

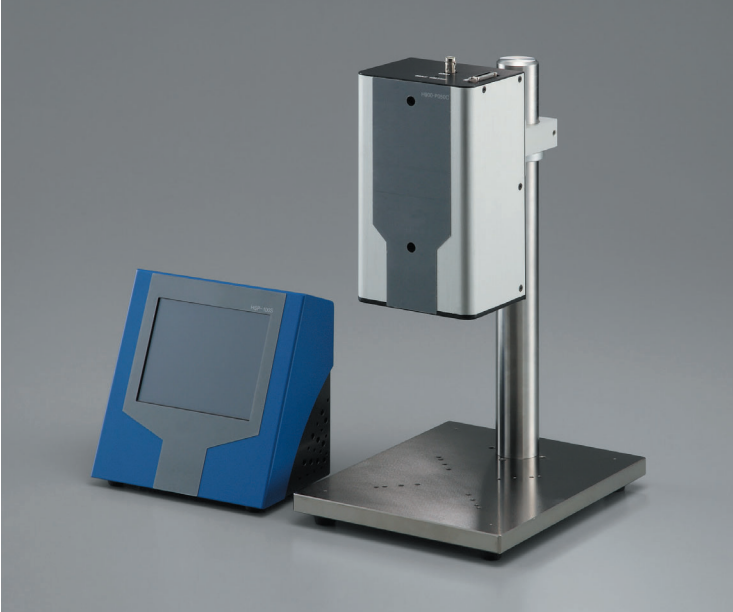
Wide, High Speed, High Resolution Laser Autocollimator: Smart W-LAC

Angle
measurement

Laser
autocollimator

サンプリング 200/250/500kHz	650 wavelength	WD (mm) 70/150/230	Beam diameter Φ1 (mm)	Resolution 0.4/1.0/1.8μ	Measurement range	±0.17	±0.5	±0.9	±5.0
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■ H900 Series



■ Feature

Flagship Model.

Laser autocollimator can measure

Wide angle range with

Fast sampling and High resolution.

4 different Angle Range is available.

±0.17deg, ±0.5deg, ±0.9deg and ±5deg

■ Wide angle 5.0degree 【H920Series】

1 sec High resolution and 200kHz sampling

Applications: Wide angle lens check,

MEMS Mirror chance Evaluation

■ Fast Sampling Max0.4sec【H900Series】

It is possible evaluate quick move object.

For example, it can measure 3,000point per one rotation with 10,000rpm motor rotation.

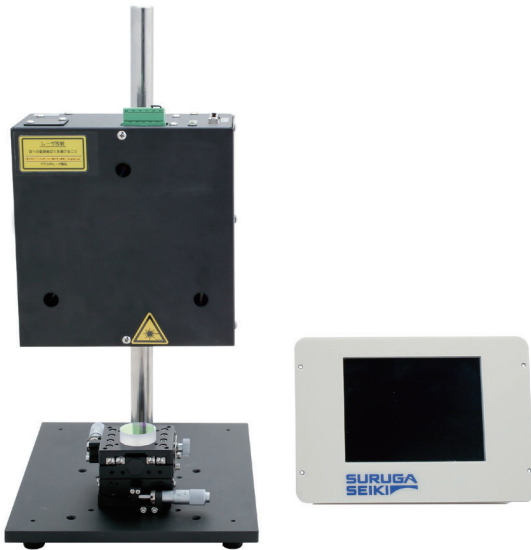
Then it is possible precise evaluation for fast rotate object.

■ Analog voltage signal output 【H900,H920Series】

It is possible to set up various analysis method such as FFT or Oscilloscope analysis by connecting Analog out put directly to other analysis device.

For example, Optical vibration analysis such as observation of resonance points of optical devices is possible.

