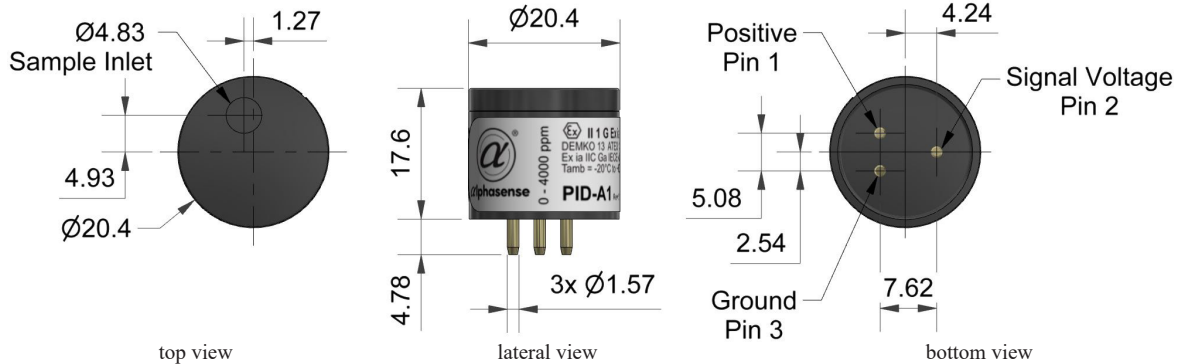




PID-A15 Photoion detector



Figure 1 PID-A15 Diagram



remarks :

1. Please do not block the Ø4.83 sensing area
2. Pin definition:
Pin 1 : Power input
Pin 2: Signal output
Pin 3: Grounding
3. Unless otherwise stated, all dimensional errors are ±0.1mm
4. You need to use a socket connection
5. Welding or cutting the connection pins may permanently damage the sensor and cause the warranty to become void

Performance (using a 10.6-eV bulb)

Target gas	VOCs with ionization potential less than 10.6eV		
Minimum detection level linear range over the scale	ppb isobutene		100
	ppm isobutene		200
	ppm isobutylene		4,000
Minimum sensitivity	linear range	mV / ppm isobutylene	0.69
Typical sensitivity	Linear range	mV / ppm isobutylene	1.1
full stabilization time	preheating time	Seconds (from the time of activation to full operation t)	5
offset voltage		mV	40~75
Response time (t90)	second	dispersal pattern	2

electrical			
power dissipation	80 mW ~ 200 mW depends on the supply voltage		
service voltage	3.2 ~ 5.5 VDC		
output signal	0.040~2.85V		
environment			
Temperature range	-20°C ~ +60°C		
temperature characteristics	See figure below		
Relative humidity range humidity sensitivity	No condensation		0 ~ 95% close to zero
	Working period: 0% ~ 75% rh instantaneously		

key parameter

Working life,	5 years (excluding replaceable bulbs and grilles)
S approved onboard filter membrane bulb grid weight	, ECEX Ex ia, C Ga; ATEX II 1 G Ex ia IIC Ga-200C <Ta <+60OC filter out liquids and micro-particles Users can be replaced, life expectancy =10000 hours Users can replace 1.1*
Location sensitivity warranty	not have Main body: 12 months. Bulb and grid replaceable. 10.6ev Bulb: 6000 hours of illumination US Patent 6,646,444; Japanese Patent 3,793,757
Patent information	

Note: Unless otherwise specified to ensure sensor suitability, all sensors shall comply with their own requirements. All testing shall be conducted under ambient conditions. As customer applications fall outside our control, no legal liability shall be assumed for the provided information. Customers shall conduct tests under their own conditions.



