

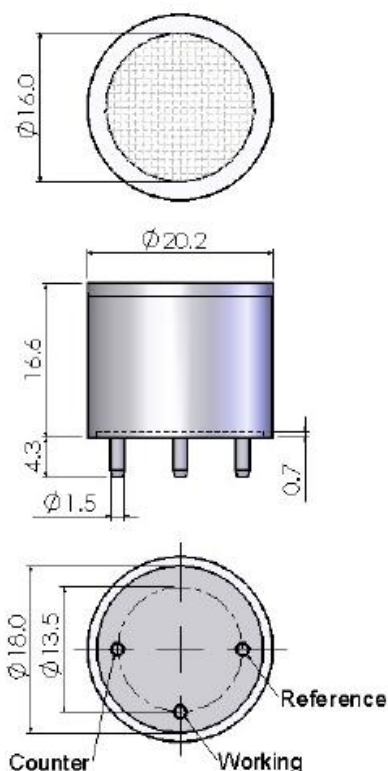
4-O2-P OXYGEN SENSOR – 4 SERIES

0-30% VOLUME O2



Oxygen 4-O2-P Sensor – 4 series

Part Number: 2112B023140S



All dimensions are in mm
All tolerances are +/- 0.2mm

SPECIFICATION – 4 SERIES

Operating Principle:	Polymer non-liquid electrolyte 3-electrode/3-pin cell
Gas Detected:	Oxygen O ₂
Measurement Range:	0 – 30% volume
Maximum overload:	90% volume O ₂
Resolution:	0.1% O ₂
Expected Operating Life:	2 years in air
Response Time (T₉₀):	≤ 30 seconds
Output Signal:	350 ± 50 µA in air
Zero Signal:	< 50 µA in Nitrogen
Bias Voltage:	-600 mV
Linearity:	Linear
Long Term Output Drift:	< 2% of signal per month
Temperature Range:	-20°C to +50°C
Humidity Range (non-condensing):	15-90% RH
Pressure Range:	90 to 100 kPa
Storage Life:	6 months in original sealed container
Storage Temperature:	0°C to 20°C
Warranty Period:	18 months from date of despatch
Sensor dimensions:	4 series design Ø 20.2mm, height 20.9mm (+/- 0.2mm)
Weight:	5g (approx)
Orientation Sensitivity:	None
Part Number:	2112B023140S

***Note: Do not solder to the pins. Soldering to the sensor should be avoided and will invalidate warranty. Please utilise PCB pin sockets for connection.**

All performance specifications are based upon the following environment conditions: +20°C, 50% relative humidity and 1 atm (1013 mBar or ambient pressure).



Optional accessories:
Voltage/I2C-Bus digital output transmitter available for this sensor

**EURO-GAS MANAGEMENT SERVICES LTD, CHURSTON HOUSE,
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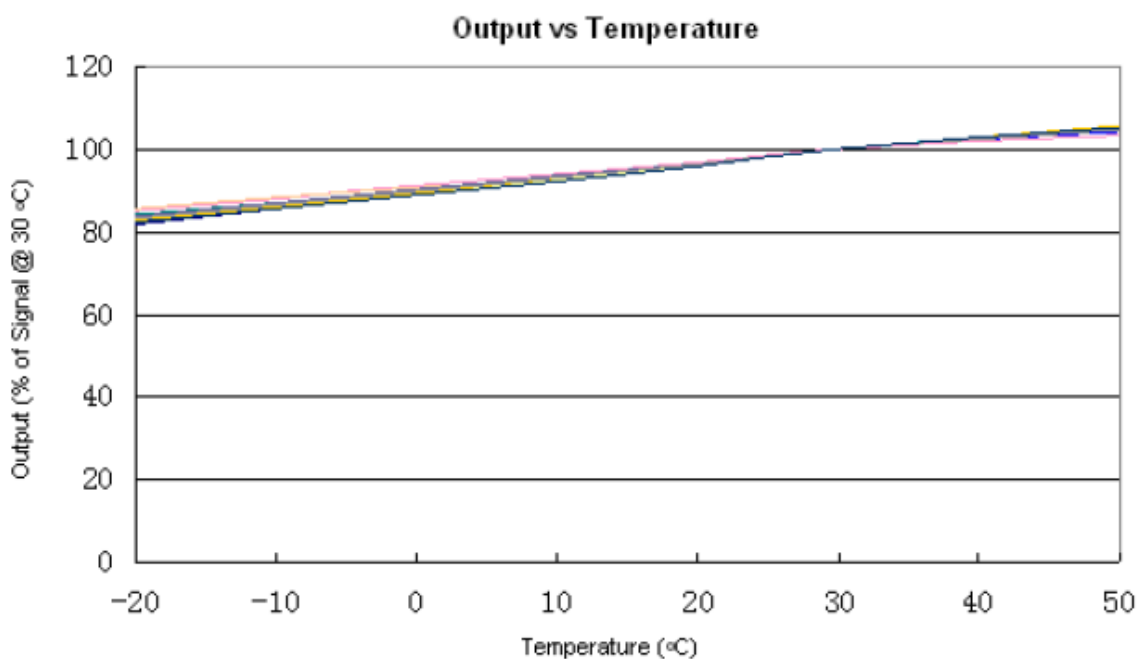
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CROSS SENSITIVITY DATA

