

APS028M-JN

Angle sensor

VOLBUFF

SENSORS

1 Product description

The APS028M series Hall effect rotation position sensor can monitor angle monitoring in the harsh transportation system and industrial application environment. This product uses a magnetic bias Hall effect integrated circuit (IC) to detect the rotation of the drive shaft of the drive shaft within the scope of the working range. The rotation of the actuator's shaft makes the magnet's position relative to the position of the IC. The changes in magnetic flux density caused by the above are finally converted into linear output.

Induction chips, conditioning and protection circuits and permanent magnet are sealed in sturdy packaging that meets the IP67 level, ensuring that it also has good durability in the worst environment.

The impact of the typical EMI/RFI in extreme temperature, vibration, impact, and walking mechanical operation environment is mainly used in fields such as forklifts, industrial machinery, and wireless remote controls.

Its main features are as follows:

- Support wide voltage input: 8-30VDC
- Non-linearity: $\pm 0.4\%$
- High service life: full stroke greater than 10 million times
- Work temperature: $-40\sim +85^{\circ}\text{C}$
- Protection level: IP-67
- Signal output: digital PWM

2 Technical specification

Electrical parameter

Rated voltage	DC8V to DC30V
Working current	25mA Max
Temperature coefficient	<50 ppm/°C
Electrical angle	360°
Non-linearity	±0.4%FS
Resolution	0.088°
Resistance	UP to 40V

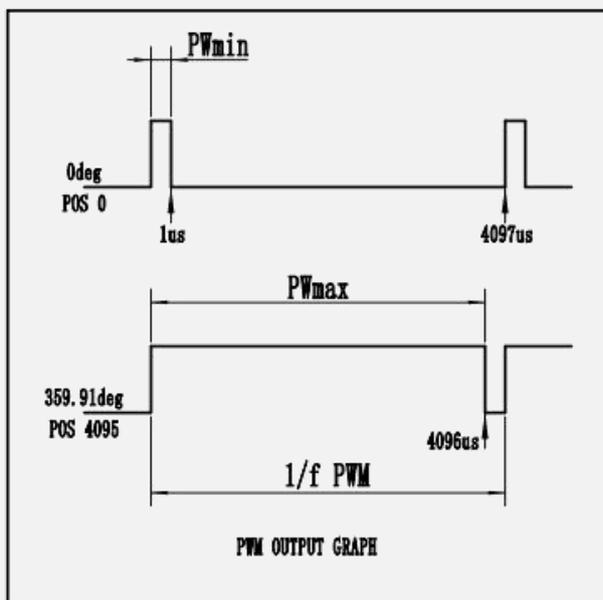
Mechanical parameter

Life span	≥10 million times
Mechanical angle	360°
Weight	100g Max
Maximum work speed	3600°/S

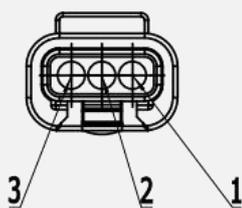
Environmental parameters

Operating temperature	-40~+85°C
Humidity environment	The temperature is 40°C, the relative humidity is 93%, and the test is 48H
Anti-vibration	10...2000Hz, peak 20g per shaft 2 hours x axis, y axis, Z axis
Shock	50g, 11ms impact per shaft 100 times X-axis, Y axis, Z axis
Protection level	IP67

