CLEANING INSTRUCTIONS

FOR E+E HUMIDITY MEASURING DEVICES WITH SENSING PROBE

For the good long term performance of humidity measuring devices it is of highest importance that the sensing head is kept clean. In most of the applications the choice of appropriate filter cap is enough for achieving this.

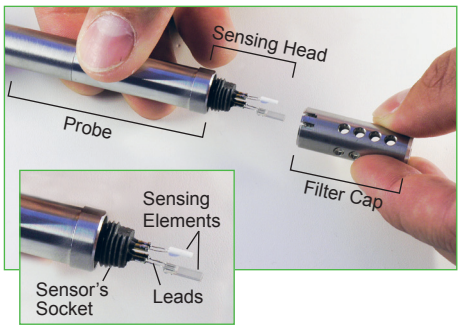
In polluted applications the filter cap might get clogged. Long response time of the device indicates a dirty filter cap, which shall be replaced by an E+E original new one. Please see the choice of E+E filter caps in the “Accessories” data sheet at http://www.epluse.com/fileadmin/data/product/accessories/datasheet_accessories.pdf and contact your E+E sales representative for advice.

In certain applications even the correct choice of filter cap cannot stop all pollutants from getting inside the sensing head. Deposits of dirt or dust inside the sensing head can lead to wrong measurements results, mostly by acting like a low parallel impedance on the sensing elements. Such effects are usually stronger in applications with high humidity.
In such situations the sensing head can be cleaned by the user.

Please note:

- The E+E proprietary sensor coating offers additional protection of the sensing head and it is highly recommended in heavy polluted applications. Please contact the E+E sales representative for details.
- The cleaning procedure described below is efficient against pollution deposits such as dirt and dust. It is not appropriate for humidity sensing elements affected by chemicals, such as aggressive gases. Please contact E+E in case of sensors exposed to chemical agents.
- The cleaning procedure is appropriate for sensing elements with or without the E+E protective coating.

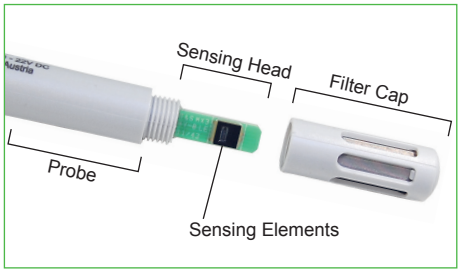
INSTRUCTIONS



1. Disconnect the device from the power supply.

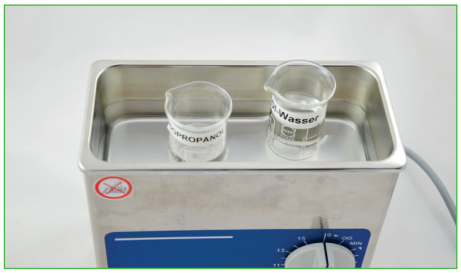
2. Wipe clean the probe for preventing contamination of the sensing head with pollutants possibly deposited on the exterior of the probe. Use a clean soft cloth, wet or dry depending on the deposits on the probe. Wipe clean also the other parts of the device. Depending on the type, these can be the enclosure with electronics and the probe cable.

Caution:
- Use only water and/or isopropyl alcohol for cleaning the probe and the other parts of the device. Other cleaning agents might affect the sensing elements.
- Do not attempt to clean the filter cap. This would only lead to its clogging. A dirty filter cap must be replaced by a new, original one, at the end of the cleaning process.



3. Remove (unscrew) the filter cap with utmost care, so that the filter cap does not touch at any time the sensing elements of the sensing head.

Caution:
- Do never touch the sensing elements.
- Any attempt to clean mechanically the sensing elements such as rubbing or brushing leads certainly to their irreversible damage.



4. Place two glass vessels in the tray of an ultrasonic cleaner, one with clean Isopropyl alcohol and the other with clean deionized water. Then fill the tray of the ultrasonic cleaner with tap water up to the maximum level mark.

Figure 1

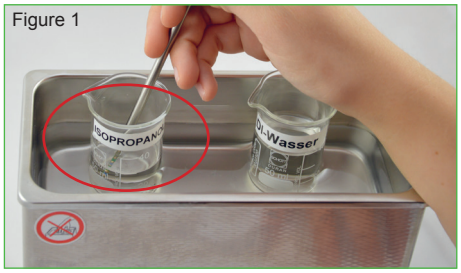
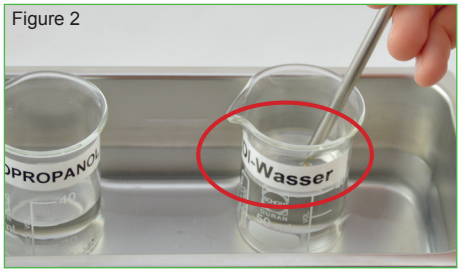


Figure 2



5. Switch on the ultrasonic cleaner.

   Hold onto the sensing probe and place the sensing head in isopropyl alcohol for 3 minutes (Figure 1). The sensing element, the leads and the sensor socket shall be immersed in the liquid.

In case of heavy pollution, as in case of deposits which can be seen with the bare eye, continue this until the deposits are dissolved.

Caution
The sensing elements may not touch the vessels!

6. Hold onto the sensing probe and place the sensing head in deionized water for 3 minutes. (Figure 2).

7. Let the sensing head dry free for about 30 minutes at room condition temperature.

8. Make sure by optical inspection that there are not water droplets on any part of the sensing head. Place on a new, original filter cap. This must be done with utmost care not to touch the sensing elements. For the choice of spare filter caps see data sheet accessories at http://www.epluse.com/fileadmin/data/product/accessories/datasheet_accessories.pdf.

Caution
Never reuse the old filter cap after cleaning the sensing head.

9. For each device to be cleaned use new clean isopropyl alcohol and deionized water, as well as clean glass vessels.

Caution
Do not reuse the isopropyl alcohol and the deionized water for cleaning a second sensor.

Note:
Best cleaning results are achieved by using an ultrasonic cleaner as described above. In case this is not available, perform the entire procedure without it, shaking gently the probe when placed in isopropyl alcohol and in deionized water.

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