7 mm*
Shroud Diameter (S):	9.5 mm
Shroud Length (Z):	38.0 mm
Upper Shaft OD (W):	4.8 mm
Overall Length (L):	125.5 mm

*Custom Sizes Available

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