

Carbon fiber double disc microelectrodes (stereotrodes) for electrochemical and biosensor applications

The carbon fibers are encapsulated in thick borosilicate glass for durable mechanical support and electrical insulation. A unique hermetic seal between the carbon cores and the glass sheathing allows usage of these electrodes almost in any environment. The active carbon surface polished at 90° on a 0.05 µm diamond particle containing surface. Other grinding angles are available on special orders. They are manufactured using two sizes and types of carbon fibers as shown. Mating female sockets are provided for electrical connections.

Mating female sockets (provided)

Dimensions
(diameter x length)

Distance: 1.5 mm

Gold-plated pins
0.81 mm x 5.5 mm

Heat-shrink tubing
2.50 mm x 14 mm

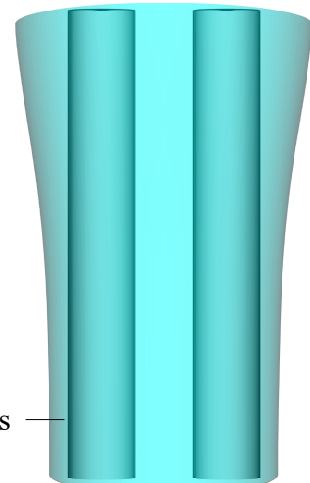
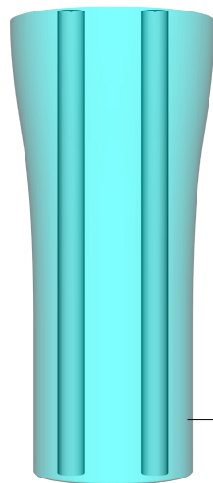
Borosilicate glass
3.17 mm (1/8") x 26 mm

Shank
350 µm diam. at half length
x 15 mm length

Final 200 µm lengths of disc microelectrodes

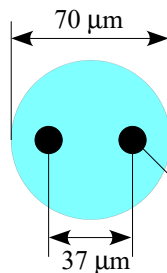
Part no. CDDE1000

Part no. CDDE3400



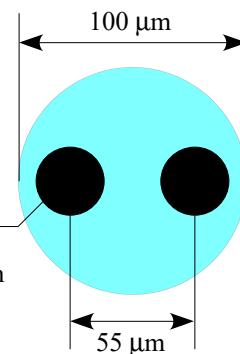
Borosilicate glass

End view:



Carbon discs

10 µm - diameter - 34 µm



100 µm

Technical data:

Diam. of carbon fiber, each:	10 µm
Active area each, approx.:	79 µm ²
Impedance @ 1KHz, each	1.6 MΩ
Type of carbon fiber:	Pitch-type
Autoclavable to:	140 °C

34 µm
908 µm ²
1.4 MΩ
Glassy carbon
140 °C