SANSHENG
SENSOR

Product Selection Guide

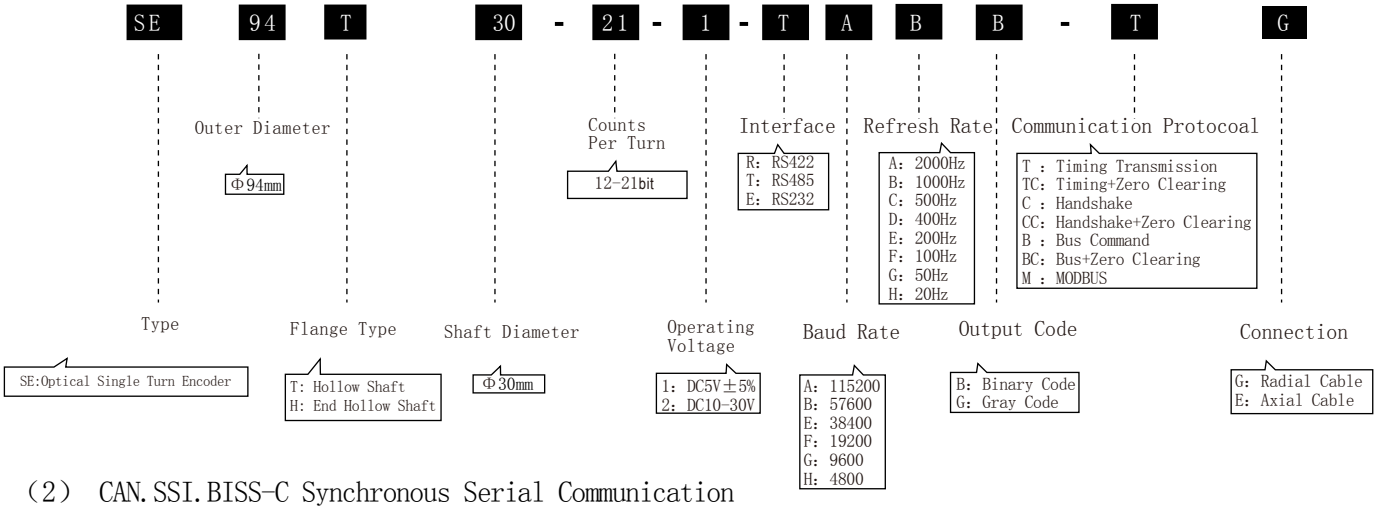
SE94T30
Applications & Features

Appearance:
1. Outer housing color: blue.
2. Surface treatment: painting.
3. Connection: radial cable.
4. Cable length: 1M (customized).
5. Cable color: black, gray (optional).

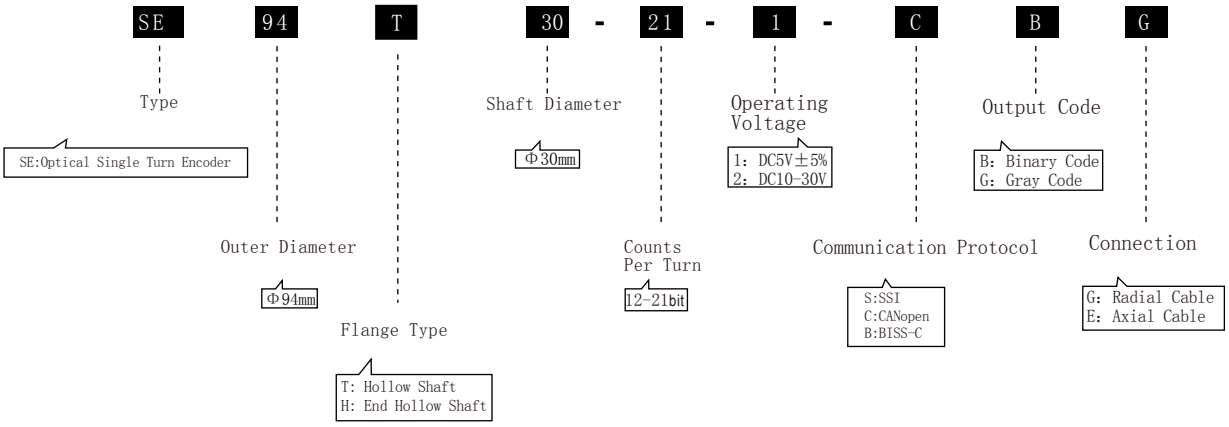
Features:
1. Large hollow shaft, industrial standards.
2. High sealing, high protection encoder.
3. Available for achieving a variety of communication protocols.
4. Dustproof, moistureproof, shock resistence, vibration, long life, anti-interference.
5. Wide temperature range, suitable for all kinds of environments.

