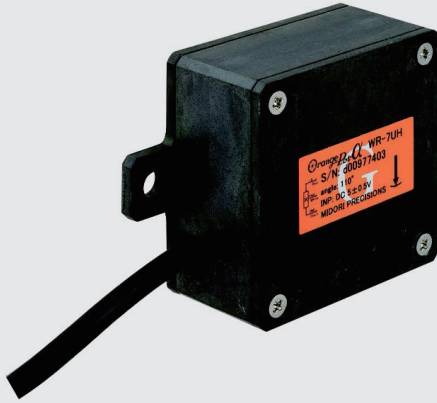


DRIP-PROOF HIGH ACCURACY ROBUST, PENDULUM MECHANISM

CONTACTLESS HALL-IC TILT ANGLE SENSOR

WR-7UHA series

RoHS compliant



FEATURES

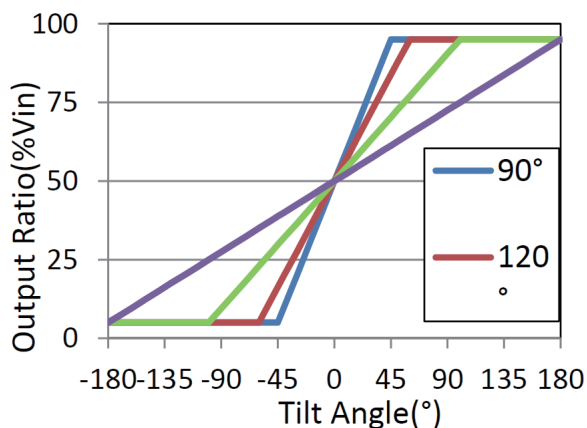
WR-7UHA series is pendulum type single axis inclinometer, designed for measurement of wide tilt angle range from 90° up to 360°, featuring long useful life and stable output signal due to contactless design. The die cast aluminum housing is sealed for operation in hostile environments. This model is especially suited for boom angle control of construction machinery.

- 360° Wide angle
- High accuracy: Linearity $\pm 0.4\%$ FS
- Wall mount: Can be used to detect tilt angle and position
- Aluminum die-cast case IP67

PERFORMANCE CHARACTERISTICS

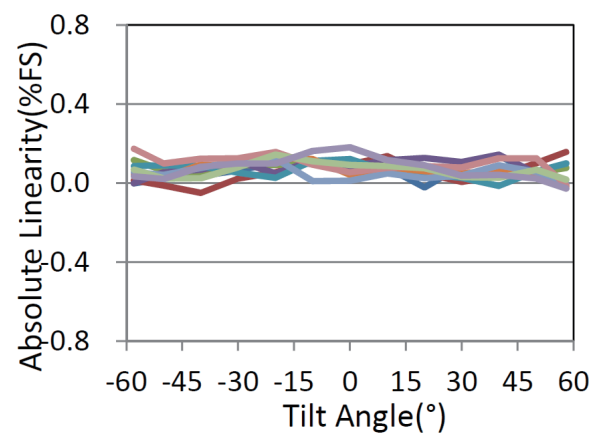
Wide Tilt Range

Available Electrical Tilt Angle 45° ~ 180°



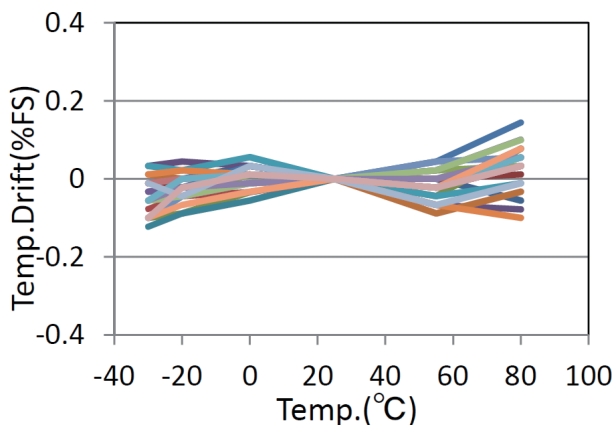
High Accuracy

Absolute Linearity $\pm 0.8\%$ FS(FS=120°)



