

Specification

➤ RPN Series Introduction:

- High precise angular position sensor
- Working voltage: DC5~16V
- Effective angles: 0°~355°(Customizable)
- Linearity: <0.1 %
- Resolution: 0.007°
- Resistance: 1K~10K (Customizable)
- Working temperature: -20~80℃
- Protection class: IP40
- Long lifetime, up to 10,000,000 times
- Electromagnetic interference shielding, high reliability
- Limitless continuous rotation with the maximum rotary speed 10,000RPM
- With double interior bearings design, shock resistance, vibration resistance, more stable and smooth for rotary motion
- All-metal shell, corrosion resistance, high mechanical strength, rich texture
- High precise conductive plastic potentiometer, high resolution, and stable performance
- Small and exquisite size, flange and screw threaded mounting and so on
- Ideal for engineering machinery, textile machinery, railway equipment, instrumentation and meters



➤ RPN Series Performance Data

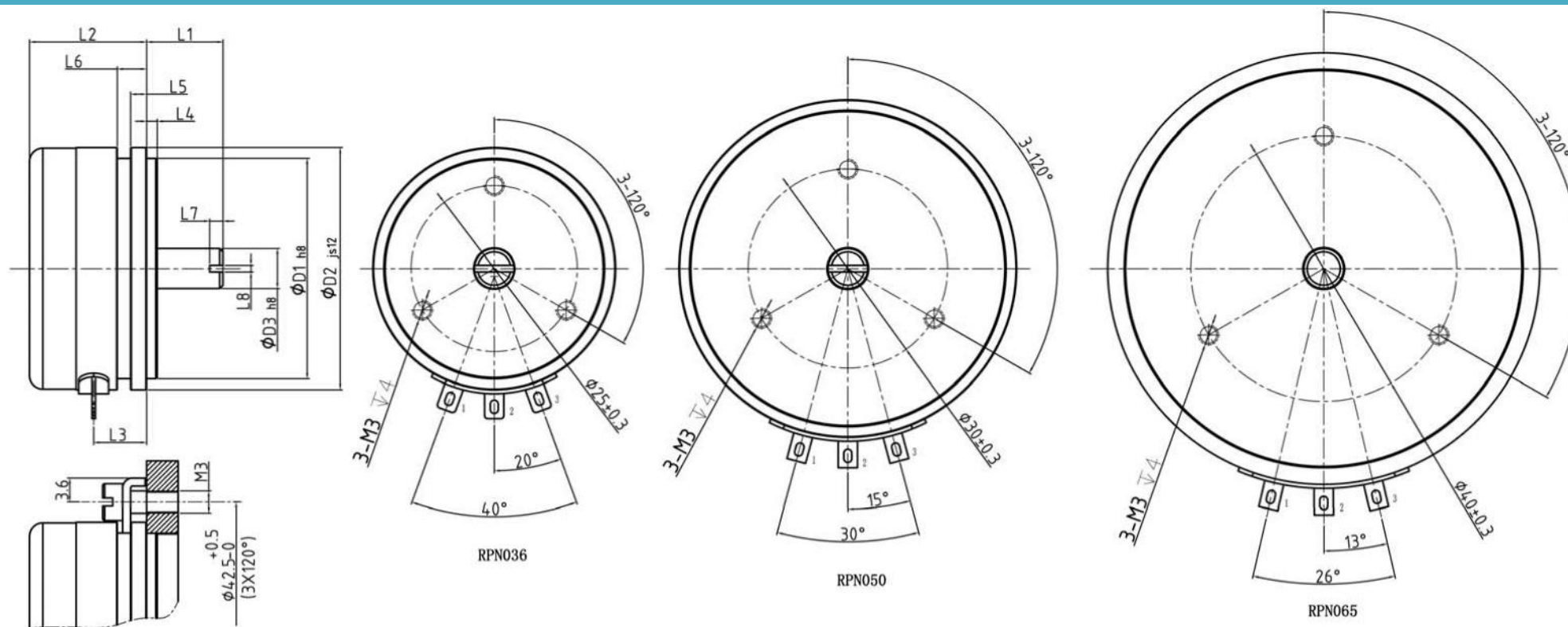
Electrical Data		
Electrical angle	0° ~355° { 90/110/120/180 /300/320/340/345/350/355 }	°
Resistance	1K~10K { 1/3/5/8/10 }	KΩ
Resistance tolerance	± 20	%



