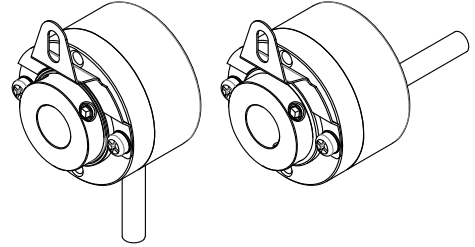


K22

Specifications 1/2

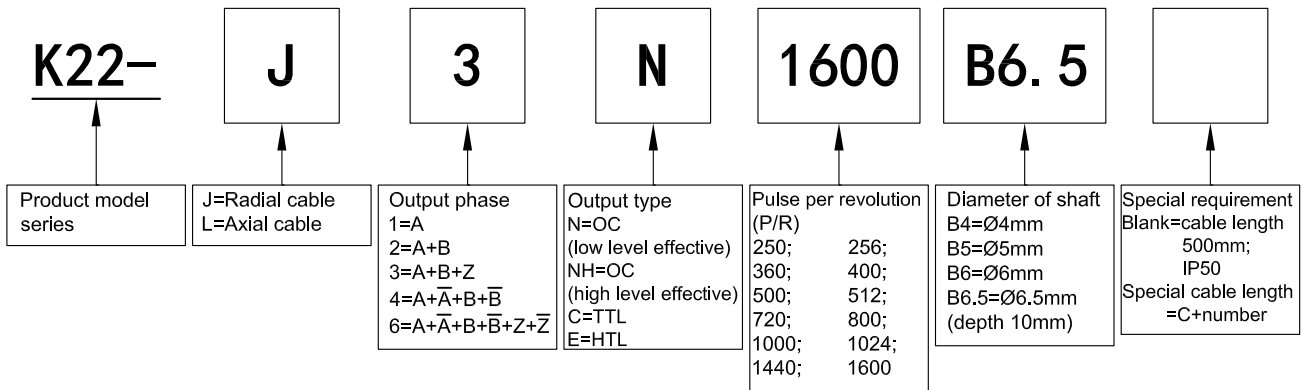
Incremental Type (Hollow shaft, blind hole)

- Feature: microminiature, logical compact configuration and easy to install
- Application: subminiature motor, small instrument, etc, for automation control
- External dimensions: external diameter $\varnothing 22\text{mm}$, thickness 18mm, diameter of shaft $\varnothing 4; \varnothing 5; \varnothing 6; \varnothing 6.5\text{mm}$
- Resolution: up to 1600P/R
- Supply voltage: DC5V; DC8-30V
- Protection: IP50
- Cable length: 500mm
- Weight: 35g



Model Guide

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



Output Mode

Output type	Output circuit	Output wave form	Connection
OC		<p>a.b.c.d=$\frac{T}{4} \pm \frac{T}{8}$</p> <p>Phase A is ahead of B by $\frac{T}{4} \pm \frac{T}{8}$, rotate direction CW (View from shaft end, direction is clockwise rotation)</p> <p>CW direction \rightarrow</p>	<p>0=GND 1=red=DC5V; DC8-30V 2=black=OV 3=white=A 4=green=B 5=yellow=Z</p>
TTL HTL		<p>a.b.c.d=$\frac{T}{4} \pm \frac{T}{8}$</p> <p>Phase A is ahead of B by $\frac{T}{4} \pm \frac{T}{8}$, rotate direction CW (View from shaft end, direction is clockwise rotation)</p> <p>CW direction \rightarrow</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=A-bar 7=green/black=B-bar 8=yellow/black=Z-bar</p>

