

# Conductive Plastic Angle Sensor

## MIDORI CP-2FABSJ Series



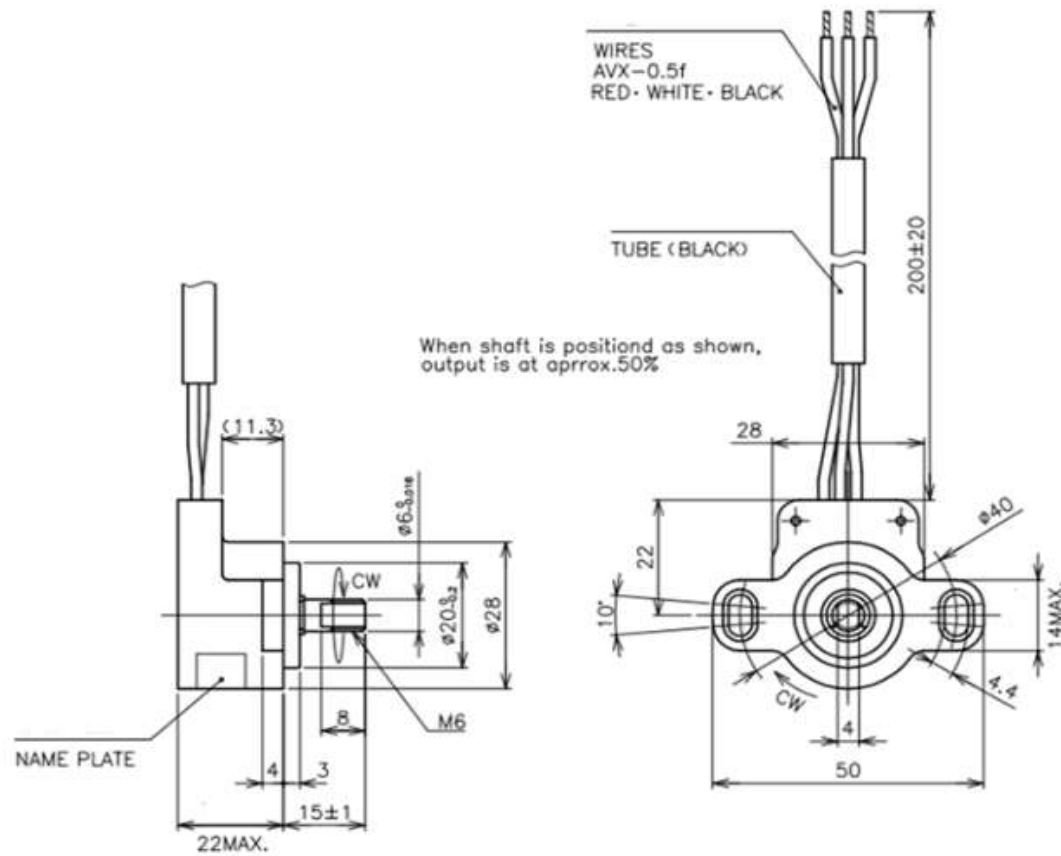
### General

- Conductive Plastic Angle Sensor
- Effective Electrical Travel: 90°
- Independent Linearity:  $\pm 3\%$
- With Return Spring (Spring Return Direction: CW)
- IP65

### Material

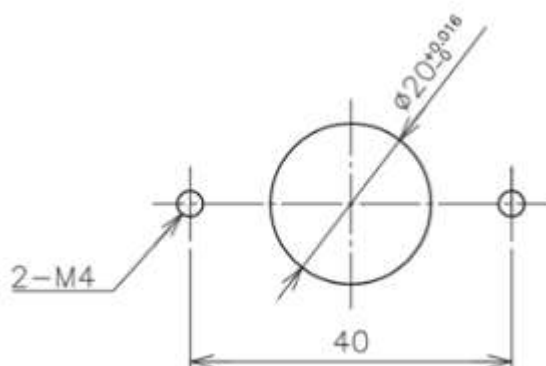
- Housing: PBT
- Shaft: Stainless Steel
- Bearing: Copper Alloy

### Dimension (mm)

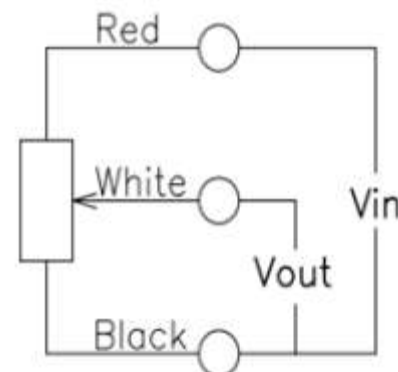


\* Spring return direction : CW

### Mounting(mm)

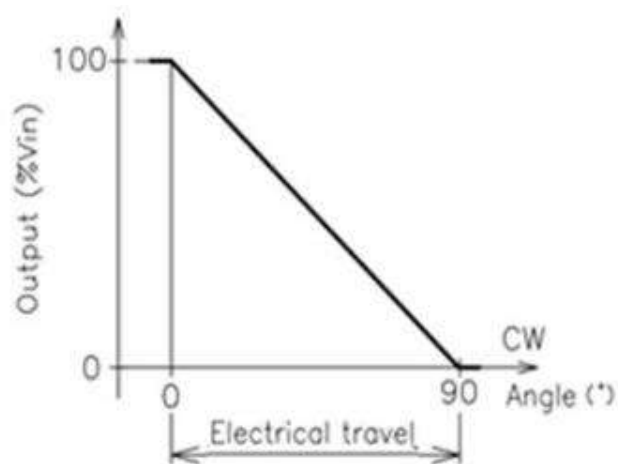


### Schematic



• Red, White, Black indicate wire colors.

# Output Characteristics



## Specifications

### Electrical Specifications

Effective Electrical Travel	90°±3°
Output Range	1K Ω
Total Resistance Tolerance	±20%
Independent Linearity	±3%
Max. Input Voltage	DC18V/50°C
Insulation Resistance	MIN. 100MΩ/ DC1000V
Dielectric Strength	AC1000V/ 1 Minute
TC of Resistance	±400 ppm/K

### Mechanical Specifications

Total Mechanical Travel	100° ±5°
Torque (w/Return Spring)	20~100mN · m (Spring return direction = CW)
Stopper Strength	1N · m MIN.
Thrust Load Tolerance	3N
Radial Load Tolerance	4N
Weight	Approx. 35g

### Environmental Specifications

Life Cycles	5Million Cycle
Category Temp. Range	-40~+100°C
Storage Temperature Range	-40~+100°C
Vibration	245m/S <sup>2</sup> 20~500Hz 3axis 2hours each
Shock	500m/S <sup>2</sup> 11ms 3axis 6directions 3times
IP Level	IP65

## Options

Without Return Spring
Dual Output (Effective Electrical Travel: up to 90°)
Total Resistance: 1K~5K Ω on Request
Other Effective Electrical Travel: Single Output – up to 340°/ Dual Output – up to 90°

## Handling Instruction

- To avoid burnout of resistive element, do not supply more than 1mA current to terminal 2.
- Miswiring might cause burnout of resistive element.
- To reduce sliding noise, add load resistance should be more than 100times and less than 1000times of total resistance.
- Slight continuous vibration such as dither might cause short lifetime of the sensor.