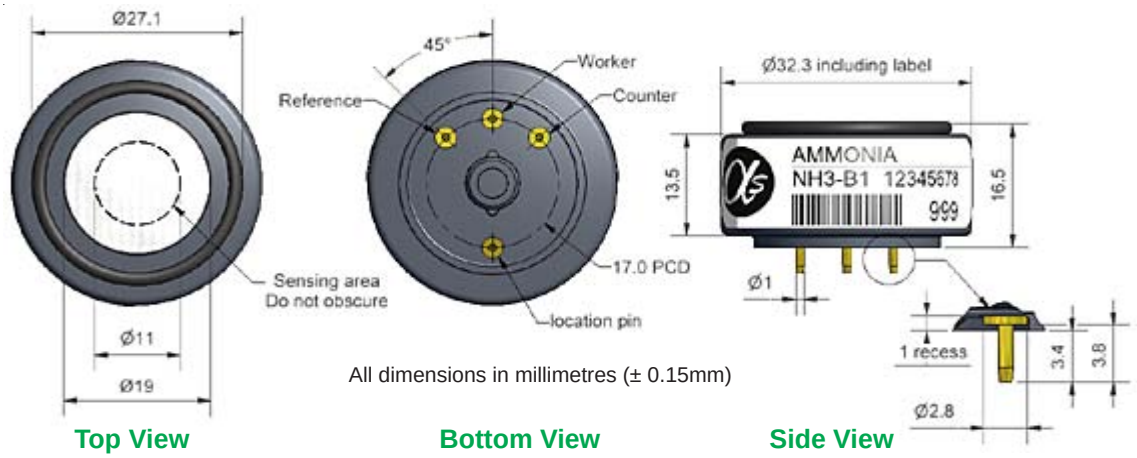
NH3-B1 Ammonia Sensor

Technical Specification

Figure 1 NH3-B1 Schematic Diagram



All dimensions in millimetres (± 0.15mm)

PERFORMANCE	Sensitivity	nA/ppm in 50ppm NH_3	25 to 45
	Response time	t_{90} (s) from zero to 50ppm NH_3 for 180 seconds	< 60
	Zero current	ppm equivalent in zero air	< ± 7
	Resolution	RMS noise (ppm equivalent)	< 0.3
	Range	ppm NH_3 limit of performance warranty	100
	Linearity	ppm error at full scale, linear at zero and 70ppm NH_3	+5 to -5
	Overgas limit	maximum ppm for stable response to gas pulse	200
LIFETIME	Zero drift	ppm equivalent change/year in lab air	< 2
	Sensitivity drift	% change/year in lab air, monthly test	< 3
	Operating life	months until 80% original signal (12 month warranted)	> 24
ENVIRONMENTAL			
	Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C) @ 20ppm	nd
	Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C) @ 20ppm	nd
	Zero @ -20°C	ppm equivalent change from 20°C	nd
	Zero @ 50°C	ppm equivalent change from 20°C	nd

CROSS SENSITIVITY	H_2S sensitivity	% measured gas @ 20ppm	H_2S	< 300
	NO_2 sensitivity	% measured gas @ 20ppm	NO_2	< -300
	Cl_2 sensitivity	% measured gas @ 10ppm	Cl_2	< -300
	NO sensitivity	% measured gas @ 50ppm	NO	nd
	SO_2 sensitivity	% measured gas @ 20ppm	SO_2	nd
	CO sensitivity	% measured gas @ 400ppm	CO	< 20
	H_2 sensitivity	% measured gas @ 400ppm	H_2	< 15
	C_2H_4 sensitivity	% measured gas @ 400ppm	C_2H_4	nd
	CO_2 sensitivity	% measured gas @ 5%	CO_2	nd

KEY SPECIFICATIONS			
	Bias voltage	mV (Working Electrode potential is above ground)	+200
	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 sealed pot)	6
	Load resistor	Ω (recommended)	10 to 47
	Weight	g	< 13

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 47 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.

iSweek www.isweek.com
Add: 16/F, Bldg. #3, Zhongke Mansion, No.1 Hi-Tech S. Rd, Hi-Tech Park South, Shenzhen, Guangdong, 518067 P.R.China
Tel: + 86-755-83289036 Fax: + 86-755-83289052 E-mail: sales@isweek.com

