Selection Guide

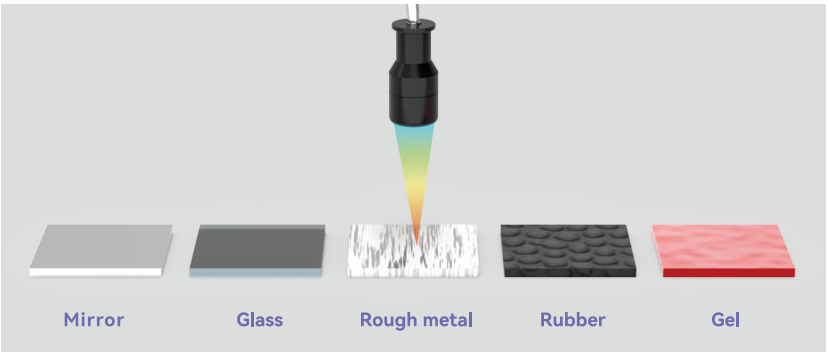
ACC Series

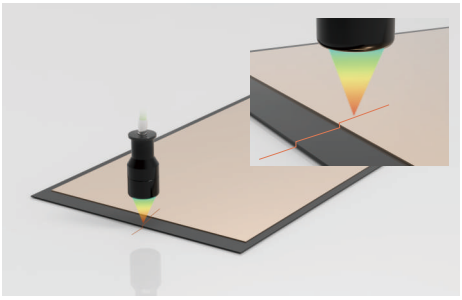
Color Confocal Displacement Sensor

ACC Series

Stable measurement for any material

Metals, ceramics, mirrors, glass, transparent and non-transparent materials can all be detected



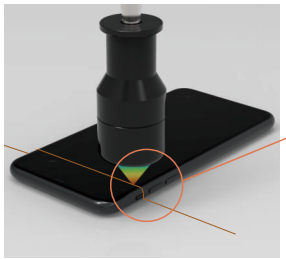


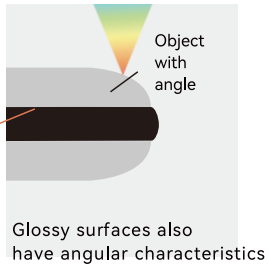
Sub-micron ultra-high measurement accuracy

The maximum resolution is 0.02um,and the mimimum spot size is 2um,for precise capture of minute details

Tilt angle measurement up to ±60°

The shape of object with angles can be accurately tracked,almost no impact by the shape.



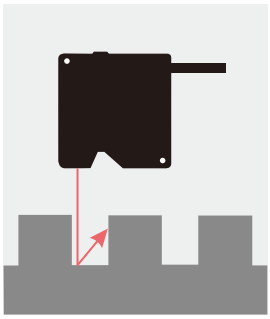


ACC Series

High precision measurement for any surface condition

Stable detection for rough surfaces, mirrors, curved surfaces, inclined surfaces, pits, section differences, etc.

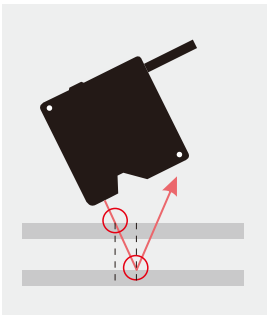
Detection from all directions,even for hollows and segment differences



