

Ag-AgCl Electrodes

Why Silver-Silver Chloride (Ag-AgCl)?

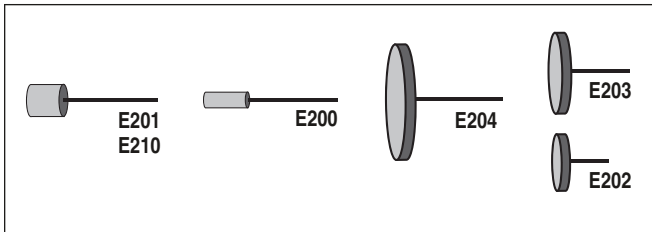
Ag-AgCl electrodes have long been recognized for their superiority in sensing bioelectric signals. The electrochemical properties of Ag-AgCl electrodes are such that biopotential waveforms are faithfully reproduced. Usually any offset potential - and this includes the electrode potential - is compensated (zeroed) before a recording. Long-term changes in the offset potential appear as baseline drift, and short-term changes as noise on the trace.

The quality of a Ag-AgCl electrode depends to a great extent on the formulation of the AgCl pellet. Our electrodes are made from very high purity materials. A careful proprietary process results in a

fine grain, homogeneous mixture of silver and silver chloride. A careful sintering process strengthens and stabilizes the entire electrode assembly.

Typical values of the key parameters, measured in 0.9% saline, between pairs of electrodes the same size are:

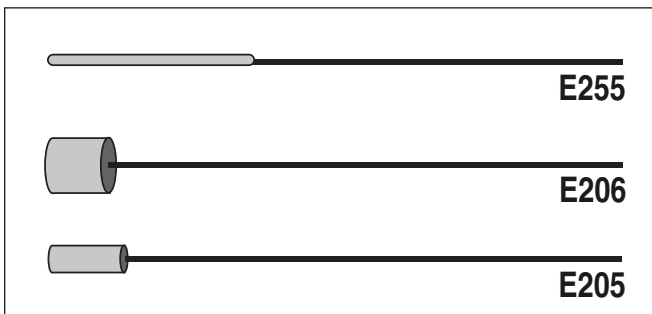
- 1) DC Offset Voltage: 180 μ V
- 2) Drift: 25 μ V/hour
- 3) Noise: 1 μ V peak-to-peak (0.1-1000 Hz with 50/60 Hz eliminated).



Ag-AgCl Pellet and Disc Electrodes

These six electrodes are ideally suited for making custom assemblies of skin electrodes and other bioelectric recording and stimulation apparatus. All have a pure silver wire (.25 mm diameter x 7 mm) embedded in the Ag-AgCl matrix. This wire can be easily soldered or twisted onto other wires.

Order #	Model	Product
W4 64-1304	E200	Pellet 1.5 x 3 mm (D x Thick)
W4 64-1305	E201	Pellet 2.0 x 4 mm (D x Thick)
W4 64-1313	E210	Pellet 2.0 x 2 mm (D x Thick)
W4 64-1306	E202	Disc 4.0 x 1 mm (D x Thick)
W4 64-1307	E203	Disc 8.0 x 1 mm (D x Thick)
W4 64-1308	E204	Disc 12.5 x 1 mm (D x Thick)



Ag-AgCl Pellet and Wire Electrodes

Pellet electrodes have a cylindrical pellet embedded on wire.

Wire electrodes have a uniform coating of Ag-AgCl over the last 10 mm of a 0.25 x 70 mm (D x L) wire. Maximum diameter of the Ag-AgCl matrix is 0.8 mm.

Note: All electrodes suitable for probing tissues.

Order #	Model	Product
W4 64-1309	E205	Pellet Electrode 1.0 mm D
W4 64-1310	E206	Pellet Electrode 2.0 mm D
W4 64-1317	E255	Wire Electrode 0.8 mm D