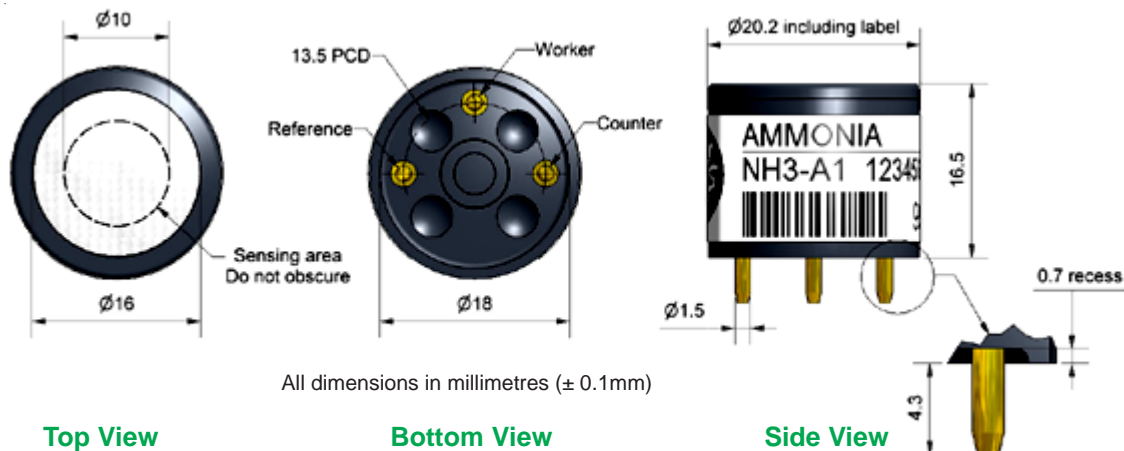


NH3-A1 Ammonia Sensor



Figure 1 NH3-A1 Schematic Diagram



Technical Specification

PERFORMANCE			
Sensitivity	nA/ppm in 50ppm NH ₃		17 to 27
Response time	t ₉₀ (s) from zero to 50ppm NH ₃		<60
Zero current	ppm equivalent in zero air		<20
Resolution	RMS noise (ppm equivalent)		<0.3
Range	ppm NH ₃ limit of performance warranty		200
Linearity	ppm error at full scale, linear at zero and 20ppm NH ₃		+1 to -10
Overtgas limit	maximum ppm for stable response to gas pulse		1000

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 (24 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 ₂ S	sensitivity	% measured gas @ 20ppm	H ₂ S		<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 ₂ H ₄	sensitivity	% measured gas @ 400ppm	C ₂ H 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		<6

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.