K22 Specifications 2/2

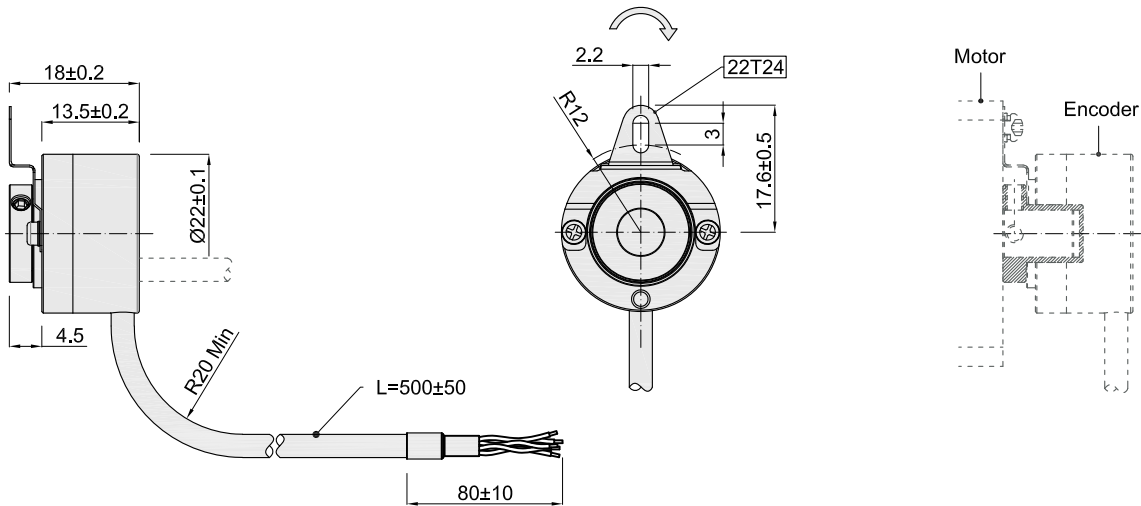
Electrical Characteristics

Supply voltage	DC+5V±5%; DC8V-30V±5%	
Consumption current	100mA Max	
Output form	OC	Input current: ≤30mA Residual voltage: less than 0.5V
	TTL	Supply voltage: DC5V±5% Output current: ±20mA Output voltage: H≥2.5V; L≤0.5V
	HTL	Supply voltage: DC8-30V±5% Output current: ±50mA Output voltage: H≥Vcc-3 Vdc; L≤1V Vdc
Rise, Fall time	1usec Max (1M Cable)	
Top response frequency	OC=100kHz; TTL=200kHz; HTL=300kHz	
Output phase difference	Phase A is ahead of B by 90°±45°	

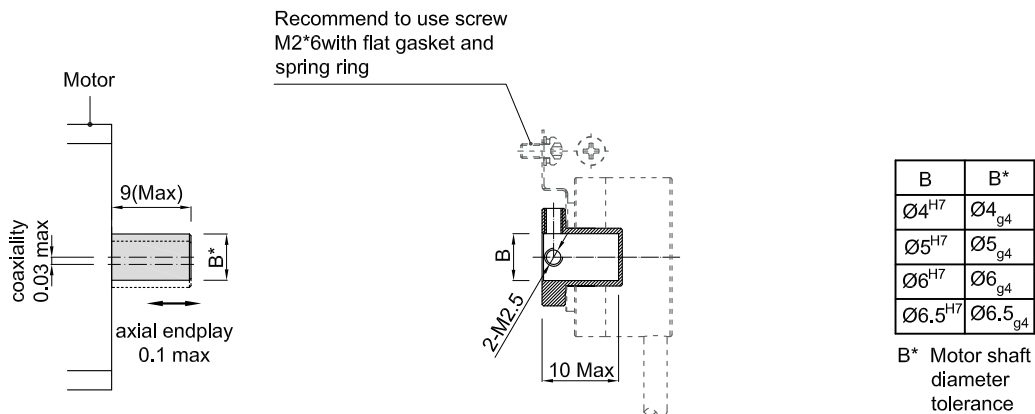
Mechanical Characteristics

Starting torque	Less than 5×10^{-4} N·M
Inertia moment	Less than 1×10^{-6} kg·m ²
Shaft load	Radial: 2N; axial: 2N
Top rev	5000 rpm
Environmental temperature	Operating: -20~+80°C; storage: -25~+85°C
Environmental humidity	Operating and storage: 35~85% RH (noncondensing)
Vibration (endure)	Amplitude 0.75mm, 10~50Hz, 1h for X,Y,Z direction individually
Shock (endure)	49m/s ² , three times for X,Y,Z direction individually
Material	Main body: aluminium alloy
Shaft	Ø4mm; Ø5mm; Ø6mm; Ø6.5mm (depth 10mm)
Protection	IP50
Weight	About 35g (with package)

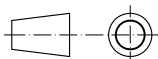
Basic Dimensions



Assembling requirement



Unit: mm



22T24 = Leaf Spring

= Rotate direction of signal output shaft

About vibration

Vibration act on encoder always cause wrong pulse, so we should pay attention to working place. More pulse per revolution, narrower groovy spacing of grating, more effect to encoder by vibration, when rev is low or stop, vibration act on shaft or main body would cause grating vibrating, so encoder might make wrong pulse.