

# Vaisala DRYCAP® Sensor Technology for Industrial Dewpoint Measurement



*Vaisala DRYCAP® Sensors*

Stable and reliable polymer sensors have been used in relative humidity measurement for decades. In 1997, the Vaisala DRYCAP® Sensor – a new type of dewpoint sensor was introduced to the markets. It combines the proven characteristics of polymer sensors with a far wider operating range. DRYCAP® products can be used in very dry environments, and in temperatures up to +350° C (+662 °F).

## Patented auto-calibration method

Vaisala's patented auto-calibration method is used to improve the measurement stability in low dewpoints. During the auto-calibration procedure, the DRYCAP® sensor is heated and the humidity and temperature readings are monitored as it cools down to ambient temperature. This data is analyzed, and any possible drift is then corrected automatically by the microprocessor. As a result the accuracy of DRYCAP® sensor is better than ±2 °C (±3.6 °F) – down to low dewpoints. The accuracy lasts for years in typical applications, reducing maintenance need and overall lifetime cost.

## Withstands condensation

The Vaisala DRYCAP® Sensor withstands condensation, making it unmatched for applications that experience process water spikes, such

## Features/Benefits

- Vaisala DRYCAP® Sensor - thin-film polymer sensor for dewpoint measurement
- Accuracy ±2 °C (±3.6 °F)
- Auto-calibration method for excellent long-term stability in low dewpoints
- Fast response time
- Withstands condensation

as condensation in the pipeline during system failure or startup. Also, the excellent chemical tolerance of the sensor makes it suitable for use in a wide variety of demanding environments.

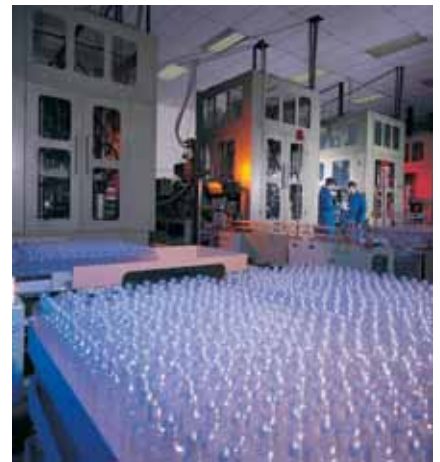
## Applications

Vaisala offers DRYCAP® based dewpoint products for a variety of applications where accurate and stable monitoring of dry conditions is required.

The Vaisala DRYCAP® dewpoint product range covers dewpoint applications from -60 to +80 °C T<sub>a</sub>, operating temperatures from -40 to +350 °C, and pressure up to 40 bar – depending on product. Product selection consists of fixed dewpoint transmitters designed for demanding industrial applications, compact and rugged transmitters for dryer applications, truly hand-held dewpoint meters for spot-checking, and portable sampling systems that enable flexible dewpoint sampling.



*Dewpoint monitoring of compressed air.*



*Plastics drying applications.*



*Industrial spot-checking, field calibration and dewpoint sampling.*



*Metal treatment applications.*