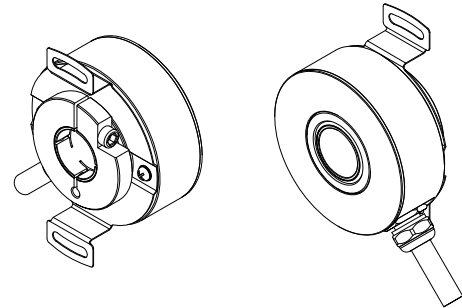


PGK50 Specifications 1/4

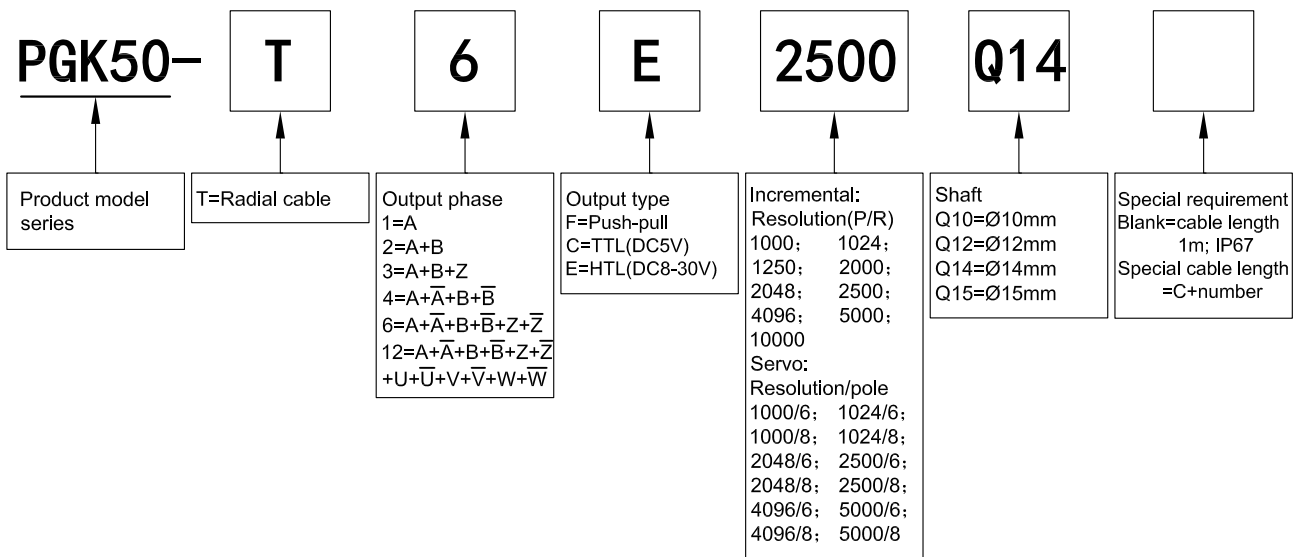
■ Incremental Type (Hollow shaft、through hole)

- Feature: All made of stainless steel, properly work under extremely low temperature,dust-proof & water-proof due to high protection level IP67,extra-thin and easy to install Application: textile industry,motor,packing machinery,production line,etc,for auromation control
- External dimensions: external diameter Ø50mm,thickness 27mm,diameter of shaft Ø10mm;Ø12mm;Ø14mm;Ø15mm (optional)
- Resolution: up to 10000P/R
- Supply voltage: DC5V; DC8-30V
- Protection: IP67
- Cable length: 1000mm
- Weight: about 150g



