



APS036

Angle sensor (non-contact)

VOLBUFF

SENSORS

VOLBUFF ELECTRONIC | www.volbuff.com

ADDR: Building 5,#118,Lane 2129,South Lianhua Rd.,Minhang District, Shanghai, 210011, China.

TEL: 021-54293326

EMAIL: sales06@volbuff.com

1 Product description

The APS036 series is a rugged, durable, high-precision, programmable Hall-effect rotary position sensor designed for applications requiring long cycle life, high precision, and high reliability for Angle monitoring in harsh transportation systems and industrial applications. This product uses a Hall-effect integrated circuit (IC) with magnetic bias to detect the rotational motion of the driver shaft in the operating range. The rotation of the actuator shaft changes the position of the magnet relative to the IC. The resulting change in magnetic flux density is eventually converted into a linear output.

The induction chip, conditioning and protection circuit and permanent magnet are sealed in a rugged IP67 rated package, ensuring durability even in the harshest environments.

It resists extreme temperatures, vibrations, shocks, and EMI/RFI typical of the operating environment of walking machinery.

Its main features are as follows:

- Can calibrate various working angle measuring range 360°
- Supports wide voltage input: 8-35VDC
- Linear accuracy: $\pm 0.3\%$ FS
- High service life: Unlimited
- Operating temperature: $-40 \sim +85^{\circ}\text{C}$
- Protection level: IP67/IP68/IP69K
- Baud rate: 250Kbps (regular)

2 Technical specification

Electrical parameters	
Rated voltage	DC8V to DC35V
Working current	30mA Max
Temperature coefficient	≤100 ppm/°C
Electrical angle	0~360° (Customize)
Linearity	±0.3%FS
Repetition	±1%FS
Resolution	16bit (Highest)

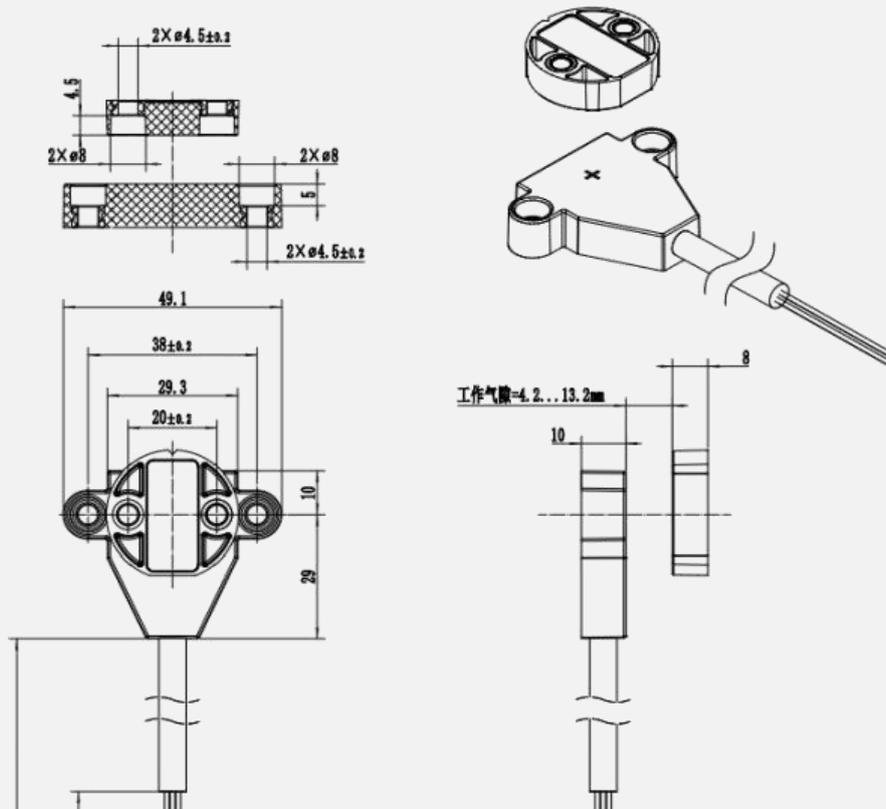
Mechanical parameters	
Life time	Unlimited

Environmental parameters	
Humidity environment	Temperature 40°C,relative humidity 93%,test 48h
Anti-vibration	10...2000 Hz,peak 20g per shaft for 2 hours,X axis,Y axis,Z axis
Shock	50g,11 ms impact per axis 100 times,X-axis,Y axis,Z axis
Protection level	IP67, IP68,IP69K

3 Interface definition(Customized outline length)

PIN	Function	Color
1	VCC	Brown
2	GND	White
3	CAN_H	Green
4	CAN_L	Yellow

4 Appearance installation map



5 Precautions for use

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



(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.

(5) Do not use it in a strong magnetic field environment.

