

# Alivion Spark M-20

## Important notes for correct operation



**The Alivion Spark M-20 is a high-precision laboratory measuring device that measures the lowest concentrations of methanol. To ensure an accurate measurement, please follow the instructions for use and also be sure to observe the following criteria!**

### ← BEFORE the measurement

#### 1. Be sure to observe the temperature sensitivity of the device!

- Observe the general operating temperature (10-35°C).
- Observe the temperature of the calibration standards when calibrating (ambient temperature is essential).
- Observe the temperature of the samples (ambient temperature is essential).
- Do not store the device, samples and calibration standard in the sun before measurements and, if possible, store it at the location of the measurement (smaller containers adapt more quickly to a temperature).

### ⌚ DURING the measurement

#### 2. Be sure to observe the temperature sensitivity of the device!

- Avoid fluctuating temperature (e.g. open window, ventilation PC, hot drink, etc.).
- Avoid temperature difference during calibration (>1°C) at all costs.
- Avoid temperature difference between calibration / measurement (>5°C).
- Holding the sample vial or liquid in the hand for long periods of time, as well as holding the device in the hand or on heat bodies for long periods of time, can lead to measurement errors. It is best to measure lying on a table.

#### 3. Active Warnings (Tem / Con): Do not perform calibration or measurement. Otherwise, falsified measurement results are possible (calibration warning then remains!).

4. **Always prepare the samples immediately before the measurement (methanol/ethanol concentration decreases over time in the open glass).**
5. **Prepare the sample only when indicated by the device and measure immediately afterwards. Only screw in the vial when indicated by the device (not in the "Preparation" dialog).**
6. **Distribute the sample/liquid as evenly as possible on the cotton wool of the sample vial.**
7. **Do not allow the liquid to run over the edge of the vial (will cause contamination of the measuring circuit).**
8. **In case the sample/liquid does not seep well into the cotton wool of the sample vial, press lightly on the cotton with the pipette. Do not generate any air bubbles, otherwise droplets can get onto the thread.**
9. **Make sure that no residue of a liquid remains on the edge of the sample vial. Otherwise, the measurement result may be increased / falsified, the contamination warning is active, longer cleaning is necessary, up to a possibly permanently contaminated filter in the device).**
10. **Before screwing in the sample vial, wipe the edge briefly if necessary to rule out contamination of the device.**
11. **Observe contamination of the ambient air, otherwise the contamination warning is active (e.g. in the combustion chamber, barrel storage, room with open alcohol, etc.).**
12. **Do not place open calibration standards, used sample vials and pipettes, or other alcohols/solvents in the immediate vicinity of the device.**
13. **If necessary, clean the sensor with the built-in cleaning function (this in a clean room, or even outside).**
14. **CON warning only expires when the device is restarted (important e.g. after a sensor cleaning).**

## **AFTER the measurement**

15. **Do not store sample vials and pipettes together with the device in the case.**
16. **Use sample vials and pipettes only once, no multiple uses. These are contaminated after one use and inevitably lead to an incorrect measurement result if used several times.**