

Specification

➤ RPS Series Introduction

- Miniature precise angular position sensor
- Working voltage: DC5~16V
- Working temperature: -20~+85℃
- Protection class: IP40
- Lifetime: $\geq 10,000,000$ times
- Electromagnetic interference shielding, high reliability
- Aluminum shell design, high mechanical strength
- High precise conductive plastic potentiometer, high resolution, and stable performance
- Small and exquisite size, flange and threaded mounting and so on
- Ideal for the angular position measurement of the valve, joystick, and textile machines.



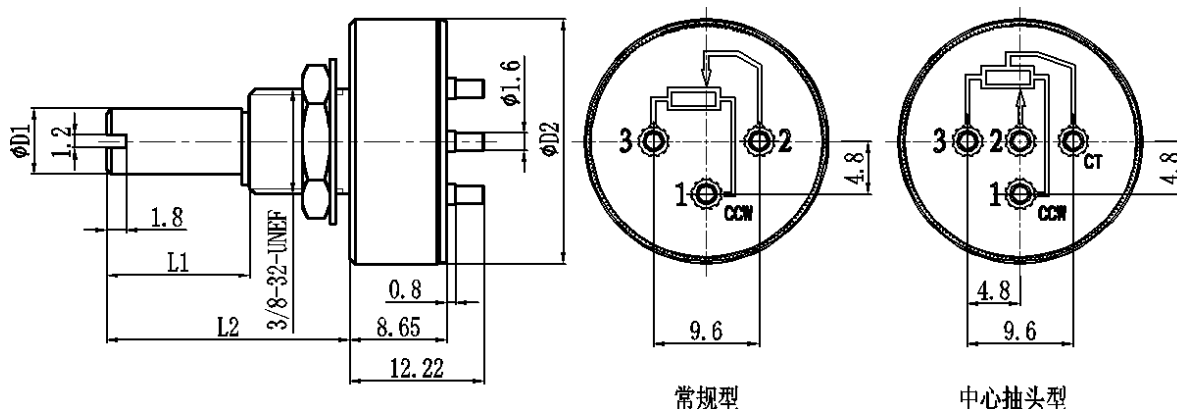
➤ RPS Series Performance Data

Electrical Data		
Electrical angle	60 {30、45、60、90、120、180、300、345}	°
Recommended supply voltage	DC5	V
Max permissible applied voltage	DC 16	V
Resistance	5 {1、3、5、10}	KΩ
Resistance tolerance	±20	%
Temperature coefficient	≤400	PPM/℃



Linear accuracy	≤ 0.5 {0.3、0.5、0.8、1.0、1.2、1.5、2.0}	%
Lag	< 1	%
Repeatability	≤ 0.1	%
Output smoothness	≤ 0.1	%
Wiper working current	≤ 1	uA
Max wiper working current	10mA	mA
Insulation resistance	$\geq 10(500V)$	M Ω
Mechanical Data		
Torque	≤ 0.7	N.cm
Max. operational speed	300	RPM
Installation	3/8in internal tooth lock washers and 3/8in hexagon thin nuts	
Environmental Data		
Lifetime	$\geq 10,000,000$	times
Working temperature	$-40\sim +125$	$^{\circ}\text{C}$
Vibration	5~2000HZ; $A_{\text{max}}=0.75\text{mm}$; $a_{\text{max}}=20\text{g}$	
Shock	50g; 11ms	%
Protection class	IP40	
Remarks: Above specifications in the {} for conventional models, if you have other special requirements, please remark clearly when place an order .		

➤ RPS Series Tooth-shape Type Data



No.	D1 h8	D2	L1	L2	
				L1<15	L1≥15
Size	6\6.35	22.2	13	L1+9.1	L1+13
Remarks	Optional	Customizable		Custom	zable

