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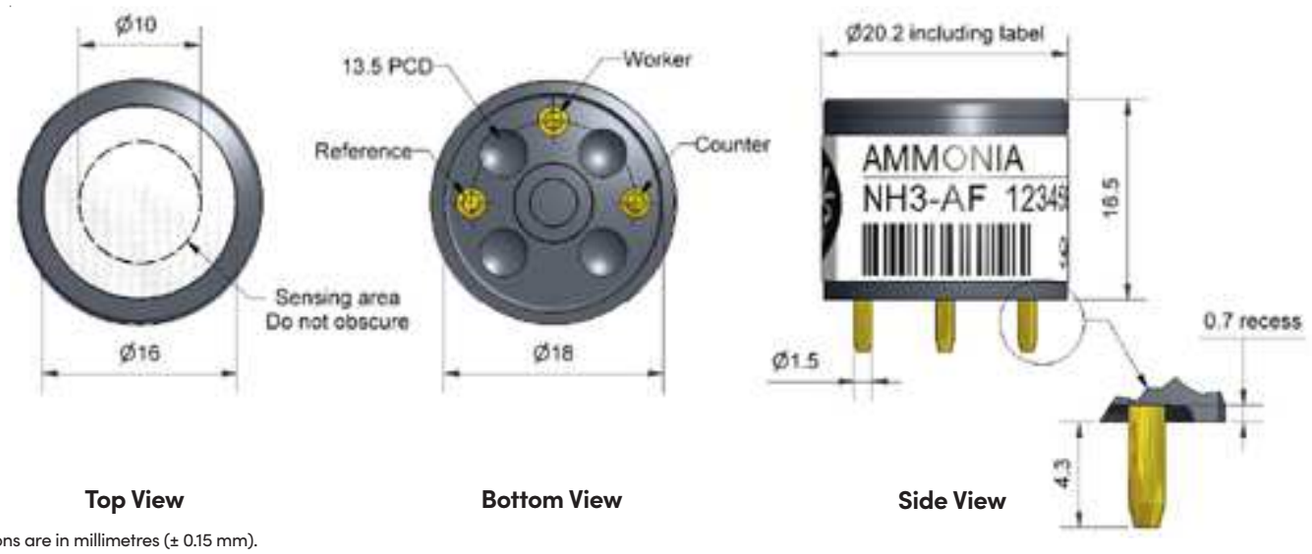
alphasense
AMETEK

Technical specifications Version 1.0

NH3-AF Ammonia Sensor



Top View **Bottom View** **Side View**

Dimensions are in millimetres (± 0.15 mm).

Performance	Sensitivity	nA/ppm in 50ppm NH_3		15 to 40
	Response time	t90 (s) from zero to 50ppm NH_3 (300 seconds)		< 150
	Zero current	ppm equivalent in zero air		< ± 10
	Range	ppm NH_3 limit of performance warranty		100
	Linearity	ppm error at full scale, linear at zero and 40ppm 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 (24-month warranted)		> 24
Environmental	Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C) @ 50ppm		100 to 110
	Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C) @ 50ppm		100 to 110
	Zero @ -20°C	ppm equivalent change from 20°C		-10 to 0
	Zero @ 50°C	ppm equivalent change from 20°C		5 to 20
Cross-sensitivity	H_2S sensitivity	% measured gas @ 20ppm	H_2S	< ± 3
	NO_2 sensitivity	% measured gas @ 20ppm	NO_2	< -60
	Cl_2 sensitivity	% measured gas @ 10ppm	Cl_2	< -300
	NO sensitivity	% measured gas @ 50ppm	NO	< 20
	SO_2 sensitivity	% measured gas @ 20ppm	SO_2	nd
	CO sensitivity	% measured gas @ 400ppm	CO	< 25
	H_2 sensitivity	% measured gas @ 400ppm	H_2	< 15
	C_2H_4 sensitivity	% measured gas @ 400ppm	C_2H_4	<2
	CO_2 sensitivity	% measured gas @ 5%	CO_2	0
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 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.

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. Doc. Ref. NH3-AF/SEP22

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