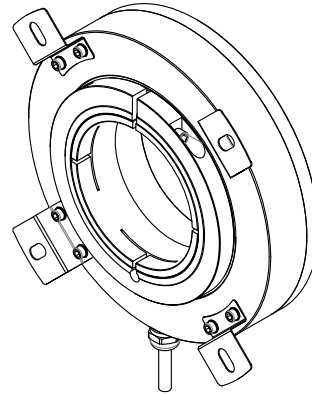


K158 Specifications 1/3

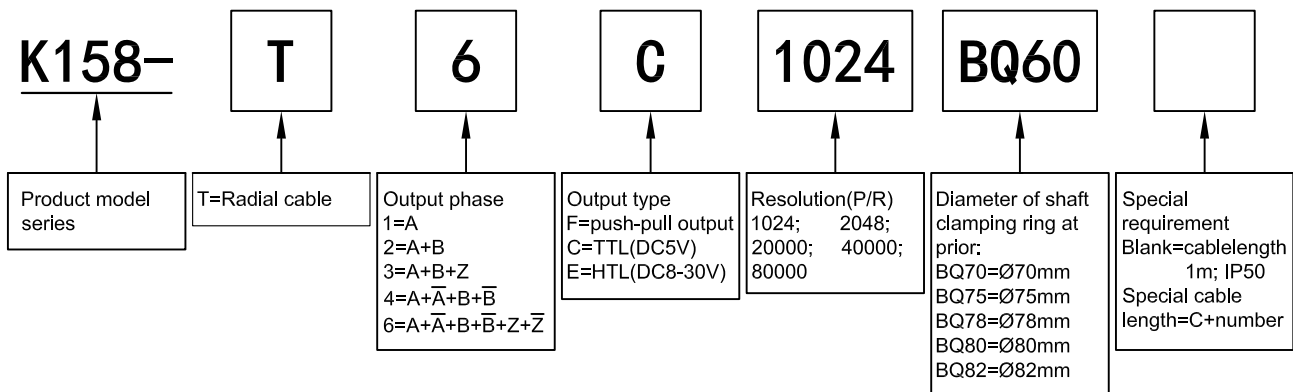
■ Incremental Type (Hollow shaft, through hole)

- Feature: Large shaft,Sturdy and durable,various output mode available
- Application: Automatic control like CNC machine,motor,industrial line equipment
- External dimensions: external DiaØ158mm,Thickness 43mm,Shaft max Ø82mm
- Resolution: up to 80000P/R
- Supply voltage: DC5V; DC8-30V
- Protection: IP50
- Cable length: 1000mm
- Weight: about 1800g



■ Model Guide

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



K158

Specifications 2/3

Output Mode

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

Electrical Characteristics

Parameter Item	Output type		
	Push-pull output	TTL	HTL
Supply voltage	DC+5V; DC8-30V±5%	DC+5V±5%	DC8-30V±5%
Consumption current	100mA Max	120mA Max	
Top response frequency	100KHz	200KHz	300KHz
Output volume	Input	≤30mA	≤±20mA
	Output	≤10mA	≤±50mA
Output voltage	"H"	≥[(supply voltage)-2.5V]	≥2.5V
	"L"	≤0.4V	≤0.5V
Rise & Fall time	Less than 2us (cable length:2m)	Less than 1us(cable length:2m)	
Insulation strength	AC500V 60s		
Insulation resistance	10MΩ		
Origin motion	Low level available	—	
GND	not connect to encoder		

