Sense the success with the Vaisala Indigo family

Step into the future with a revolutionary new way to measure your most critical industrial processes. The Vaisala Indigo Family takes your industrial measurements to a completely new level with world-leading measurement sensor technology and modular design.

Interchangeable smart probes, robust transmitters, and Vaisala Insight software create a strong ecosystem to ensure energy efficiency, safety, and end-product quality in your operations. The modular plug-and-play design makes Indigo family probes and transmitters easy to install, use, and maintain.

The accuracy and long-term stability of Indigo probes are in a class of their own, giving you a sixth sense you can rely on with the ability to detect even the weakest signals and make better and more timely decisions.

Comprehensive range of measurement parameters

- humidity and temperature
- dew point
- moisture in oil
- carbon dioxide (CO_2)
- vaporized hydrogen peroxide (H_2O_2)
- barometric pressure

Modular design – a system that makes sense

Smart probes with extreme accuracy and stability

- Comprehensive probe selection for measuring various parameters
- Based on premium Vaisala sensor technologies
- Use stand-alone or with Indigo transmitters
- Modern, compact design

Robust transmitters with value-adding functionalities

- Dual-probe model enables multi-parameter measurement
- Plug-and-play probe connection
- Easy data evaluation and visualization
- Additional connectivity, power, and wiring options

Insight software for easy self-service and data visualization

- User-friendly graphical interface
- Quick access to probe data
- Smooth field calibration
- Easy probe configuration
- Connect up to six devices simultaneously
- Data logging functionality

Humidity and temperature probes

Indigo-compatible humidity and temperature probes are based on the space-proof Vaisala HUMICAP® technology, the world's first thin-film capacitive humidity sensor. Vaisala HUMICAP sensors guarantee quality and reliability, with a reputation for accuracy, excellent long-term stability, and negligible hysteresis. Indigo-compatible humidity probes are suitable for a wide range of applications from industrial processes to life science and building automation. They provide a comprehensive list of output parameters, including relative humidity, temperature, dew point temperature, wet bulb temperature, absolute humidity, mixing ratio, water vapor pressure, and enthalpy.

You can choose from the following probes:

• HMP1 for ambient measurement in indoor spaces and wall-mounting
• HMP3 for general-purpose use and duct mounting
• HMP4 for high-pressure or vacuum environments
• HMP5 for high temperature environments
• HMP7 for high-temperature and/or condensing environments
• HMP8 for high-pressure or leak-tight installation
• HMP9 for rapidly changing environments
• TMP1 for demanding temperature measurements

Indigo compatible humidity and temperature probes.

Dew point probes

Indigo-compatible dew point probes feature Vaisala's trusted DRYCAP® technology, specifically designed for humidity measurement in dry environments. The DRYCAP sensor is particularly renowned for its reliable performance in hot and very dry environments. These probes excel in a range of applications, from drying processes to compressed air, dry chambers, and industrial ovens.

Choose from the following probes:

• DMP5 for high temperatures <180 °C (356 °F)
• DMP6 for very high temperatures <350 °C (660 °F)
• DMP7 for leak-tight installation <10 bar
• DMP8 for high-pressure or leak-tight installation <40 bar

Indigo compatible dew point probes.

Moisture in oil probe

Indigo-compatible probe MMP8 incorporates the Vaisala HUMICAP 180L2 sensor, which is optimized for moisture in oil applications. The probe is suitable for demanding moisture measurement in a range of oils such as transformer, hydraulic, and lubrication oils and includes a CIGRE-recommended traceable calibration certificate.

MMP8 probe

Carbon dioxide (CO_2) probes

Indigo-compatible carbon dioxide (CO_2) probes are based on Vaisala's unique CARBOCAP® technology that provides exceptional stability. They are ideal for applications such as incubators, greenhouses, food storage and transport, animal shelters, and demand-controlled ventilation. They can even be installed outdoors.

Choose from the following probes:

• GMP251 for %-level measurements (0–20 %CO_2)
• GMP252 for ppm-level measurements (0–10,000 ppmCO_2)

GMP251 & GMP252 probe

Vaporized hydrogen peroxide (H_2O_2) probes

Indigo-compatible vaporized hydrogen peroxide (H_2O_2) probes feature Vaisala's unique PEROXCAP® technology, which enables accurate and repeatable measurement of vaporized H_2O_2, relative humidity / saturation (%RH / %RS), and temperature during bio-decontamination with a single probe.

