VAISALA

Efficiency and Sustainability for the Food Industry

STABLE HUMIDITY, TEMPERATURE AND CARBON DIOXIDE INSTRUMENTS
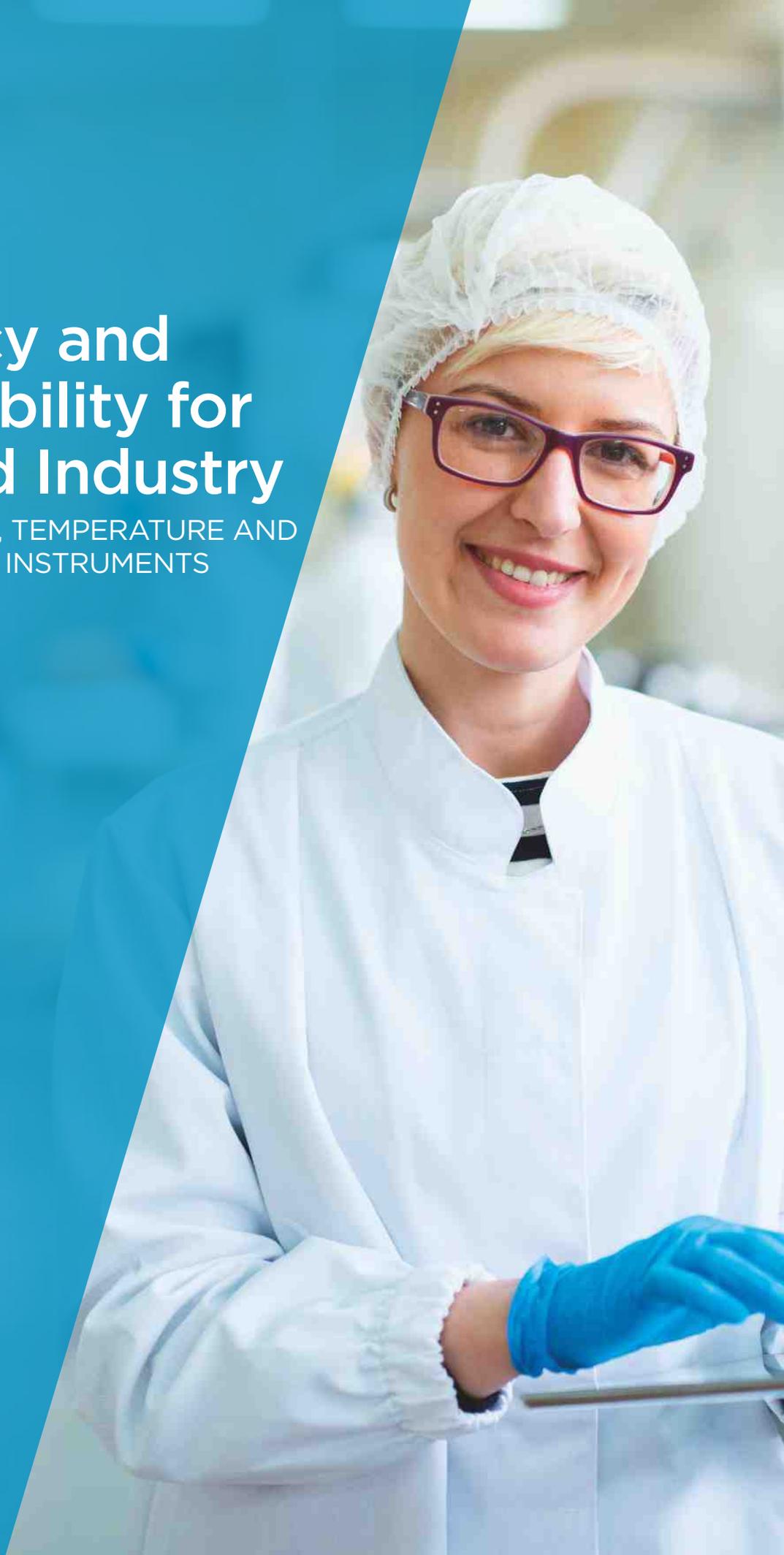
High Standards with Vaisala

Vaisala has over 80 years of experience in designing and manufacturing high-quality, reliable industrial measurement instruments.

Vaisala's transmitter portfolio includes products for measuring humidity, temperature, dew point, carbon dioxide (CO_2), vaporized hydrogen peroxide and barometric pressure. Our products are suitable for applications such as:

- proofers in bakeries
- drying processes
- optimization of process conditions
- industrial ovens
- compressed air networks
- monitoring CO_2 levels
- warehouses or other storage facilities
- manufacturing facilities
- manufacturing and packaging facilities of meat, fish, and other products
- hazardous areas

Our products are manufactured under strictly controlled conditions at our manufacturing facility in Finland.

Our instruments are delivered with calibration certificate that is traceable to national standards. The products are easy to use, require little maintenance and have a low total cost of ownership.

Maintenance

Even the most high-performance measurement instruments require regular calibration and maintenance to ensure they can continue to provide accurate data. A Calibration Care agreement from Vaisala is an economical way to ensure regular

Improve your end-product quality with stable drying air measurement.

calibration of your instruments for the long term, while our Premium Care agreement is more comprehensive.

