

Measurement through view ports
(external installation)

Accurate determination of wafer position in vacuum chamber



Laser sensors

Product
name

Discrete sensor

High-Accuracy Position Sensors

Model No.

K1G-__

Process and
equipment name

Vacuum equipment
(CVD, PVD, and etching)

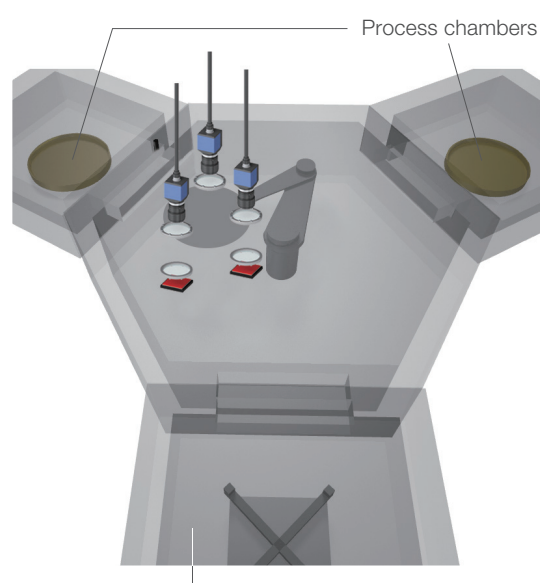
Current Situation

- Checking of wafer position when loading/unloading wafers at the process chamber.
- Correction by a special positioning mechanism if a transfer (etc.) leaves a wafer out of place.
- Increasingly precise semiconductor manufacturing necessitates ever-higher wafer positioning accuracy.



Current Issues

- Position measurement based on quantity of light (fiber-optic sensors, etc.) is not accurate enough.
- Image sensors are difficult to use because of their size and the number of parts to be managed.



There is a need to measure special chambers equipped with a wafer position correction mechanism (e.g., a precision stage).

Solution 1

Best-in-class accuracy captures high-accuracy wafer eccentricity data

Azbil's unique FDN algorithm and super-resolution technology achieve a resolution of 0.1 μm .

Solution 2

Reliable measurement through a view port

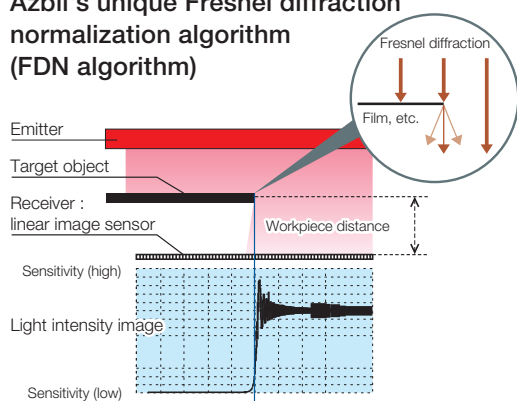
The combination of high-accuracy parallel laser light with a CMOS linear image sensor ensures reliable measurement even through a view port.

Solution 3

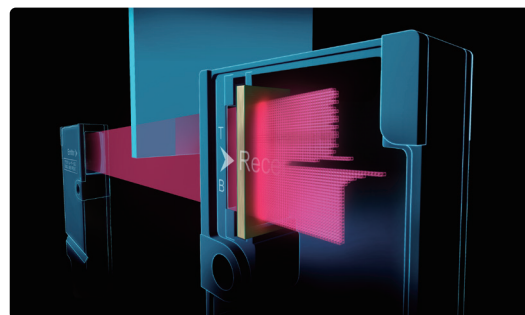
Space-saving and easy to install

Installation is easy with the smallest-in-class sensor head and multi-channel controller (max. 4 channels).

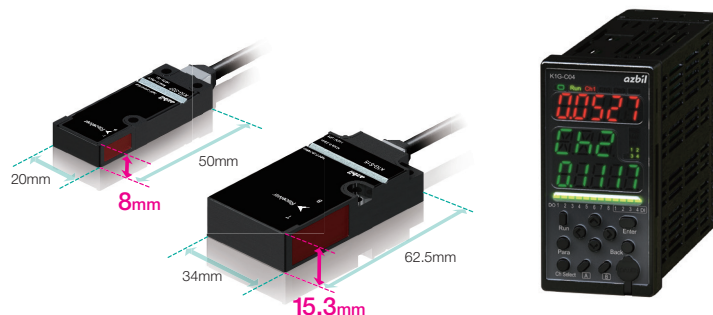
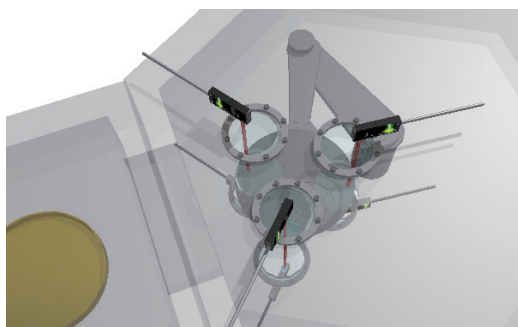
Solution 1 Azbil's unique Fresnel diffraction normalization algorithm (FDN algorithm)



Solution 2 High-accuracy parallel laser beams and CMOS linear image sensor



Solution 3 Trouble-free installation



Connect up to 4 channels

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1st Edition : Apr. 2020-SO
2nd Edition : Aug. 2020-AZ