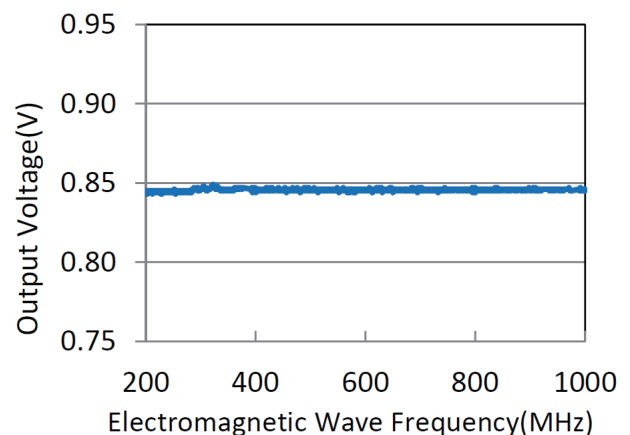
High Reliability

Temp. Characteristics $\pm 0.4\%$ FS
(FS =120°) (Range : -30 ~ 80°C)



EMS 100V/m

Not affected to output voltage



WR-7UHA

INCLINOMETERS

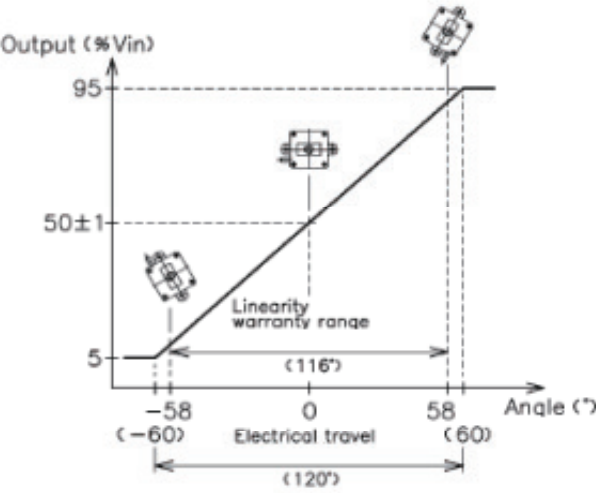
STANDARD SPECIFICATIONS

Item	Part No.	WR-7UHA	WR-7UHA360
Electrical Tilt Angle		120°	360°
Output Ratio		5 ~ 95 %Vin	
Index Point		50 ± 1 %Vin	
Absolute Linearity		±0.8 %FS	±0.4 %FS
Tilt Sensitivity		±0.5 %FS	±0.3 %FS
Input Voltage		5±0.5 VDC	
Load Resistance		10 kΩ min.	
Current Consumption		10 mA max.	
Temp. Characteristics -30 ~ 80°C (Reference Temp. 25°C)		±0.4 %FS	0.3 %FS
Mechanical Tilt Angle		360° endless	
Response Time (Step Response)		Approx. 0.3 second	
Net weight		Approx. 260 g	
Category Temperature Range		-30 ~ 80°C	
Storage Temperature Range		-40 ~ 80°C	
Vibration		50 m/s², 5 ~ 500 Hz (6 min.) 3 axis 2 hours	
Shock		500 m/s², 11 ms 6 directions 3 times	
EMS		100 V/m , 200 MHz ~ 1 GHz	
ESD		±15 kV	
IP Level		IP67	

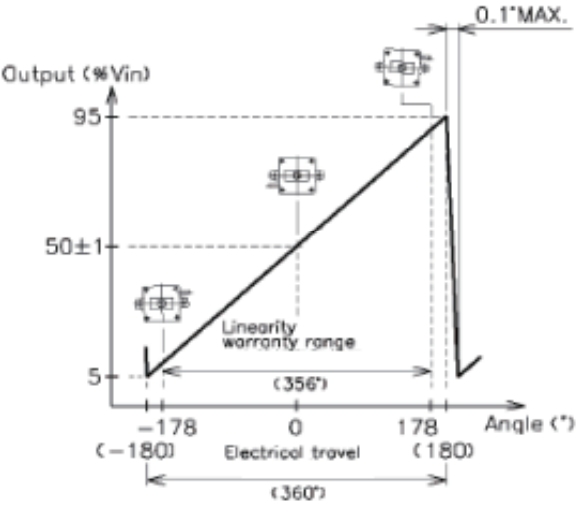
■ Option: Available Electrical Tilt Angle 90° ~ 360°