Figure 1 RPS Series Tooth-shape Type Dimension

Pin	Function
1	GND
2	OutPut
3	VCC

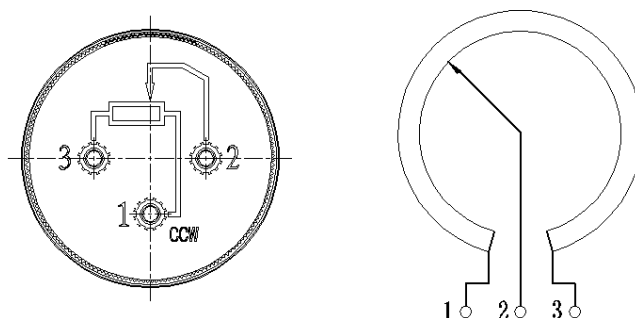


Figure2 Conventional-type Connection

Figure3 Equivalent Circuit Diagram

Pin	Function
1	VCC
2	OutPut
3	GND
4	CT

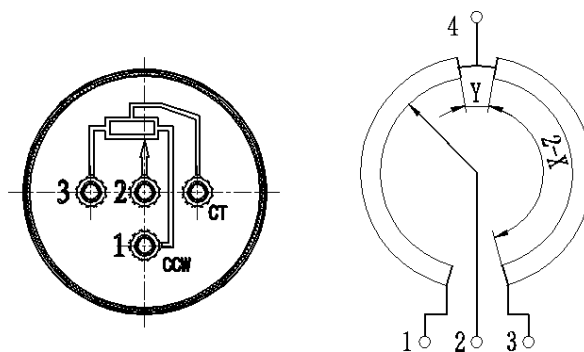


Figure4 Center tap-type Connection

Figure5 Equivalent Circuit Diagram



➤ RPS Series Flange-type Data

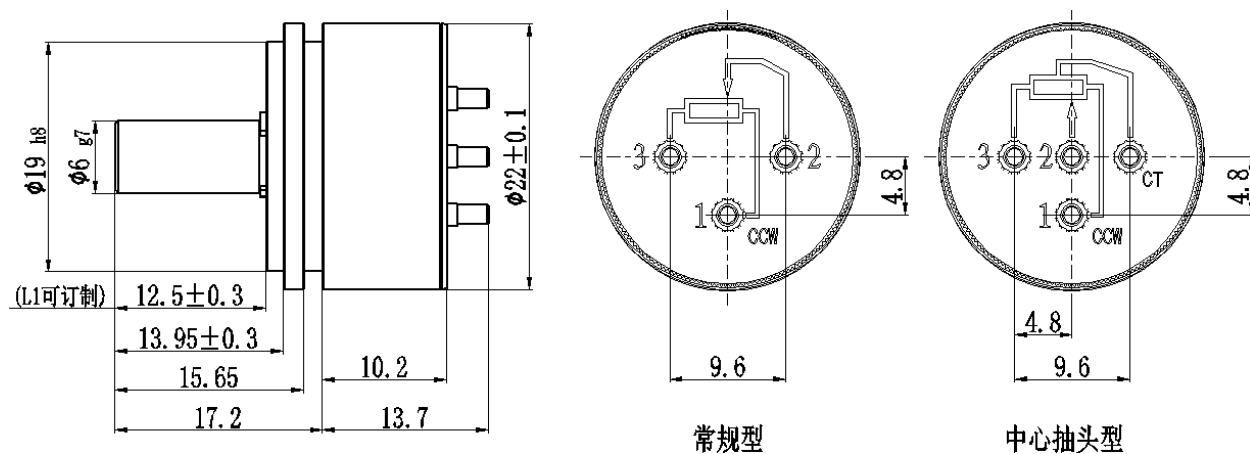


