



SANSHENG
SENSOR



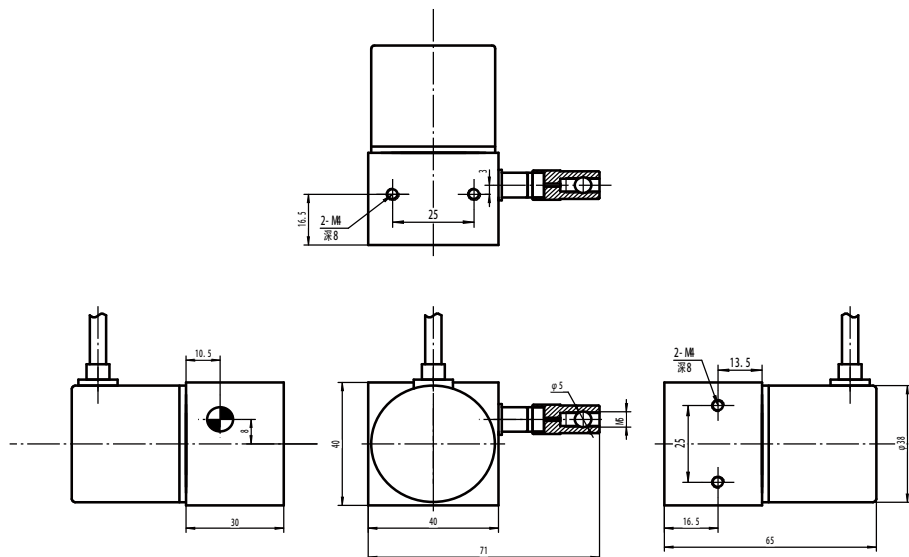
Product Selection Guide

SLC40D Applications & Features

Incremental encoder and absolute encoder are optional for the digital signal output type. Output signals are square wave ABZ signals or Gray code signals. Measurement range is up to 600mm. Linear accuracy: 0.05% FS. Resolution based on the different configuration can reach 0.001mm / pulse in maximum. Working temperature: -30°C – $+90^{\circ}\text{C}$.



Mechanical Drawing



Electrical Specifications

Sensor Element	Incremental Encoder				
Electrical Connection	Cable Radial, 1m				
Output Model	Voltage	Push-Pull	Open Collector	Line Driver (5V)	Wide Voltage Line Driver (8-26V)
Operating Voltage	DC5V/8-26V				
Sensor Resolution(mm)	0.05	0.025	0.02	0.01	0.008
Encoder Resolution (ppr)	1000	2000	2500	3600	5000
Max. Reciprocating Speed	1000mm/s				
Reciprocating Frequency	50 Hz(See Reciprocating Amplitude)				

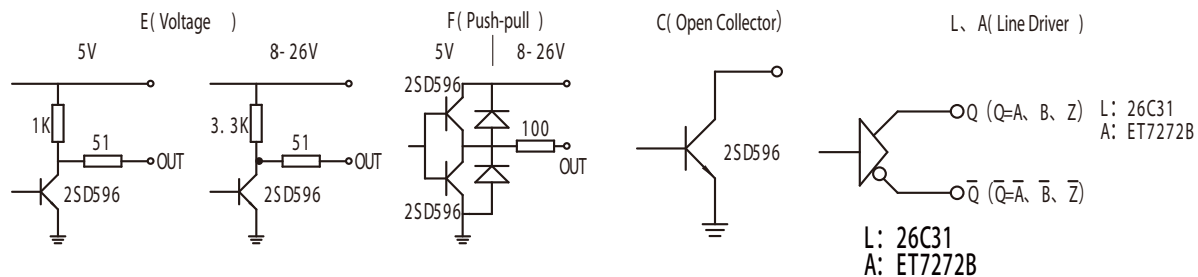
Mechanical Specifications

Measuring Range	0——600mm optional
Housing	Aluminium alloy, oxidation surface treating, wear and corrosion prevention
Wire Rope	0.6mm high flexible imported plastic coated wire rope
Wire retraction force (min)	appr. 1N
Wire extension force (max)	appr. 2.5N
Linear Accuracy	0.05%FS
Repeatability Accuracy	0.01%
Life	>10 million times

Enviromental Specifications

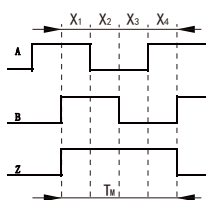
Temperature Range	-30℃——90℃
Vibration Resistance	10HZ——1500HZ 10G
Protection Class	IP54(Standard)
Weight(kg)	0.255

