

# Zimmer & Peacock

eSensor Manufacturing and Technology



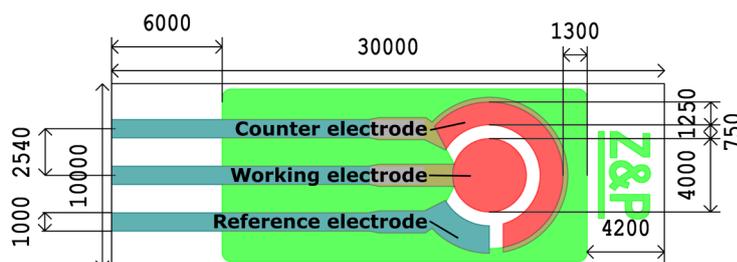
Technical Datasheet: **Electrochemical sensors/biosensors**

## PRODUCT DESCRIPTION

The Z&P sensors provide a quick and accurate way of determining concentrations of bio-relevant molecules. They can be delivered with chemically modified surfaces for plug-and-play chemical monitoring, or they can serve as a robust architecture for your research team's specific chemical modification. Their screen-printed nature allows for a wide selection of electrode materials and excellent reproducibility. A number of different electrode dimensions and geometries allow for an optimized platform tailored to highly specific applications.

## MECHANICAL DIMENSIONS

W=30mm, D=10mm, H=0.625mm



*Dimensions of C-ADGG-101-N sensor. All dimensions are in micrometers.*

## KEY FEATURES

- Ⓢ Reusable
- Ⓢ High sensitivity
- Ⓢ Quick response
- Ⓢ Wide range of analytes (with the option of custom made)
- Ⓢ A variety of electrode configurations
- Ⓢ Different electrode materials
- Ⓢ Different electrode geometries
- Ⓢ Compatible with 2.54 mm pitch edge connectors

## PERFORMANCE

Storage Conditions	With modified surface	Bare electrodes
Temperature	4-8 C°	Room temperature
Lighting	Away from light	Away from light
Physical protection	In container	In container
Expiration	Use before 3 months	Use within two years
Humidity	50% RH ± 20% RH	50% RH ± 20% RH

## SENSOR RESPONSE AND CONDITIONS

	Glucose	Lactate	Oxygen	Hydrogen peroxide
Range	1 – 40 mM	0.5 – 4 mM	0 – 6 ppm	1 – 520 µM
Settle time	1.5 min	1.5 min	3 min	<1 min
Beaker testing	✓	✓	✓	✓
Drop test	✓	✓	✓	✓
Flow mode	✓	✓	✓	✓

## ORDERING CODE

1	2	3	4	5	6			
A	-	AD	G	G	-	103	-	G

### 1. Substrate material:

A – Alumina 625 µm

### 2. Reference electrode material:

AP – Silver Platinum  
 AD – Silver Palladium  
 AC – Silver Chloride

### 3. Working electrode material:

G – Gold  
 P – Platinum  
 C – Carbon

### 4. Counter electrode material:

G – Gold  
 P – Platinum  
 C – Carbon

### 5. Electrode geometry:

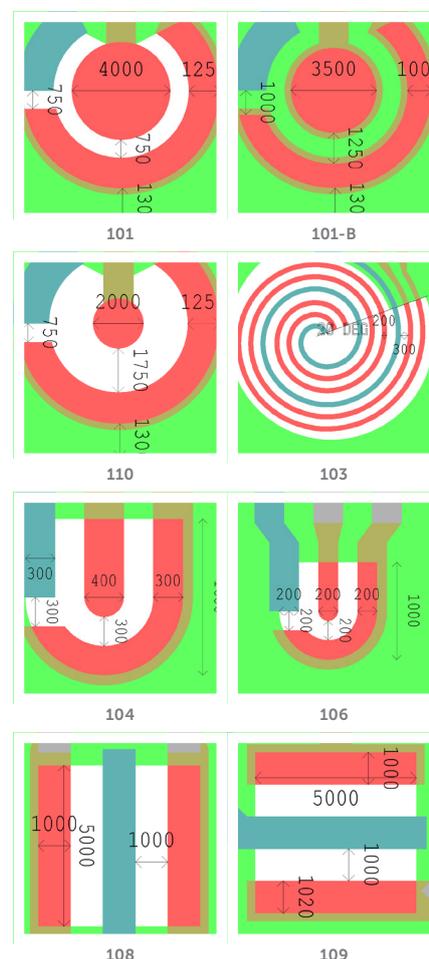
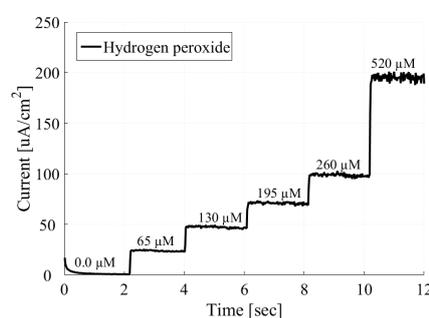
101 – Disk  
 101-B – Disk with spill barrier/  
 dispensing cradle and strictly  
 planar diffusion  
 110 – Reduced working electrode  
 102 – Ring  
 103 – Spiral  
 104 – Mini  
 106 – Micro  
 108 – Parallel flow  
 109 – Perpendicular flow

### 6. Target analyte:

N – None  
 (Bare, unmodified electrode)  
 G – Glucose  
 L – Lactate  
 O – Oxygen  
 H – Hydrogen Peroxide  
 K – Nitric Oxide

## CUSTOMIZABILITY

Zimmer and Peacock can also make customized sensors with the option to target other analytes than those listed in this datasheet, tailored electrode configuration and geometry, and other materials. Please contact us through the contact form on [zimmerpeacock.com](http://zimmerpeacock.com) or by e-mail on [sales@zimmerpeacock.com](mailto:sales@zimmerpeacock.com)



All dimensions are in micrometers.