Figure 6 RPS Series Flange-type Dimension

Pin	Function
1	GND
2	OutPut
3	VCC

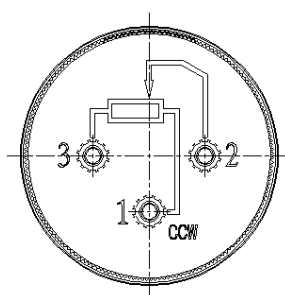


Figure7 Conventional-type Connection

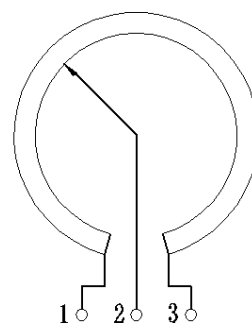


Figure 8 Equivalent Circuit Diagram

Pin	Function
1	VCC
2	OutPut
3	GND
4	CT

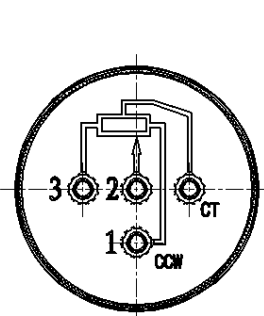


Figure 9 Center tap-type Connection

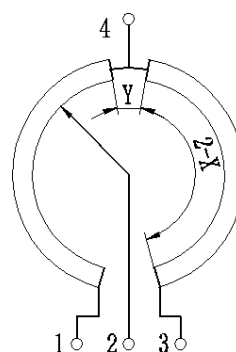


Figure 10 Equivalent Circuit Diagram



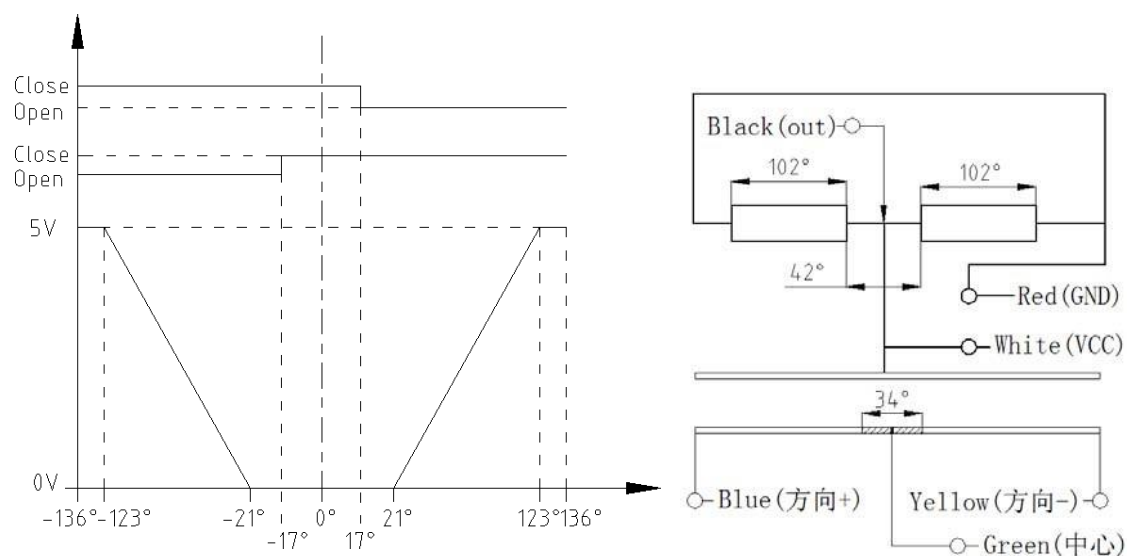