■ H920 Series



High speed
High resolution

Standard

Accessories

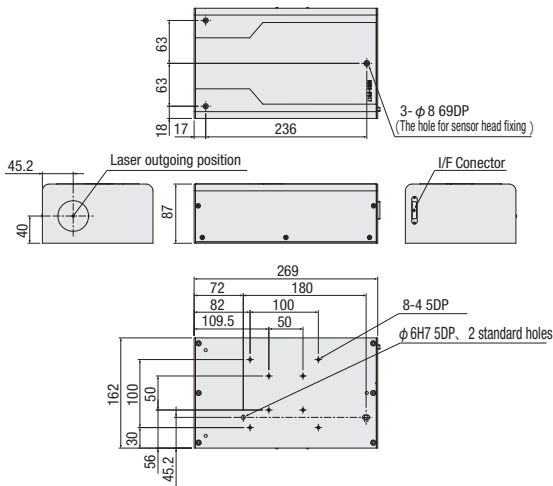
■ SPECS

■ Smart W-LAC

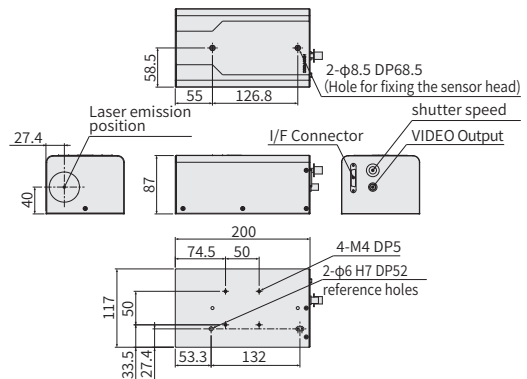
		SPEC			
Model		H900-P017C	H900-P050C	H900-P090C	H920-P500
Sampling Speed	200KHz	×	×	×	○
	250KHz	○	○	○	×
	500KHz	○	○	○	×
Angle Range		±0.17deg	±0.5deg	±0.9deg	±5deg
Resolution		0.4Sec	1.0Sec	1.8Sec	1.0Sec
Working Distance		230±30mm	150±30mm		70±2mm
Laser Diode		658±10nm			
LD Power		Max. 5mW (Class III)			
Beam Size		Φ1.0mm(Collimate Beam)			
Power		AC 100~240V 15W			DC24V 1.2A
Sensor Head	Size	162x269x87mm	117x200x87mm		165X170X85mm
	Weight	4.1kg	1.8kg		2.0kg
Image Processing Unit	Size	177x179x137mm			202x141x50.5mm
	Weight	2.1kg			1.0kg

