

P3020 Hall Angle Sensor

Feature

- Small size, the maximum outer diameter of 20mm
- Full 360 ° no dead angle measurement
- Linearity is $\pm 0.3\%$ F.S.
- Output signal 0-5V DC
- Supply voltage 5V DC
- Angle Direction: Clockwise rotation of the rotary shaft
- Long product life.
- Small rotational torque
- Aluminum shell
- Easy to install

Description

P3020series of miniature non-contact angle sensor works through the principle of electromagnetic induction, the angle is converted to an electrical signal. When the rotation angle of the object passed to the axis of rotation sensors, P3020 angle sensor outputs an electrical signal that is proportional to the rotational angle.

This series of products using hard aluminum alloy material shell; Hall-type non-contact technology, P3020 series angle sensor has the advantages of non-contact angle sensor, and the use of high-quality imported high quality stainless steel high speed bearing member, so that it reduced frictional resistance when measuring the minimum, not because of the wear surface measurement component caused decrease measurement accuracy, long service life theoretically unlimited; the product compact structure, small size, optional strong, high resolution, smooth rotation dynamic noise in addition to the excellent performance suitable for electromagnetic interference outside the water, oil, vibration, shock and other harsh industrial environment, is a cost-effective non-contact angle sensor.

Application

- Manipulators
- Textile Machinery
- Construction machinery
- Hydraulic cylinders Systems
- Testing Machine
- Automotive Test
- medical instruments

Technical Information

Electrical parameters

Effective electrical angle	360°
Resolution	360°/4096 (12 位) ≈0.088°
Linearity	Standard: 0.3%; customizable precision: 0.2%;
Update Speed	0.6ms / 0.2ms (high-speed)
Operating voltage	5V±10%
Output signal	0 ~ 5V (ratio)
Operating Current	<16mA
Maximum and minimum output deviation	<1%·VCC
Load resistance	>10KΩ

Mechanical parameters

Mechanical angle	360° (No stop)
Protection class	IP40
Working temperature	-40℃ ~ +80℃
Storage temperature	-40℃ ~ +80℃
The rotational torque	<5mN·m
Mechanical life	>50 million transfer
Weight	About 20g
Housing	Anodized aluminum surface
Shaft	Stainless steel
Electrical terminals	Thick gold plated brass terminals

Terminal Definition

VCC	OUT	GND
Positive power supply	Output signal0-5V DC	Negative public

Note: P3020 series angle sensor in addition to the standard 360-degree angle, but can be customized at any angle between 0-360 corresponds 0-5VDC. For example, the Model P3020-V1-CW90 is 0-90 ° correspond 0-5VDC, counterclockwise CCW, by analogy.

Dimensions (Unit: mm)