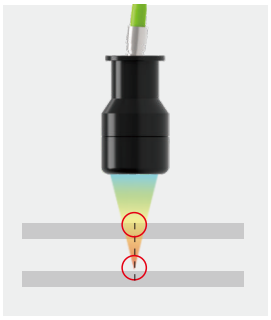
Traditional laser displacement

ACC Series

Transparent and mirror objects can also be correctly measured



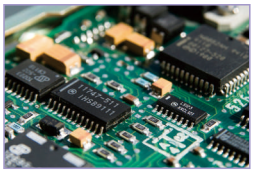
Traditional laser displacement



ACC Series

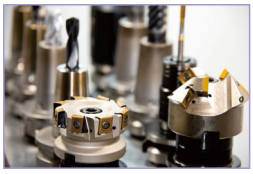
Application fields

Panel/glass industry



PCB board/IC chip industry

Photovoltaic / semiconductor wafer industries



Metal / precision manufacturing industries

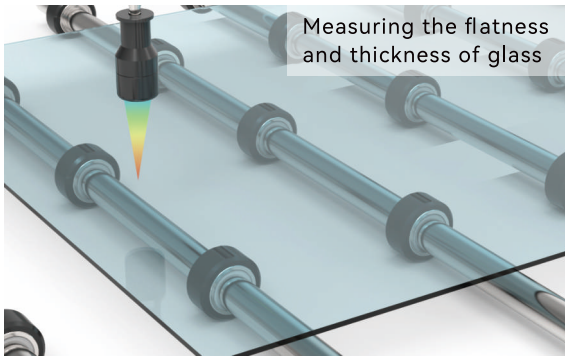
Lithium and other industries

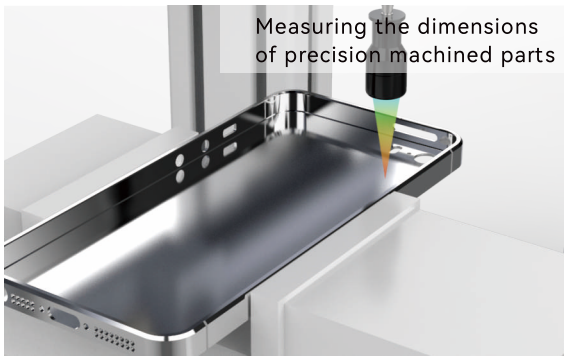
Lens industry

3C electronics and other industries

Printing/Ink industry

Applications





Selection Guide

Selection table

Model	ACC-008L	ACC-011L	ACC-016L	ACC-018L	ACC-030L	ACC-033L	ACC-040L	ACC-055L
Resolution	0.02μm	0.05μm	0.05μm	0.05μm	0.07μm	0.2μm	0.12μm	0.1μm
Spot size	2μm	16μm	8μm	25μm	9μm	40μm	40μm	45μm
Max. inclination	±40°	±60°	±30°	±22°	±15°	±7°	±15°	±11°

ACC Series

Probe




Basic Features	Working principle	Coaxial	Coaxial	Coaxial	Coaxial
	Housing	Cylindrical	Cylindrical	Cylindrical	Cylindrical
	Reference distance	8mm	11mm	16mm	18mm
	Measuring range	±0.2mm	±1.2mm	±1mm	±1mm
	Spot size *3	2μm	16μm	8μm	25μm
	Resolution *1	0.02μm	0.05μm	0.05μm	0.05μm
	Linearity *2	±0.15μm	±0.45μm	±0.35μm	±0.3μm
Mechanical data	Maximum tilt angle *4	±40°	±60°	±30°	±22°
	Enclosure rating	IP40	IP40	IP40	IP40
	Dimension	Φ41x99mm	Φ98x266mm	Φ41x159mm	Φ34x75mm
	Weight	220g	3250g	360g	105g
	Probe model	**ACC-008L**	**ACC-011L**	**ACC-016L**	**ACC-018L**

Probe




Basic Features	Working Principle	Coaxial	Coaxial	Coaxial	Coaxial
	Housing	Cylindrical	Cylindrical	Cylindrical	Cylindrical
	Reference distance	30mm	33mm	40mm	55mm
	Measuring range	±2mm	±2mm	±4mm	±3mm
	Spot size *3	9μm	40μm	40μm	45μm
	Resolution *1	0.07μm	0.2μm	0.12μm	0.1μm
	Linearity *2	±0.45μm	±2μm	±0.5μm	±0.65μm
Mechanical data	Maximum tilt angle *4	±15°	±7°	±15°	±11°
	Enclosure rating	IP40	IP40	IP40	IP40
	Dimension	Φ38x82mm	Φ18x55mm	Φ54x116mm	Φ33x75mm
	Weight	145g	24g	380g	122g
	Probe model	**ACC-030L**	**ACC-033L**	**ACC-040L**	**ACC-055L**

