



SANSHENG
SENSOR



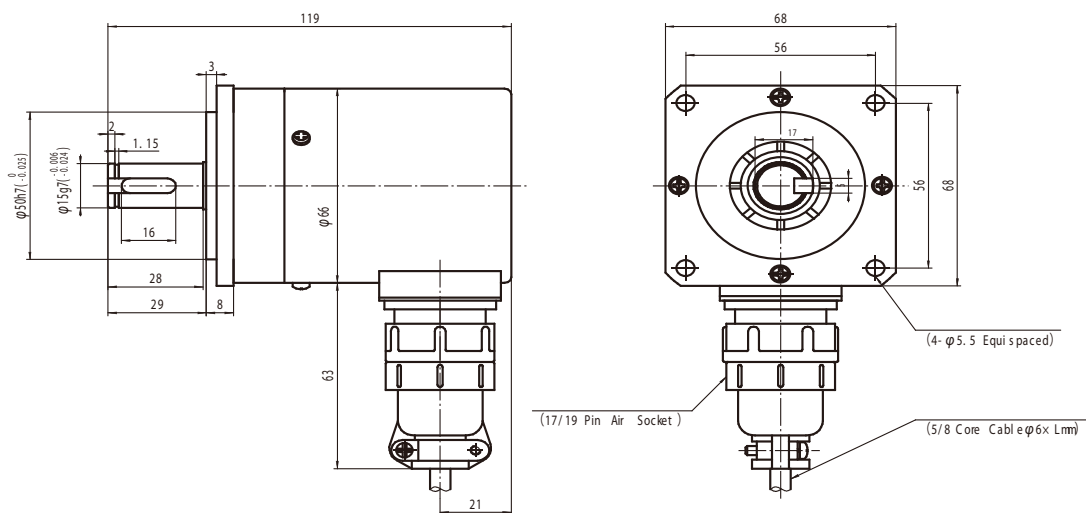
Product Selection Guide

SA66S15 Applications & Features

Heavy duty 15mm solid shaft encoder, OD66mm.
Widely applied in CNC machine tools.
Rugged construction with high axial and radial load.
Standard flange combines synchronous flange
and clamping flange.
A variety of output forms for customer choice.
Compatible with a variety of receivers and counters.
High cost-effective product.



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	≤ 5.00	≤ 1.00	0-300
	8-26	≤ 120	> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
	10-30		> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
F (Push-pull)	5±0.25	≤ 80	> 3.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
	8-26	≤ 120	> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
	10-30		> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
C (Open Collector)	5±0.25	≤ 60	> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
	8-26		> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
	10-30		> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
L (Line Driver)	5±0.25	≤ 100	> 3.5	≤ 0.7	≤ 2.00	≤ 2.00	0-300
A (Wide Voltage Line Driver)	8-26	≤ 60	> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300
	10-30		> VCC-2.5	≤ 0.7	≤ 5.00	≤ 1.00	0-300

Mechanical Specifications

Max. Speed (r/min)	Start Torque (25 °C) (N. M)	Max. Load on Shaft (N)		Moment of Inertia (kgm ²)	Weight (kg)
		Radial	Axial		
6000	1*10 ⁻³	40	30	4*10 ⁻⁶	≈0.725

Enviromental Specifications

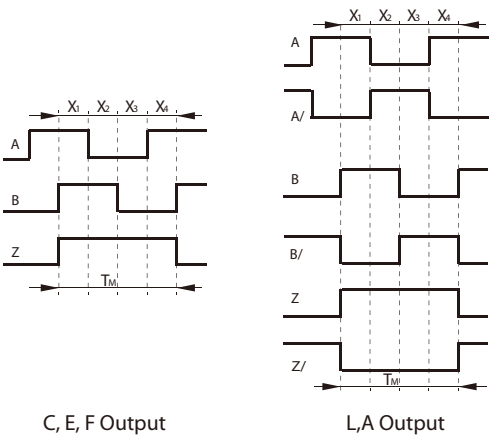
Operating Temp. (°C)	-20 ~ +85	Impact Resistance (m/s ²)	50 (3 times on x,y,z direction, each time last for 6ms)
Storage Temp. (°C)	-30 ~ +95	Anti-vibration (m/s ²)	20 (10 ~ 200Hz 2 hours on X,Y,Z direction)
Relative Humidity	35% ~ 85%RH No Condensation	Protection Class	Common IP54

Output Circuits

E(Voltage)		F(Push-pull)		C (Open Collector)	L、 A(Line Driver)
5V	8- 26V	5V	8- 26V		

