APPLICATIONS UNIQUES TAIWAN

Full Range PID

Product Data Sheet

The AU ***FullRange*** PID Sensor is a dual output sensor that covers an extraordinary range of measurement.

- The low range signal is useful for measurements from about 1 ppb to 50 ppm or more.
- The high range signal covers up to 10,000 ppm or more.

This dual range approach covers an atsounding 7 orders of magnitude, from 1ppb to 10000ppm, in a single PID Sensor. It has proven popular for hand-held leak detection and other specialty applications.

General Specifications:

Model/Part No. FullRange/FR-T14

Performance	
Low Signal Range	> 50 ppm
High Output Range	10,000 ppm
Low Signal Sensitivity	30 mV/ppm
High Signal Sensitivity	> 0.1mV/ppm
LDL/MDQ	Low Signal <= 1 ppb
Response Time (T90_	Low < 10 sec / High < 5 sec
Responsive Compounds	IP approx. <= 10.6 eV
Operating Temperature	-40 Deg C to 50 Deg C
Operating Humidity	0~99% Non-condensing
Certifications	Ex ia IIC T4 Ga, RoHS

Electrical	
Supply Voltage	3.25V - 5.5V
Current Draw	70mA-80mA (@3.3V)
Signal Range	.04V – 2.5 Linear (2.9V max)
Background Signal	40 mV – 100 mV

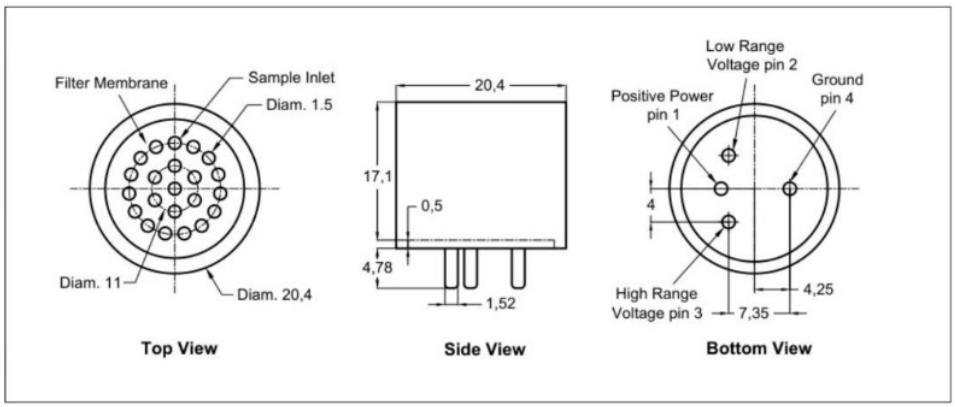
Lifetime	
Typical Life (body)	Sensor Body - 5 yrs
Typical Life (ELT Lamp)	ELt Lamp - in excess of 2 yrs
Typical Life (Cell)	18 to 24 months
Warranty	Entire Sensor & Parts - 2yrs

Sample delivery via diffusion (pumped @ 200 SCCM)

ELT Coated Lamps:

Extended Lifetime Coating Technology Lamp (ELT) is included in all FullRange sensors. Our proprietary coating significantly increases lamp life, stability and performance.

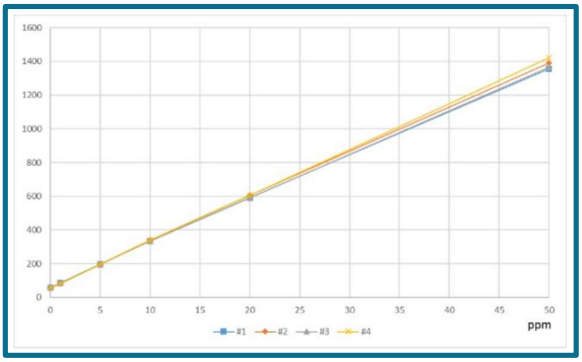
Physical Dimensions (mm):



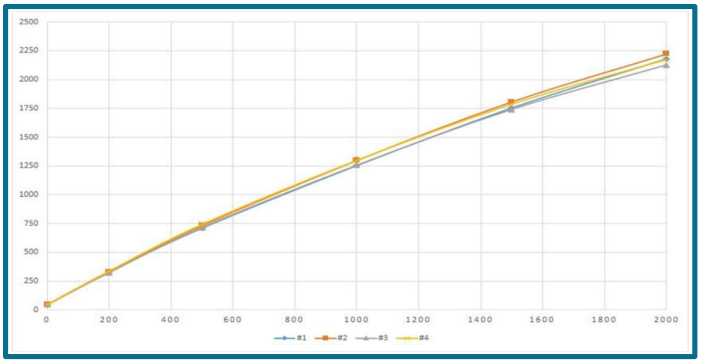
Performance Data:

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.

Low Range Signal Response



High Range Signal Response



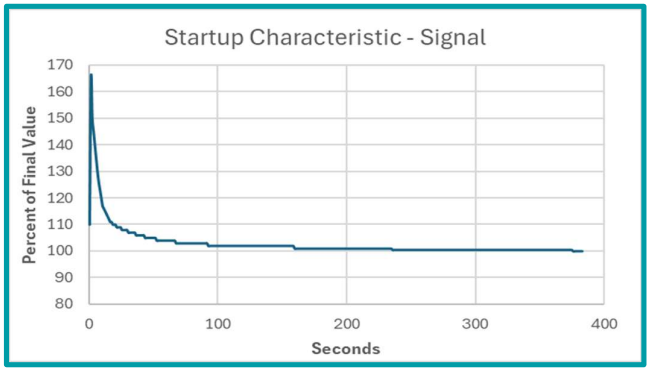
Temperature

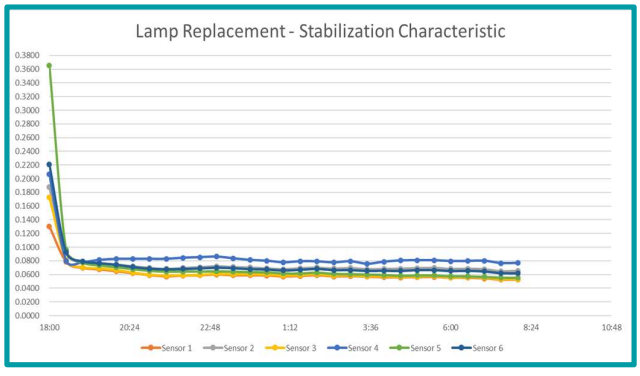
FullRange PID sensors are specified to operate from -40˚ C to 55˚ C. Temperature drift is equivalent to that of our Heatwave series sensors. Startup at 20˚ C +/- 10˚ C. Startup is not guaranteed at extreme temperatures though an operating sensor will continue to operate into the extremes of the temp range.

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.