

The world's first innovation & production of probity

#### Integrated tilt sensor ST-3100



Precision measurement is not just about removing variability, it is also opening up new possibilities.

# What's background for then?

#### Why is it necessary to need Integrated Displacement Sensor?

To say "autocollimator", Not so long ago, A think it have an image of BIG and Heavy, difficult. As result, It was difficult and install in machine and Handler.

Katsura Opto Systems enable to announce that is more Small, more Intelligent, High Performance, and enable to "autocollimator" of install in Machin or Handler.

#### Features and Innovation technology

①Small, Smart.

②Integrated sensor and controller.

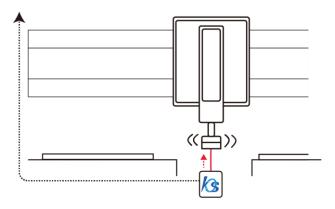
③Inclination measurement  $\pm$ 54min, High-speed measurement.

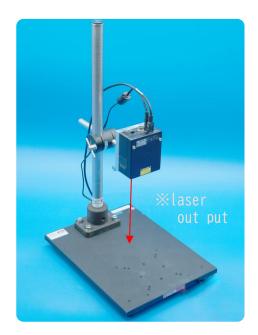


**KATSURA OPTO SYSTEMS** The world's first innovation & production of probity

### Application sample

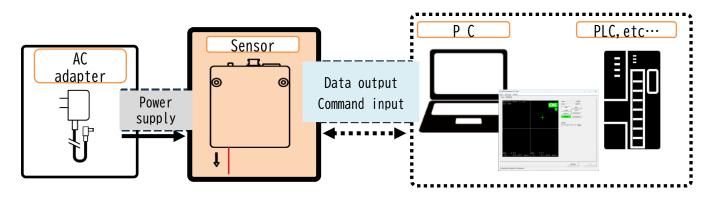






Power and communication cable connect only.

### **Configuration**



The world's first innovation & production of probity

## **S**pecification

Title		Specification
Mode l		ST-3100
Measurement object		Optical plane(Reflectance 80% or higher)
Measurement type		Tilt (ΘX, ΘY)
Working distance		0~200mm
Measurement method		Autocollimator method
Measurement area		±54min (Circular range)
Source	Wave length	660±10nm
	Beam class	JIS C6802 2014 Class 1 (Max 390µW)
	Beam diameter*1	$\phi$ 1 mm
Repeatability*2		0.025min
Linearity*3		$\pm 0.15\%$ of F.S. ( $\pm 0.16$ min equates)
Disital output / output rate*4		RS-232C / 1,600times/sec
Size (Without Protrusions)		W65×D75×H34mm
Weight		0. 2kg

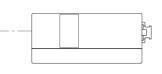
\*1 Sensor immediately after radiation diameter.  $(1/e^2)$  .

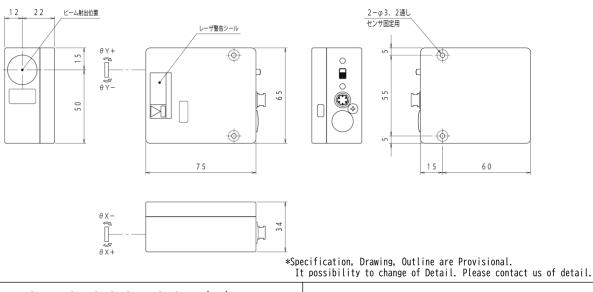
\*2 katsura opto systems standard sample use Range of variation (6 $\sigma$ ) of the average of 16 measurements.

\*3 Whwn it is a katsura opto systems standard sample use(WD.140mm), It possibility to Data can change from time to time.

\*4 During continuous data output (communication command \$START\* can only be executed on any one of the digital output 1 or 2 terminals). Both digital output terminals can be used at the same time, or different communication commands can be used, The number of outputs decreases depending on the baud rate setting.

#### Drawing





	KATSURA OPTO SYSTEMS Co., ltd.	
HQ	202, Crown Building1-7-11, Kami-Asao, Asao-ku, Kawasaki-shi, Kanagawa pref Postal code: 215-0021 JAPAN TEL: +81-44-969-5231 FAX: +81-44-969-5230	
China	KATSURA OPTO TECHNOLOGY (Shanghai) 1411, Yecheng Road, Jiading Industrial District, Shanghai Postal code: 201-821 CHINA TEL: +86-21-69529975 FAX: +86-21-69529976	CSP0176EN-4_202411