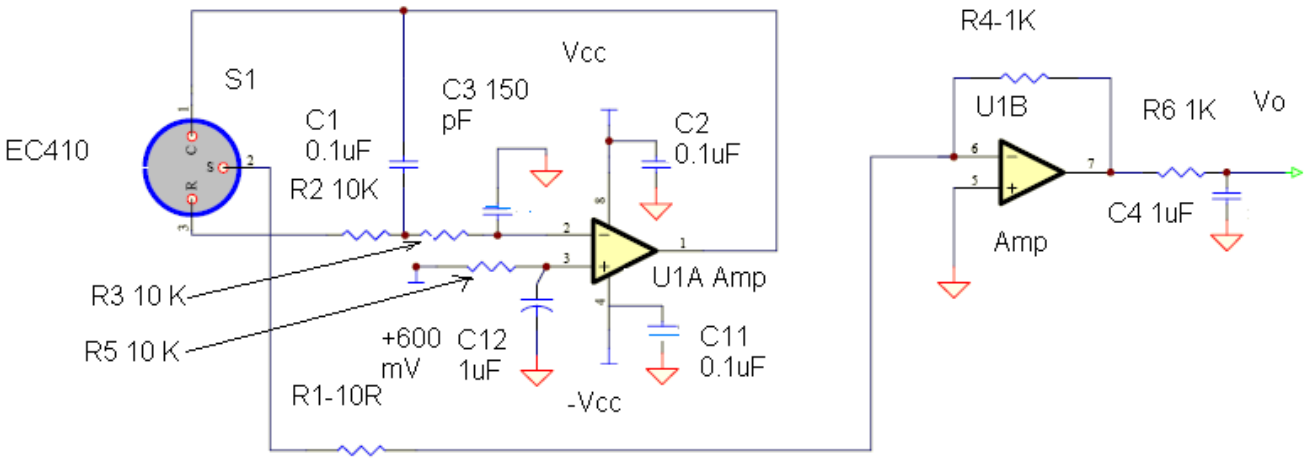
Electrochemical Sensors Application Note 5
Support Electronics for EC410 Oxygen Sensor

INTRODUCTION

The operation of the EC410 sensor is fully described in Electrochemical Sensors Application Note 7. To achieve this performance, the sensor must be run in a suitable circuit. This circuit must be capable of applying a bias voltage of 600 mV to the sensing electrode with respect to the reference electrode. This bias voltage allows the oxygen reduction reaction to occur on the sensing electrode. The circuit also needs to be able to measure and amplify the current flowing between the sensing and counter electrode.

Appropriate amplifier choices are LPV358 and 27L2I.

A typical circuit is shown below. The output of the sensor is measured at Vo and ground. Some averaging of the signal may be needed.



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