

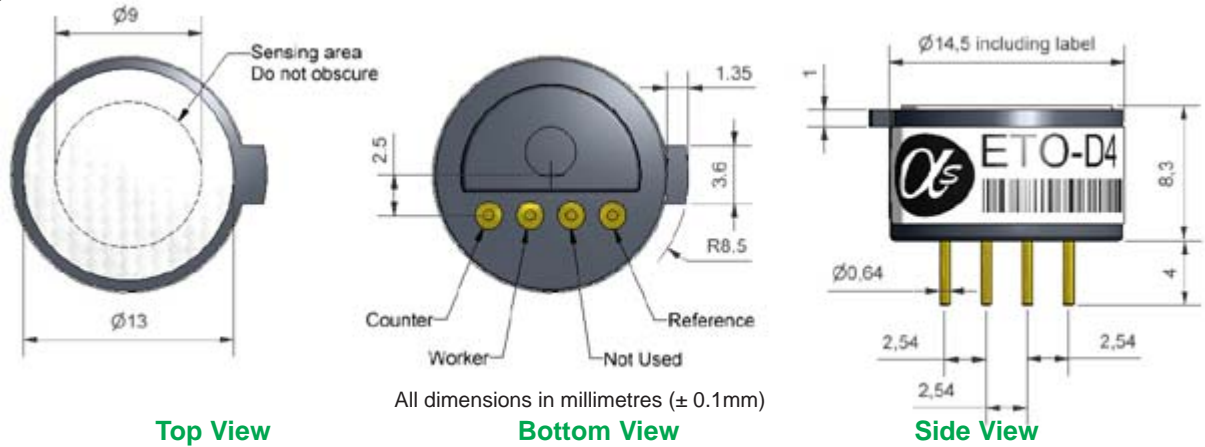


ETO-D4 Ethylene Oxide Sensor



PATENTED

Figure 1 ETO-D4 Schematic Diagram



Technical Specification

PERFORMANCE	Sensitivity	nA/ppm in 20ppm EtO	1000 to 1400
	Response time	t_{90} (s) from zero to 20ppm EtO	<100
	Zero current	ppm equivalent in zero air	<0.7
	Resolution	RMS noise (ppm equivalent)	<0.15
	Range	ppm EtO limit of performance warranty	50
	Linearity	ppm error at full scale, linear at zero, 40ppm EtO	0 to 3
	Overgas limit	maximum ppm for stable response to gas pulse	100
LIFETIME	Zero drift	ppm equivalent change/year in lab air	nd
	Sensitivity drift	% change/month in lab air, twice monthly test	nd
	Operating life	months until 80% original signal (12 month warranted)	24
ENVIRONMENTAL	Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C) @ 40ppm EtO	40 to 60
	Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C) @ 40ppm EtO	110 to 140
	Zero @ -20°C	ppm equivalent change from 20°C	< ± 1
	Zero @ 50°C	ppm equivalent change from 20°C	0 to 5
CROSS SENSITIVITY	H ₂ S	sensitivity % measured gas @ 20ppm H ₂ S	<250
	NO ₂	sensitivity % measured gas @ 10ppm NO ₂	<60
	Cl ₂	sensitivity % measured gas @ 10ppm Cl ₂	<-1
	NO	sensitivity % measured gas @ 50ppm NO	<100
	SO ₂	sensitivity % measured gas @ 20ppm SO ₂	<60
	CO	sensitivity % measured gas @ 400ppm CO	<30
	H ₂	sensitivity % measured gas @ 400ppm H ₂	<0.5
	C ₂ H ₄	sensitivity % measured gas @ 80ppm C ₂ H ₄	<100
	NH ₃	sensitivity % measured gas @ 25ppm NH ₃	<0.1
	HCHO	sensitivity % measured gas @ 4ppm HCHO	<100
	CO ₂	sensitivity % measured gas @ 5%	<0.1

KEY SPECIFICATIONS

Temperature range	°C	-30 to 50
Pressure range	kPa	80 to 120
Humidity range	% rh continuous	15 to 90
Storage period	months @ 3 to 20°C (stored in original container)	6
Load resistor	Ω (recommended)	10 to 47
Bias voltage	mV (working electrode potential above reference electrode potential)	+300
Weight		g



At the end of the product's life, do not dispose of any electronic sensor, component or instrument in the domestic waste, but contact the instrument manufacturer, Alphasense or its distributor for disposal instructions.

NOTE: all sensors are tested at ambient environmental conditions, with 10 ohm load resistor, unless otherwise stated. As applications of use are outside our control, the information provided is given without legal responsibility. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.



ETO-D4 Performance Data

Technical Specification

Figure 2 Response to 10ppm ETO

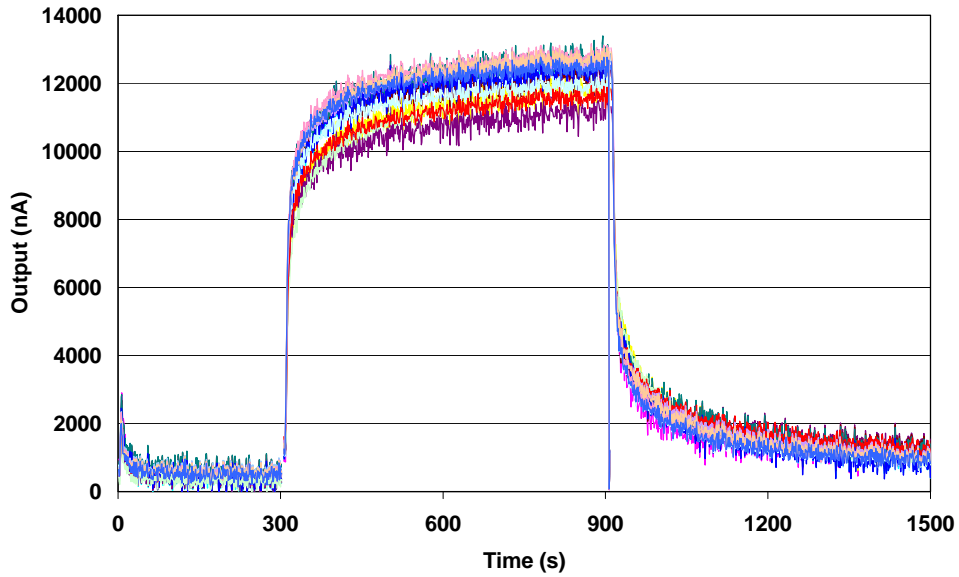


Figure 2 shows response to 10ppm ethylene oxide.

For further information on the performance of this sensor, on other sensors in the range or any other subject, please contact Alphasense Ltd. For Application Notes visit "www.alphasense.com".

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