



Ryan Swaine &lt;viamed.ryan.swaine@gmail.com&gt;

**Re: Mixcheq issue**

1 message

**Jukka Öster** <jukka@sukellusluola.com>  
To: ryan.swaine@vandagraph.co.uk

31 August 2025 at 20:53

Hi Ryan,

Odd O2 values with He. Not with Nitrox. Tried different setups for flow etc.

I try a new sensor and will let you know:

Order 310825  
R-33DE, 2 pcs  
R-17VAN, 6 pcs  
R-22VAN, 5 pcs  
R-33 S1, 1 pc  
Metal Wall Mount (0121180), 2pcs

Best regards,  
Jukka

On 7/2/25 15:12, Ryan Swaine wrote:

Hi Jukka

I am not sure the age of the sensor would impact the sensor's ability to work in helium, but I could be wrong.

My theory would be the cooling effect of the helium.  
Helium is really good at cooling, which is why the helium sensor is able to work by thermal conductivity. Unfortunately this cooling effect can negatively affect the O2 sensor, as the liquid inside the O2 sensor cools before the temperature compensation network (at the back of the sensor) detects it. Making sure you use low flow rates can help, but it may also be worth flowing the gas for 10-20 seconds, turning the flow off for 10-20 seconds and then turning the flow on again to take a measurement.

I hope this helps.

Best regards  
Ryan

Ryan Swaine  
General Manager  
VANDAGRAPH Ltd.  
<http://www.vandagraph.co.uk>  
Email [ryan.swaine@vandagraph.co.uk](mailto:ryan.swaine@vandagraph.co.uk)  
Tel: +44 (0)1535 634900  
Mob: +44 (0)7803 907117

On Wed, 2 Jul 2025 at 12:20, Jukka Öster <jukka@sukellusluola.com> wrote:  
Hi Ryan,

There is two year old Teledyne O2 sensor in Trimix analyzer.

Values are ok for nitrox up to 100% O2.

With Trimix 21/40 it gives 24,5/40. I have seen the same happen in one Analox ATA.

Do you have any explanation? Is it somehow possible that older sensor behaves like that with He present?

Best regards,  
Jukka