Repeatability	≤ 0.1	%
Temperature coefficient	5	ppm/k
Linear accuracy	≤ 0.5 {0.3/0.5/0.8/1.0/1.2/1.5/2.0}	%
Working voltage	DC5~16	V
Max permissible applied voltage	DC36	V
Wiper working current	≤ 1	uA
Max wiper working current	10	mA
Insulation resistance	≥ 10	MΩ
Mechanical Data		
Dimensions	See drawing	
Mechanical angle	360 Continuous rotation	°
Installation way	The flange or panel installation	
Bearing force	≤ 45	N
Torque	≤ 0.15	Ncm
Max. operational speed	10 000	RPM
Weight	50±3	g
Environmental Data		
Temperature range	-20 ~ 80	°C
Vibration	5~2000HZ; A _{max} =0.75mm; a _{max} =20g	
Shock	50g; 11ms	%
Lifetime	>10,000,000	Times
Protection class	IP40(DIN 400 50 / IEC 529)	
Remarks: Above specifications in the {} for conventional models, if you have other special requirements, please remark clearly when place an order .		



RPN Series Mechanical Dimension



Model	D1 h8	D2 js12	D3 h8	L1	L2	L3	L4	L5	L6	L7	L8
RPN036	33.2	36.5	6	11.5	17.6	7.95	1.6	2.4	4.4	2	1
RPN050	47.625	50.8	6	16.5	20.4	7.15	1.6	2.4	4.4	2	1
RPN065	60	65	6	16.5	21.55	9.3	1.6	2.4	4.4	2	1
Remarks	★ L1 shaft length can be customized, the conventional one have (11.5/16.5/31.5/38.5)										

Figure 1 RPN Series Mechanical Dimension



➤ RPN Series Connection and Equivalent Circuit Diagram

Pin	Function
1	GND
2	OutPut
3	VCC

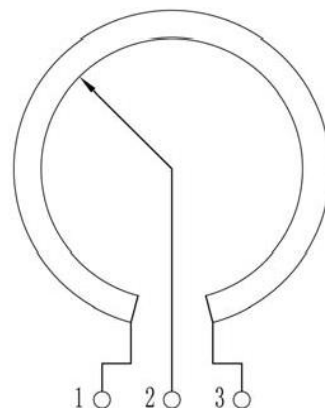
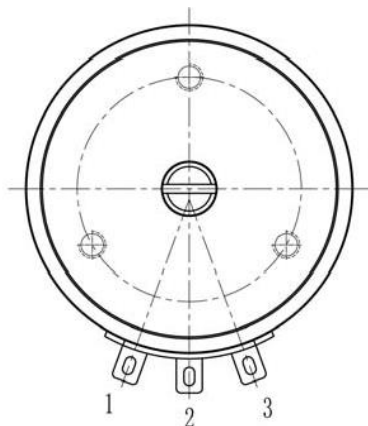


Figure2 RPN Conventional-type Connection

Figure3 RPN Equivalent Circuit Diagram

Pin	Function
1	VCC
2	OutPut
3	GND
4	CT

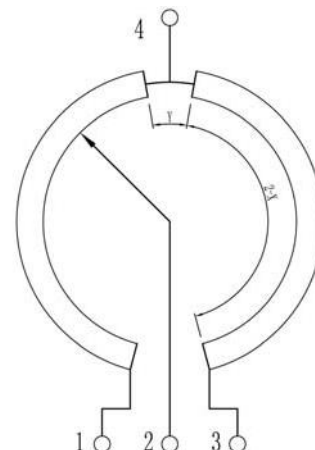
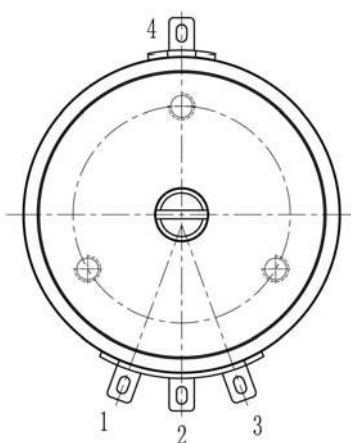
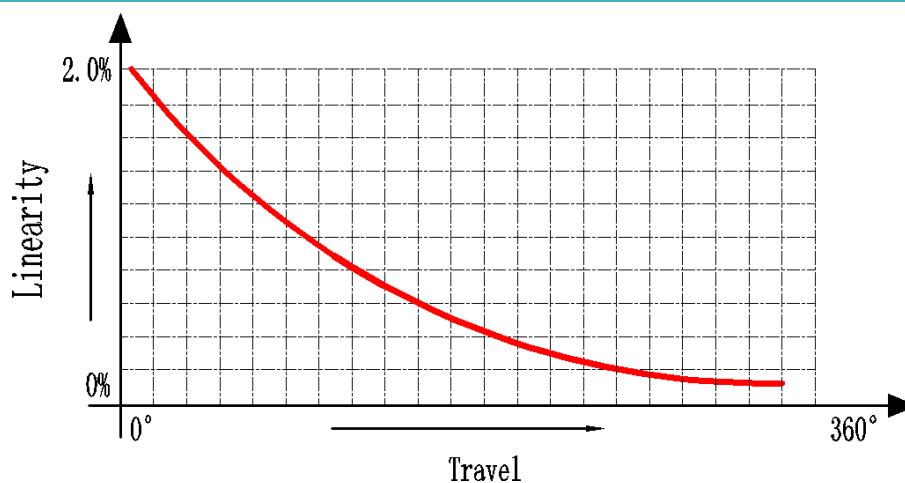


