

New AM520/AM520i Capabilities for Measuring Silica Exposure in Real Time

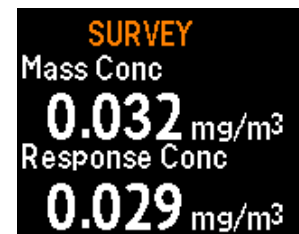


Application Note EXPMN-025 (US)

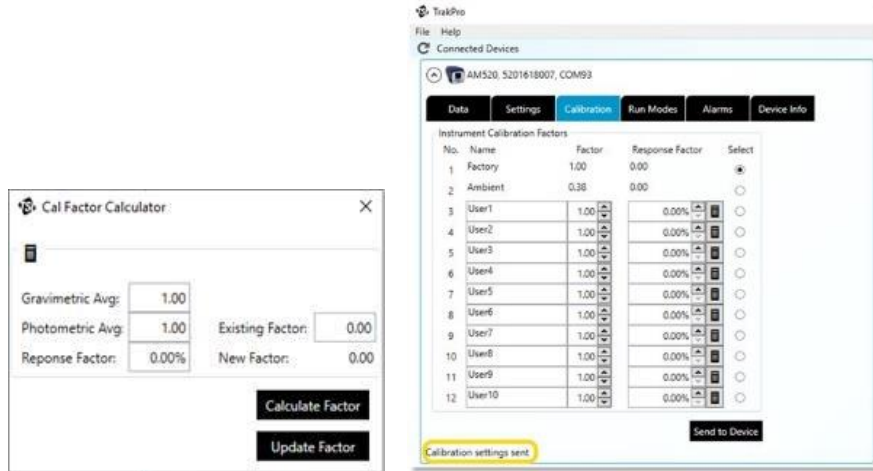
Respirable silica monitoring, now more than ever, is a very important occupational hazard requiring worker exposure monitoring. Protecting workers requires real-time monitoring of exposed employees which provides immediate access to silica information so corrective actions can be made and validated. Real-time monitoring provides multiple benefits to an occupational health and safety program including immediate test results instead of waiting weeks for lab data, and the ability to see when and where points of high exposure levels occurred (i.e., tracking the worker's exposure trail). Real-time monitoring allows you to monitor worker exposure in hours and days as opposed to weeks and months using gravimetric sampling methods.

To simplify the real-time silica monitoring process, TSI® has made several changes to our SidePak™ AM520/AM520i Personal Aerosol Monitor. These new capabilities include:

1. The updated instrument now has a dual display and logging of both the total aerosol mass concentration and **new** response concentration value. This response concentration value, using an applied calibration factor and known percent silica content, can easily be used to view and log your silica exposure data in real time.
2. Enhanced alarm features to include a setpoint for a response concentration alarm value. This means you can now set your alarms to sound off for either your total mass concentration level, your silica concentration level, or both.
3. TrakPro™ V5 Data Analysis Software has been updated to include:
 - a. **New** Calibration Factor Calculator to simplify the calibration factor process by inputting gravimetric and photometric average concentrations to output a new calibration factor.
 - b. Ability to store up to 10 custom calibration factors on the instrument. This allows you to access custom calibration factors that you have developed for different applications, work tasks, locations, etc.



- c. New calibration factors can be custom named, loaded and stored on the instrument for field use. With all of your calibration factors stored in one place, you can easily switch between them if your workers change work tasks during exposure monitoring.



These new silica features for the SidePak™ AM520/AM520i Personal Aerosol Monitor can be accessed by updating the AM520 firmware to version B.01 (or later) and TrakPro™ V5 Data Analysis Software to version 5.2 (or later).

For more information on creating custom calibration factors for silica, check out the following links:

- [Collocated Sampling to Create Custom Calibration Factors \(video\)](#)
- [Creating Custom Calibration Factors For Silica](#)



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