EC410 Electrochemical Sensor Oxygen

e₂v



PERFORMANCE

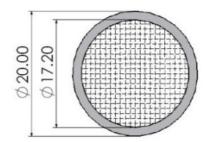
Range	0 - 30% O ₂
Over-range	
Resolution	
Expected lifetime (see note 1)	>36 months
Output signal in 20.9% O ₂	300 – 400 µA
Output signal in N ₂	40 µA
Linearity see Fig. 3 (as predicted - inverse log response)	
Response time (T90)	<15 s
Temperature range	20 to +55 °C
Temperature coefficient (see Fig 1)	<0.5% signal/°C
Pressure range90 -	110 kPa (nominal)
Pressure coefficient 0.07% typical sign	nal per kPa change
Humidity range15 - 95% RF	H (non-condensing)
Long-term Output drift <2% change i	n output per month
Operating circuit (see note 2)s	ee Electrochemical
	Application Note 5

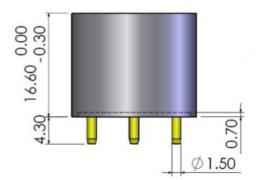
NOTES

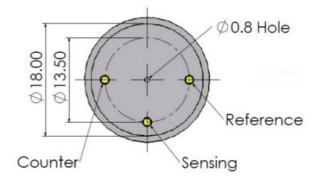
- The sensor lifetime is **not** limited by the mass of a sacrificial anode.
- This sensor requires a negative bias of -600 mV between the working and reference electrodes.

OUTLINE (Dimensions in millimetres)

Tolerances ±0.15 mm unless stated.







PHYSICAL CHARACTERISTICS

Label colour	silver
Weight	6 g
Dimensions	see outline
Shelf life	6 months

Important Note

Do not solder to the connector pins as this may damage the sensor and thereby invalidate the warranty.

Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the e2v website.

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e2v technologies (uk) limited, Waterhouse Lane, Chelmsford, Essex CM1 2QU United Kingdom Telephone: +44 (0)1245 493493 Facsimile: +44 (0)1245 492492 e-mail: enquiries@e2v.com Internet: www.e2v.com Holding Company: e2v technologies plc

e2v technologies inc. 520 White Plains Road, Suite 450, Tarrytown, NY10591 USA Telephone: (914) 592-6050 Facsimile: (914) 592-5148 e-mail: enquiries@e2vtechnologies.us

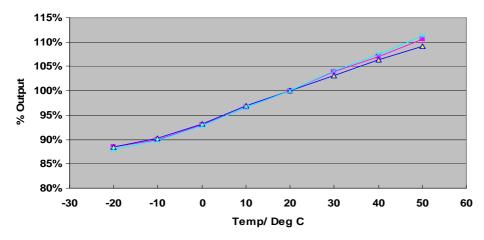


Fig. 1 - EC410 % Sensor Response (c.f. 20 °C) versus Ambient Temperature

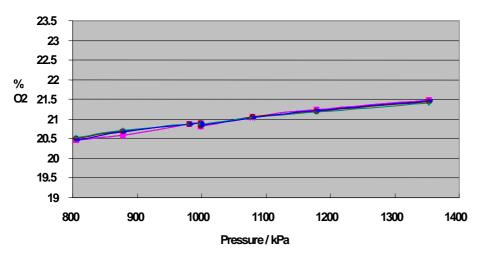


Fig. 2 – EC410 % Oxygen versus Pressure

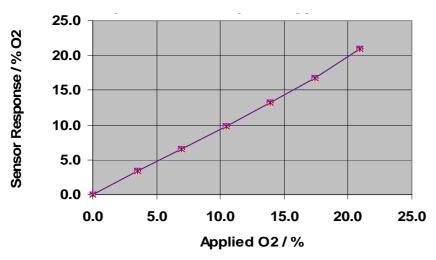


Fig. 3 - Oxygen Sensor Linearity Test - Sensor Response versus Applied Oxygen