

# e2v

## EC4-1000-ETO

### Ethylene Oxide Electrochemical Sensor

#### PERFORMANCE

(measured using Carbon Monoxide)

Range ..... 0 - 1000 ppm  
 Sensitivity..... 10 - 36 nA/ppm ETO  
 Zero in air at 20 °C..... -200 to +2500 nA  
 Resolution..... 10 ppm ETO  
 Linearity .....linear across range  
 Response time, t90..... <45 s  
 Long-term output drift.....<2% signal/month  
 Warranty ..... 2 years

#### OPERATING CONDITIONS

Temperature range .....-20 to +50 °C  
 Operating humidity..... 15 - 90% RH (non-condensing)  
 Pressure range ..... 90 - 110 kPa (nominal)  
 Operating circuit..... see Electrochemical Toxic Sensor Application Note  
 Applied potential .....+300 mV  
 Storage life..... 6 months in original packaging (0 - 25 °C)

#### PHYSICAL CHARACTERISTICS

Label colour .....silver  
 Weight..... 5 g approx.  
 Dimensions .....see outline

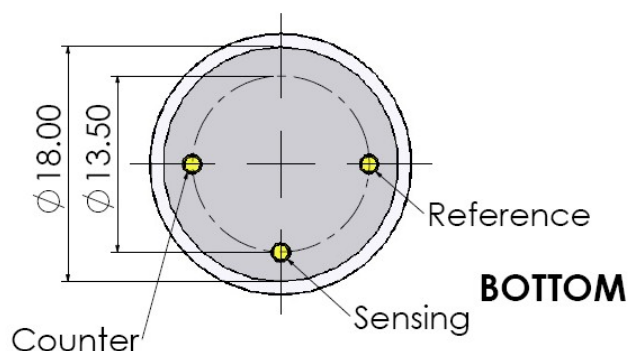
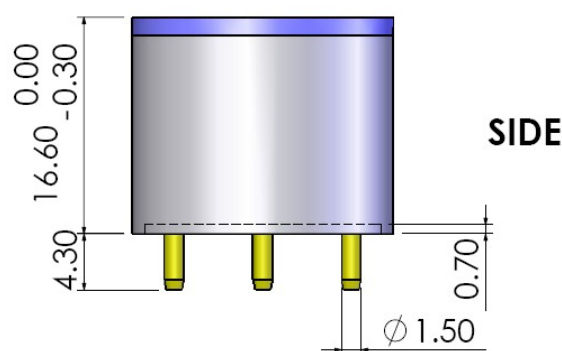
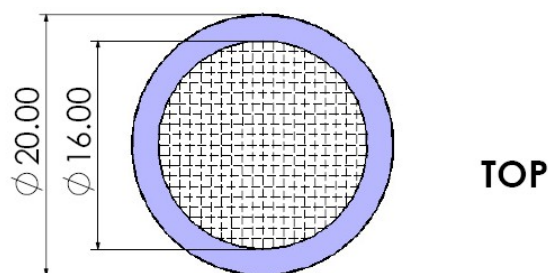
This device is designed to be RoHS compliant.

#### CROSS-SENSITIVITY DATA

GAS	Concentration ppm	Sensor Response (As ppm CO)
Carbon Monoxide	100	100
Ethylene Oxide	100	387
Ethanol	100	109
Methanol	100	496
Propan-1-Ol	100	43
Butan-1-ene	100	104
1,3 Butadiene	100	267
Ethene	100	286
Propene	100	146
Vinyl Chloride	100	177
Vinyl Acetate	100	110
Formic Acid	100	52

**Note:** This table is for reference only. Calibration should be carried out with the actual gas at a known concentration.

#### OUTLINE



All dimensions in mm.  
 All tolerances  $\pm 0.15$ mm unless otherwise stated.

#### 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.

Whilst e2v technologies has taken care to ensure the accuracy of the information contained herein it accepts no responsibility for the consequences of any use thereof and also reserves the right to change the specification of goods without notice. e2v technologies accepts no liability beyond the set out in its standard conditions of sale in respect of infringement of third party patents arising from the use of tubes or other devices in accordance with information contained herein.

