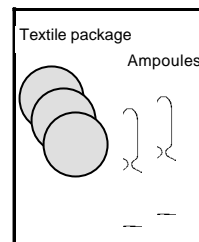


Humidity Calibration Instructions

for the Humiport Series of Handheld Measurement Instruments

NOTES:

- These actions are to be performed only by competent personnel and all relevant safety regulations are to be followed.
- Refer to current product specifications as well as to the operating manual of the sample.
- Recalibration (one-point calibration) is necessary only when the deviation is greater than $\pm 2\%$ RH at ca. 20 degC.
- To obtain temperature equilibrium, we recommend storing the sample and the calibration instrument in the same, temperature-stable room for at least 4 hours.
- During the entire calibration process, a constant temperature should be maintained in the reference chamber. Effects that could reduce the accuracy of the calibration, such as draughts, direct sunlight, changes to the heating body temperature, etc., must be prevented.

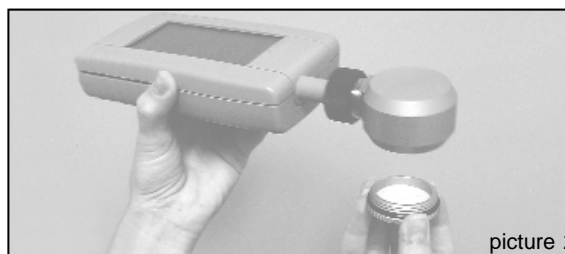


CALIBRATION PROCEDURE:

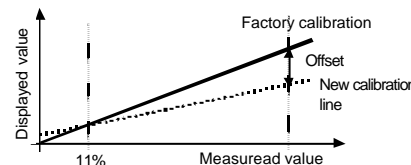
1. Position the sensor in the calibration instrument so that the container for the calibration solution is located under the sensor (see picture 1).
2. Insert the textile package (consists of 3 layers) into the threaded joint. The textile package prevents the calibration solution from inadvertently spilling within the calibration instrument or over the humidity sensor.
3. Ampoules are clamped and shaken at the throat until all of the calibration fluid is located in the bottom part of the ampoules. Break off the ampoules at the narrow section between the throat and the bottom part and drip the entire contents of the ampoules onto the centre of the textile package (see picture 1). Because the ampoules are made of glass, use safety precautions when opening them (protective glasses, gloves, ...).



4. Carefully screw the bottom part with the textile package onto the calibration device. Make sure that the calibration solution cannot find its way onto the humidity sensor! (see picture 2)
5. Place the calibration device on an even foundation that is insulated (if possible) (e.g., the suitcase of the handheld measurement instrument, the cover of the calibration set,...) so that optimum temperature equalisation can occur.
6. Wait at least 1 hour to guarantee that the calibration device the solution, and the sensor are in a state of thermal equilibrium. Monitor the display to check the setting of the equilibrium state.



7. Read the temperature on the display and select the desired value for the humidity standard from the table (Appendix).
8. Perform a one point calibration:
CAL2 (one point calibration) gives the user the possibility to set an offset for sensor 2 (rel. humidity). The offset will base on the lower adjustment point (11% r.h.).
The offset value appears on the top of the display. Max. $\pm 10\%$ rH can be set. CAL2 is to be selected in connection with the unity for rel. humidity (%) only. Factory calibration can be obtained by entering offset 0.0



9. Unscrew the container from the calibration device and then remove and dispose of the textile package (it is not reusable). Carefully flush and then dry the container.

APPENDIX:

Table for the effect of temperature on the humidity standard (HA 01 04 80: 80% RH):

Humidity Standard 80%RH:																		
Temperature [degC]	0	5	10	15	18	20	21	22	23	24	25	26	28	30	35	40	45	50
Rel. Humidity [%RH]	79.5	79.6	79.7	79.8	79.9	79.9	80.0	80.0	80.0	80.0	80.0	80.1	80.1	80.1	80.2	80.3	80.4	80.5