

PSD displacement sensor Position Sensitive Detector Device

The PSD displacement sensor is a non-contact, high-speed, high-precision static and dynamic displacement measuring device. It enables two-dimensional static and dynamic displacement measurement on the plane of the target at long distances and wide fields of view, which was not possible with conventional laser or radar displacement meters.

The features of the PSD camera are as follows:

- Standard measurement distance of 100m
- Wide field of view: 1000×1000mm (at a measurement distance of 100m)
- High precision: 0.25mm (at a measurement distance of 100m)
- Two-dimensional measurement (vertical and horizontal directions)
- Standard for one target
- High sampling frequency of 5kHz/1 point displacement

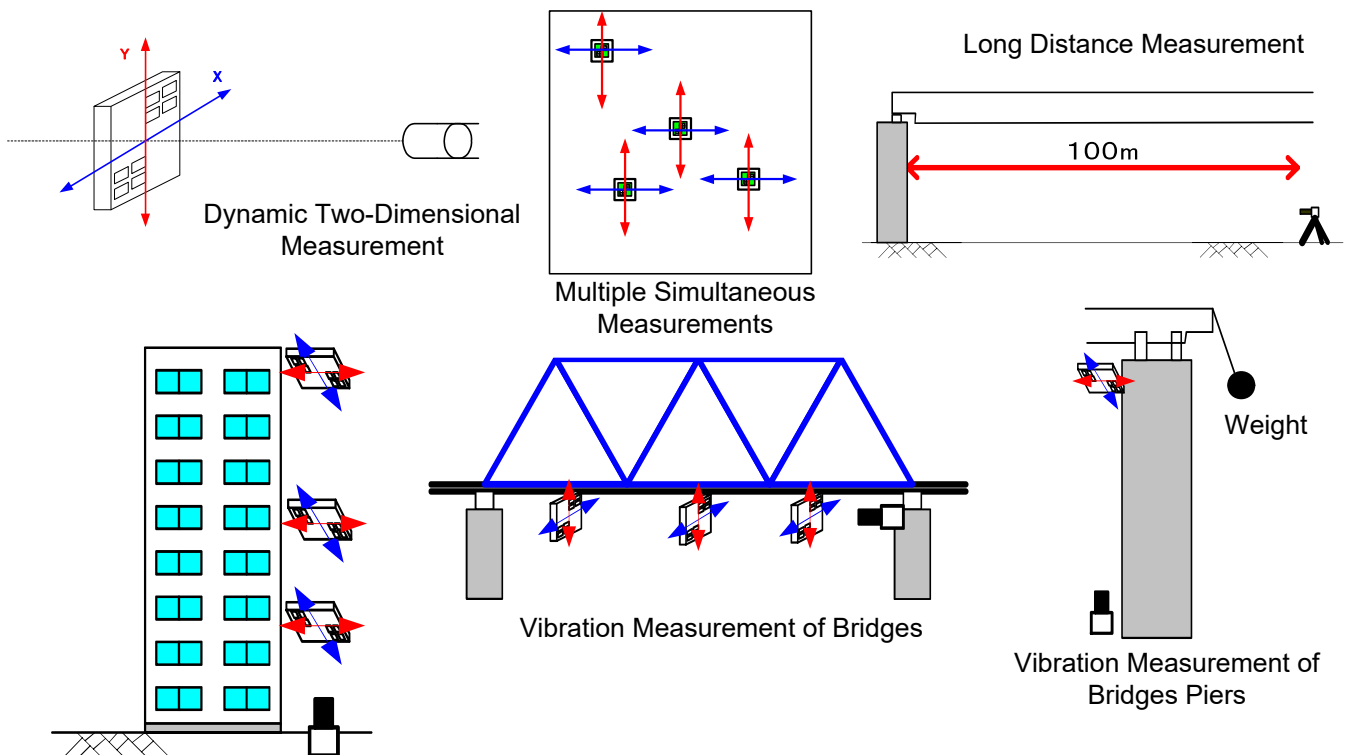
It can be applied to a wide range of measurements such as seismic diagnosis of architectural structures, maintenance and diagnosis of civil structures, vibration monitoring, and displacement measurement during dynamic pile loading tests.



(PSD Camera System)



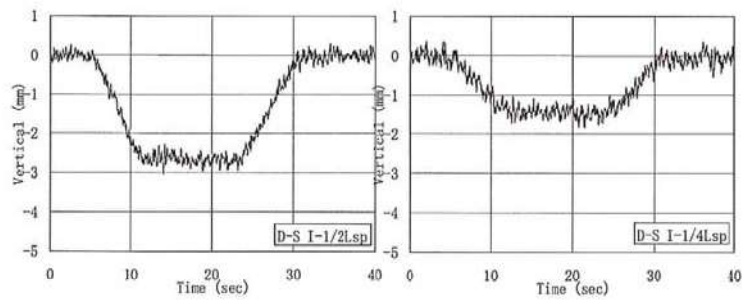
LED Target



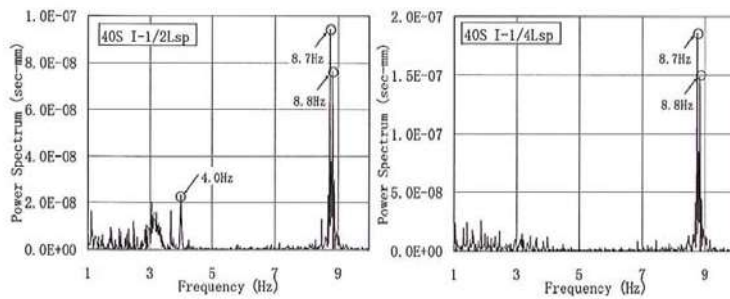
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Examples of measuring deflection of bridge girders



Deflection of Girders Due to Load Trucks



Spectrum analysis of deflection

Specifications of the PSD Camera

Items	Specifications
Measurement distance	Standard: Below 100m
Measurable range	2/3 of the measurement distance
Measurement field of view	1000x1000mm (at a measurement distance of 100m)
Measurement direction	Two directions (vertical and horizontal)
Measurement resolution	0.25mm (at a measurement distance of 100m)
Sampling rate	0.2ms (at 5kHz, 1 point)
Measurement point	Standard for one target

※Measurement distance is possible up to 100m with telephoto lens attachment.
 ※Measurement points currently stand at one target.