Toxic gases at threshold limit value (TLV) levels will have no cross-sensitivity effect. At very high levels (ie.percent levels), highly oxidising gases such as ozone and chlorine will interfere to the extent of their oxygen equivalent, but most other commonly occurring gases will have no effect.

TEMPERATURE DEPENDENCE



By the nature of the technology used, any sensor can potentially fail to meet specification without warning. Euro-Gas makes every effort to ensure reliability of all sensors but where life safety is a performance requirement of the product and, where practical, Euro-Gas recommends that all gas sensors and instruments using sensors are checked for response to gas before use.

The data contained in this document is believed to be accurate and reliable. The data given is for guidance only. Euro-Gas Management Services Ltd accepts no liability for any consequential losses, injury or damage resulting from the use of this datasheet or the information contained in it. Customers should test the sensors under their own conditions to ensure that the sensors are suitable for their own requirements and in accordance with the plans and circumstances of the specific project and any standards/regulations pertaining to the country in which the sensors will be utilised. Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time. This datasheet is not intended to form the basis of a contract and in the interest of product improvement, Euro-Gas reserves the right to alter design features and specifications without notice.

08/16

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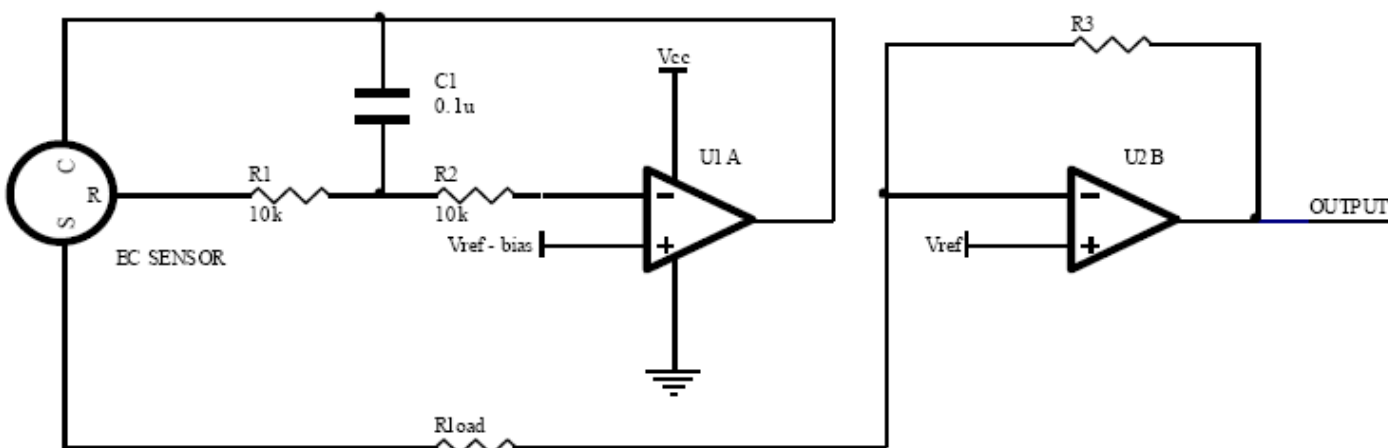
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EXAMPLE CIRCUIT DIAGRAM

Note: Do not solder to the pins. Soldering to the sensor should be avoided and will invalidate warranty. Please utilise PCB pin sockets for connection.



Rload: load resistor, refer to sensor data sheets for recommended value

R3: gain resistor, $OUTPUT = \text{cell output} \times \text{gain resistance}$

typical value of Vcc: 3.3V

typical value of Vref: 1.2V

The voltage at non inverting input of U1A: Vref - bias voltage

(for 4-O2-P the bias is -600mV)

