



## Leakless Ag/AgCl Reference Electrode (Model ET069)



- Wettable surfaces are all plastic
- Suitable for cyclic voltammetry in organic solvents
- Robust, for use in teaching or research labs
- Low impedance

### Description

An all plastic leakless Ag/AgCl electrode suitable for electrochemistry research and teaching. The ET069 electrode is completely leakless and will not contaminate your sample with chloride or silver ions.

### Compatibility

The electrode body is made of PEEK (polyetheretherketone) which is highly resistant to most organic solvents. The electrode can be used with most alcohols, ketones, esters, and halogenated hydrocarbons, as well as tetrahydrofuran (THF), dimethylsulfoxide (DMSO), acetonitrile, and dichloromethane.

### Applications

With a low impedance (<10 k $\Omega$ ) the ET069 reference electrode can be used with pH, or ion selective, half-cell electrodes, or with voltammetric working electrodes.

### Specifications

Length:	130 mm
Diameter of shaft:	5 mm
Connector:	1 mm pin
Body material:	PEEK (polyetheretherketone)
Temperature:	shaft < 80°C head < 50°C
Filling Electrolyte	3.4 mol/L KCl
Impedance:	< 10 k $\Omega$
<i>eDAQ Pty Ltd reserves the right to alter these specifications at any time.</i>	

### Maintenance

The electrode cannot be refilled. There is no glass used in the construction.

Depending on the choice of solvent, substrate molecules, and level of care, the electrode should last many months if not several years.

When using organic solvents it is recommended to 'rest' the electrode in water or KCl solution.

An old electrode suffering from potential drift can sometimes be reactivated by subjecting it to a large oxidizing potential (+4 V) in a two electrode system (use a wire for the counter electrode) in a KCl solution for 10–15 seconds then waiting 30 seconds for stabilization.

Material adsorbed on the electrode surface can be removed by careful polishing on fine sand paper (or with abrasive powder). Alternatively, try immersing in strong acid (e.g. 6 mol/L H<sub>2</sub>SO<sub>4</sub>) for 30 minutes then sonicate, and repeat if necessary.

### Options

A miniature version of this electrode is also available. (Order ET072, which is 2 mm diameter x 65 mm long.)