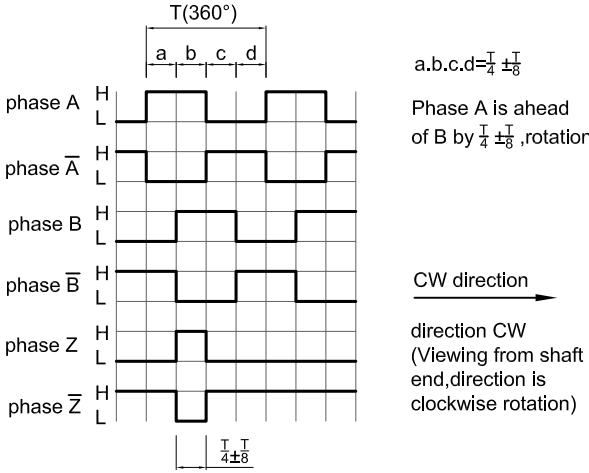
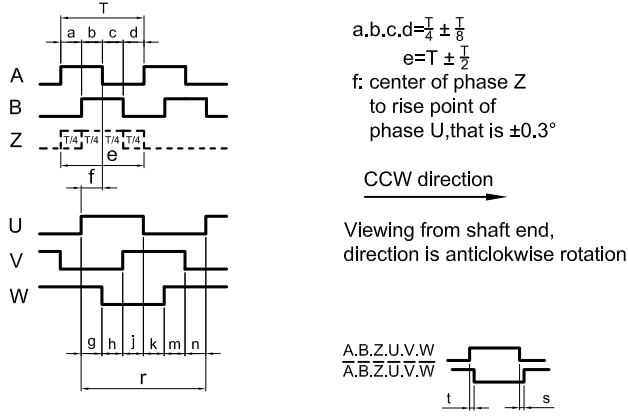
■ Model Guide

- Model form (filled required parameters in the box as following)
- Must choose supply voltage: DC5V; DC8-30V



PGK50 Specifications 2/4

Output wave and wire connection

Output type	Output wave form	Connection
<p>Push-pull; TTL; HTL; (A+B+Z)</p>	 <p> $T(360^\circ)$ $a, b, c, d = \frac{T}{4} \pm \frac{T}{8}$ phase A is ahead of B by $\frac{T}{4} \pm \frac{T}{8}$, rotation CW direction direction CW (Viewing from shaft end, direction is clockwise rotation) </p>	<p> 0=shielding=GND 1=red=DC5V; DC8-30V 2=black=OV 3=white=A 4=green=B 5=yellow=Z 6=white/black=\bar{A} 7=green/black=\bar{B} 8=yellow/black=\bar{Z} </p>
<p>TTL (A+B+Z+U+V+W)</p>	 <p> $a, b, c, d = \frac{T}{4} \pm \frac{T}{8}$ $e = T \pm \frac{T}{2}$ f: center of phase Z to rise point of phase U, that is $\pm 0.3^\circ$ CCW direction Viewing from shaft end, direction is anticlockwise rotation </p> <p> A, B, Z, U, V, W $\bar{A}, \bar{B}, \bar{Z}, \bar{U}, \bar{V}, \bar{W}$ </p>	<p> 0=shielding=GND 1=red=DC5V 2=black=OV 3=white=A 4=green=B 5=yellow=Z 6=white/black=\bar{A} 7=green/black=\bar{B} 8=yellow/black=\bar{Z} 9=blue=U 10=grey=V 11=pink=W 12=blue/black=\bar{U} 13=grey/black=\bar{V} 14=pink/black=\bar{W} </p>

PGK50

Specifications 3/4

■ Electrical Characteristics

Parameter Item	Output type	Push-pull		TTL	HTL
		Supply voltage	DC+5V±5%; DC8V-30V±5%	DC+5V±5%	DC+5V±5%
Consumption		100mA Max	120mA Max		
Allowable ripple		≤3%rms			
Top response		100KHz	500KHz	600KHz	
Output capacity	Output current	Input	≤30mA	≤±20mA	≤±50mA
		Output	≤10mA		
	Output voltage	"H"	≥[(Supply voltage) -2.5V]	≥2.5V	≥Vcc-3 Vdc
		"L"	≤0.4V(30mA)	≤0.5V	≤ 1V Vdc
Load voltage		—	—		
Rise & Fall time		Less than 2us(cable length: 2m)	Less than 1us(Cable length: 2m)	≤100ns	
Insulation strength		AC500V 60s			
Insulation resistance		10MΩ			
Mark to space ratio		45% to 55%			
Phase shift between A & B		90°±10° (frequency in low speed)			
		90°±20° (frequency in high speed)			
Origin motion		Low level available	—	—	
GND		not connect to encoder			

