



MiniPID 2 HS

Technical Specification

Performance

Target gases	VOCs with ionisation potentials below 10.6 eV
Minimum detection limit	0.5 ppb
Overrange	3 ppm
Sensitivity	> 500 mV/ppm
Warm up time	10 minutes
Offset voltage	100 - 200 mV
Response time	10 seconds
Filter lifetime	1 year
Operating life	>5 years
Position sensitivity	None



Further Specifications

Onboard filter	Hydrophobic, removes particulates and liquids
Error state signal (diagnostics)	< 50 mV
Weight	< 8 g
Package type	Series-4 package size, 3-pin interface
Serviceable parts	Electrode stack, lamp
Warranty period	12 months
Recommended storage conditions	10 - 30 °C, ≤95 %RH (no dew condensation)

Intrinsic Safety

IS Approval	<p>ATEX, IECEx II 1G Ex ia IIC T4 Ga CLASS1, DIV1 Groups ABCD, Conforms to UL STD. 913</p> <p>Certified to CSA STD. C22.2 No 157 -40 °C < Ta < +55 °C @ 1.1W (65 °C @ 0.9W)</p>
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Features & Benefits

- Patented humidity resistant technology
- High sensitivity for ppb level detection
- 10.6 eV UV lamp
- 10,000 hours continuous lamp life
- Removable, pneumatically sealed electrode stack
- Certified Intrinsic Safety
- Series-4/A1 package size
- 12 month warranty
- Sensor lifetime >5 years (excluding lamp and electrode stack)
- Manufactured in the UK

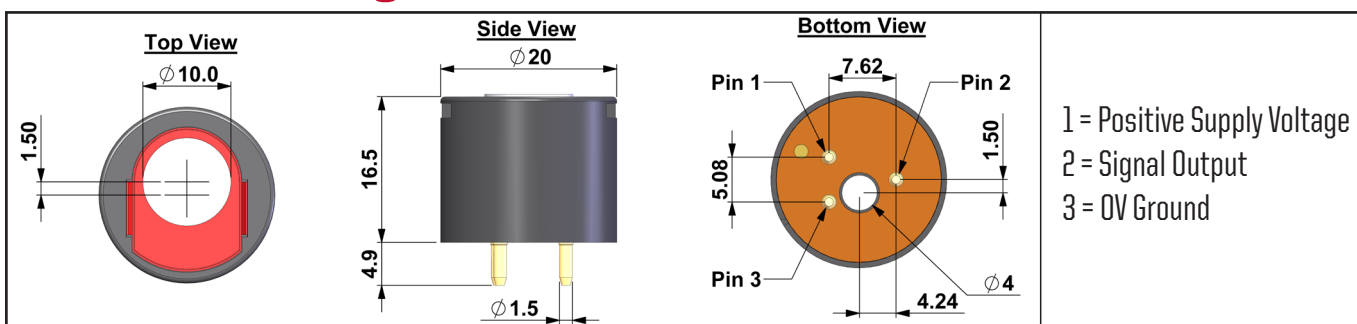
Typical Applications

- Indoor/outdoor air quality monitoring
- Personnel safety
- Industrial hygiene
- Site soil and air sampling
- Fugitive emissions and volatile spills
- Law enforcement
- Emergency response

Electrical

Power consumption	90 mW (max) at 3.3 V
Supply Voltage	Dependent upon sensor type: 3.0 - 3.2 V and 3.2 - 3.6 VDC. Ideally regulated +/- 0.01V (onboard regulator disabled. Performance dependent on input voltage) 3.6 - 10 VDC (onboard regulator enabled) 3.6 - 18 VDC (onboard regulator enabled. Not IS approved)
Output signal range	Supply voltage minus 0.2 V (when on-board regulator enabled supply voltage is 3.3 V)
Current	24 - 33 mA (dependent upon supply voltage)
Peak current	130 mA, 100 ms max.

Schematic Diagram



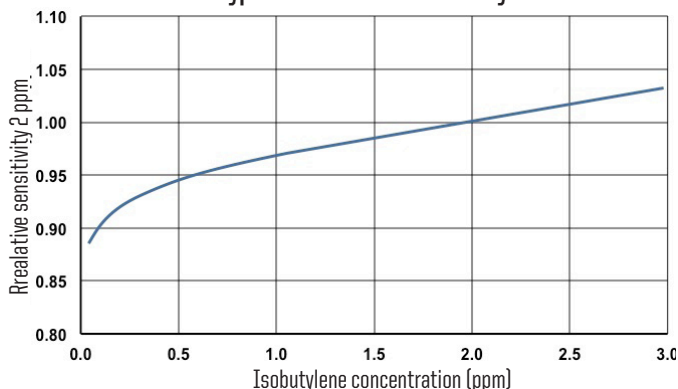
Environmental

Operational temperature range	-20 to +60 °C
Relative humidity range	0-99 % RH, non-condensing
Pressure range	900 - 1100 mbar

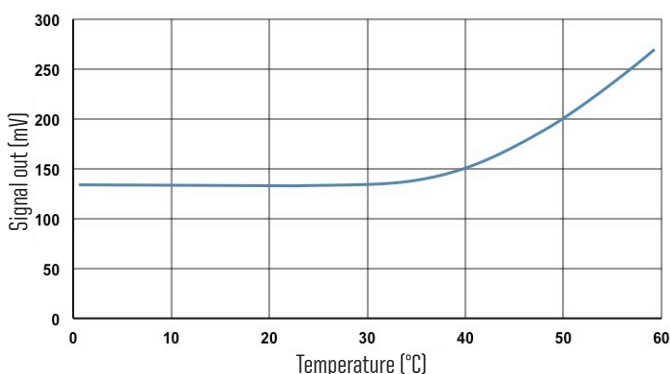
Patents

• US 7,046,012
• EU 1471681

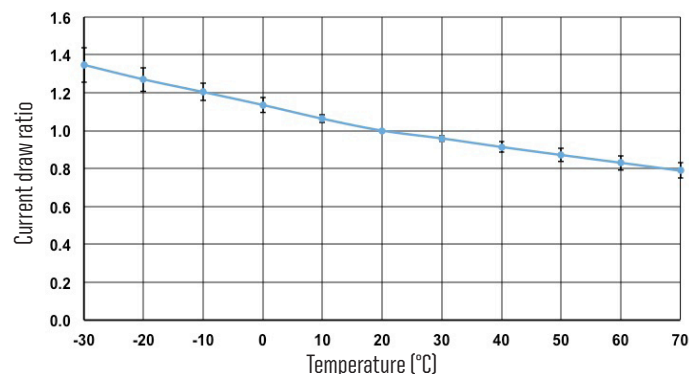
Typical MiniPID 2 HS linearity



Typical background drift over temperature



Sensitivity relative to 20 °C over temperature



Visit our website for our full range of MiniPID 2 sensors.



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