



DropSens launches Screen-Printed Electrodes with an appropriate configuration to develop **self-powered electrochromic biosensors** with a potential of being “instrumentless” sensoric devices for analyte detection.

These screen-printed electrodes consist in two electrochemical cells, each one consisting of 2 electrodes connected one-to-one to an electrode in the other cell. These cells are:

- **Anode and Cathode:** a 2-electrode cell made of 2 carbon electrodes
- **Electrochromic Cell:** a 2-electrode cell made of one PEDOT [poly(3,4-ethylenedioxythiophene)] electrode and one carbon electrode

The 2 carbon electrodes of the first cell can be modified with appropriate enzymes to become the cathode and anode of a biofuel cell (BFC); the PEDOT electrode can be modified with a dye that changes its color when it is oxidized or reduced. Thus, the power of the BFC can be used to start the oxidation or reduction of the dye, an hence its color change, thus making this device a **BFC sensor**.

Two silver paths placed in the lateral sides of the substrate are intended for connection with an external device to measure or control the potential.

Transparent plastic substrate: L33 x W10 x H0.175 mm

Electric contacts: Silver

Anode and Cathode: Carbon (Ellipse with axes: 4 x 3 mm)

Electrochromic cell: PEDOT [poly(3,4-ethylenedioxythiophene)] (4 mm diameter) and carbon

BIOFV1 Screen Printed Electrodes are commercialized in 75 units packs. They should be stored at room temperature, protected from light in a dry place.

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Full Catalogue



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