3 Output characteristics

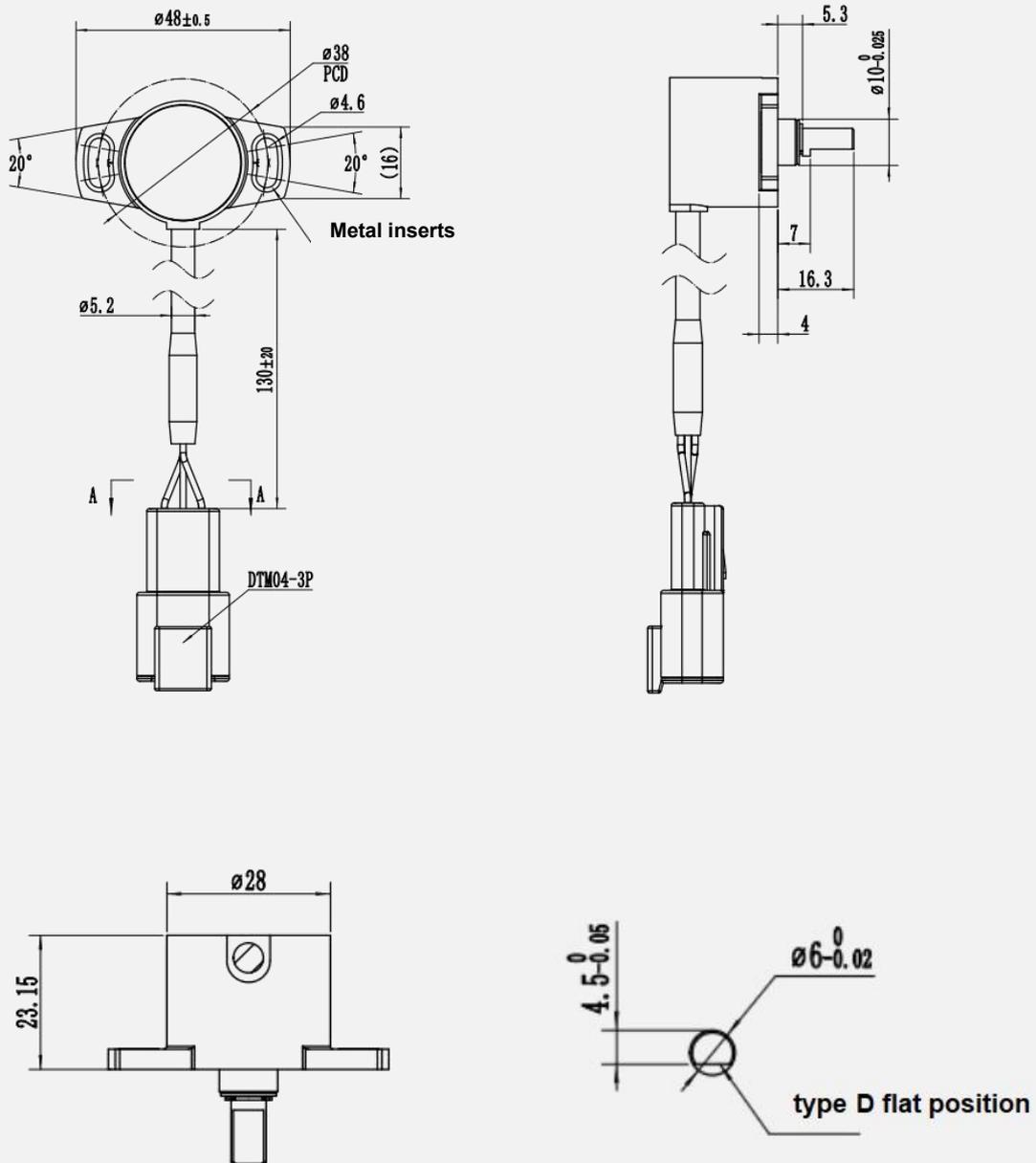


4 Interface definition



PIN	Function	Color
1	VCC	Red
2	GND	Black
3	OUT	White

5 Appearance installation map



6 Precautions for use

(1)The power supply of this product uses an independent power supply.It is recommended not to connect with other loads. Use In the process,the power supply does not allow serious safety hazards or unstable,otherwise it will cause the product to fail!



(2)When using this product,please work strictly according to the specified wiring method under the specified power supply voltage to prevent short circuit caused by errors and damage the power and sensor.

(3)Do not disassemble the sensor without permission,so as not to cause the sensor to work properly.

(4)This sensor is a precision device.Please bring it lightly during use.

