



Technical Bulletin 168

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ION Science MiniPID 2: Enhanced sensor technology with unrivalled performance!

At Ion Science we are committed in manufacturing products of the highest quality making on-going improvements to ensure our customers receive only the very best.

The latest development is our next generation MiniPID 2 sensor incorporating our new ASIC design which will further enhance performance and reinforce our PID sensor technology as the best performing on the market!

- Improved temperature stability
- Greater sensor-to-sensor consistency
- More repeatable performance



Other benefits include a lower running current, robust lamp illumination and more reliable operation at extreme temperatures.

What is the ASIC?

ASIC stands for Application-Specific Integrated Circuit and is a silicon chip specifically designed and manufactured for the Ion Science MiniPID 2 sensor.

The lamp within the MiniPID 2 is illuminated by a high frequency electromagnetic field, and traditionally this field is generated by a 'free-oscillating' circuit.

Unlike other PIDs on the market, which use free-oscillating circuits, the MiniPID 2 uses an ASIC to illuminate the lamp.

The ASIC allows ultimate control over how the lamp is illuminated and how the sensor performs. This gives an advantage in stability, control and reliability unavailable within other PID designs.

Unrivalled Gas Detection.

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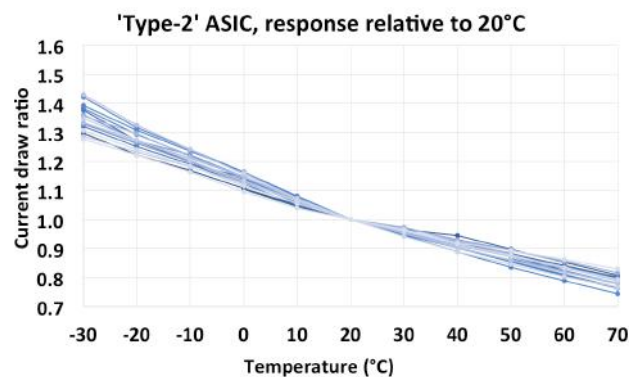
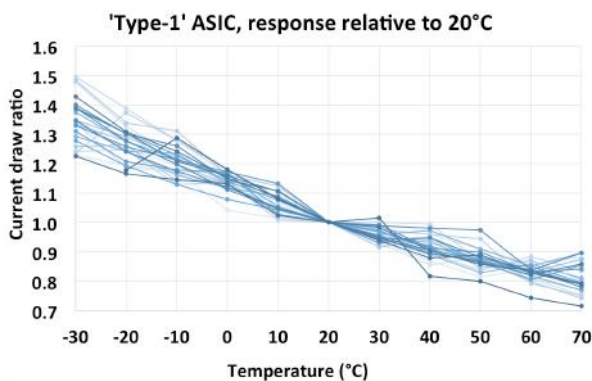
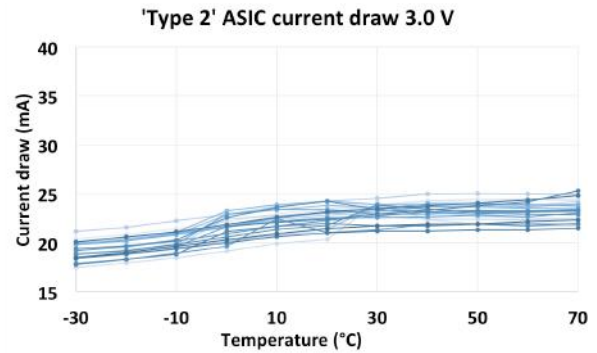
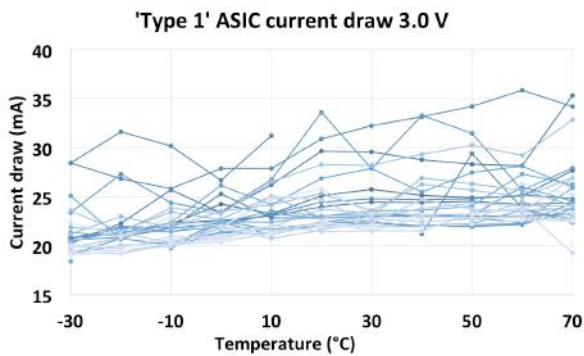