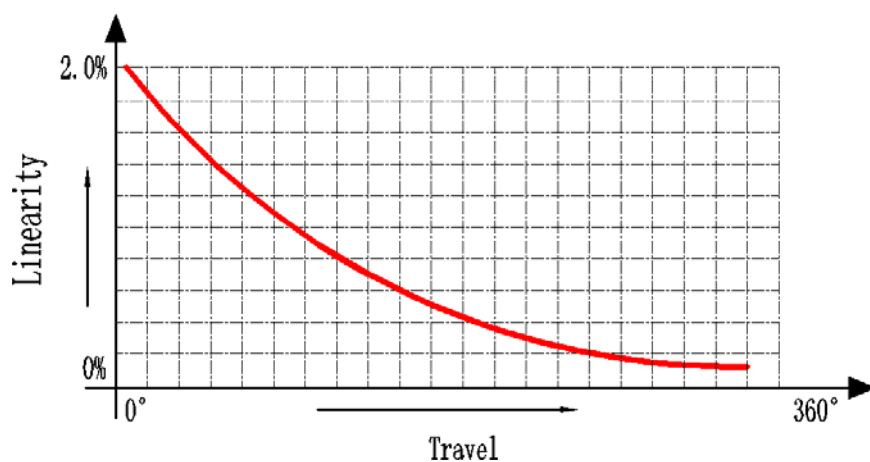
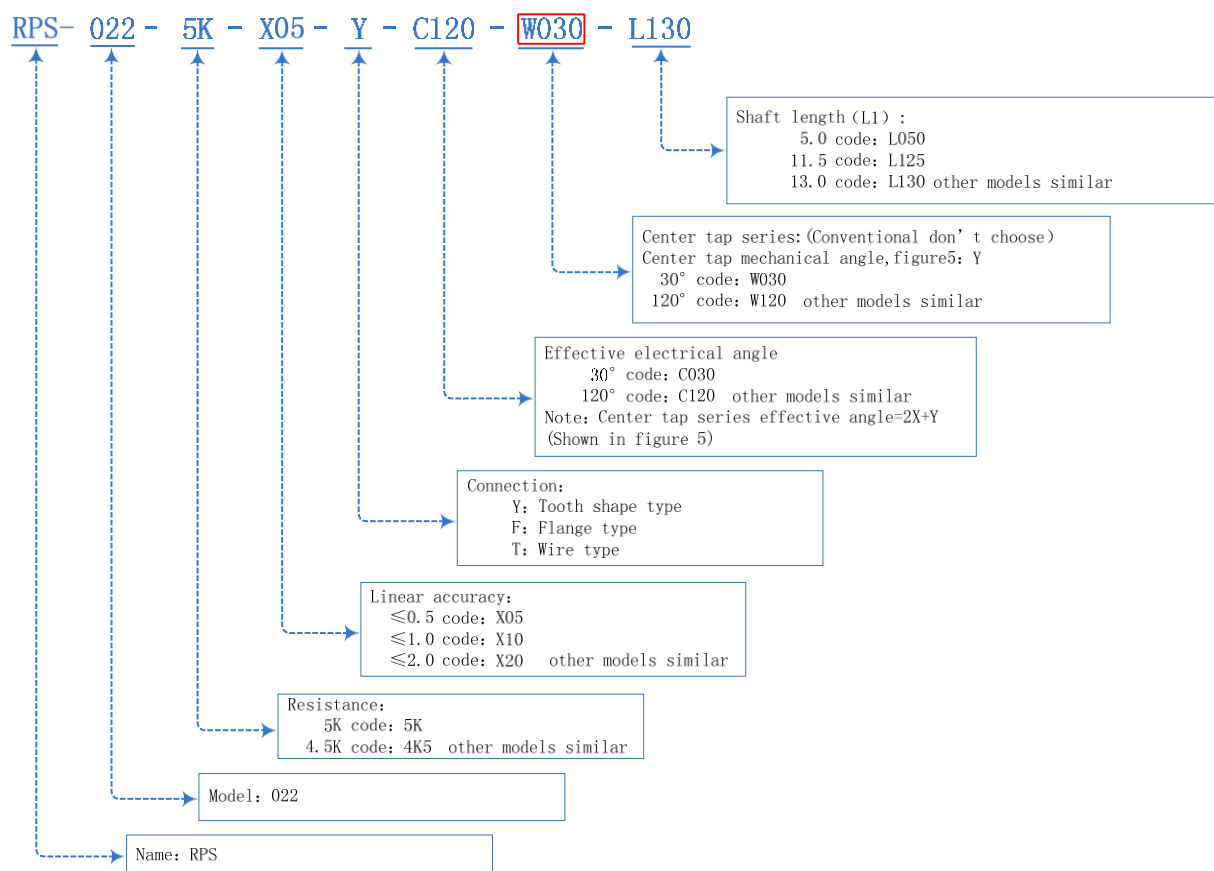


Figure 13 RPS Series Wire-type Output Curve

➤ Angle and Linearity Diagram



➤ RPS Series Selection



		Code
Tooth-type	Conventional type	RPS022Y-5K-X05-C120-L130
	Center tap type	RPS022Y-5K-X05-C345-W015-L130
Flange-type	Conventional type	RPS022F-5K-X05-C120-L125
	Center tap type	RPS022F-5K-X05-C345-W015-L125
Wire-type		RPS022T-5K-X05-C262-W042-L072