Choose from the following probes:

• HPP271 for measuring H_2O_2 vapor concentration
• HPP272 for measuring H_2O_2 vapor concentration, relative saturation, humidity, and temperature

HPP271 & HPP272 probe

Barometric pressure measurement

The Indigo520 transmitter with the barometric pressure measurement module combined with one or two of the Indigo-compatible humidity and temperature measurement probes is a unique combination of a meteorological-grade barometer in a single industrial device. Measure three parameters simultaneously: barometric pressure, humidity and temperature. The device incorporates Vaisala's proprietary, space-proof HUMICAP® and BAROCAP® technologies.

• Attach one or two probes to the transmitter.
• Choose the humidity measurement probe that best suits your needs:
  • HMP1 for laboratories
  • HMP3 with a field replaceable sensor for general use
  • HMP7 for demanding, high-humidity industrial and meteorology applications
  • HMP9 for confined spaces
  • TMP1 for temperature measurement only

Indigo520 transmitter with Indigo-compatible humidity probes.

Vaisala Insight PC Software

Vaisala Insight PC Software provides quick access to the configuration options and calibration data of Indigo-compatible smart probes. Probes can be detached from the process and connected to a PC with a USB cable to access Insight PC software.

The software, which features an intuitive graphical user interface, also allows probe field calibration and adjustments. It also enables easy testing and evaluation – the 48-hour data logging functionality allows data to be recorded from up to six devices simultaneously, with easy export to an Excel-readable format.

Vaisala Insight PC Software

Indigo transmitters

Vaisala Indigo transmitters offer many features that complement Indigo-compatible smart probes. They enable real-time data visualization and access to probe configurations. They also offer additional connectivity, supply voltage, and wiring options compared to using a stand-alone smart probe.

Choose from the following transmitters:

- Indigo500 series – a robust transmitter with features including dual probe support, power over Ethernet, a robust metal enclosure, and touchscreen display.
- Indigo200 series – a transmitter with single probe support, analog, digital, and relay outputs, a modern graphical or numeric display, and wireless access via a nearby smartphone or PC.

Vaisala Indigo500 Series Transmitter

Vaisala Indigo200 Series Transmitter

The Vaisala Indigo Family in a nutshell

- **Fits your needs.** The modular design allows you to choose the elements that are a perfect fit for your measurement needs.

- **Reliable.** Ensures accurate and stable measurements with world-leading measurement sensor technology and robust transmitter design.

- **Simple to install, use, and maintain.** The plug-and-play design ensures smooth installation, calibration, and maintenance of measurement devices.

- **Easy access to data.** Access measurement data visualization, and probe configuration with the Indigo transmitter or Vaisala Insight software.

- **Future-proof measurements.** All probes feature Modbus RTU over RS-485 for flexible connectivity. Indigo transmitters provide additional connectivity options with analog and relay outputs.

The ideal solution for multi-parameter measurement and flexible connectivity

Combined with Indigo-compatible probes, Indigo500-series transmitters provide the flexibility you need. They can be used to measure multiple parameters, connected to different system interfaces, or integrated with the Vaisala viewLinc Continuous Monitoring System. Below are some real-life applications with examples of how the Indigo family products work together and with external systems.

Application example	Recommended solution	Benefits
Humidity and dew point process measurement	Indigo520 transmitter + Indigo-compatible humidity probe + dew point probe	Wide measurement range from -70 °C (-94 °F) dew point all the way up to 100% relative humidity in a single device
Humidity measurement in a critical measurement environment or between two measurement points	Indigo520 transmitter + two identical Indigo-compatible humidity and temperature probes	Redundant measurement or calculating the difference between two measurement points at instrument level
Laboratory requiring humidity, temperature, carbon dioxide (CO_2), and barometric pressure measurement	Indigo520 transmitter + two Indigo-compatible probes + barometer	All relevant parameters can be combined in one system
Relative humidity measurement in condensing environments such as fuel cells, humidified streams, or drying applications	Indigo520 transmitter + HMP7 probe + TMP1 probe	Enables relative humidity measurement in condensing environment by combining warmed HMP7 probe with temperature measurement
Compatibility with Vaisala viewLinc Continuous Monitoring System	Indigo500 transmitter + one or two Indigo-compatible probes + viewLinc 5.1	Compatible with viewLinc Continuous Monitoring System; Modbus TCP/IP connection to Vaisala viewLinc 5.1 Continuous Monitoring System
Multiple system interfaces	Indigo500 transmitter + one or two Indigo-compatible probes	Indigo500 suitability with multiple system interfaces; simultaneous Modbus TCP/IP connection to continuous monitoring system or other monitoring system; simultaneous analog output connection to building automation or other control system
Power over Ethernet (PoE) setup	Indigo520 transmitter (PoE model) + one or two Indigo-compatible probes	Indigo520 single-wire connectivity with Power over Ethernet (PoE)