1.1 Part Number Defined

(1) Asynchronous Serial Communication



(2) CAN.SSI.BISS-C Synchronous Serial Communication



1.2 Notes

1. Please follow the instructions to use flexible connections for mounting to ensure the accuracy and service life of products.
2. Encoders are precise instruments adjusted strictly before leaving factory. Strong impact, dismantlement and changes on encoders are not allowed.
3. To guarantee the accuracy and work of encoder, when the operating voltage is DC5V ± 5%:
   (1) Cable length should not exceed 2 meters.
   (2) The current of the power supply should not be less than 0.5A.
   (3) The interference signal of the power supply should be within ± 50mV.

When operating voltage is 10-30V:
   (1) The current of the power supply should not be less than 0.3A.
   (2) The interference signal of the power supply should be within ± 50mV.

4. The corresponding supply voltage and connections to the equipment should be paid attention by the profesional installation people.
5. Please read the instructions carefully before using the product.

2.1 Basic Specifications

Resolution in Bit	12～21bit	Measuring Range	0 ～ 360° (Single-turn)

Resolution in Bit	10 bit	11 bit	12 bit	13 bit	14 bit	15 bit	16 bit	17bit	18 bit	19 bit	20bit	21bit
Angular Resolution			320″	160″	80″	40″	20″	10″	10″	5″	2.5″	0.6″
Accuracy≤			±640″	±320″	±160″	±80″	±40″	±20″	±15″	±10″	±7.5″	±6″

2.2 Environment Specifications

Working Temperature Storage Temperature	-40℃～+65℃ -50℃～+70℃	Protection Class	IP54

2.3 Mechanical Specifications

Outer Diameter	94 mm	Shaft Diameter	30 mm
Height	51 mm	Shaft Length	
Weight	750g	Max Speed	1000 r/min
Vibration	5 g	Radial Shaft Load	≤60N
Shock	20 g	Axial Shaft Load	≤40N