OUTPUT CHARACTERISTICS

WR-7UHA



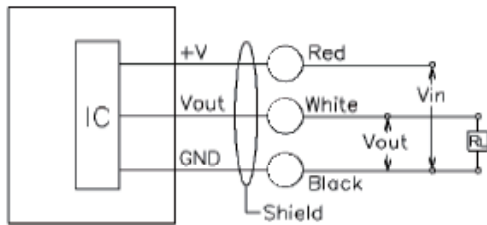
WR-7UHA360



WR-7UHA

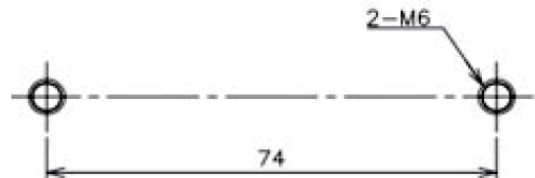
INCLINOMETERS

■ SCHEMATIC



*Red, white and black indicate cable colors.

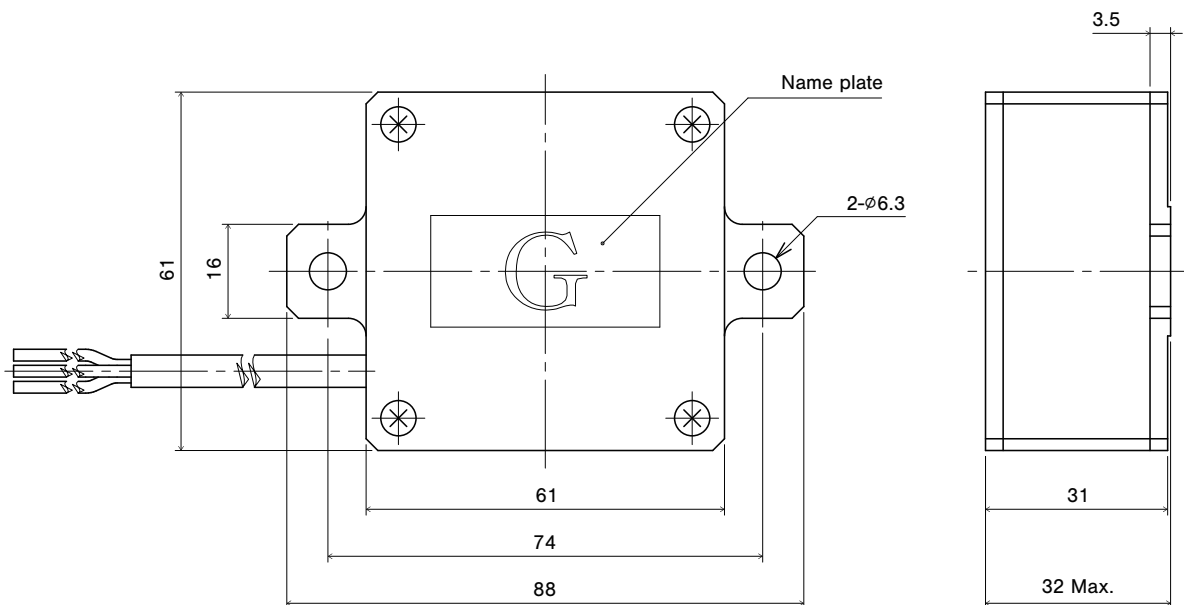
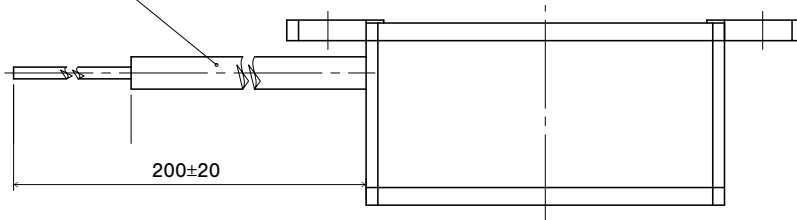
■ MOUNTING



■ OUTLINE DIMENSIONS

(Unit:mm)

Jacketed cable
Outer dia. $\phi 6.7$
PVC $3 \times 0.5\text{mm}^2$



■ HANDLING INSTRUCTION

- Hall-IC sensor is impossible to measure resistance value as a variable resistor.
- This product may be influenced from external magnetic field.
- Use this sensor in the place where is protected from ESD.