

Addendum

Flow Reduction Unit

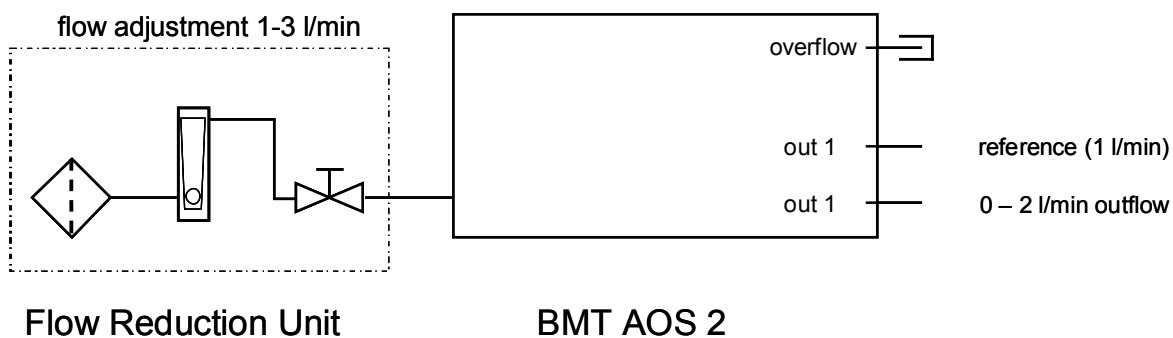
for the
AMBIENT OZONE SIMULATOR AOS 2

Rev. 01/2016b

A Addendum: Flow Reduction Unit AOS 2-FRU

If the overflow port of the AOS 2 is closed and a UV-photometric monitor (reference) is connected to OUT 1, the excess ozonized gas flow of about 2 l/min is fed towards the sensor to be checked (OUT 2).

Calibration procedures for electro-chemical sensors often require a certain gas flow through the calibration cap. Therefore the optional Flow Reduction Unit can be used to reduce the total flow through the AOS 2 in order to adjust the flow at OUT 2.



The Flow Reduction Unit consists of a particle filter, a flow meter and a throttle valve. The throttle valve can be used to adjust the total flow through the AOS 2. Please note: The outflow on OUT 2 depends on the flow rate of the reference monitor on OUT 1. In case on a reference monitor BMT 932, the flow on OUT 1 is 1 l/min.

Example: If the throttle valve of the Flow Reduction Unit is adjusted to a total flow rate of 1.5 L/min and a BMT 932 is connected to OUT 1, the flow rate on OUT 2 is about 0.5 l/min.

A.1 Operation

Before powering up the Flow Reduction Unit, remove the particle filter from the AOS 2 and make sure that a particle filter is mounted to the input (lower fitting) of the flowmeter.

Attention: The AOS 2 and any connected Ozone Monitors should never be operated with unfiltered air!

Then connect the black VITON tubing to the outlet of the Flow Reduction Unit (barbed fitting) and to the inlet of the AOS 2 (cone shaped fitting). Both connections are made by pushing the flexible tubing onto the appropriate fittings.

Follow the instructions of the AOS 2 before switching on the AOS 2.

Now, set the flow rate to the desired value including the flow needed for the reference monitor (1 l/min for a BMT 932).

When the measurements are finished and the AOS 2 is disconnected, do not forget to mount a particle filter to each channel of the ozone monitor instead of the AOS 2 / AOS 2-FRU.