



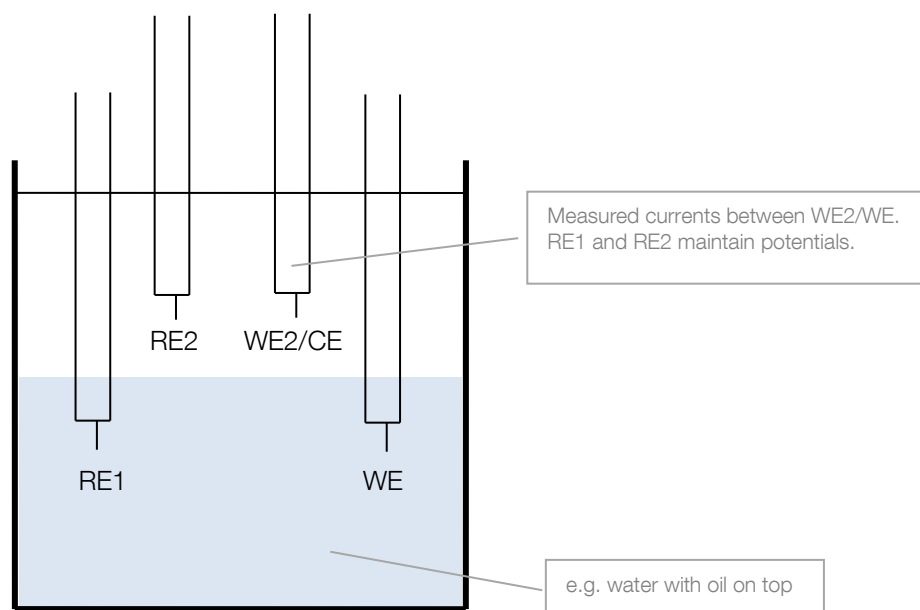
differential electrometer amplifier

Description

The PalmSens Differential Electrometer Amplifier (DEA) is a general purpose input amplifier. It can be used as a floating voltage amplifier with differential input and single output to the auxiliary port of PalmSens.

Use DEA for additional reference electrode

Connect the RE from PalmSens to the differential output (diff. out) of the DEA module. The V+ and V- of the DEA can be used for two reference electrodes:



General specifications

- | | |
|---|--|
| • Input voltage range | -5 V to + 5 V
(default, can be changed see below) |
| • Input voltage difference without damage | ± 40 V |
| • Input impedance | 1000 GOhm // 12 pF |
| • Connections: | LEMO for V+ and V-,
2 mm banana for diff. Out |
| • Max input offset: | 3 mV |
| • Linearity error: | max. 0.3% |
| • Output measured using a 16-bit ADC | |

Input range of DEA

The default (bipolar) input range is set to -5 to + 5 V, resulting in an output signal from 0 – 3 V. The input range can be reduced by applying a gain for increased sensitivity. Possible gains are: 2x, 5x, 10x, 20x, 50x, 100x, etc.

A modified version with unipolar input of for instance 0 – 10 V is available on request.