



SANSHENG  
SENSOR



# Product Selection Guide

## SE50BS8

### Applications & Features

Appearance:

- 1.Shell Color: Black、 Silver、 Green、 Army Green (Optional) .
- 2.Surface Treatment: Dye black、 Sandblast Oxidation ( Optional) .
- 3.Termination: Radial Output、 Axial Output (Optional) .
- 4.Cable Length: 1m (Can be customized) .
- 5.Color of Cable: Black、 Gray (Optional) .

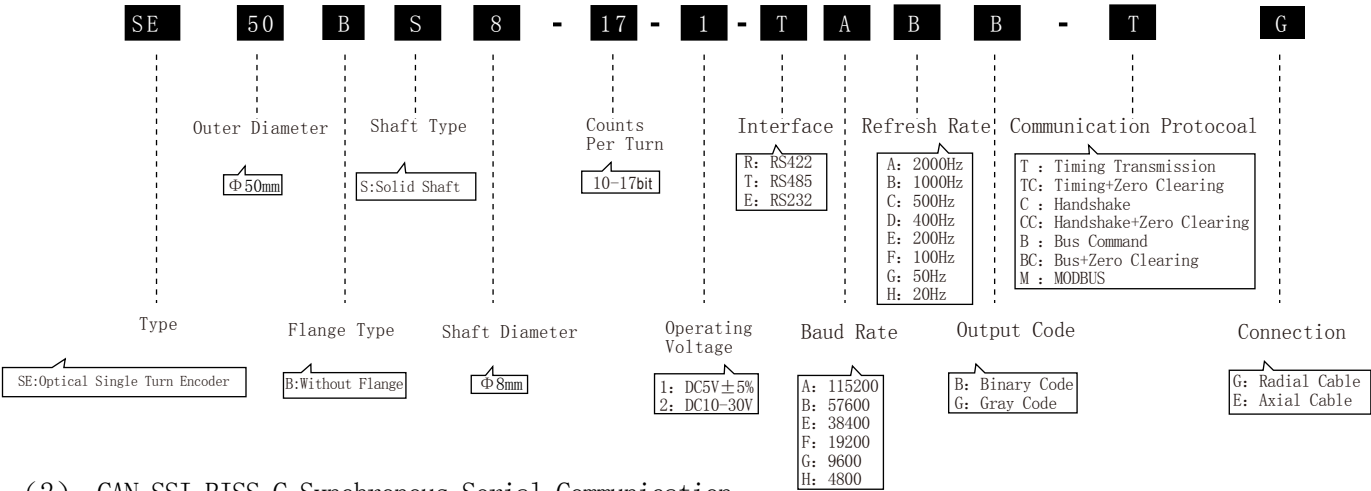
Features:

- 1.Economical and Practical, short lead times.
- 2.Parallel port, serial protocols.
- 3.Durable, good sealing and long service life, anti-interference.
- 4.Wide temperature range, suitable for all kinds of environments.

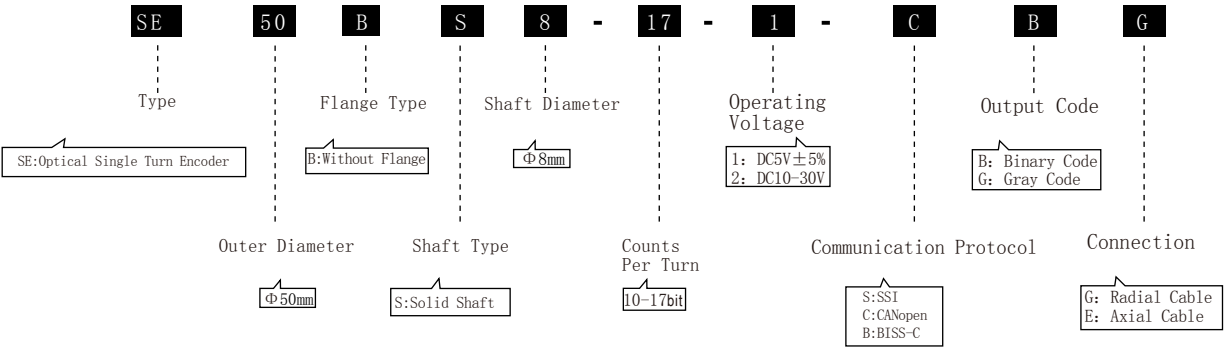


1.1 Part Number Defined

(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 professional installation people.
- 5. Please read the instructions carefully before using the product.

