

# Contactless Hall-IC Tilt Angle Sensor

## MIDORI WR-7UHA360



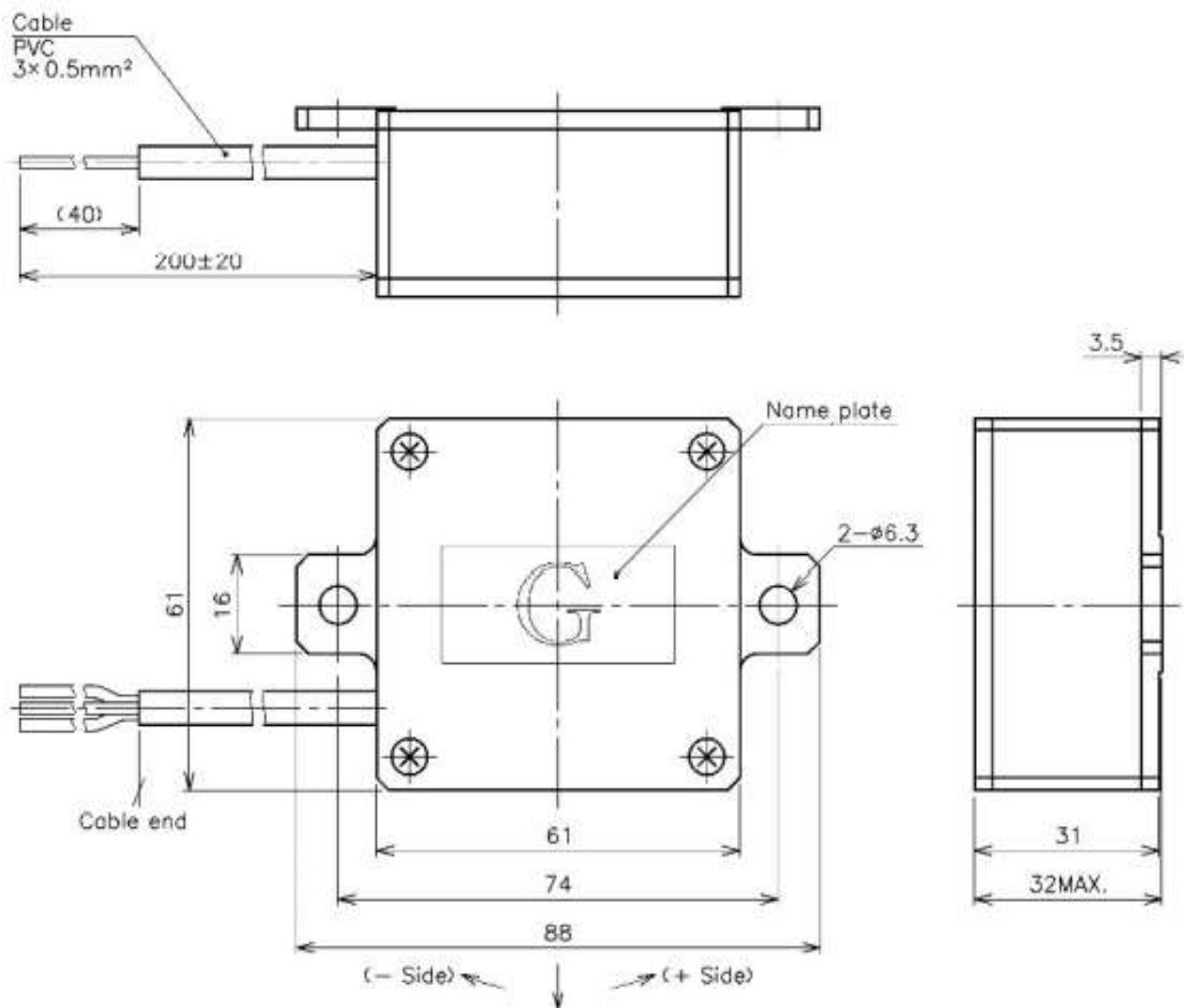
### General

- Hall-IC Inclinometer
  - Effective Electrical Tilt Angle: 359.9°
  - Absolute Linearity:  $\pm 0.4\%FS$  (FS=360°)
  - High Environmental Performance
- IP64
- EMS 100V/m

