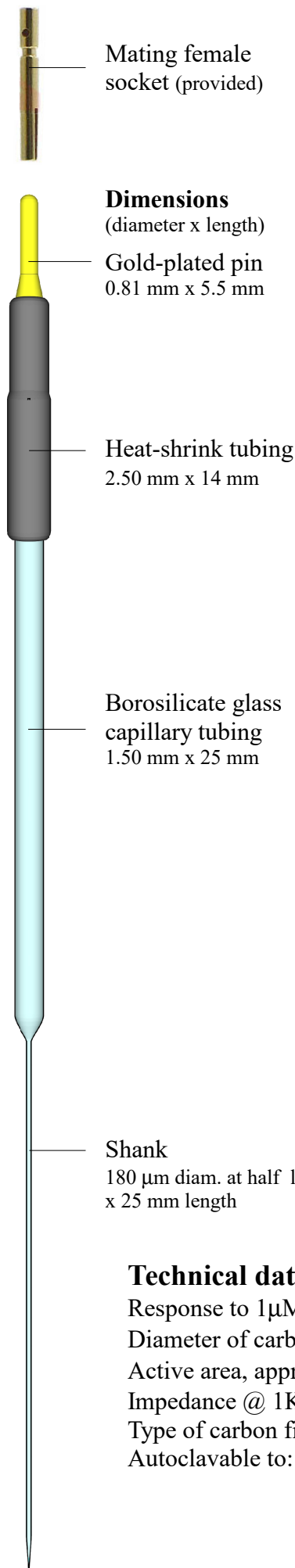


Carbon fiber disc microelectrodes for electrochemical and biosensor applications

The carbon fibers are encapsulated in thick borosilicate glass for durable mechanical support and electrical insulation. A unique hermetic seal between the carbon core 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 or use our adaptors M2334 for BNC-input (Dagan, npi) or M2335 for HLU-type (Axon) headstages.

Final 200 μm lengths of disc microelectrodes



Mating female socket (provided)

Dimensions
(diameter x length)

Gold-plated pin
0.81 mm x 5.5 mm

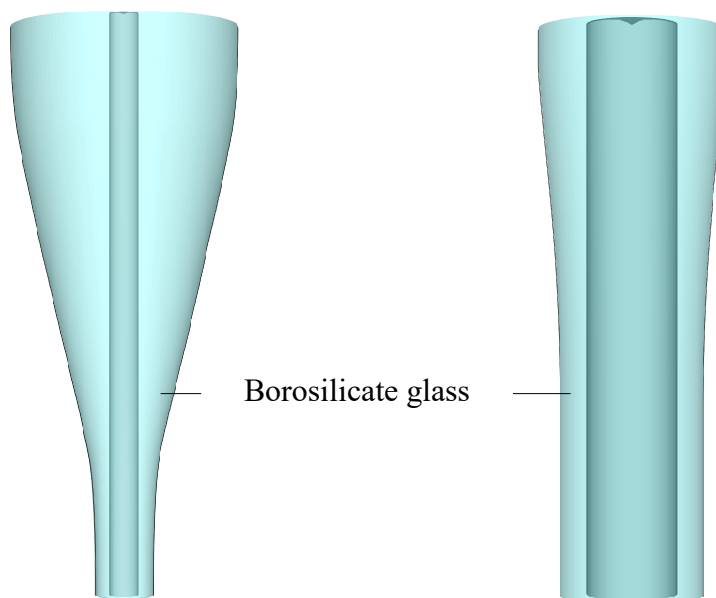
Heat-shrink tubing
2.50 mm x 14 mm

Borosilicate glass capillary tubing
1.50 mm x 25 mm

Shank
180 μm diam. at half length
x 25 mm length

Part no. CDE1000

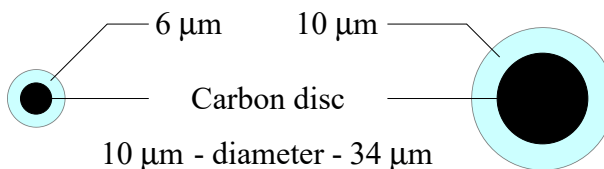
Part no. CDE3400



Borosilicate glass

End view:

Approximate wall thickness:



50 μm

Technical data:

Response to 1μM dopamine: 1.5 nA (FSCV, 300 V/s)
 Diameter of carbon fiber: 10 μm
 Active area, approx.: 79 μm²
 Impedance @ 1KHz: 1.6 MΩ
 Type of carbon fiber: Pitch-type
 Autoclavable to: 140 °C

18 nA (FSCV, 300V/s)
 34 μm
 908 μm²
 1.4 MΩ
 Glassy carbon
 140 °C