PID-A15 Performance parameters

Technical Specification

Figure 2 Sensitivity Temperature Characteristics

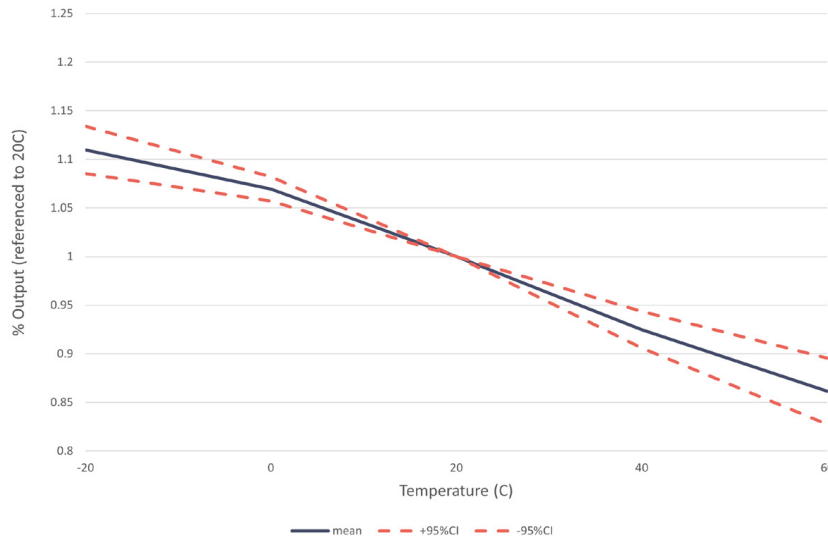


Figure 2 shows the temperature characteristics of sensitivity, which have been corrected for the gas law.

This data is derived from the test results of a typical batch PIDA15 sensor in 100ppm isobutylene.

Figure 2 shows the mean percentage of output (reference 20°C) and ± the 95% confidence interval.

Figure 3 Linearity (isobutylene)

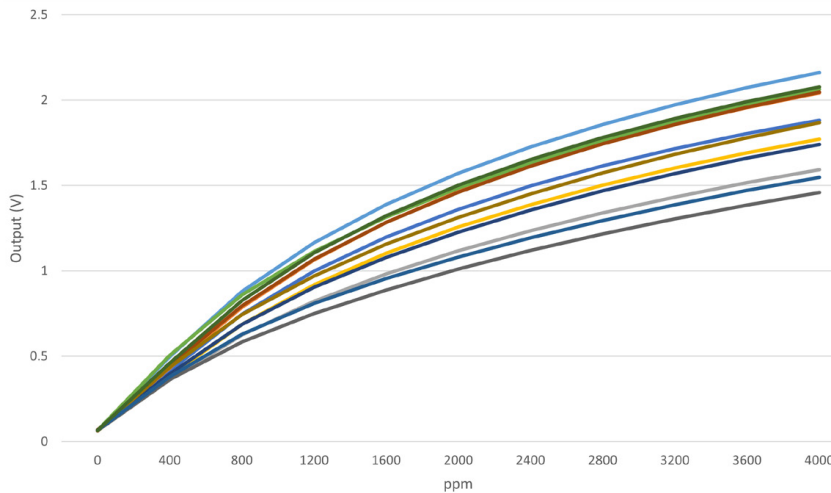


Figure 3 shows the response curves of the 20 sensors over their entire working range. At higher concentrations, the PID output is nonlinear, but repeatable and can be corrected in the software.

Table 1: List of replacement parts/consumables

P / N	explain	P / N	explain
001-0036-00	gas hood	001-0043-00	Maintenance toolbox, including: 2 :: Polishing sheets
001-0037-00	Lid with snap-on fastener		2 * 10 µm, bottom cloth filter
001-0038-00	pad		2 * 1 µm, top Teflon large filter
001-0039-00	1 µm, Teflon, top filter, large		1 :: Padding swabs
001-0040-00	10 µm, cloth, bottom filter	001-0044-00	Sensors repair kit, including: 2 :: 10.6 eV lamp
001-0041-00	Detector ionization chamber assembly		1 :: Detector ionization chamber assembly
001-0042-00	10.6 eV lamp		1 * 1 µm, Teflon made large top filter
001-0046-00	10.6 Independent packaging of bulbs eV	001-0045-00	Lightbulb cleaning kit
		001-0047-00	Quick response 0 ~ 2000 ppm sensor

When a product reaches the end of its service life, do not dispose of electronic sensors, components, or instruments in household waste. Instead, contact the instrument manufacturer, Alphasense, or its authorized distributors for disposal instructions. Important: Unless otherwise specified, all sensors are tested under ambient conditions. As customer applications may exceed our control parameters, the provided information does not constitute legal liability. Customers should conduct their own testing to ensure the sensors meet their specific requirements.

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