Color Confocal Displacement Sensor

ACC Series

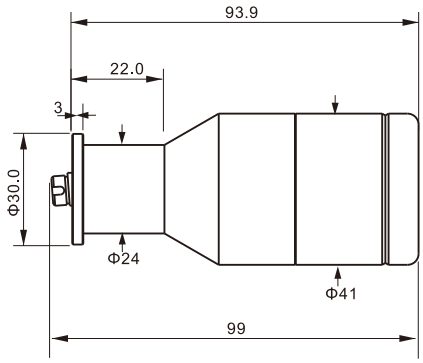
Controller model

Basic Features	Housing	Retangular	
	Light source	White LED	
Electrical data	Operating voltage	24V DC	
	Sampling frequency	4K HZ(Max)	2K HZ(Max)
	I/O function	Pulse input, output, encoder trigger input	
	Number of encoder axes	3 axes, incremental (A/B/Z phase)	
	External communication interface	RS-232:115200 bps(max.) Ethernet:100BASE-TX/10BASE-T	
Environmental conditions	Operating temperature	5~40℃	
	Operating humidity	35~80%	
	Ambient illumination	<10000lx	
	Enclosure rating	IP20	
Mechanical data	Fiber optic extension cable	ACC-OF-S(standard); Outer Armor: ACC-OF-M(optional)	
	Length of fiber optic extension cable	2/5/10m, standard 10m	
	Weight of fiber optic extension cable	ACC–OF–S：23/40/69g；ACC–OF–M：108/218/396g	
	Minimum bending radius *5	50mm	
	Dimension	140x122x127mm	185x122x127mm
	Weight	1.38kg	
	Accessories	–	
	Connectable channels	–	2
	Controller model	**ADV-12CKS**	**ADV-12CK2**