NH3-B1 Performance Data

Technical Specification

Figure 2 Response to Gas

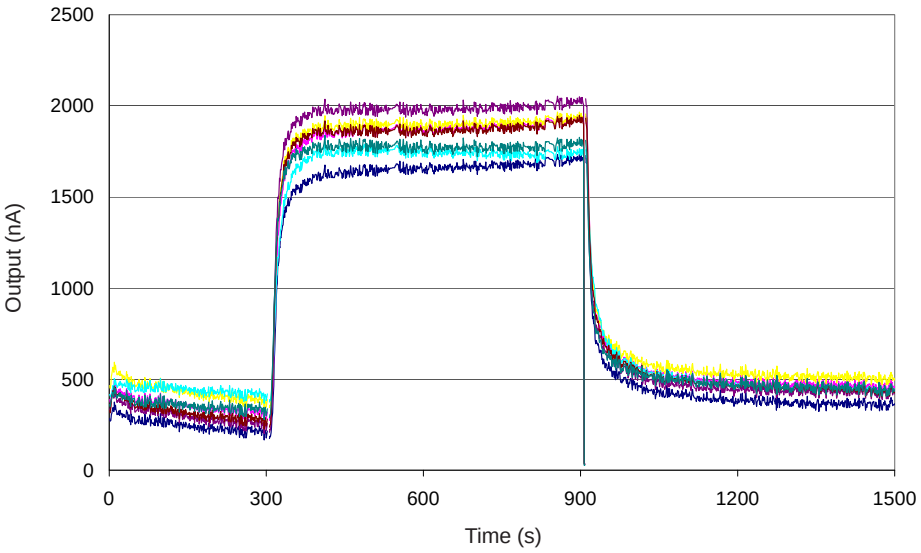


Figure 2 shows the typical response to 50ppm NH_3 at 20°C

Figure 3 Linearity

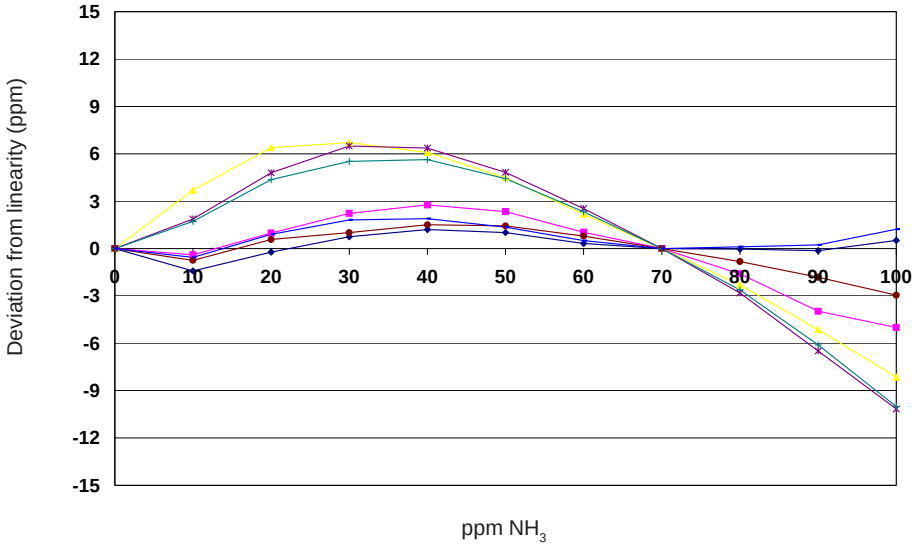


Figure 3 shows the deviation from linear response from 0 to 100ppm NH_3, with 0 and 70ppm reference concentrations.

iSweek www.isweek.com
Add: 16/F, Bldg. #3, Zhongke Mansion, No.1 Hi-Tech S. Rd, Hi-Tech Park South, Shenzhen, Guangdong, 518067 P.R.China
Tel: + 86-755-83289036 Fax: + 86-755-83289052 E-mail: sales@isweek.com