■ Dimension

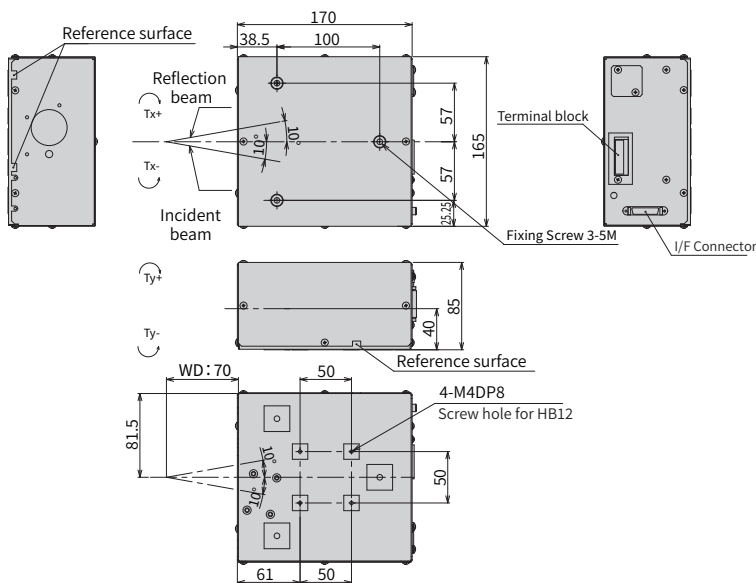
● Sensor Head H900-P017C



● Sensor Head H900-P050C/P090C



● Sensor Head H920-P500



Angle measurement

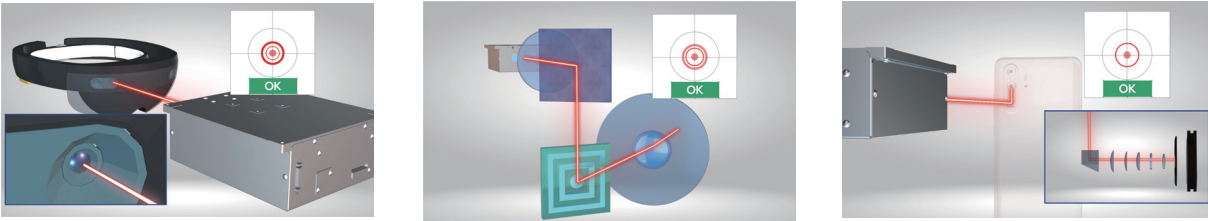
Laser autocollimator

High speed
High resolution

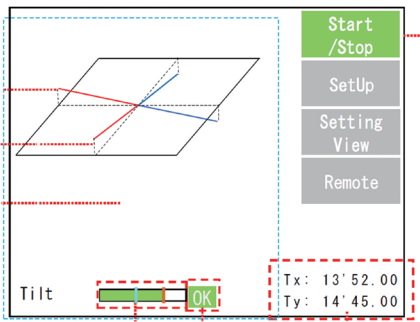
Standard

Accessories

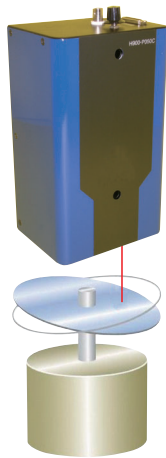
Wide angle Example



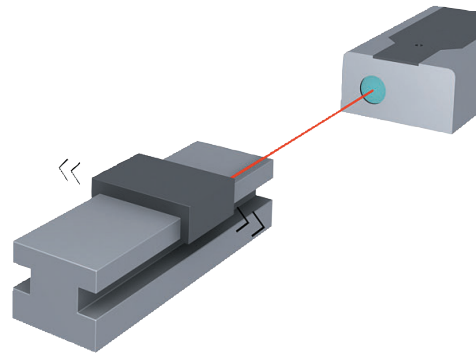
High-speed, wide-angle laser autocollimators are used in a wide range of fields, from periscope type cameras to MEMS mirrors, to evaluate camera accuracy and scanning accuracy.



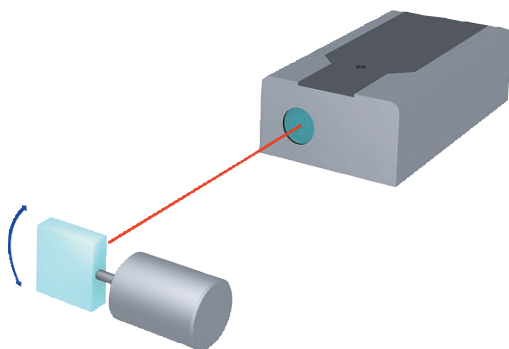
Fast and High resolution Example



Precise motor shake measurement.

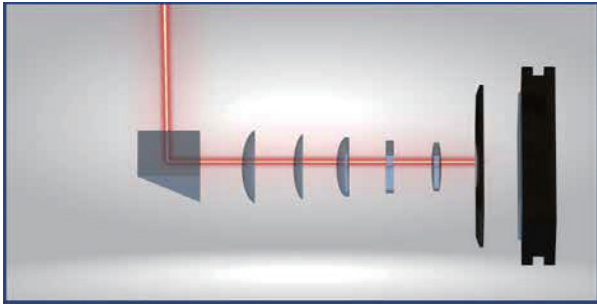


Actuator motor pitch and Yawing measurement.



Galvano mirror wobble measurement.
Angle repeatability analysis

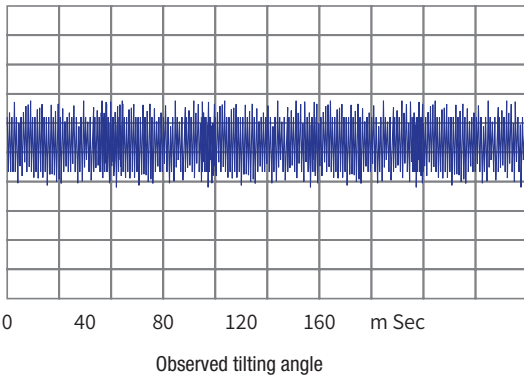
■ Vibration analysis example



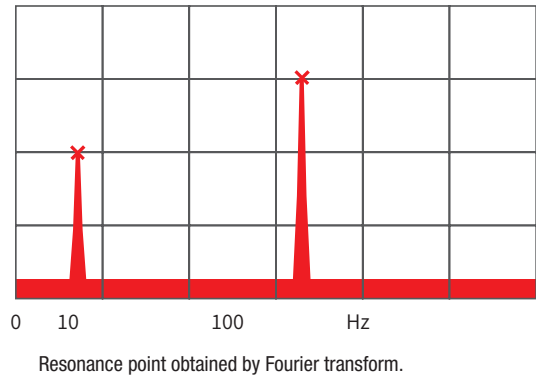
Wide drive range Optical system such as a Periscope type optical system require wide angle and precise angle measurement.

And for optical mechanical effect evaluation, it is needed optical vibration analysis. Most of mechanical vibration is less than several hundred Hz. So, sampling speed must be more than several thousand Hz.

ADU



ADU



■ Motor analysis example

Motor mode

X	Y	D	DataNo
MAX_X	MIN_X	WIDTH_X	
MAX_Y	MIN_Y	WIDTH_Y	
TILT_X	TILT_Y	TILT_D	
MAXD_X	MAXD_Y	MAXD_D	
WIDTH			

This is the shaft shake observed result. From the trajectory, dynamic shaft tilting is observed.

At the measurement display, each value of XYD, items such as runout width (Width of each Max-Min), axis tilt, and outermost point are selected and displayed.

