



Product Selection Guide

SA100B45

Applications & Features

Ultra-thin design, saving mounting space.

Large hollow shaft from 30mm to 45mm.

Multiple mounting brackets are available.

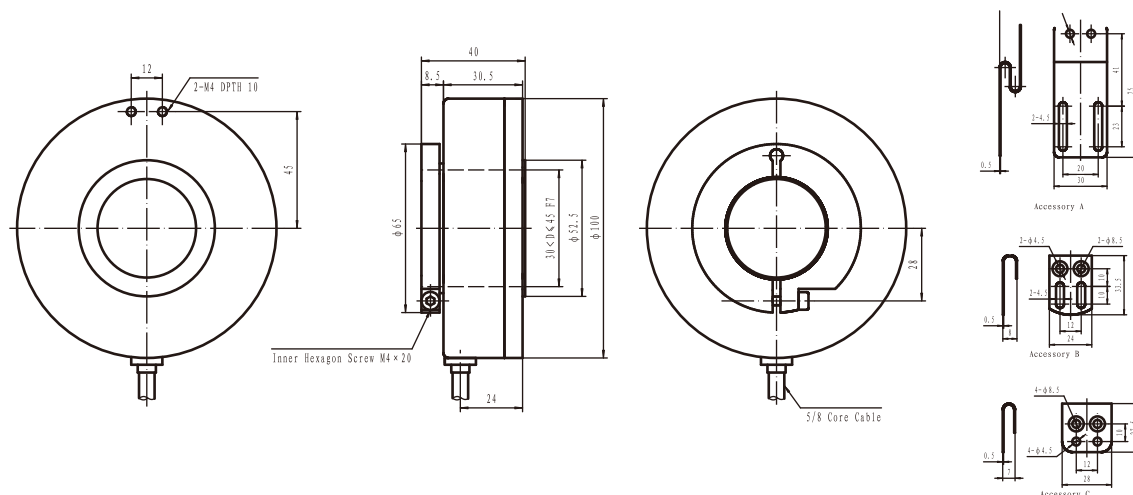
Mainly used in elevators, motors, light industrial machinery for displacement, speed measurement.

Imported optoelectronic components with high reliability and anti-interference.

Long life and wide temperature range.



Mechanical Drawing



Electrical Specifications

[illegible]

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	40	20	4*10 ⁻⁶	≈0.60

Enviromental Specifications

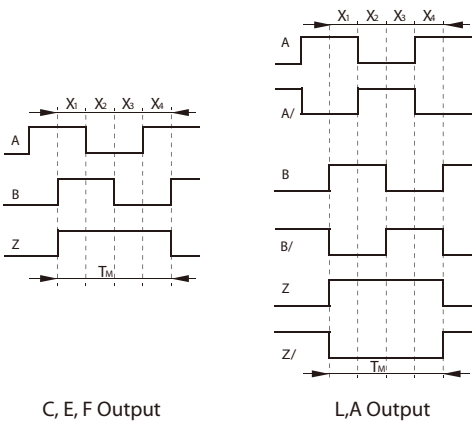
Operating Temp. (°C)	-20 ~ +85	Impact Resistance (m/s ²)	50 (3 times on x,y,z direction, each time last for 6ms)
Storage Temp. (°C)	-30 ~ +95	Anti-vibration (m/s ²)	20 (10 ~ 200Hz 2 hours on X,Y,Z direction)
Relative Humidity	35% ~85%RH No Condensation	Protection Class	Common IP54

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 pretection 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

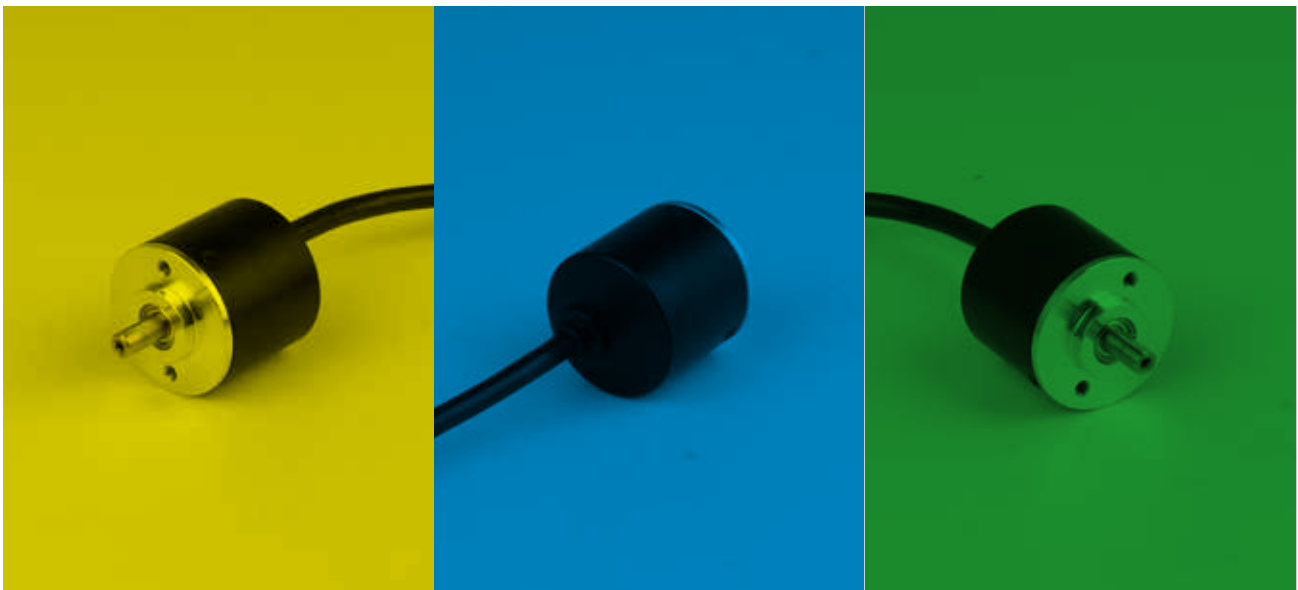
Electrical Connections

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	100	Outer Diameter	B	Shaft Type	30	Shaft Diameter	A	Accessory	G	Termination
S:Common	Incremental	Φ100mm	B:Clamping Hollow Shaft	Φ30-45mm	A,B,C type	G:Dustproof Radial Cable J:Waterproof Radial Cable 15N:15 pin computer connector							
1M	Cable Length	1	Supply Voltage	C	Output Type		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	120\200\360\500\512\600\720 1000\1024\1200\2048\2500\4096 5400	A: A phase signal B: 90° phase different A- B signals output	M:Z signal								

E.g: SA100B30A-G1M1L-500BM



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.