2.4 Electrical Specifications

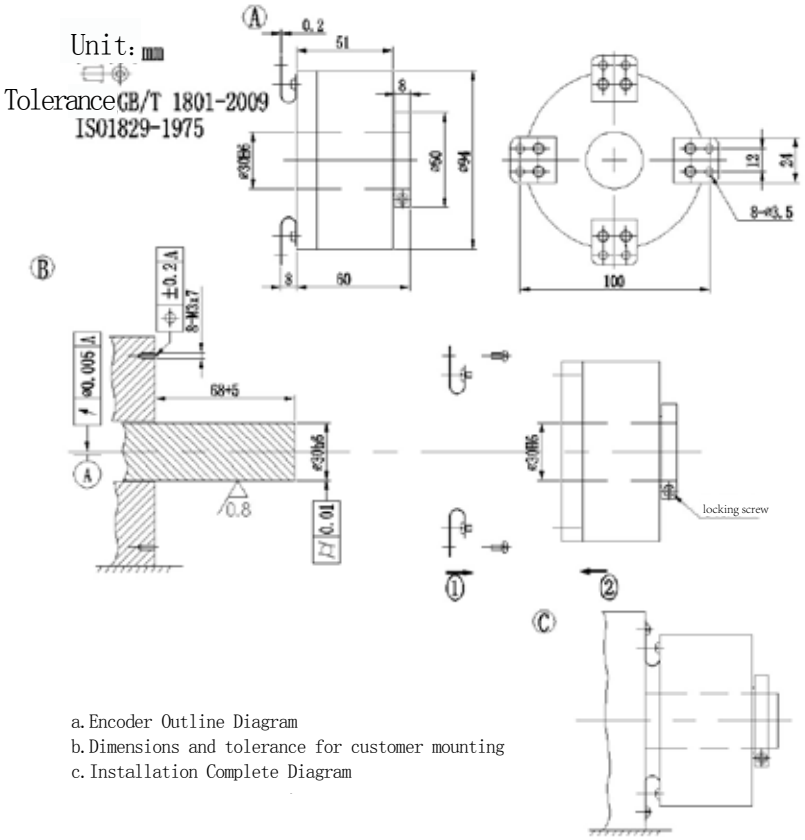
(1) Asynchronous Serial Communication

Supply Voltage	DC5V, 10～30V
Interface	RS485、RS422、RS232、CAN
Communication Protocol	MODBUS、CANopen、Timing Transmission、Timing Transmission+Zero Clearing、Handshake、Handshake+Zero Clearing、Bus Command、Bus+Zero Clearing
Baud Rate(b/s)	115200、57600、38400、19200、9600、4800、2400
Refresh Rate	2000Hz、1000Hz、500 Hz、400 Hz、200 Hz、100 Hz、50 Hz、20 Hz
Output Code	Binary Code, Gray Code

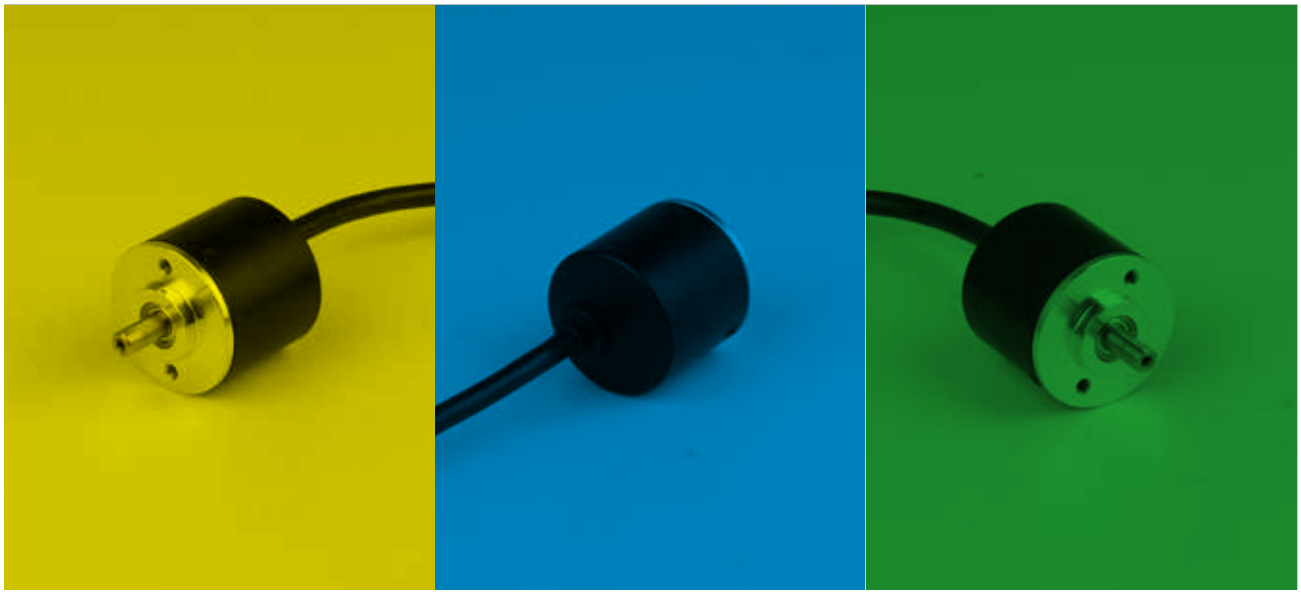
(2) Synchronous Serial Communication

Supply Voltage	DC5V, 10～30V
Communication Protocol	SSI、BISS-C
Output Code	Binary Code, Gray Code

2.5 Installation Instruction



a. Encoder Outline Diagram
b. Dimensions and tolerance for customer mounting
c. Installation Complete Diagram



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