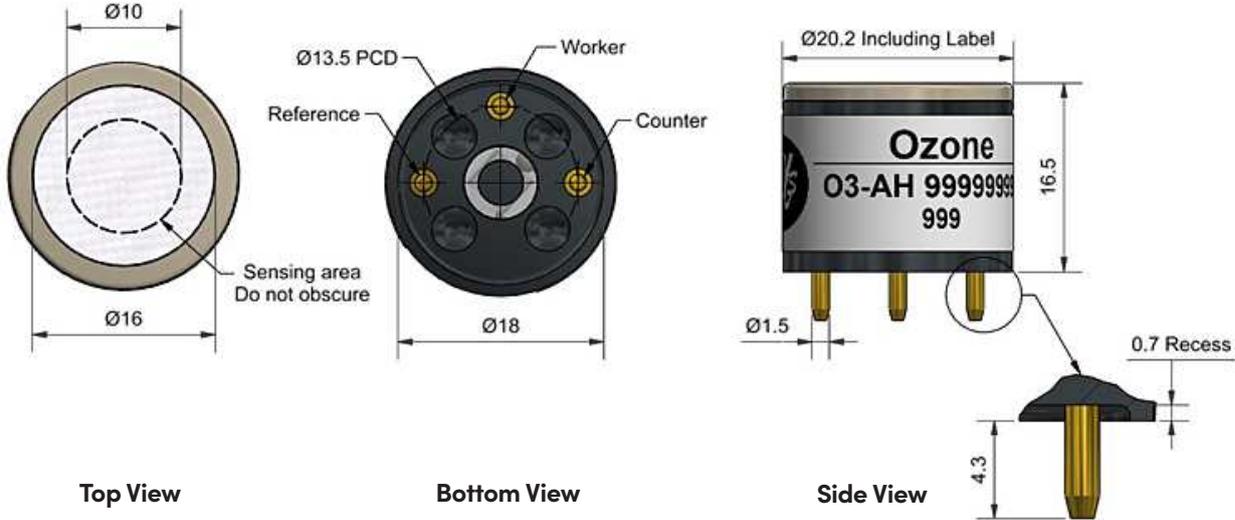




# DRAFT

Technical specifications Version 1.0

## O3-AH Ozone Gas Sensor – High Sensitivity


 Dimensions are in millimetres ( $\pm 0.15$  mm).

<b>Performance</b>	Sensitivity	nA/ppm at 1ppm O <sub>3</sub>	-200 to -700		
	Response time	t90 (s) from zero to 1ppm O <sub>3</sub>	< 80		
	Zero current	nA in zero air at 20°C	-70 to +70		
	Range	ppm O <sub>3</sub> limit of performance warranty	20		
	Linearity	ppm error at full scale, linear at zero and 20ppm O <sub>3</sub>	< $\pm 0.5$		
	Overgas limit	maximum ppm for stable response to gas pulse	50		
<b>Lifetime</b>	Zero drift	ppb equivalent change/year in lab air	0 to 20		
	Sensitivity drift	% change/year in lab air, monthly test	< -20 to -40		
	Operating life	months until 50% original signal (24-month warranted)	> 24		
<b>Environmental</b>	Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C) @ 2ppm O <sub>3</sub>	60 to 80		
	Sensitivity @ 40°C	% (output @ 40°C/output @ 20°C) @ 2ppm O <sub>3</sub>	80 to 105		
	Zero @ -20°C	nA	0 to 25		
	Zero @ 40°C	nA	20 to 90		
<b>Cross Sensitivity</b>	H <sub>2</sub> S	sensitivity	% measured gas @ 5ppm	H <sub>2</sub> S	< -80
	NO	sensitivity	% measured gas @ 5ppm	NO	< 5
	Cl <sub>2</sub>	sensitivity	% measured gas @ 5ppm	Cl <sub>2</sub>	< 100
	SO <sub>2</sub>	sensitivity	% measured gas @ 5ppm	SO <sub>2</sub>	< -3
	CO	sensitivity	% measured gas @ 5ppm	CO	< -3
	C <sub>2</sub> H <sub>4</sub>	sensitivity	% measured gas @ 100ppm	C <sub>2</sub> H <sub>4</sub>	< 0.1
	NH <sub>3</sub>	sensitivity	% measured gas @ 20ppm	NH <sub>3</sub>	< 0.1
	H <sub>2</sub>	sensitivity	% measured gas @ 100ppm	H <sub>2</sub>	< 0.1
	CO <sub>2</sub>	sensitivity	% measured gas @ 5% volume	CO <sub>2</sub>	< 0.1
	Halothane	sensitivity	% measured gas @ 100ppm	Halothane	< 0.1
<b>Key Specifications</b>	Temperature range	°C	-30 to 40		
	Pressure range	kPa	80 to 120		
	Humidity range	% rh continuous	15 to 85		
	Storage period	months @ 3 to 20°C (stored in sealed pot)	6		
	Load resistor	$\Omega$ (recommended)	33 to 100		
	Weight	g	< 6		

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 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.

In the interest of continued product improvement, we reserve the right to change design features and specifications without prior notification. The data contained in this document is for guidance only. Alphasense Ltd accepts no liability for any consequential losses, injury or damage resulting from the use of this document or the information contained within. (©ALPHASENSE LTD) Doc. Ref. O3-AH/SEP22