

Rainbow Series – PID Sensor

American Technology + Chinese Efficiency = Best Value



Applications Uniques LLC and Hunan Senqi are introducing a new high performance series of PID sensors that incorporates the very best available PID technology from the USA and Europe, manufactured and tested in China to our exacting standards.

The Rainbow Series of photoionization sensors covers the useful range of PID with the largest selection of standard measurement ranges on the market. Extended ranges are available upon request.

Features

- **Long Life** – 7500 hours - lamp and detection cell lifetime
- **Temperature Stable** up to 65 deg C – Response variation typically < 10% of FS
- **Humidity Tolerant** (0% to 95% RH) with minimal quenching (< 15% from 0% RH to 95% RH)
- **Sensitive and Repeatable** performance
- **Easy Access** to filters, detector cell and lamp for regular maintenance
- **Direct Replacement** for more expensive and poor performing products
- **Fast Warm-up** to stable operation
- **Low Power** consumption
- **Affordable** and high performance

Ranges and Specifications:

The Rainbow series of PID sensors from Applications Uniques LLC offers the most standard range configurations of any PID sensor manufacturer.

Rainbow Series					Standard Products
	Part Number	Lamp	Conc. Range	Output V	Response (T90)
10 PPM	P/N: PS-10-S	10.6 eV	2ppb - 20ppm	45mV - 2.5V	< 7 Sec
20 PPM	P/N: PS-20-S	10.6 eV	5ppb - 20ppm	45mV - 2.5V	< 6 Sec
50 PPM	P/N: PS-50-S	10.6 eV	15ppb - 50ppm	45mV - 2.5V	< 5 Sec
100 PPM	P/N: PS-100-S	10.6 eV	25ppb - 100ppm	45mV - 2.5V	< 5 Sec
200 PPM	P/N: PS-200-S	10.6 eV	50ppb - 200ppm	45mV - 2.5V	< 5 Sec
500 PPM	P/N: PS-500-S	10.6 eV	200ppb - 500ppm	45mV - 2.5V	< 5 Sec

- Six standard ranges from 10 ppm to 500 ppm
- Custom ranges available from 1 ppm FS to 10,000 ppm FS
- Sensitivity to ≤ 1 ppb isobutylene
- Linear range to 2.5V
- Response time (T90) < 10 seconds (sample and range dependent)

Note: All ranges based upon isobutylene in air and with LDL determination based upon signal to noise ratio of 3:1

Electrical

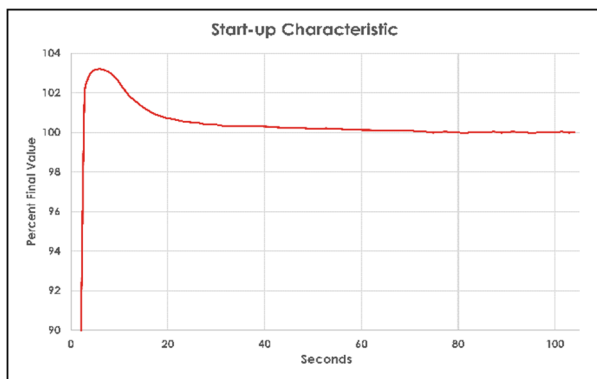
- Supply Voltage 3.2V to 5.5 V
- Current draw – 24mA to 36 mA

Applications

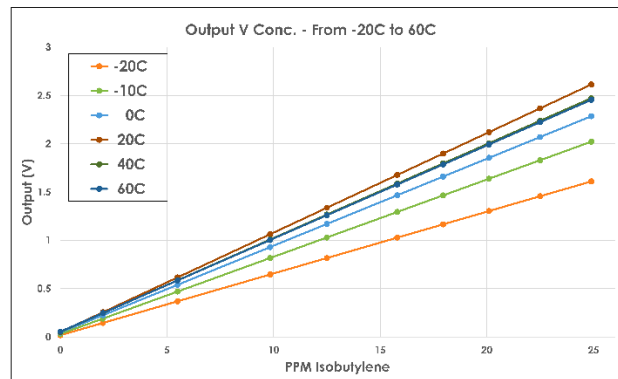
- Hand-held or Fixed Instruments
- Confined Space Entry
- Fugitive Emissions Detection
- Environmental Monitoring (Ambient/Fence-line/IAQ)



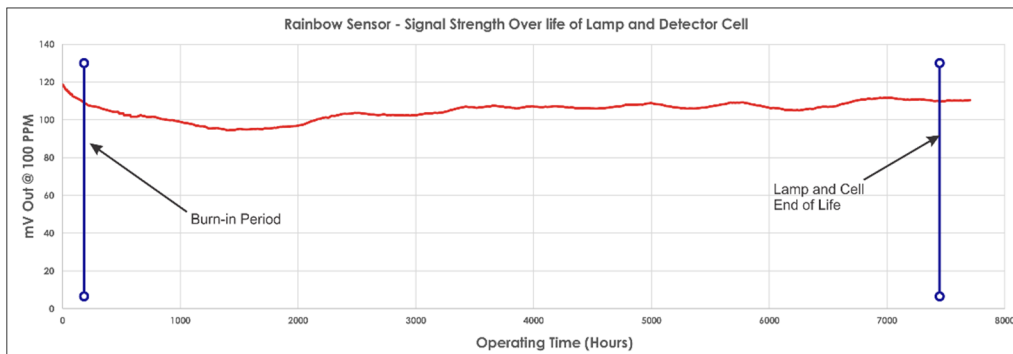
Warm-up Time



Temperature Effect/Gain Shift



Gain Stability (life-time)



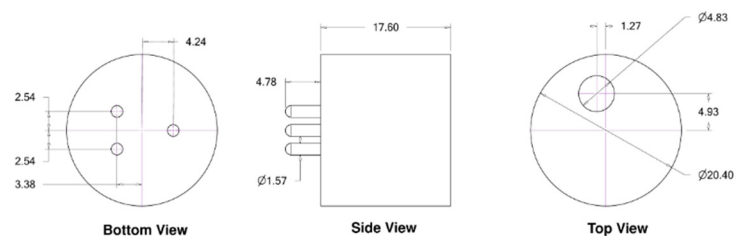
Note: All data presented here represents typical performance.

Actual results are dependent upon test conditions and product variation

Mechanical Details

The Rainbow Series sensor is based upon the common 4S PID sensor standard as popularized by the original PID Sensor manufacturer.

Physical Dimensions (mm)



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