



SANSHENG
SENSOR



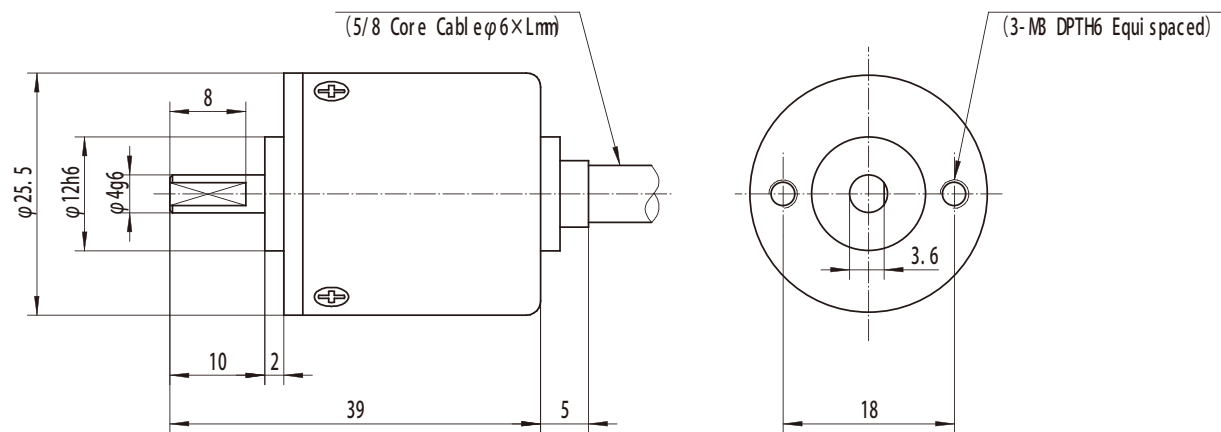
Product Selection Guide

SA25S Applications & Features

Widely applied in automatic control and measurement.
A sensor for measuring the rotational angle and speed.
Small size, light weight, excellent performance.
Suitable for narrow space applications.
Resolution up to 1200 ppr.



Mechanical Drawing



Electrical Specifications

Output Type	Supply Voltage DC (V)	Current Consumption (mA)	Output Voltage (V)		Rise Time (ns)	Fall Time (ns)	Frequency Response (kHz)
			V _H	V _L			
E (Voltage)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-300
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-300
C (Open Collector)	5±0.25	≤60	>VCC-2.5	≤0.7	≤500	≤100	0-300
	8-26						

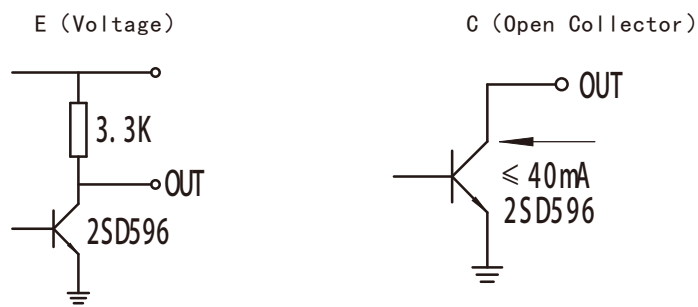
Mechanical Specifications

Max. Speed (r/min)	Start Torque (25℃) (N·M)	Max. Load on Shaft (N)		Moment of Inertia (kgm ²)	Weight (kg)
		Radial	Axial		
6000	1*10 ⁻³	15	10	4*10 ⁻⁶	≈0.07

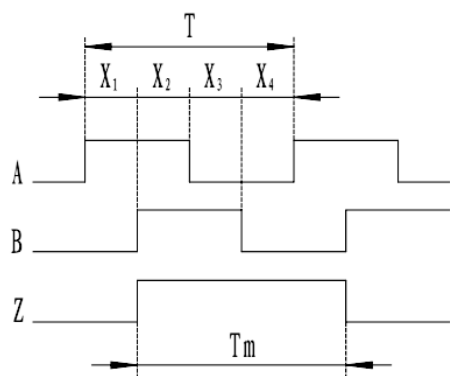
Enviromental Specifications

Operating Temp. (℃)	-20 ~ +85	Impact Resistance (m/s ²)	50 (3 times on x,y,z direction, each time last for 6ms)
Storage Temp. (℃)	-30 ~ +95	Anti-vibration (m/s ²)	20 (10 ~ 200Hz 2 hours on X,Y,Z direction)
Relative Humidity	35% ~ 85%RH No Condensation	Protection Class	Common IP54

