

## Response time of indication

With humidity measurements, it follows therefore, that the speed of indication of the measurement depends not only on the sensor itself, but is to a large extent also affected by the system into which the sensor is fitted.

Parameters decisively influencing the measurement response time are, in this case :

- Material characteristics of the measuring system
- flow velocity of the gas being monitored
- temperature of the sample extraction tube
- influence of pollution
- influence of changes in humidity at any time

The last mentioned point has to be understood in the following manner: Adsorption and desorption have the more significant effect, the lower the dewpoint temperature. For this reason, a jump in humidity from 0°C to -20°C is indicated much more rapidly than a jump in humidity from -50°C to -70°C (see Section 5.2.2).

The indicating response time is therefore affected by the variations in the marginal conditions accompanying the measurement.