Measuring Relative Humidity and Dew Point

In many high-temperature baking and drying processes, measuring humidity requires specialist instruments that are not only stable, reliable, and accurate, but are also suitable for demanding conditions.

For example, the drying of demineralized whey can be optimized using Vaisala's humidity and temperature transmitters to measure humidity and temperature in the dryer inlet and outlet air. The inlet air humidity data is used to control the process, while the outlet air humidity data correlates with the moisture content of the powder and thus can be used as an indicator of final product quality. This saves time and energy by avoiding overdrying. See www.vaisala.com/dryer for more information.

Our product portfolio includes a wide range of reliable and stable relative humidity and dew point

meters for different applications, based on our proven HUMICAP® and DRYCAP® technology.

Measuring CO_2

Vaisala CO_2 meters, detectors, and indicators are suitable for a wide range of applications, from fermentation and fruit storage to safety and ventilation control. Carbon dioxide is used, for example, to carbonate soft drinks. While the containers are being filled during the bottling process, large volumes of CO_2 can escape from the fillers into the surrounding atmosphere.

Because CO_2 is twice as heavy as air, carbon dioxide sinks into the bottom of the room and in areas with poor ventilation. As CO_2 is colorless and odorless, it can only be detected using appropriate measurement devices. By using such devices manufacturers can ensure that the level of CO_2 does not exceed set workplace exposure levels.

Our CO_2 measurement devices are based on our unique, second-generation CARBOCAP® technology, which ensures exceptional stability, exposure levels.

Products and Applications

Relative Humidity (RH) and Temperature (T) measurement

	Vaisala Indigo HMP & TMP smart probes for convenience in demanding measurements
	- Smart, interchangeable probes for humidity, temperature, CO_2 and vaporized hydrogen peroxide measurement
	- Optional Indigo output transmitters for data visualization
	- Insight PC Software for data visualization, configuration and on-site calibration
	Vaisala HMT330 for proofers in bakeries, drying processes, process optimization, or demanding industrial applications
	- Full 0 ... 100 %RH measurement, temperature range up to +180 °C (+356 °F) depending on model
	- Six probes for different applications
	- 10-year warranty when calibrated annually at a Vaisala Service Center
	- Optional LCD display and keypad
	- IP65/66 enclosure
	- Analog outputs, RS232/485, WLAN/LAN
	- ModBus protocol support (RTU/TCP)
	Vaisala HMT120/130 for proofers in bakeries and for manufacturing and packaging facilities of meat and fish products
	- Humidity and temperature measurement
	- 2-wire loop-powered or 3-wire voltage output configurations
	- Interchangeable probe for easy field calibration
	- Accurate, reliable, and resistant to dust and most chemicals
	- Optional LCD display
	- IP65 enclosure
	Vaisala Hand-Held Instruments for humidity spot-checking and calibration
	- HM70 for calibration and spot-checking for demanding conditions
	- RH measurement range 0 ... 100%
	- Three probes with temperature measurement ranges between -70 and +180 °C
	- Multi-probe operation; dew point and CO_2 probes can also be connected
	- HM40 for quick inspections and spot-checking
	- Compact with four probe options
	- Intuitive user interface

Continuous Monitoring System

	Vaisala viewLinc Continuous Monitoring System for logging measurement data from processes, warehouses, or manufacturing areas
	- Collects data via a logger or transmitter
	- Automatic data back-up
	- Real-time monitoring and alarms
	- Easy to install in an existing network
	- Mobile optimized
	- Software included

Dew point (Td) measurement

	Vaisala DMT345/346 for baking ovens and high-temperature processes
	- Vaisala DRYCAP® sensor provides accurate, reliable measurement with excellent long-term stability and fast response time - Two-year warranty (transmitter), two-year calibration interval - Measures humidity at temperatures up to 350 °C (+662 °F) - Condensation resistant - Graphical display with keypad for convenient operation - Optional mains power supply module and alarm relays - IP65 enclosure
	Vaisala DMT143 and DMT143L (long) for pressurized systems
	- Features Vaisala DRYCAP® technology with auto-calibration - Long calibration interval reduces maintenance costs - Accuracy: ±2 °C (±3.6 °F) - Compact size and condensation resistant
	Vaisala DM70 for calibration and spot-checking
	- Dew point measurement - Two probes with a measurement range of -60 ... +20 °C - Multi-probe operation; relative humidity and CO_2 probes can also be connected - Data can be logged and transferred to a PC via MI70 Link software

Carbon dioxide measurement

	Vaisala Indigo compatible GMP251/2 for versatile CO_2 measurement, for manufacturing and packaging facilities of meat and fish products
	- GMP251 for %-level measurements and GMP252 for ppm-level measurements - Measurement range: 0 ... 20% CO_2 / 0 ... 10,000 ppm - Indigo compatible smart probe, or cable - Outputs: 0 ... 20 mA / 4 ... 20 mA or 0 ... 10V - Can be connected to the Indigo 200 Series Transmitters to extend its features, for example, for a display or relays. - Two predefined or user-defined relay outputs - IP65 enclosure
	Vaisala GM70 for calibration and spot-checking
	- CO_2 measurement - Two probes with a measurement range of 0 ... 20% CO_2 - Multi-probe operation: relative humidity and dew point probes can be connected - Data can be logged and transferred to a PC via MI70 Link software

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Please contact us at
www.vaisala.com/contactus

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