

From: "Zellweger, Christoph" <Christoph.Zellweger@empa.ch>
Subject: RE: Help in calibrating 49iPS
Date: Tue, May 3, 2022 8:16 am
To: "Paolo Cristofanelli" <p.cristofanelli@isac.cnr.it>
Cc: "f.calzolari@isac.cnr.it" <f.calzolari@isac.cnr.it>

Ciao Paolo

I normally do it as follows, I hope I have not forgotten something:

1. Remove cover plate at the back of the instrument.
2. Disconnect the tubing that goes from the manifold to the valve at the manifold at the guest 49i-PS (=instrument that you want to calibrate).



3. Pumps off
4. Compare pressure sensors with reference, adjust if necessary
5. Make a connection from the manifold of the reference 49i-PS to the tubing that sticks out on the back of the guest 49i-PS (PTFE/PFA tubing/union).
6. Connect the **SAME** zero air source to both the reference 49i-PS and the guest 49i-PS.
7. Zero air on.
8. Set the O3 flow at the guest instrument to zero.

9. Pumps on
10. Check, and if necessary adjust, overflows (reference: O3 and zero air overflow, guest: zero air overflow, all should be between >0.5-1 l/min)
11. Condition the system with 500 ppb O3, and check if readings are approximately the same.
12. A/B ozone check for both instruments @500 ppb O3.
13. Start with the calibration.

I hope this helps,

Cheers

Christoph

-----Original Message-----

From: Paolo Cristofanelli <p.cristofanelli@isac.cnr.it>

Sent: Monday, May 2, 2022 12:23

To: Zellweger, Christoph <Christoph.Zellweger@empa.ch>

Cc: f.calzolari@isac.cnr.it

Subject: Help in calibrating 49iPS

Hallo Christoph,

we recently got a new 49iPS here in Bologna and we would like to calibrate against one of the 49iPS you tested recently at your lab.

We are wondering, how to arrange the comparison experiment between two 49iPS.

Our idea si to use the internal ozone generator of the certified instrument for generating ozone levels to be provided to our new 49iPS.

Since the 49iPS is not equipped by the "sample" inlet, we are wondering how to feed the instrument. One idea can be to connect the "ozone" output of the certified 49iPS to the manifold of the 49iPS to be checked (or just downstream the manifold). Can you provide us a guidance on this?

Many thanks

Paolo

Paolo Cristofanelli

CNR-ISAC

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www.isac.cnr.it/cimone

Phone: 051 - 6399597 (work)

Skype: p.cristofanelli

In the case the attachment is missing, do not hesitate to notify to me!

Attachments:

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