Output Circuits



Output Waveform



Wave Ratio : $X1+X2=0.5T \pm 0.1T$ $X2+X3=0.5T \pm 0.1T$
Phase Different : $Xn \geq 0.125T$ ($n=1, 2, 3, 4$)
Absolute Angle Error : $\leq 0.2T$
Cycle Error : $\leq 0.05T$
 $T=360^\circ / N$ (N = lines count per revolution)
Width of Z signal
1、 $T_m=1T \pm 0.5T$ $T_m=nT \pm 0.1T$ ($n \geq 2$)
The phase relation of Z signal and A,B signal is not stipulated.
2、 $T_m=0.5T \pm 0.25T$ $T_m=0.25T \pm 0.125T$
The rising edge of the z-channel signal is aligned with the rising edge of the B-channel signal

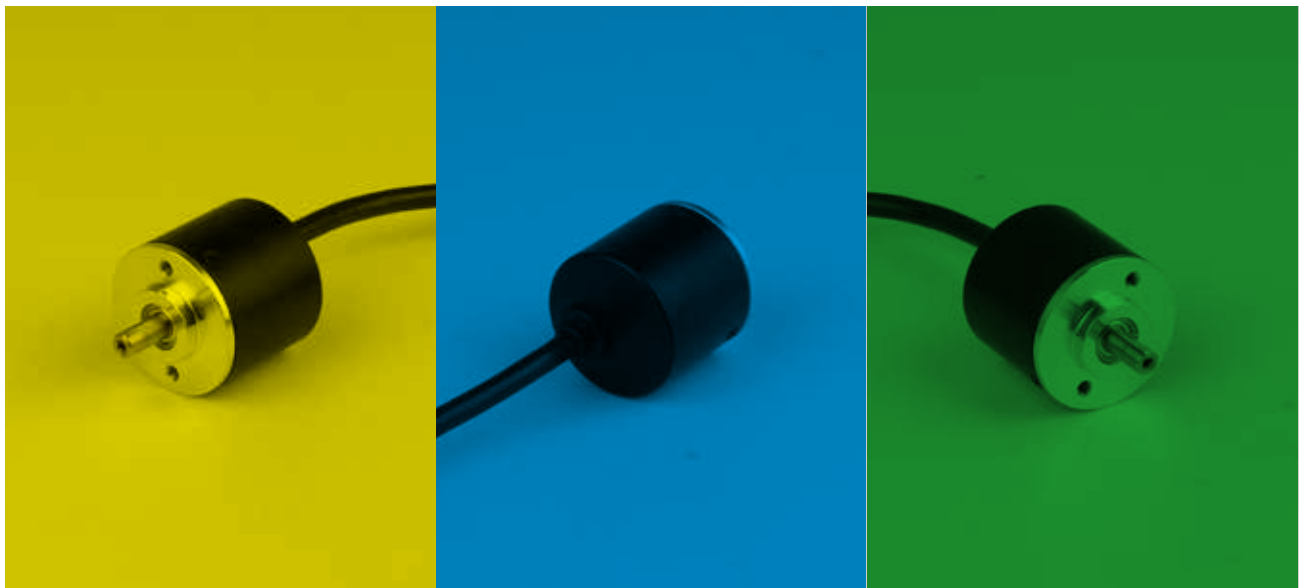
Electrical Connections

Cable Color	Red	Black	Green	White	Yellow	Shield
E (Voltage)	Vcc	0V	A	B	Z	G
C (Open Collector)						

Order Information

S Product Class	A Product Type	25 Outer Diameter	S Shaft Type	4 Shaft Diameter	E Termination
S:Common	Incremental	Φ25mm	S:Solid	Φ4mm	E: Dustproof Axial Cable K: Waterproof Axial Cable
1M Cable Length	2 Supply Voltage	C Output Type	100 Resolution (PPR)	B Output Signal	M Index Signal
Standard 1M 0.3M-10M	1:DC5V 2:DC8-26V	E:Voltage Output C:Open Collector	20、36、60、100、200、300、360、 400、500、600、800、1000、1024、 1200	A: A phase signal B: 90° phase different A- B signals output	M:Z signal

E.g: SA 25S4-E1M1E-1000BM



TEL:86-0431-81857464

Skype:zhangpaula312

WhatsApp:+86 13804324526

Email:paulazhang@san-sheng.net



**SANSHEG
SENSOR**

JILIN SANSHEG SENSING TECHNOLOGY CO,LTD

No 191,Chaoqun Street, High-tech Development District,
Changchun 130012,China.