Mechanical Characteristics

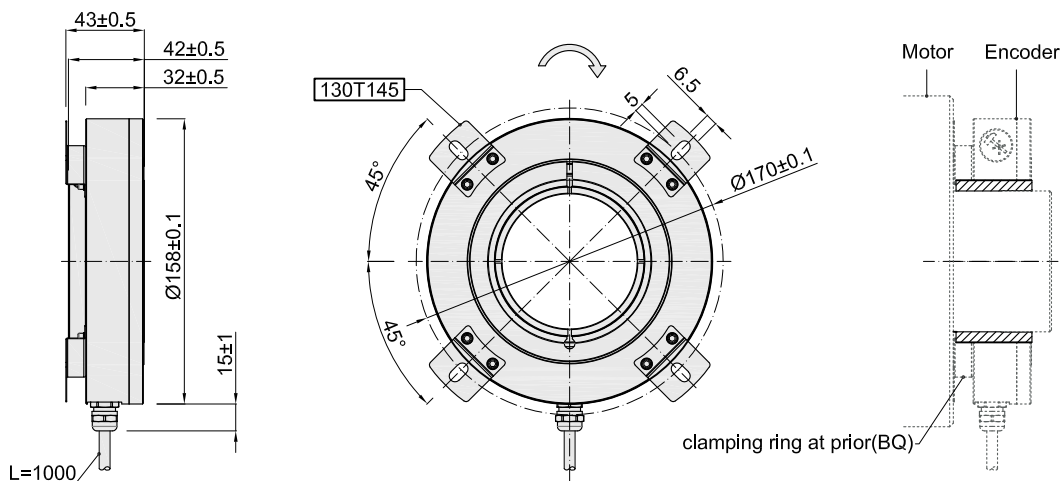
Shaft	Ø70mm; Ø75mm; Ø78mm; Ø80mm; Ø82mm (stainless steel)
Starting torque	Less than $400 \times 10^{-3} \text{mN} \cdot \text{m}$
Inertia moment	Less than $350 \times 10^{-6} \text{kg} \cdot \text{m}^2$
Shaft load	Radial 90N; axial 60N
Top rev	3000 rpm
Material	Main boty; aluminium alloy
Weight	About 1800g

Environmental Specifications

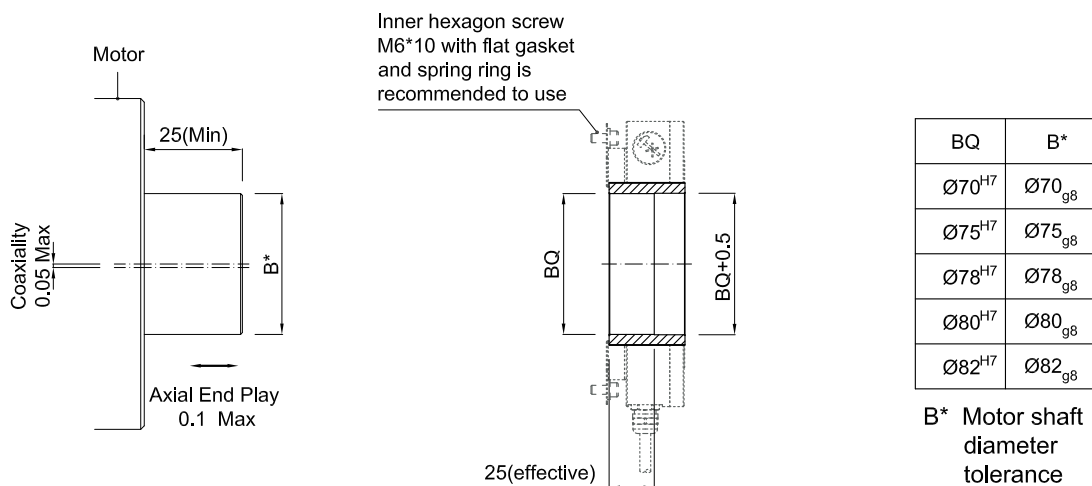
Environmental temperature	Operating:-20~+80℃; storage:-25~+85℃
Environmental humidity	Operating and storage: 35~85%RH(noncondensing)
Vibration (endure)	Amplitude 1.52mm,5~55Hz,2h for X,Y,Z direction individually
Shock (endure)	1960m/s ² (200G) 11msec, for X,Y,Z direction individually
Protection	IP50

K158 Specifications 3/3

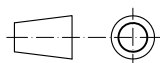
Basic Dimensions



Assembling requirement



Unit: mm



130T145 = 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.