2.1 Basic Specifications

Resolution in Bit		10~17bit			Measuring Range		0 ~ 360° (Single-turn)					
Resolution in Bit	10 bit	11 bit	12 bit	13 bit	14 bit	15 bit	16 bit	17bit				
Angular Resolution			320"	160"	80"	40"	20"	10"				
Accuracy≤			±640"	±320"	±160"	±80"	±40"	±20"				

2.2 Environment Specifications

Working Temperature	-40℃~+65℃	Protection Class	IP64
Storage Temperature	-50℃~+70℃		

2.3 Mechanical Specifications

Outer Diameter	50 mm	Shaft Diameter	8mm
Height	57.5 mm	Shaft Length	15 mm
Weight	280 g	Max Speed	2000 r/min
Vibration	5 g	Radial Shaft Load	≤30N
Shock	20 g	Axial Shaft Load	≤20N

2.4 Electrical Specifications

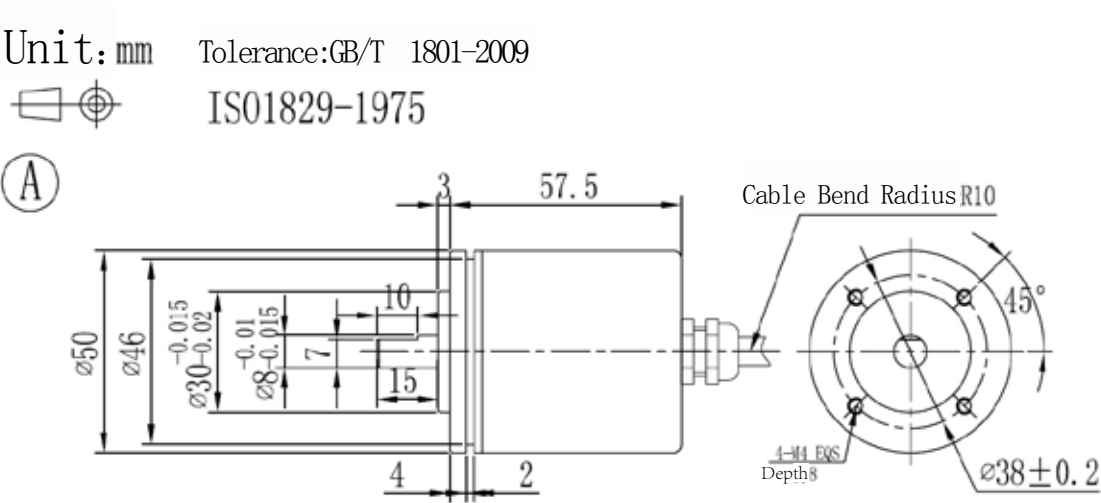
