

Arc-Light is the world's first PID Sensor with a ceramic body lamp. Ceramic lamp technology significantly enhances lifetime and performance of PID sensors. High purity working media produces a clean and sharp output spectrum. It ensures consistent response and long-term stability of intensity.

## General Specifications

With Heatwave technology onboard Arc Light is almost entirely immune to condensing environments. Long life, stable operation and moisture immunity make for a world class PID Sensor

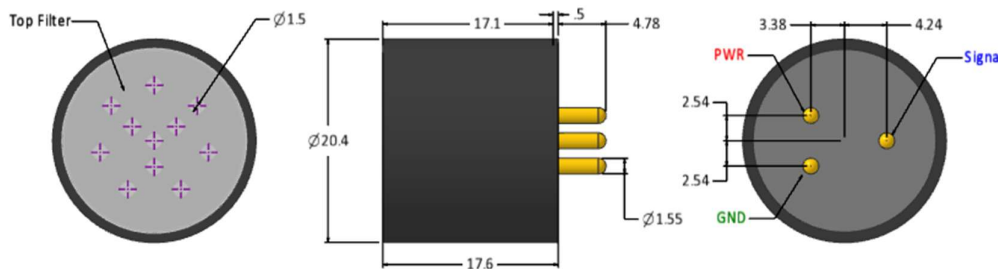
Performance/Electrical/Lifetime	
Responsive Compounds	IP approx. <= 10.6 eV
Operating Temperature	-40 Deg C to 55 Deg C
Operating Humidity	100% (light/moderate condensation)
Certifications	Ex ia IIC T6 Ga, RoHS
Supply Voltage	3.25V - 5.5V
Current Draw	80 mA-100 mA (@3.3V)
Signal Range	.04V – 2.5 Linear (2.9V max)
Background Signal	40 mV – 100 mV
Typical Life (body)	Sensor Body - 5 yrs
Typical Life (ELT Lamp)	ELt Lamp - in excess of 2 yrs
Typical Life (Cell)	18 to 24 months
Warranty	Detection Cell - 2 yrs/Lamp&Body - 3 yrs

Sample delivery via diffusion (pumped @ ~200 SCCM)

## Sensor Specifications by Range:

P/N	Range	MDQ	Sensitivity	T90	Background
AL-T50	5 ppm	0.5 ppb	> 200 mV/ppm	< 20 sec	30-80 mV
AL-T21	20 ppm	1 ppb	> 75 mV/ppm	< 15 sec	30-80 mV
AL-T51	50 ppm	1 ppb	> 50 mV/ppm	< 15 sec	30-60 mV
AL-T22	200 ppm	10 ppb	> 7.5 mV/ppm	< 5 sec	30-60 mV
AL-T23	2000 ppm	500 ppb	> 1 mV/ppm	< 5 sec	30-60 mV
AL-T14	10,000 ppm	1 ppm	> 0.2 mV/ppm	< 5 sec	30-60 mV

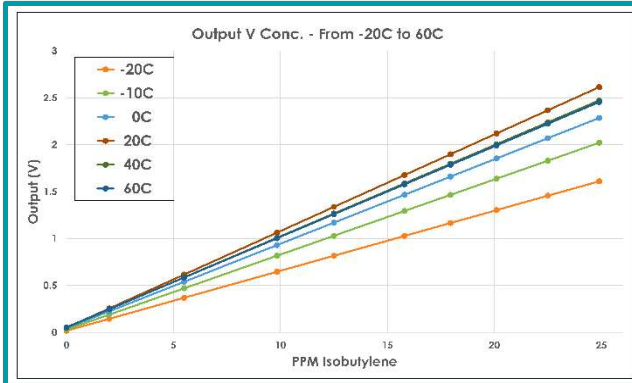
## Physical (mm):



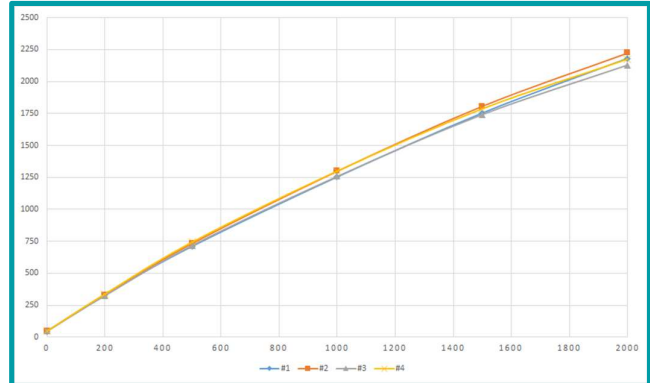
## Performance Data:

The following performance data has been collected from standard sensors and is representative of the commercially available product. Actual performance of products is a function of testing conditions and subject to natural variability.

### Temperature Drift



### Linearity



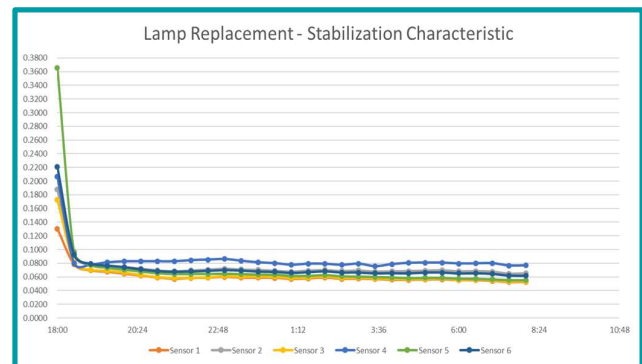
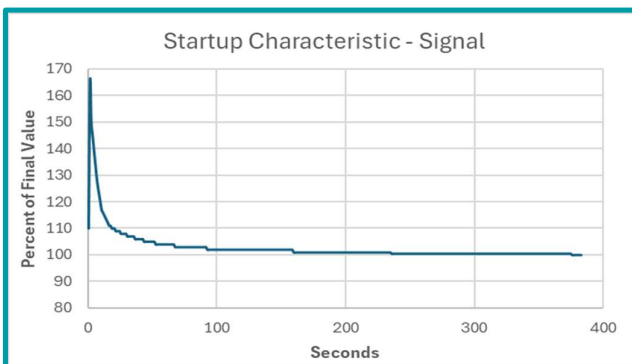
### Temperature

Heatwave PID sensors are specified to operate from -40° C to 55° C. Test data is produced here from -20° C to 60° C showing characteristic temperature drift. Sensors were started up at 20° C +/- 10° C. Startup is not guaranteed at extreme temperatures though an operating sensor will continue to operate

### Linearity

PID sensors generally exhibit good linearity up to about 500 ppm. At high concentrations, the signal will roll off. This characteristic is reasonably reproducible such that linearizing corrections are often employed at high concentrations.

### Startup – Stabilization Characteristics



### Startup Stabilization

When a lamp is started, it will exhibit initial high intensity output which quickly stabilizes, usually within a few minutes. When newly manufactured lamps are first energized, they exhibit a longer stabilization period. Reasonable stabilization of new lamps may take 1 hr whereas full stabilization may take a full week.