

The Heatwave PID Sensor is the only PID sensor in the world that has been specifically designed for use in condensing atmospheres. Heatwave performs well through extreme hot and wet weather events that cause other available PID sensors to fail.



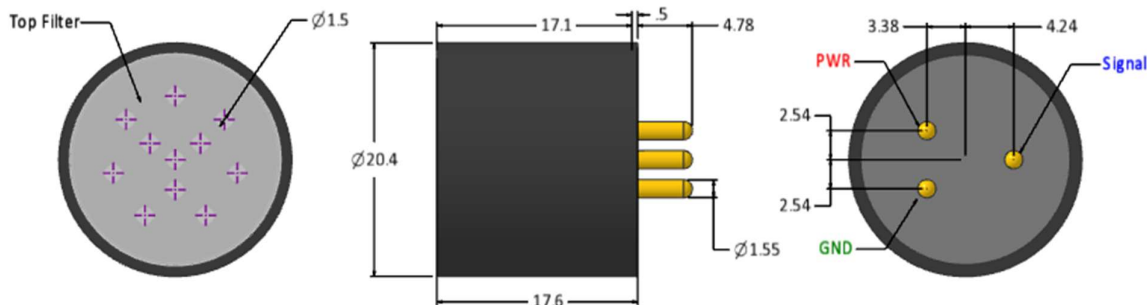
General Specifications:

Sensing Capability	VOCs gases with ionization potentials of approximately 10.6 eV or less
Supply Voltage	3.25 ~ 5.5 VDC
Rated Current	70 to 85 mA 3.3VDC (supply voltage dependent)
Output Signal	0.04 ~ 2.5 V (over range up to 2.95V)
Operating Temperature	-40 °C ~ 55°C
Operating Pressure	0.5 ~ 2 ATM (ideal gas law dependent drift)
Working humidity	0 - 100% RH - Including Light to Moderate Condensation Conditions
Sampling Method	Diffusion at Sensor face (pumping flow rates 200mL/min ~ 300mL/min recommended)
life span	>5 years (except bulb and detection cell), typical life of lamp >15,000 hours, detection cell 1 years
Warranty	5 Year Body, 2 years lamp (coated lamp), 1.5 year ionization cell
Certifications	RoHS Compliant
weight	9.5g

Sensor Specifications by Range:

P/N	Full Scale	MDQ	Sensitivity	T90	Background Signal
HW-T50	5 ppm	0.5 ppb	> 200mV/ppm	< 30 Sec	60 mV - 150 mV
HW-T21	20 ppm	1 ppb	> 80 mV/ppm	< 15 Sec	45 mV - 80 mV
HW-T51	50 ppm	1 ppb	> 40mV/ppm	< 10 Sec	45 mV - 60 mV
HW-T22	200 ppm	10 ppb	> 10mV/ppm	< 5 Sec	45 mV - 60 mV
HW-T23	2000 ppm	500 ppb	> 1mV/ppm	< 5 Sec	43 mV - 46 mV
HW-T14	10,000 ppm	1 ppm	> 0.2mV/ppm	< 5 Sec	43 mV - 46 mV

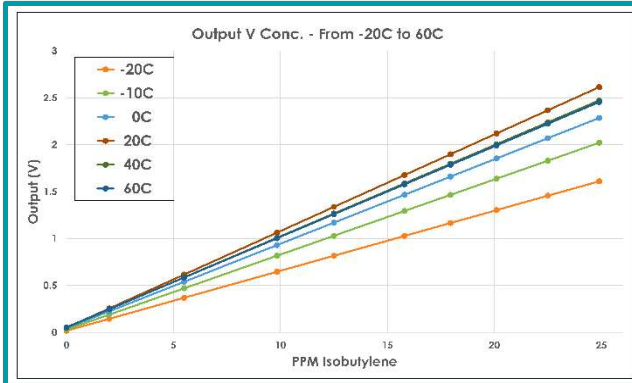
Physical Dimensions (mm):



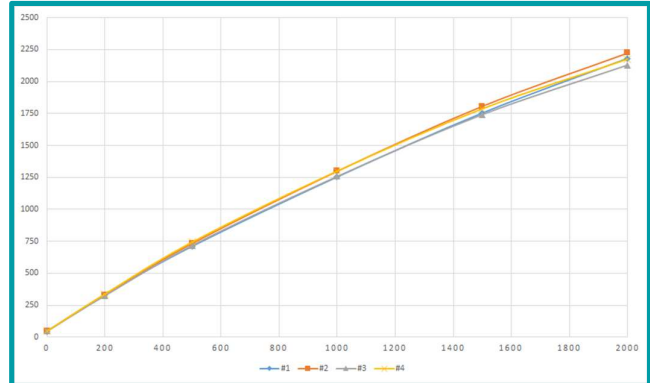
Performance Data:

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



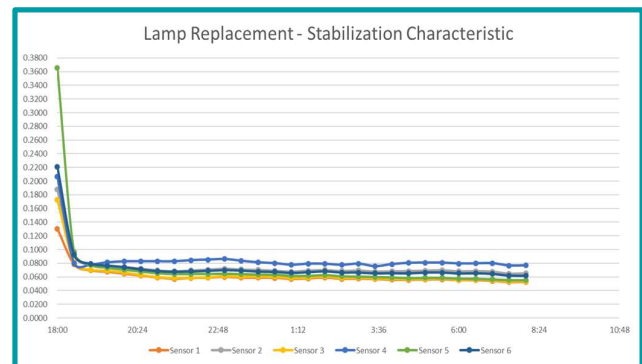
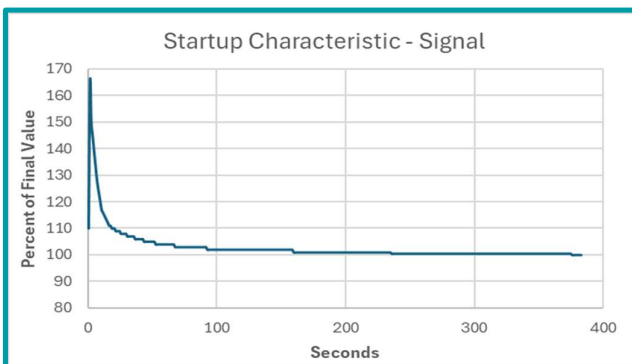
Temperature

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.