

Modern replacements for mercury-based measurement devices

Accurate, reliable and safe devices for meteorological measurements



Accurate and dependable temperature measurements are essential for meteorologists and weather-dependent industries.

As mercury-based devices are being banned around the world, this can become a challenge for National Meteorological, Hydrometeorological and Hydrological Services (NMHS) which have depended on the mercury-based thermometers and barometers for decades.

The Minamata Convention on Mercury has published guidelines to help NMHSs replace mercury-based devices with safe, economical alternatives.

Whatever measurement device you choose, it is important to use accurate, reliable technology to ensure the data is dependable and consistent across the observation network.

WMO guidelines

The WMO fully supports the replacement of mercury-based devices. Their recommendations include:

- Including all stakeholders in the observation network
- Finding the best replacement devices
- Comparing both the mercury-based and replacement devices to be sure they are accurate and effective
- Safe removal and disposal of mercury-based devices in accordance with national procedures
- Maintaining and calibrating them using WMO and manufacturer guidelines.



Trusted weather observations for a sustainable future

World-class technology to replace mercury-based devices

Vaisala provides accurate, reliable and economical alternatives to mercury-based devices.

The **Vaisala Indigo520 transmitter** and **Vaisala Temperature Probe TMP1** are high-quality and used in multiple applications around the world. Designed to work seamlessly together, they are also dependable in demanding environments including high temperature and humidity.

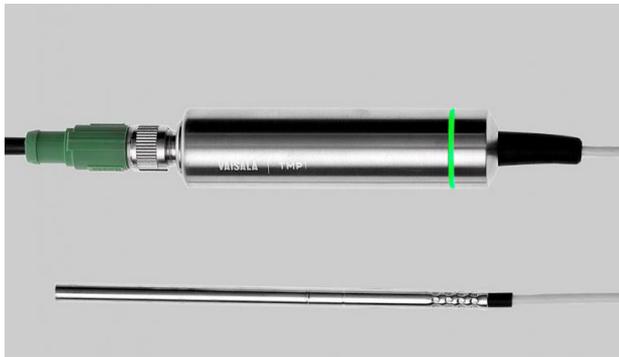
Our modern measurement devices can be easily retrofitted, for example, into existing Stevenson screens.



Vaisala Indigo520 transmitter

This smart host device can be used with one or two of the Indigo-compatible humidity and temperature measurement probes. When combined with the barometric pressure measurement module, it becomes a unique combination of temperature and/or humidity measurements and a meteorological-grade barometer in a single industrial device. Depending on probes attached to the transmitter, measure up to three parameters simultaneously: barometric pressure, humidity and temperature. The device incorporates Vaisala's proprietary, space-proof HUMICAP® and BAROCAP® technologies.

- Dual-probe and multi-parameter support
- Daily minimum and maximum values easily available in graphical and numerical formats
- Touchscreen display provides easy access to probe configuration
- Rugged metal enclosure ensures reliable performance
- Easy to install and remove for calibration
- Analog and digital outputs



Vaisala Temperature Probe TMP1

- Designed for demanding temperature measurements where accuracy and robustness are essential
- Accurate measurement with a wide temperature range
- Easy integration with the Indigo520 transmitter
- Both AC power (100-240VAC) and DC power (15-35VDC) models are available. Solar power systems can be used when 24VDC system is required due to minimum 15VDC power requirement.

Trusted measurement technology

We believe in the relentless pursuit of quality and performance, anywhere and everywhere. Our expertise is built on more than 85 years of highly accurate observations. Weather-critical organizations — from the North Pole to the South Pole, from the ground to NASA on Mars — trust Vaisala to deliver a full service offering for measuring the weather.

With decades of experience providing the best technologies and expert know-how, Vaisala's support, training and philosophy of partnership are unmatched in the industry.

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