

# Product selection guide



STS256T · Series

## Applications & Features

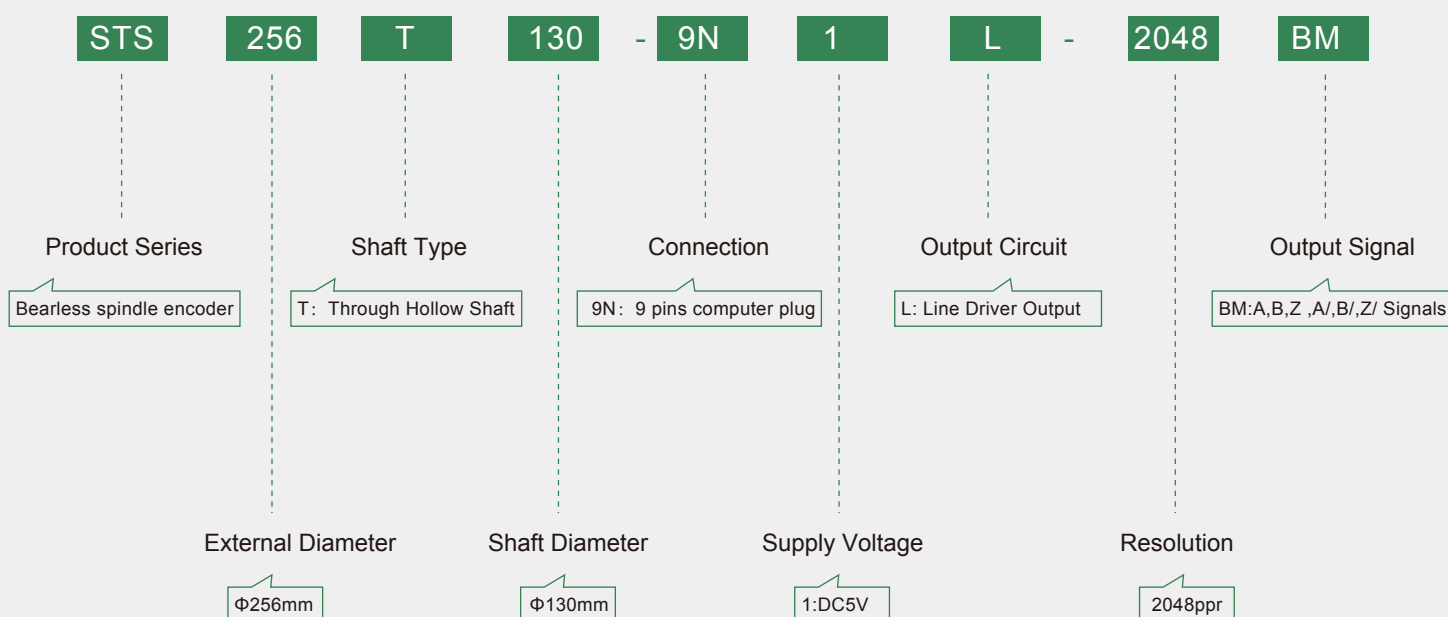


Application: CNC lathe

Features:

1. Long life and saving cost. The Grating component of encoder is directly connected to lathe spindle without the aid of flexible couplings, flange and synchronous pulley, which saves the cost of mounting accessory. The bearingless non-contact design reduces the mechanical loss and ensures higher life.
2. Reliable performance. American original parts and chips, and integrated photoelectric switch module are adopted by STS series encoder to ensure stable and reliable quality. The disc with special material could resist high temperature and three times of vibration than regular encoder.

## Part Number



## Electrical Specifications

Supply Voltage	DC 5 ± 0.25 V
Output Signal	Line Driver ( AM26C311 )
Current Requirement	≤ 80 mA
Frequency Response	100 kHz
High-level Output Voltage	≥ 2.5 V
Low-level Output Voltage	≤ 0.5 V
Rise Time	≤ 200 ns
Fall Time	≤ 200 ns
Resolution	2048 P/r

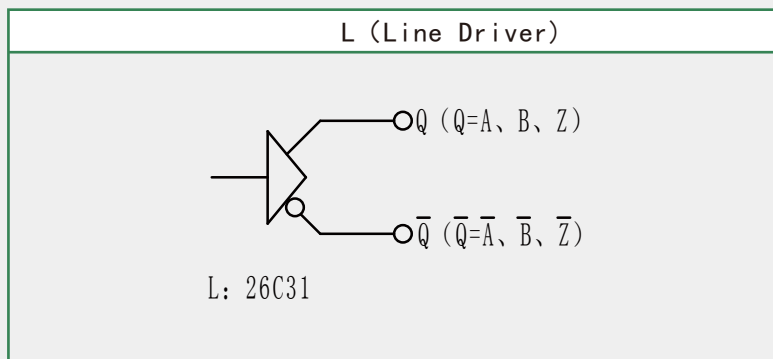
## Mechanical Specifications

Max Speed	5000 r/min
Radial Load (Max)	100 N
Axial Load (Max)	50 N
Starting Torque	$5 \times 10^{-3} \text{ N}\cdot\text{m}$

