
VIAMED Sales And Marketing - Any other business

Oxygen sensor review OOM103

Issue ID #81748

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Issued To: Derek Lamb

Completed Status: Still Outstanding

Notes:

Added by Steve Nixon sent to Derek Lamb

We need to crack the problem once and for all regarding R-22MED sensors being used in the Draeger Isolettes. We have gone down the line of matched (mV) pairs, but I don't believe this is the main criterion. We now know that the sensors are exposed to high temperatures during use and standby, so we can increase the sensor life by creating a new sensor derived from an Envitec OOM102. This has an output of 9-14mV, <12s, >1M hrs. The extra life is due to the use of a thicker membrane; the downside (or perceived downside) is the slower response (this may be an advantage). The thicker membrane will also slow down evaporation of the electrolyte, which would cause problems in terms of life, offset, reliability...

If this does not fully work we can always use a higher temperature compensation board, but I believe that this should resolve the problem. It looks like Envitec have now realised this, as they have just updated their web site cross ref.

Existing sensor 0110021

OOM103 9-13mV, <5s, 500K hrs.

New sensor based on:

OOM102 9-14mV, <12s, >1Mhrs

We will have two new parts numbers, for single and dual pack. New part numbers will simplify review of whether we have resolved the problem and also aid in targeting customers in the future.

Any comments before we go ahead?

I have 10 sample sensors if anyone wishes to submit for technical assessment and suitability with a co-operative customer.

NOTE: Please keep technical design rationale `in-house` and confidential.
