

## Humidity monitoring

The water content in gases, liquids and solids is an important parameter of many technological processes. Due to the diversity of applications, the ECM Group offers its clients a wide range of solutions from its partner companies.

### Humidity (dew point) of gases

#### Industrial gases

Servomex AquaXact 1688 is a universal high-quality device with a thin layer Al<sub>2</sub>O<sub>3</sub> sensor for monitoring ppm water concentrations, resp. dew point of water in gases in the range -100 ° C to + 20 ° C. The probe can be used separately, it can be connected to a digital controller or as an expansion unit of Servomex gas analyzers.



Servomex DF 700 analyzers are designed for monitoring trace humidity of pure gases using the principle of tunable laser diode (TDL). The instrument does not drift, does not require calibration and has a good detection threshold of only 75 ppt!



#### MEECO analyzers

MEECO is a leading manufacturer of analyzers based on P<sub>2</sub>O<sub>5</sub> technology. It is a technology that is prescribed by pharmacopea for monitoring medical gases. The sensors have a very low measuring cell volume, which enables fast response and measurement sensitivity from 0.5 ppb.

In addition to medical gases, MEECO instruments are often used to monitor the humidity of industrial gases, instrument air and semiconductor gases. A special version of the sensor is available to monitor the humidity of chlorine.



Unisearch analyzers are TDL instruments designed to monitor the composition of flue gases. The analyser is QAL1 certified according to the EN 14181 standard for monitoring flue gas humidity as part of automatic emission monitoring.

The analyzers consist of the analyzer itself and of a separate optical sensing part mounted on a flue or chimney. The sensing part is connected to the analyzer via optical, resp. coaxial cable. Up to 12 scanning modules can be connected to one analyzer, which can be even hundreds of meters away.



## Moisture of liquids

In many dielectric fluids, monitoring of water content is often required. ECM's partners offer capacitive and IR monitors to determine the water content



## Moisture of bulk materials

Depending on the type of material being monitored, the ECM provides several types of instrumentation solutions.

MoistTech is a manufacturer of NIR analyzers for monitoring the moisture content of the surface layer of powders, granules, food products and tobacco.



Realtime Instruments is a manufacturer of MoistScan microwave analyzers, which are designed to monitor free water in the volume of material contained on conveyor belts or pipes.



In the event that the material may freeze and the state of the contained water may change, the solution is the AllScan analyzer, which works on the gamma spectrometric PGNAA principle. It is an elementary analyzer of individual elements contained in the material. The built-in chemometric system also enables continuous monitoring of the total moisture of the material on the conveyor belt.



Liebherr is producing capacitive moisture sensors in contact to powders in conveyors or pipes.



For detailed information on solutions of your interest we are gladly available:

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