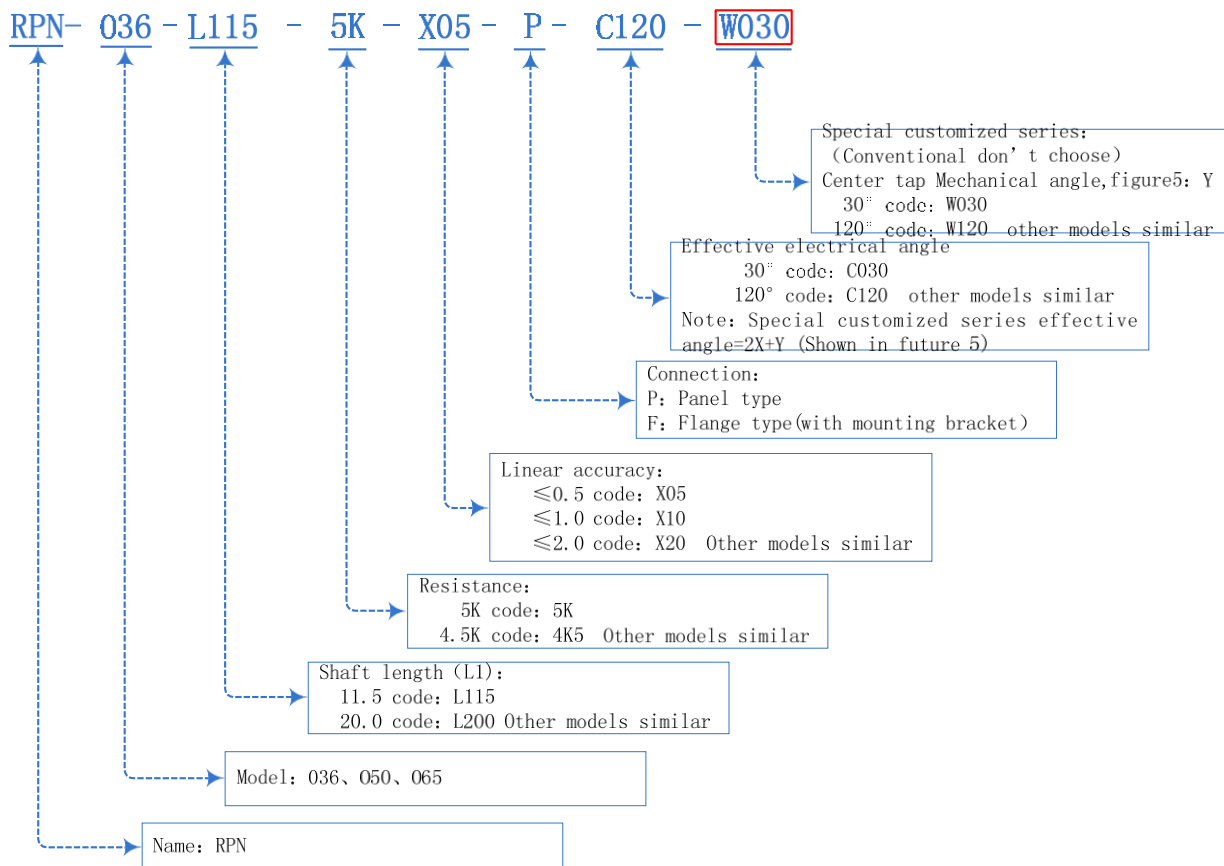
Figure4 RPN Customized-type connection

Figure5 RPN Equivalent Circuit Diagram

➤ Angle and Linearity Diagram



➤ RPN Series Selection



➤ Selection Code

Type	Code
Conventional type	RPN036-L115-5K-X05-P-C345
Center tap type (Customizable)	RPN036-L115-5K-X05-P-C345-W015

