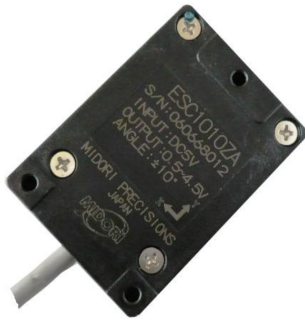


Contactless Inclination Sensor

# ESC1000ZA Series - ESC10xxZA

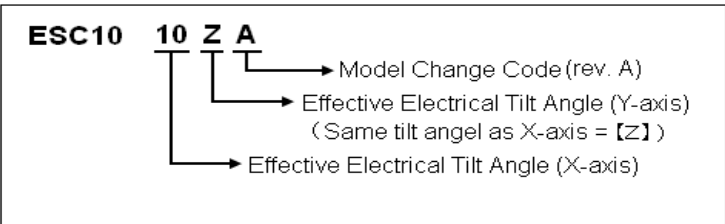


- Effective Electrical Tilt Angle :  $\pm 10^\circ$ ,  $\pm 20^\circ$ ,  $\pm 30^\circ$ ,  $\pm 45^\circ$  (X / Y axis)
- Center Based Linearity :  $\pm 0.5\%FS \sim \pm 2.5\%FS$  (X / Y axis)
- Ratio Output
- EMS 100V/m

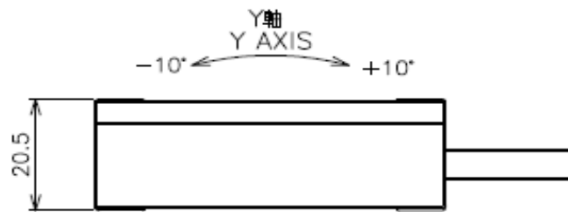
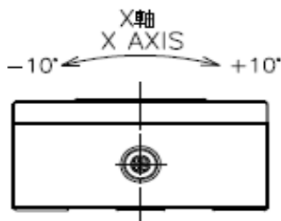
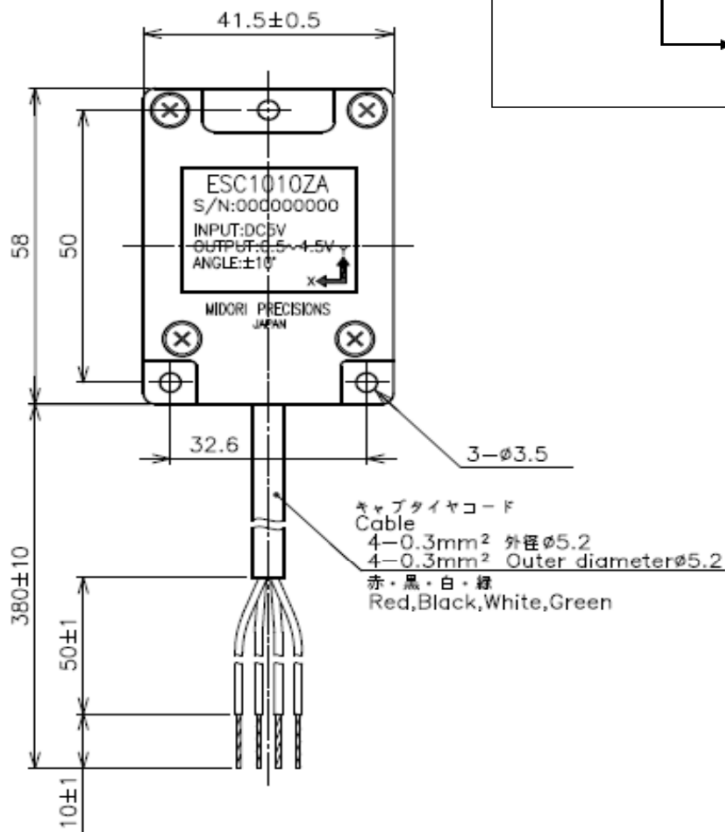
**[Material]**

• Housing : PBT

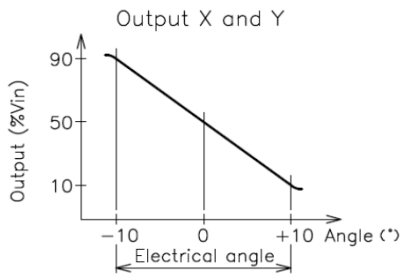
**ESC1000ZA Model Number Designation**



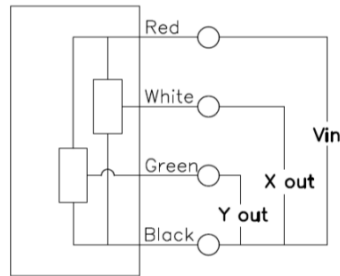
**Dimension [mm]**



### Output Characteristics

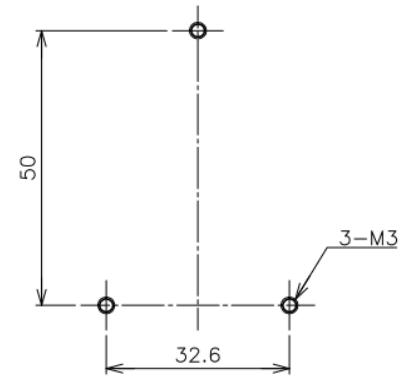


### Schematic



• Red, White, Blue, Black indicate lead colors.

### Mounting



【Model No.】	ESC1010ZA	ESC1020ZA	ESC1030ZA	ESC1045ZA	
<b>【Electrical Specifications】</b>					<b>(X and Y axis)</b>
Effective Electrical Tilt Angle	±10	±20	±30	±45	°
Output Range	10 ~ 90				%Vin
Index Point	50±3				%Vin
Center Based Linearity	±0.5 (FS=20°)	±1.0 (FS=40°)	±1.5 (FS=60°)	±2.5 (FS=90°)	%FS
Input Voltage	DC 5±0.25				V
Load Resistance	MIN. 100				kΩ
Supply Current	MAX. 10				mA
Insulation Resistance	MIN. 100/DC50V				MΩ
Temp. Characteristics -20°C~80°C (Reference Temp. 25°C)	±0.6	±0.6	±0.8	±0.8	°
<b>【Mechanical Specifications】</b>					
Response time	Approx. 0.5				sec.
Mass	Approx. 60				g
<b>【Environmental Specifications】</b>					
Operating Temperature Range	-20 ~ +80				°C
Storage Temperature Range	-40 ~ +80				°C
Vibration	70m/s <sup>2</sup> 5~200Hz(10min) Horizontal(2axis)2hours、Upside down 4hours				
Shock	1000m/s <sup>2</sup> 6directions 3times				
EMS	100V/m 10M - 1GHz				
ESD(Case-Each Terminal)	±12kV (IEC61000-4-2)				
ESD(Each Terminal)	±12kV (IEC61000-4-2)				
IP Rating	IP50				

### Handling Instruction

- As this product is using "COMOS IC", handling of harness must be done under the ESD protection.
- Cover fixation screws by thread-locking agent to fix the screws.