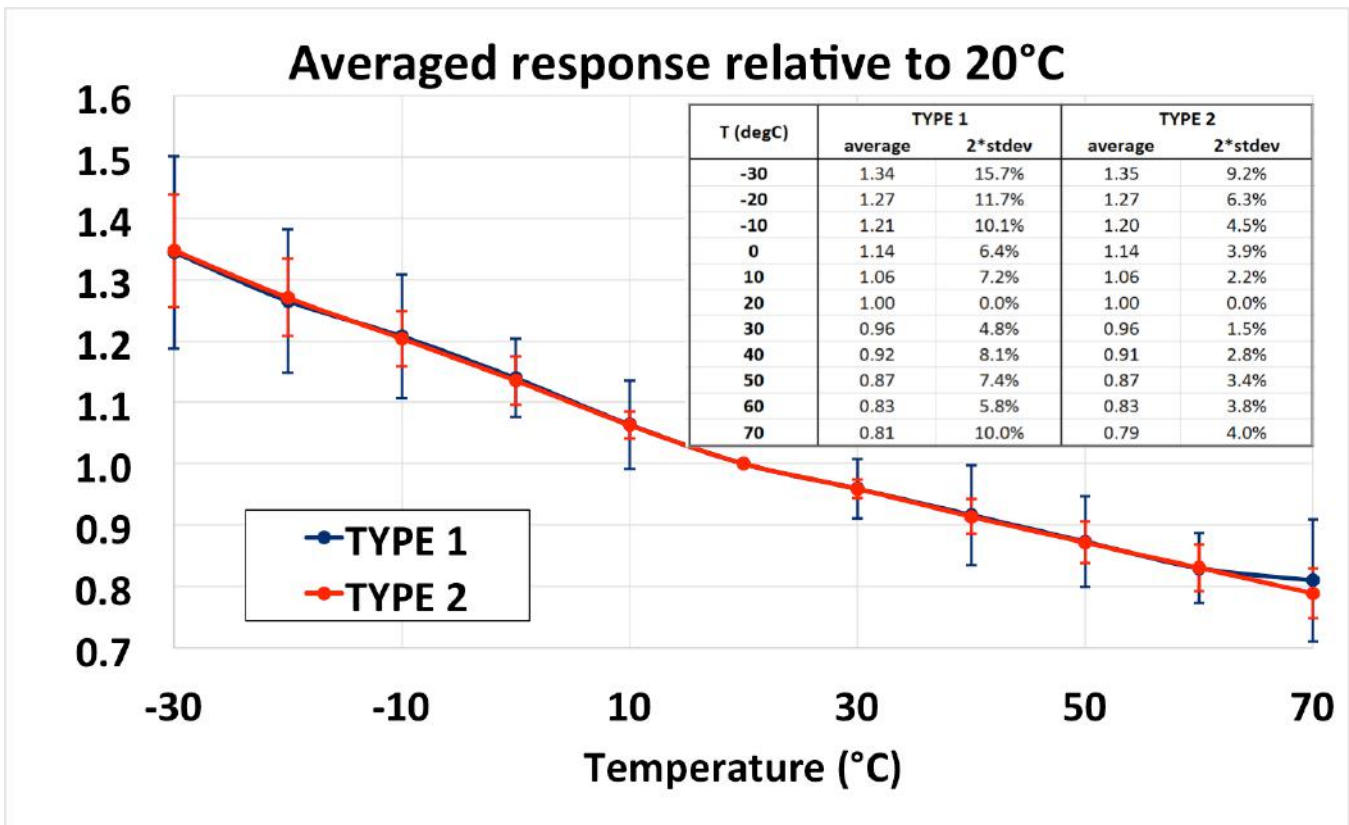
What does this mean?

The new ASIC has been designed to afford greater consistency and repeatability, especially over changing temperatures.

Graphs (below) of current draw over the operational temperature range clearly show the distinct improvement in performance. The current draw has also been shown to be some 2 mA less on average.

The MiniPID 2 temperature coefficient of response remains unchanged, but repeatability between MiniPID's has improved two-fold and performance trends across the temperature range have significantly improved.





How does this affect you?

The new ASIC does not change linearity, signal range, response time or any other similar specified performance. Our improved sensor is completely interchangeable with our previous product. The Ion Science MiniPID 2 provides fast, accurate, humidity resistant detection to VOC gases.

New sensors are available to trial – contact Ion Science for more information!

Tel: +44 (0)1763 208503

Email: info@ionscience.com

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