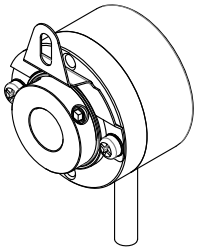
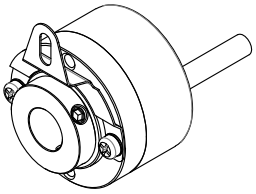
K22 Specifications 1/3

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 Ø22mm，thickness 18mm,diameter of shaft Ø4;Ø5;Ø6;Ø6.5mm
- Resolution: up to 1600P/R
- Supply voltage: DC5V; DC8-30V
- Protection: IP50
- Cable length: 500mm
- Weight: 35g



K22-J



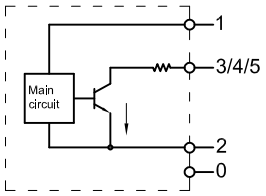
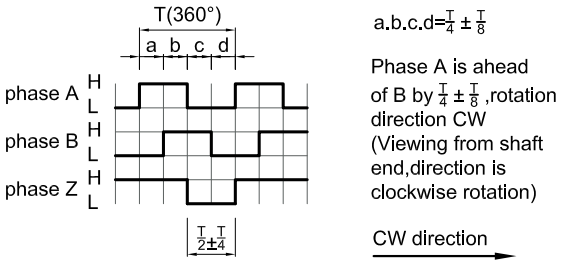
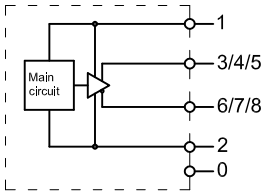
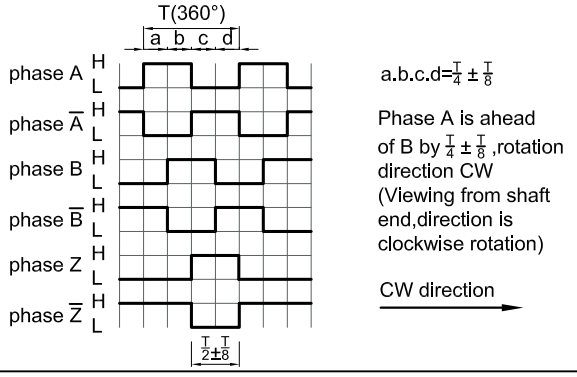
K22-L

Model Guide

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

K22–	J	3	N	1600	B6. 5	
Product model series	J=Radial cable L=Axial cable	Output phase 1=A 2=A+B 3=A+B+Z 4=A+$\overline{A}$+B+$\overline{B}$ 6=A+$\overline{A}$+B+$\overline{B}$+Z+$\overline{Z}$	Output type N=OC (low level effective) NH=OC (high level effective) C=TTL E=HTL	Pulse per revolution (P/R) 250; 256; 360; 400; 500; 512; 720; 800; 1000; 1024; 1440; 1600	Diameter of shaft B4=Ø4mm B5=Ø5mm B6=Ø6mm B6.5=Ø6.5mm (depth 10mm)	Special requirement Blank=cable length 500mm; IP50 Special cable length =C+number

Output Mode

Output type	Output circuit	Output wave form	Connection
OC			0=GND 1=red=DC5V; DC8-30V 2=black=OV 3=white=A 4=green=B 5=yellow=Z
TTL HTL			0=shielding=GND 1=red=DC5V; DC8-30V 2=black=OV 3=white=A 4=green=B 5=yellow=Z 6=white/black=Ā 7=green/black=B̄ 8=yellow/black=Z̄

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	Output current≤±20mA; Output voltage: H=≥2.5V; L=≤0.5V
	HTL	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°

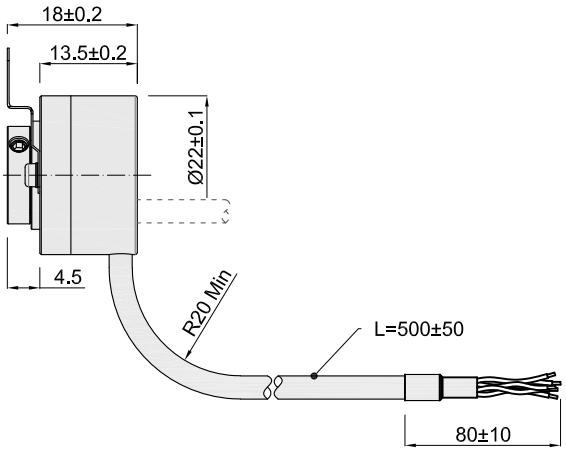
Mechanical Characteristics

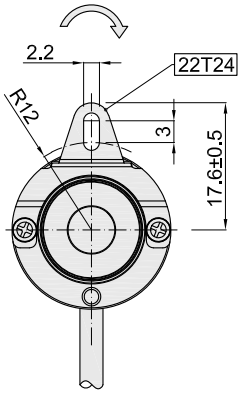
Starting torque	Less than $5x10^{-4}$ N·M
Inertia moment	Less than $1×10^{-6}$ kg·m²
Shaft load	Radial: 2N; axial: 2N
Top rev	5000 rpm
Environmental temperature	Operating:—20～+80℃; storage:—25～+85℃
Environmental humidity	Operating and storage:35～85%RH (noncondensing)
Vibration (endure)	Amplitude 0.75mm,10~50Hz,1h for X,Y,Z direction individually
Shock (endure)	49m/s²,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)

K22

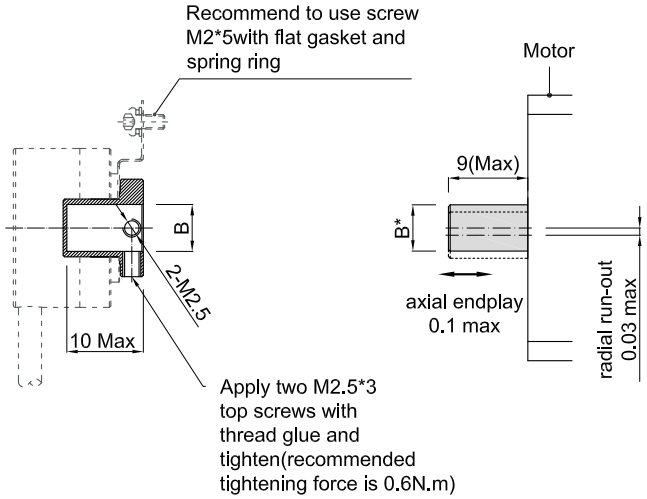
Specifications 3/3

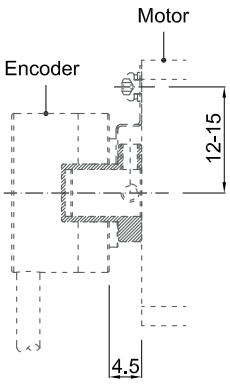
Basic Dimensions





Assembling requirement

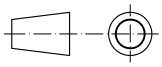




B	B*
$Ø4^{H7}$	$Ø4_{g6}$
$Ø5^{H7}$	$Ø5_{g6}$
$Ø6^{H7}$	$Ø6_{g6}$
$Ø6.5^{H7}$	$Ø6.5_{g6}$

B* Motor shaft diameter tolerance

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.