(1) Asynchronous Serial Communication

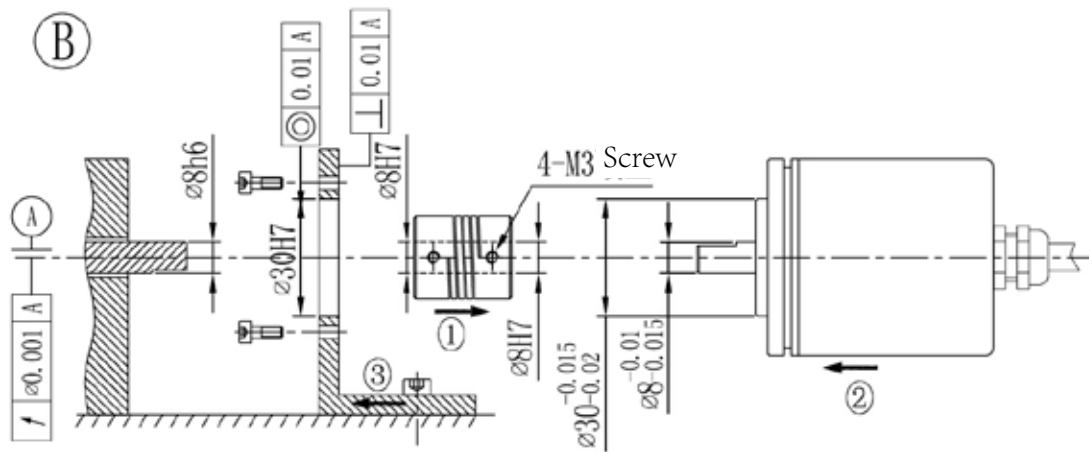
Supply Voltage	DC5V, 10~30V
Interface	RS485、RS422、RS232、CAN
Communication Protocol	MODBUS、CANopen、Timing Transmission、Timing Transmission+Zero Clearing、Handshake、Handshake+Zero Clearing、Bus Command、Bus+Zero Clearing
Baud Rate(b/s)	115200、57600、38400、19200、9600、4800、2400
Refresh Rate	2000Hz、1000Hz、500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

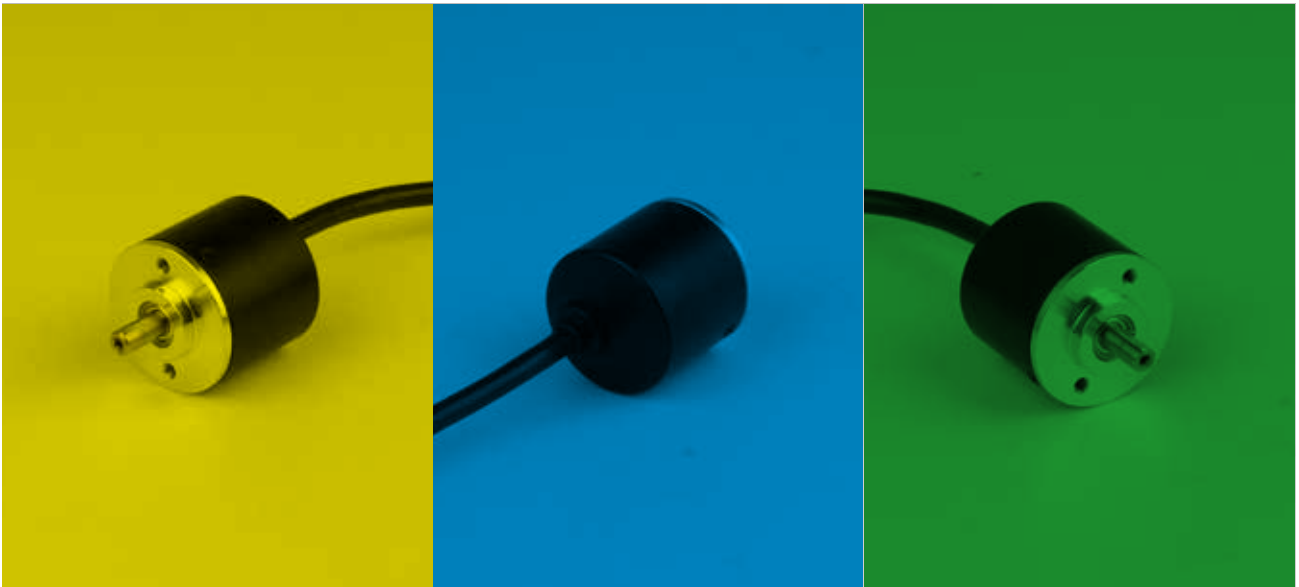
2.5 Installation Instruction





Inner Hexagon Screw

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



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