Application Note

THE SMA ENHANCES AQUAVOLT+ RESPONSE

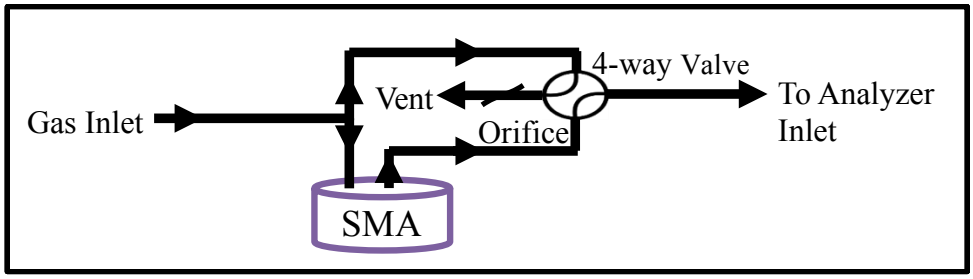
The affordable, little SMA (Standard Moisture Addition) is designed specifically to help Aquavolt+ analyzers optimize the balance between speed and detection limit. Used when your analyzer is not in active service, the SMA primes your cells to achieve fast response while measuring at very low ranges.

Implement the SMA to:

- Keep your AquaVolt+ cell alive and responsive
- Achieve the lowest detection limit (<<ppm).
- Allow faster response to intrusions from standard cylinders.
- Reduce the response rate to 15-20 minutes at low ppm levels.

SMA Configuration

Ideally, the SMA should be kept on a continual purge to avoid the build up of moisture if left stagnant. You can raise the SMA intrusion level by using another valve to shut the analyzer bypass outlet when the SMA is wetting the cell. *Other configurations are possible – let us work with you to design the one that is best for your application.*



SMA – Handle with care!

The SMA has many benefits, but it must be used carefully to get the best results. If a hydrated SMA is left to sit with no active flow, the moisture can build up inside the SMA tubing. If that slug of moisture hits the analyzer, it will cause a moisture spike and produce a false high reading. **NOTE**: Repeated spikes can actually wash out you cell and create a false low! The effect is strongest in oxygen, where the Aquavolt+ has a lower UDL (12ppm), compared to N_2 or Ar (20ppm).

Application Note

Optimal Measures for the SMA

- If an SMA is left stagnant, purge its SMA briefly with dry gas before attaching to the analyzer. (1-2 minutes is sufficient.)
- Preferably, keep a constant low level of gas flow through the SMA at all times.
- *Recommendation*: Keep constant flow through the SMA to the analyzer whenever the analyzer is not in active use, e.g. over night every night.
- To significantly increase the analyzer's response, keep the SMA output at a range close to the baseline of your target measurement.

Example: If the calibration cylinder is at 6 ppm, the SMA output at 3 ppm will provide a quicker stabilization time than at 1 ppm.

Principles of the SMA:

- Lower moisture level from SMA= Faster drydown to low (sub-ppm) moisture levels.
- Full Flow through bypass: ~ 0.5ppm moisture intrusion level from SMA.
- Higher moisture level from SMA= Faster response to moisture intrusions.
- With bypass capped or valved off: ~ 3.5ppm moisture intrusion level.

Contact us today for a FREE SMA Trial! Once filled, your SMA is good for 100 years!!!