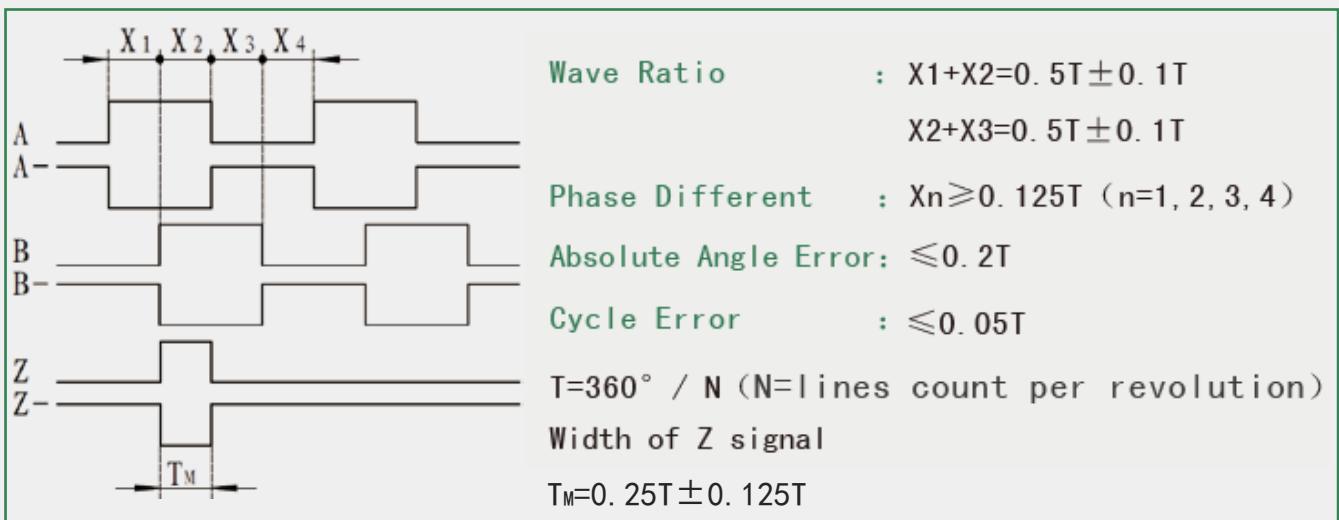
## Environmental Specifications

Storage Temperature	$-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Operating Temperature	$-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$
Humidity	30 ~ 85 % (No condensation)
Vibration	$98\text{m/s}^2, 10 \sim 200\text{Hz}$ (2 hours on XYZ directions)
Shock	$980\text{m/s}^2, 6\text{ms}$ (2 times on XYZ directions)
Protection Class	IP64
Weight	Approx. 1000g

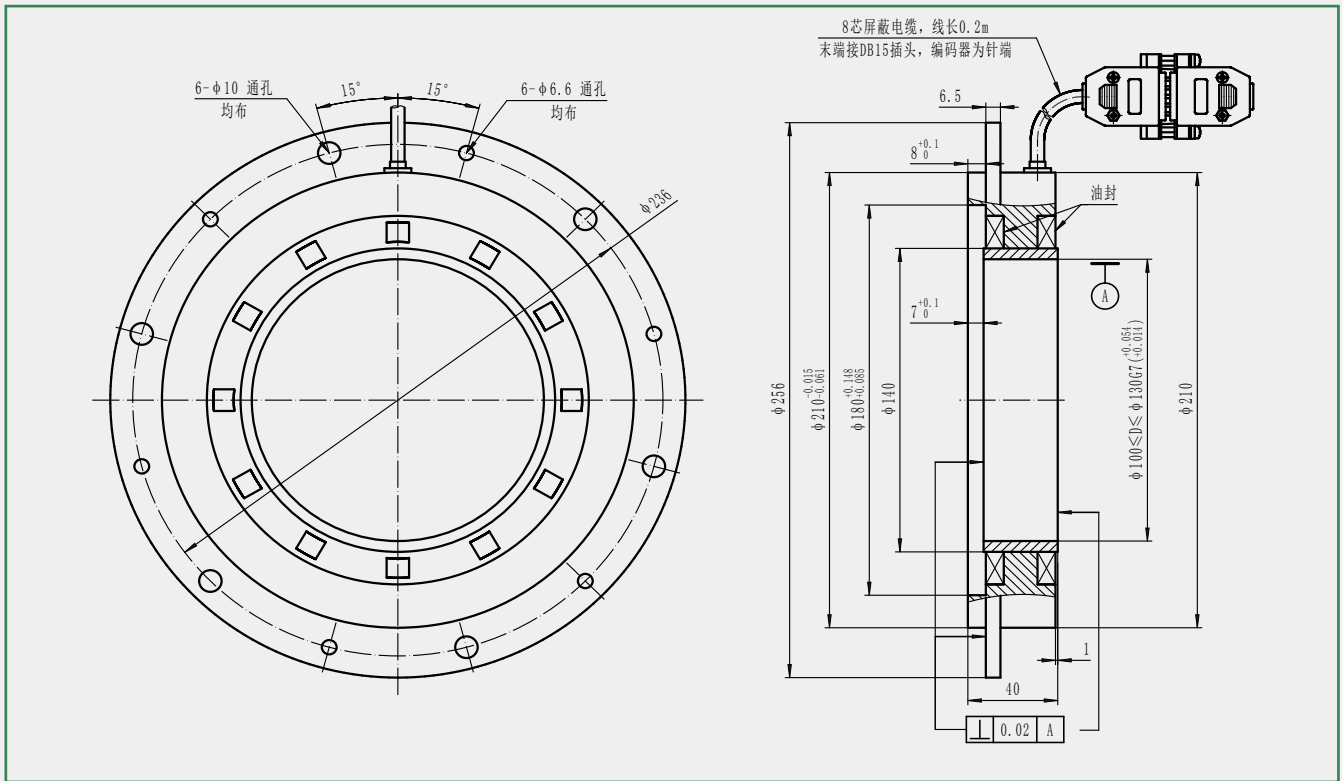
## Output Circuit



## Output Waves



## Dimensions



## Connections

	Signals	5V	0V	A	A-	B	B-	Z	Z-	G
	Pins No	1	2	9	5	8	4	3	7	G
	Cable Color	Red	Black	Green	Brown	White	Gray	Yellow	Orange	Shield

China Rongde Optics Co., Ltd