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](mailto:enquiries@e2v.com) Internet: [www.e2v.com](http://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](mailto:enquiries@e2vtechnologies.us)

© e2v technologies (uk) limited 2009

A1A-764710 Version 2, October 2009

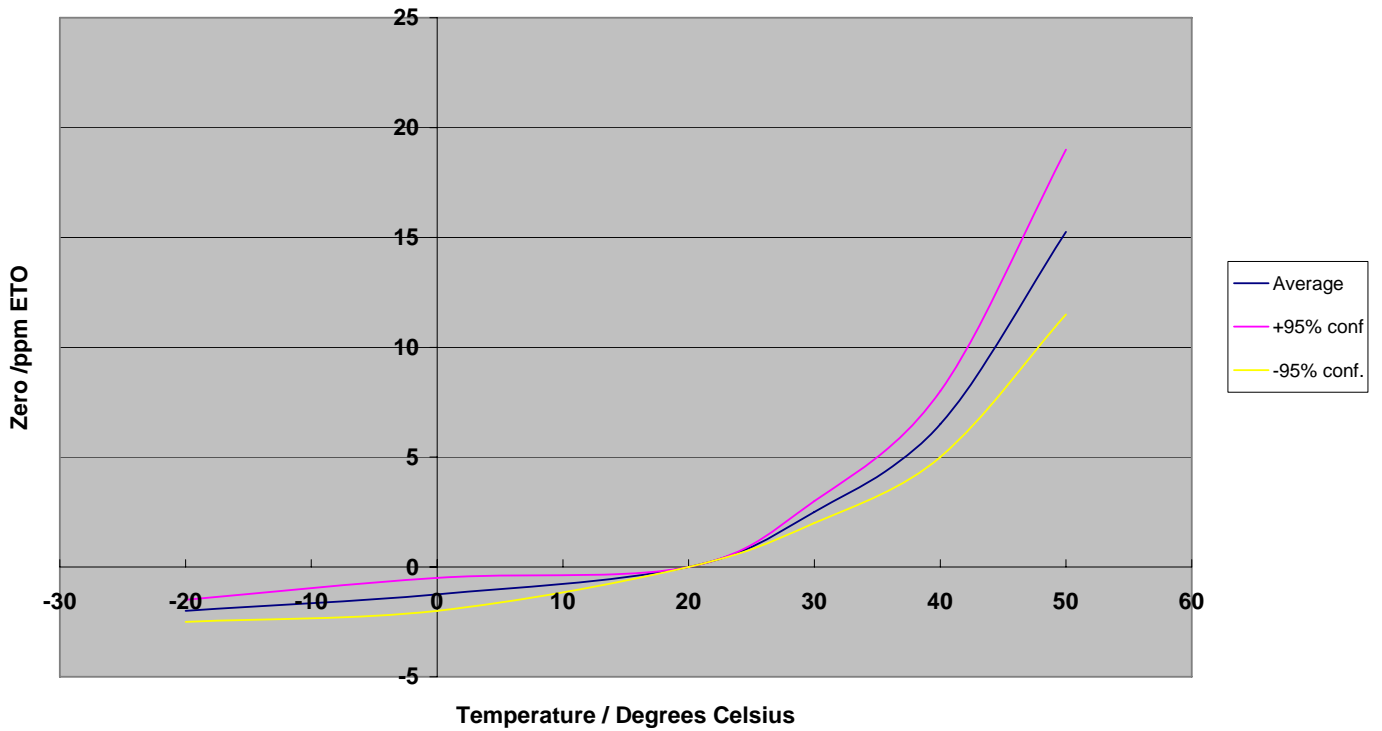
Template: DF764388A-2

SUNSTAR自动化 <http://www.sensor-ic.com/> TEL: 0755-83376489 FAX:0755-83376182 E-MAIL: szss20@163.com

107084

## TEMPERATURE DEPENDENCE

EC4-1000-ETO Graph of Zero vs Temperature



EC4-1000-ETO Graph of Sensitivity (to ETO) vs Temperature

