



Steve Nixon &lt;steve.nixon.viamed@googlemail.com&gt;

**Re: Your email**

1 message

**Steve Nixon** <steve.nixon.viamed@googlemail.com>  
To: J Schwarz <j.schwarz@sensatronic.com>  
Cc: Bernd Lindner <b.lindner@bluepoint-medical.com>

29 November 2017 at 08:58

Hi Jens, thanks for the update.

Should we agree a name, description and brief theory of operation of the sensor, so that we all have the 'same story'. We need to give potential customers some information, but not risk anyone going off and trying to find their own solutions.

Steve

On 29 November 2017 at 07:54, J Schwarz <j.schwarz@sensatronic.com> wrote:

Hi Steve,

We have received the fresh O2 sensors and are working on the emo unit. I keep you updated about the possible delivery date by end of this week. Regarding the price of the unit, we think it will be in the range of EUR 200 (we are just charging for the material costs).

We will also send some non-working cell samples together with the unit.

Regarding the current status, we can confirm the following:

Measuring range: 0-30 % O2 (at ambient pressure)

Accuracy: 1% O2 should be doable, need to be confirmed with the new sensors

Power supply: actually 5 V DC (for the external electronics)

Calibration interval: depends on accuracy requirement; 3 months possible at ambient air (21% O2) and already tested

Mit freundlichen Grüßen,

Kind regards,

Jens Schwarz

Sensatronic GmbH

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[j.schwarz@sensatronic.com](mailto:j.schwarz@sensatronic.com)

**ACHTUNG!      ATTENTION!**

Ab dem 20. Februar 2017 erreichen Sie uns unter folgender Adresse:

You will find us from 20<sup>th</sup> of February 2017 under the following address:

**Sensatronic GmbH****Am Ring 9****23970 Wismar****Unsere neuen Telefon- und Faxnummern lauten:**

Our telephone and fax numbers will change as follows:

**Tel.: +49 - 3841 - 22 52 440****Fax: +49 - 3841 - 22 52 442**

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**Von:** Steve Nixon [mailto:[steve.nixon.viamed@googlemail.com](mailto:steve.nixon.viamed@googlemail.com)]**Gesendet:** Montag, 27. November 2017 22:15**An:** Lindner, Bernd**Cc:** J Schwarz**Betreff:** Re: Your email

## Polymer electrochemical gas sensors

Hi Bernd / Jens

Are you basing the possibilities on the ES1 Series?

As discussed, my immediate need would be to have one or two physical samples (don't have to be working) and the demo unit Jens plans to build is needed to demonstrate the principle and possibilities of the sensor to rebreather manufacturers

a) Military / commercial

b) Technical diving

What is the latest regarding the supply of the samples and demo unit? Also what is the cost of production of the demo unit? I am planning sales visits to some manufacturers before Christmas, so it would be good to get feedback on the Polymer sensor, if the the demo unit is available in time.

If of interest I may be able to secure funding if it is for a military project.

Can you please confirm the current status:

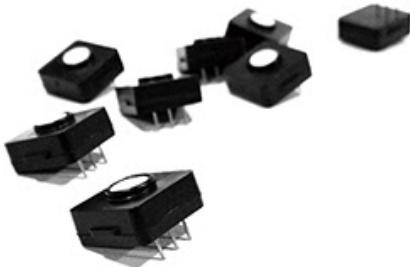
a) Measurement range. **0 - 30%?**b) Accuracy. **<1%?**c) Power requirements. **3 - 5V?**d) Calibration requirements, **3 - 4 months or longer?**

I also have an immediate requirement for medical applications, needs to be able to trigger at >25%, max range needed is circa 30%. I would anticipate price to manufacturers would be in the region of €50 - €60

[http://www.ecsense.cn/ES1-VOC?\\_l=en](http://www.ecsense.cn/ES1-VOC?_l=en)

**ES1 Series** Suitable for industrial and civilian small portable instrumentation, wearable instrumentation development, enabling mass-based low-cost on-demand customization

Low power consumption: Micro power products



**Low power consumption:** Micro power products

**Small size:** 11.5mm \* 11.5mm \* 4mm

**Long life:** 5-10 years life

**Low cost:** mechanized mass production process

**Low temperature:** -40 °C can work

**Pure linear:** full-scale pure linear

**Resolution:** 0.01 ppm

Regards

Steve

On 2 November 2017 at 09:17, Lindner, Bernd <[b.lindner@bluepoint-medical.com](mailto:b.lindner@bluepoint-medical.com)> wrote:

Development and wafer production is currently in Germany.

Former Company Name was Solid sense but then Honeywell acquired his Company few years ago.

The O2 sensor was designed for environmental application.

To get the sensor working at 100% we need to optimize the electrode geometry and packaging into the housing.

Electrolyte is solid and based on ion conductive polymer.

We have sensors running for several months on air without the need to recalibrate. Expected lifetime 3-4 years.

For medical applications we need to provide all relevant documents for CE because EC Sense is purely focused on industrial applications.

More information will follow. As discussed also with Jens we received new Chips from University Dresden where we expect certain improvement. Jens will build new sensor for test purposes.

With Kind regards

Bernd



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**Von:** williampan [mailto:[william.pan@justec.cn](mailto:william.pan@justec.cn)]  
**Gesendet:** Mittwoch, 4. Oktober 2017 10:45  
**An:** Lindner, Bernd <[b.lindner@bluepoint-medical.com](mailto:b.lindner@bluepoint-medical.com)>  
**Cc:** [lidexia@aqsystems.cn](mailto:lidexia@aqsystems.cn); Peter Koller[[Pfjkoller@web.de](mailto:Pfjkoller@web.de)] <[Pfjkoller@web.de](mailto:Pfjkoller@web.de)>  
**Betreff:** Re:

Hello Bernd,

Thank your information.

Best Regards,

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2017-10-04

===== 2017-10-04 15:10:07 您在来信中写道： =====

Hello William,  
I want to introduce the Company EC Sense to you and the Company AQS.

The MD of EC sense is Peter Koller which I know since long time and his chinese wife Dexia Li MD of the Company AQS located in China (Ningbo). They are manufacturer of minaturised low cost gas sensors. Maybe also of interest for you. Development is done in Germany.

I met both few days ago and introduced Justec to them.

They are interested to evaluate a potential cooperation with you and maybe they should visit JusteC asap to discuss some projects with you.

Please go directly in touch with them and Keep me informed.

[www.exsense.cn](http://www.exsense.cn)

[www.aqsystems.cn](http://www.aqsystems.cn)

With Kind regards

Bernd

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