■ Mechanical Characteristics

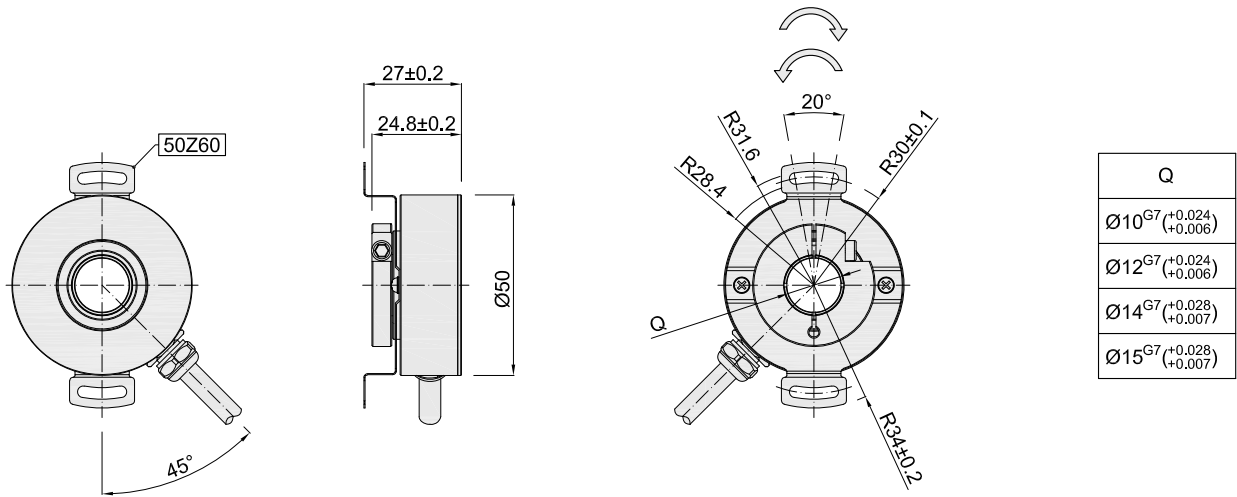
Shaft	Ø10mm; Ø12mm; Ø14mm; Ø15mm(stainless steel)
Starting torque	Less than 9.8×10^{-3} N·m
Inertia moment	Less than 6.5×10^{-6} kg·m ²
Shaft load	Radial 50N; Axial 30N
Slew speed	≤3000 rpm
Bearing Life	1.5×10^9 revs at rated load(100000hrs at 2500RPM)
Shell	Stainless steel
Weight	about 150g

■ Environmental Specifications

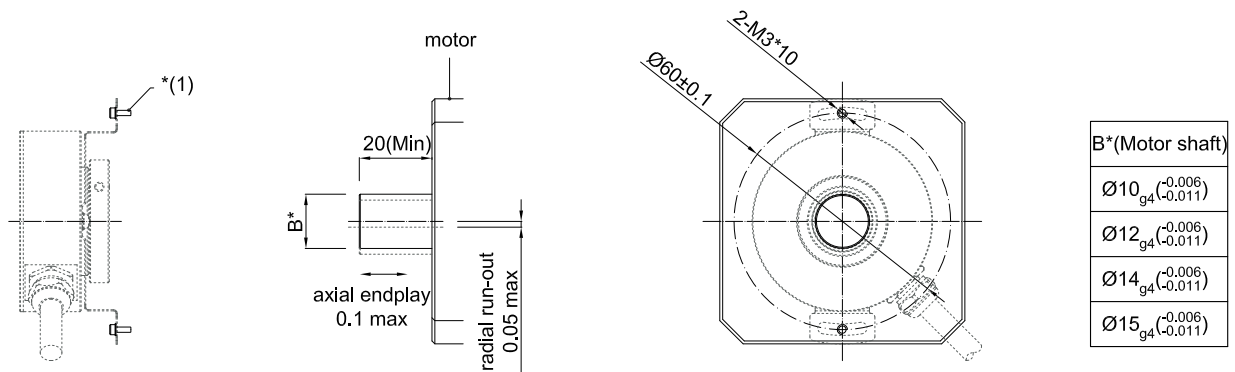
Environmental temperature	Operating: -40~+90°C(repeatable winding cable: -10°C); Storage: -45~+95°C
Environmental humidity	Operating and storage: 50~85%RH(noncondensing)
Vibration(endure)	Amplitude 1.52mm,5~55Hz,2h for X,Y,Z direction individually
Shock(endure)	980m/s ² 11ms three times for X,Y,Z direction individually
Protection	IP67

PGK50 Specifications 4/4

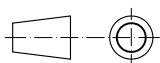
Basic Dimensions



Install requirements



Unit: mm



Note:

*(1): Inner hexagon screw M3*8 with flat gasket and spring ring is recommended to use

50Z60 = Leaf Spring

= Rotary direction for shaft without UVW signal

= Rotary direction for shaft with UVW signal