

SENSIT TECHNOLOGIES

PERSONAL GAS SENSOR

Sensit Technologies has been designing and manufacturing gas leak sensors and personal monitors for the gas utility market from its' headquarters in Indiana since 1980.

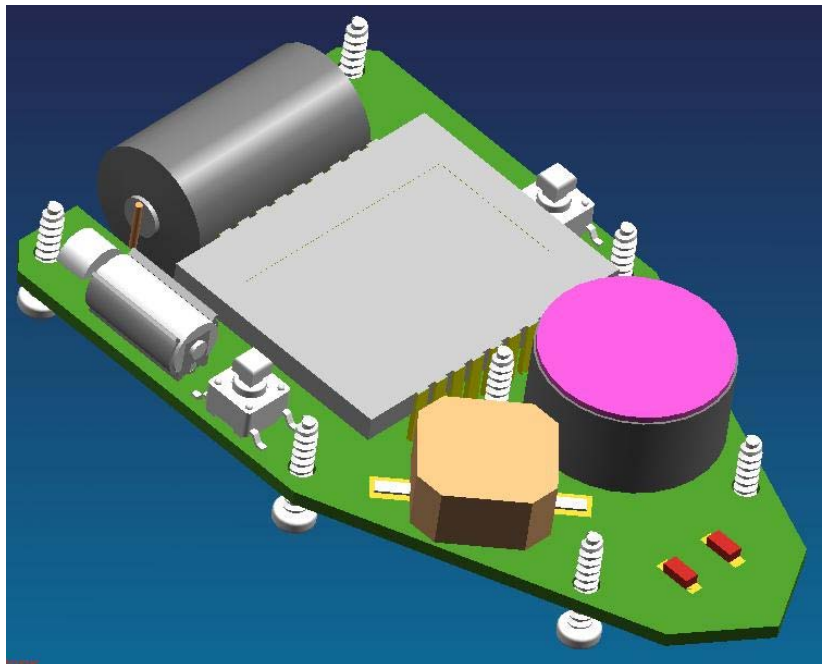
When the time came to “productize” a new circuit they had developed for a miniature single gas personal sensor, they approached Porticos. The result was a rugged, waterproof, intrinsically safe device known as the Sensit P100 Personal Gas Sensor.



“The P100 is the perfect addition to our gas-sensor family. It’s our first wearable product; the smallest and, by far, the most robust. Porticos engineers really did turn our ideas into a great product.” **Scott Kleppe, Sensit Technologies**

Porticos worked with the client onsite to define the product along with the environmental and abuse requirements that the product would need to accommodate. Armed with that and a list of electrical components, Porticos engineers began the development process.

Initially industrial design sketches were used to communicate concepts to the client; culminating in the client selecting the preferred design as well as key features. Porticos then worked closely with the hardware and software engineers to create the internal component layout necessary to achieve the exterior generated during the industrial design.



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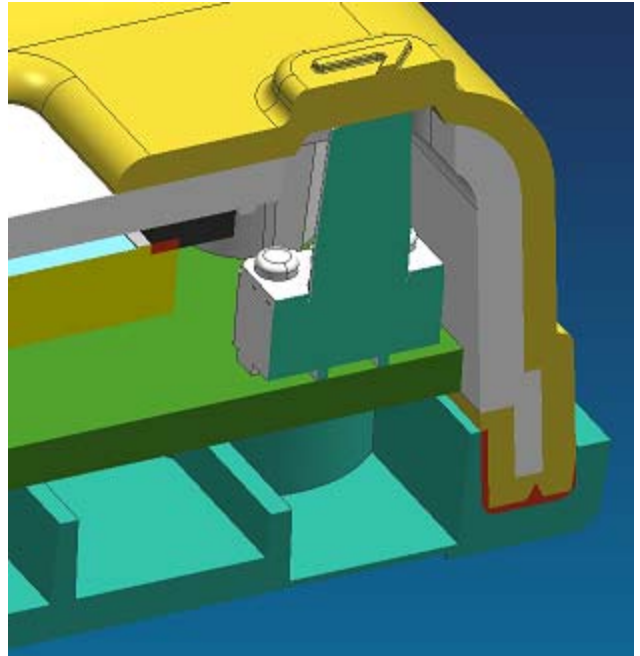
Case Study

We turn good ideas into great products.

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One of the unique features of the P100 is the front housing. Molded from clear high impact ABS it allows visible alerts from the LED's on the PCB to be seen by the wearer and also provides the protective lens for the display. A second shot of soft durometer Hytrel provides additional protection from the rigors of field use, gives the user an impression of durability, and provides the IP65 sealing gasket to the rear housing. Furthermore the over-mold forms the buttons on the front face of the device to eliminate concerns of water ingress.



The design was completed in Solidworks and prepared for tooling release in only 3 months from the start of the project. Porticos continued to bring value to the client by doing mechanical Build of Material (BOM) cost engineering analysis and integrating cost reduction ideas. Porticos worked with one of their manufacturing partners to construct the injection mold tooling, do part approvals and provide initial procurement support.

The result was a small form factor personal gas sensor capable of surviving drops from a 2nd story building, passing IP65 certification and conforming to Class 1 Group A, B, C & D intrinsic safety requirements. The Sensit P100 is an example of how Porticos *turns good ideas into great products*.