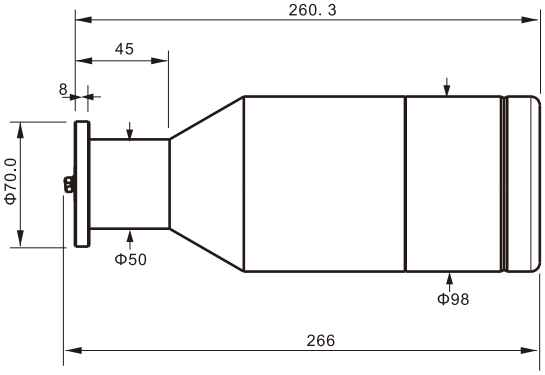
Unit:mm

Dimensions

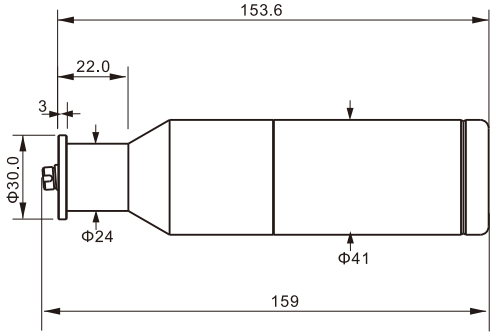
ACC-008L



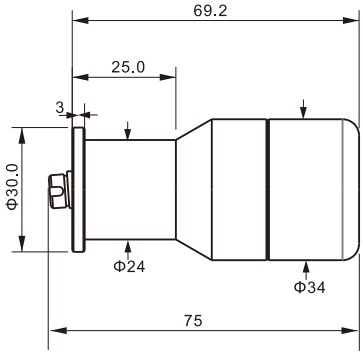
ACC-011L



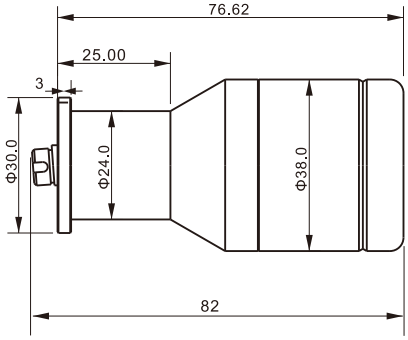
ACC-016L



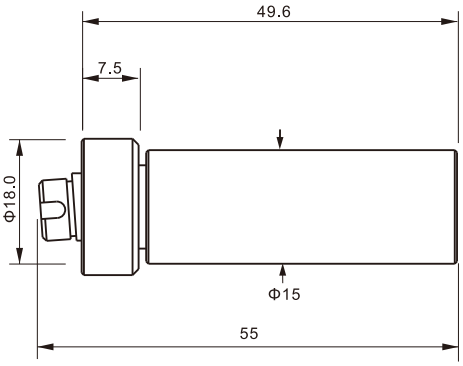
ACC-018L



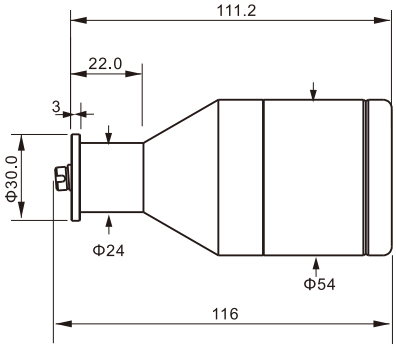
ACC-030L



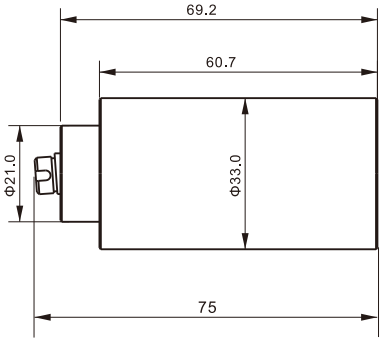
ACC-033L



ACC-040L



ACC-055L

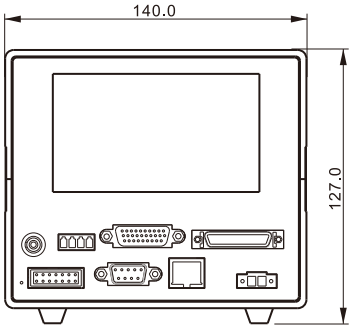


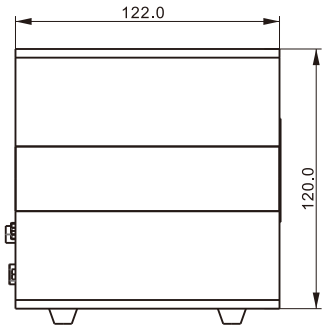
Color Confocal Displacement Sensor

Dimensions

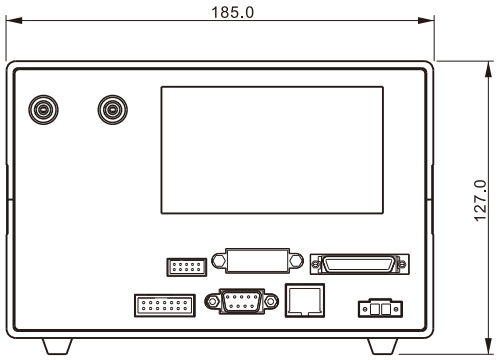
Unit:mm

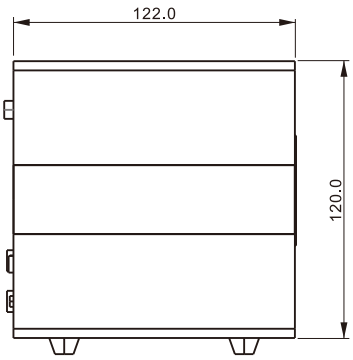
ADV-12CKS





ADV-12CK2





*1. Resolution: The average level of noise for the stationary workpiece at the zero center of the range center (opening the light intensity auto adjustment and 256 times averaging function)
*2. Linearity: Maximum error value for full-scale measurement of mirror standard parts after calibration (opening the light intensity auto adjustment and 256 times averaging function)
*3. Spot diameter: theoretical spot diameter value at the center of the range
*4. Maximum inclination: refers to the maximum acceptable optical signal angle under the mirror-reflective material workpiece. The diffuse reflection workpiece usually can reach 80 degrees.
*5. Minimum bending radius: The minimum radius of curvature that can be received when the fiber is crimped and stored. Below this value, it is easy to break and damage.