Improving Wafer Circuit Pattern Quality in Semi-Conductor Manufacturing

Instruments for accurate measurement of air pressure, temperature, and humidity

Wafer manufacture requires a highly controlled environment and precise data on the manufacturing environment. These essential elements enable both high accuracy and high speed of the circuit pattern exposure on the wafer surface.

Vaisala sensor technology is designed for precisely these kinds of demanding conditions – BAROCAP®, HUMICAP®, and DRYCAP® sensor technologies ensure superior accuracy, long-term stability, and rapid response time. Furthermore, Vaisala has been serving the semi-conductor market and this specific industry for more than 15 years, developing an offering that meets the industry’s exacting needs. This leaflet details the relevant products and their key features and benefits.

Precision air conditioning and wafer stepper process capacity can be significantly enhanced with accurate and stable measurement of air pressure, temperature, and humidity.

One transmitter, three measurements – air pressure, humidity, and temperature with one unit

The Vaisala PTU300 is a unique product that measures three critical parameters simultaneously. This versatile transmitter has several interfaces, including RS-232 (standard), RS-485 (optional), as well as LAN and WLAN communication options. Its exceptional accuracy makes it the ideal choice for laser interferometer compensation. Read the datasheet and find out more at www.vaisala.com/PTU300
For air-pressure variation compensation

The Vaisala PTB330 series is the ideal choice if you don’t require humidity measurement. It offers the same reliability and stability as the Vaisala PTU300 and is highly customizable. Find out more at www.vaisala.com/PTB330.

If you’re looking for a simple, compact instrument for pressure variation compensation, the Vaisala PTB210 is the ideal option. Read more at www.vaisala.com/PTB210.

For humidity condition monitoring

The Vaisala HMT330 series is the perfect choice if you don’t need pressure measurement. As with the PTB330 series, this transmitter offers several probe and customization options. Find out more at www.vaisala.com/HMT330.

For monitoring quality in process gas lines

The Vaisala DMT340 series offers accurate measurement options for monitoring process gas lines (N\textsubscript{2} and compressed air). Read the full specifications at www.vaisala.com/DMT340.

For OEMs Vaisala offers the compact DMT143 probe. The transmitter can be installed directly into pressurized systems and has low maintenance needs. Read more at www.vaisala.com/DMT143.

The Vaisala HMT310 is a highly compact device that offers the same wide range of probe options as the HMT330 series. Read more at www.vaisala.com/HMT310.

For basic humidity measurement, the Vaisala HMP110, HMT120, and HMP60 are great cost-effective choices. Read more at www.vaisala.com/HMP110, www.vaisala.com/HMT120 and www.vaisala.com/HMP60.

The Vaisala DMT340 series offers accurate measurement options for monitoring process gas lines (N\textsubscript{2} and compressed air). Read the full specifications at www.vaisala.com/DMT340.

For OEMs Vaisala offers the compact DMT143 probe. The transmitter can be installed directly into pressurized systems and has low maintenance needs. Read more at www.vaisala.com/DMT143.

For monitoring quality in process gas lines

The Vaisala DMT340 series offers accurate measurement options for monitoring process gas lines (N\textsubscript{2} and compressed air). Read the full specifications at www.vaisala.com/DMT340.

For OEMs Vaisala offers the compact DMT143 probe. The transmitter can be installed directly into pressurized systems and has low maintenance needs. Read more at www.vaisala.com/DMT143.

For easy checking of instruments in the field


For more information about Vaisala’s offering for the semi-conductor industry visit www.vaisala.com/semiconductor.

For easy checking of instruments in the field


For more information about Vaisala’s offering for the semi-conductor industry visit www.vaisala.com/semiconductor.

For basic humidity measurement, the Vaisala HMP110, HMT120, and HMP60 are great cost-effective choices. Read more at www.vaisala.com/HMP110, www.vaisala.com/HMT120 and www.vaisala.com/HMP60.