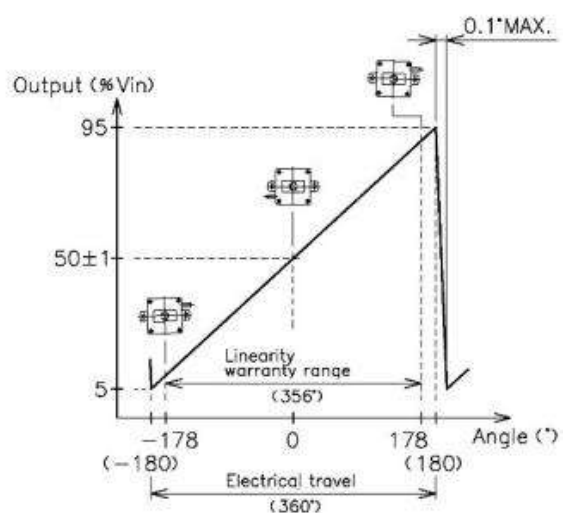
### Material

- Housing: Aluminum

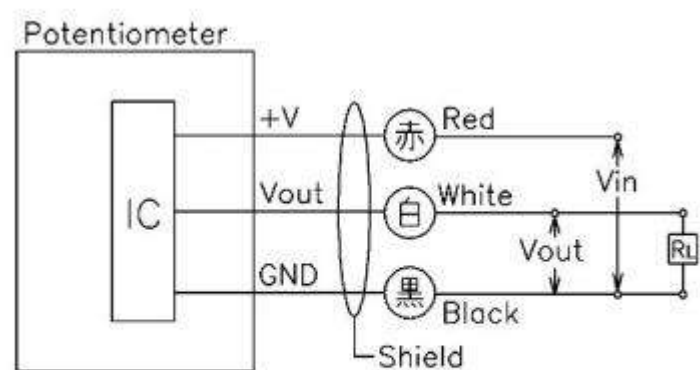
### Dimension (mm)



### Output Characteristics



### Schematic



• Red, white and black indicate cable colors.

# Specifications

<b>WR-7UHA360</b>	
<b>Electrical Specifications</b>	
<b>Effective Electrical Tilt Angle</b>	±180°(=360°, Dead Angle 0.1°)
<b>Index Point</b>	50±1%Vin
<b>Absolute Linearity</b>	±0.4%FS (FS=360°)
<b>Tilt Sensitivity</b>	1.08°MAX. (0.3%FS MAX. FS=360°) including hysteresis
<b>Input Voltage</b>	DC5V±0.5V
<b>Load Resistance (RL)</b>	10KΩ MIN.
<b>Supply Current</b>	10mA MAX.
<b>Output Range</b>	5~95%Vin
<b>Temp. Characteristics -30~80°C (Ref. Temp.+25°C)</b>	±1.08% FS
<b>Mechanical Specifications</b>	
<b>Total Mechanical Tilt Angle</b>	360° Endless
<b>Damping Time Constant</b>	Approx.0.3sec/45°/25°C
<b>Oil Viscosity</b>	500mm <sup>2</sup> /S
<b>Mass</b>	Approx. 260g
<b>Environmental Specifications</b>	
<b>Operation Temperature</b>	-30~+80°C
<b>Storage Temperature</b>	-40~+80°C
<b>IP Level</b>	IP64 (Except cable end)
<b>Vibration</b>	50m/S <sup>2</sup> , 5~500Hz, 6min, 3axis 2hours (Room Temp.)
<b>Shock</b>	500m/S <sup>2</sup> , 11ms, 6axis 3times (Room Temp.)
<b>EMS</b>	100V/m, 200MHz~1GHz (ISO11452-2), Output error: ±1%Vin
<b>ESD</b>	±15KV (IEC61000-4-2)

## Options

Effective Tilt Angle: 90°(±45°)~359.9°(±180°)

## Handling Instruction

- Do not use Hall-IC sensor as a variable resistor.
- This product may be influenced from external magnetic field.
- Use this sensor in the place where is protected from ESD.