Note: C,F output is shorted to ground protection diode

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、 $Tm = 1T \pm 0.5T$ $Tm = nT \pm 0.1T$ ($n \geq 2$)
The phase relation of Z signal and A,B signal is not stipulated.
2、 $Tm = 0.5T \pm 0.25T$ $Tm = 0.25T \pm 0.125T$
The rising edge of the Z-channel signal is aligned with the rising edge of the B-channel signal

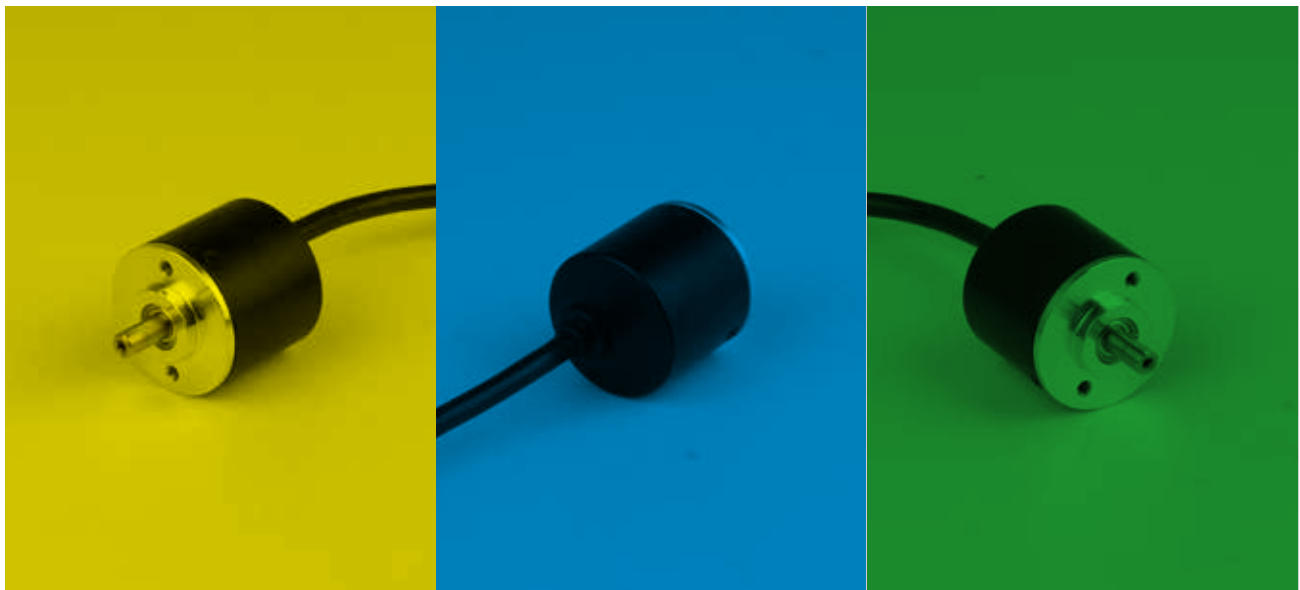
Electrical Connections

Cable Color	Red	Black	Green	Brown	White	Gray	Yellow	Orange	Shield
E (Voltage)	Vcc	0 V	A		B		Z		G
F (Push-pull)	Vcc	0 V	A		B		Z		G
C (Open Collector)	Vcc	0 V	A		B		Z		G
L、 A (Line Driver)	Vcc	0 V	A	A/	B	B/	Z	Z/	G

Order Information

S Product Class	A Product Type	66 Outer Diameter	S Shaft Type	15 Shaft Diameter	G Termination
S:Common	Incremental	Φ 66mm	S:Solid Shaft	Φ 15mm	G:Dustproof Radial Cable J:Waterproof Radial cable 17C:17 Pin Radial Aviation Connector 19C:19 Pin Radial Aviation Connector
1M Cable Length	1 Supply Voltage	C Output Type	60 Resolution (can be customized)	B Output Signal	M Index Signal
Standard 1M 0.3M-10M	1:DC5V 2:DC8-26V 3:DC10-30V	E:Voltage F:Push-Pull C:Open Collector L:Line Driver A:Wide Voltage Line Driver	10\60\100\120\200\250\300\360 400\500\600\720\800\900\960 1000\1024\1200\1500\1800\2000 2048\2500\3000\3600\4000\4096 5000\5400	A:A phase signal B:90° phase different A、B signal	M:Z signal

E.g: SA66S15-G1M1C-60BM



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.