Output Circuits

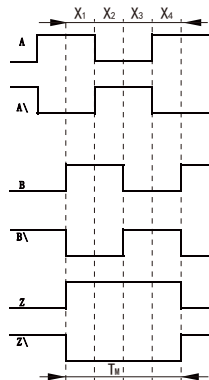


Note: C,F output is shorted to ground protection diode

Output Waveform



Waveform for C, E, F output



Waveform for L, A output

Wave Ratio : $X_1+X_2=0.5T \pm 0.1T$
 $X_2+X_3=0.5T \pm 0.1T$
 Phase Different : $X_n \geq 0.125T$ ($n=1, 2, 3, 4$)
 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 relationship of Z signal and A,B
 2、 $T_m=0.5T \pm 0.25T$
 $T_m=0.25T \pm 0.125T$
 $T_m=0.25T \pm 0.125T$

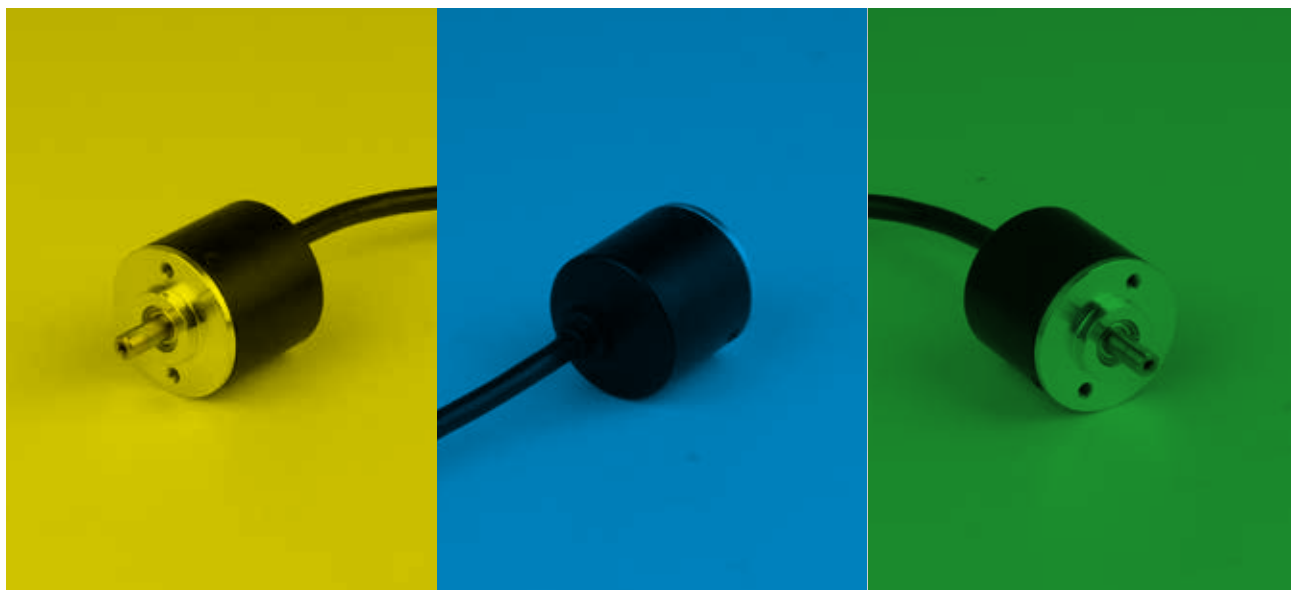
The picture shows the clockwise (CW) waveform from the shaft side.

Electrical Connections

Cable Color	Red	Yellow	White	Black	Green	Grey	Brown	Orange	Shield
Line Driver	Vcc	Z	B	OV	A	B/	A/	Z/	G
Voltage	Vcc	Z	B	OV	A	-	-	-	G
Open Collector	Vcc	Z	B	OV	A	-	-	-	G
Push-pull	Vcc	Z	B	OV	A	-	-	-	G

Order Information

SLC	40	D	-	600	A	1	E	-	1M
	Box Size			Measuring Range		Operating Voltage			Cable Length
	40*40mm			0-600mm		1:5V 2:8-26V			Standard 1M
Draw Wire Sensor Series		Output Type		Resolution (mm)			Output Signal		
Incremental Encoder Type		Digital Output		A: 0.05 B: 0.025 C: 0.02 D: 0.01 E: 0.008			E: Voltage F: Pushpull C: Open Collector L: Line Driver (5V) A: Wide Voltage Line Driver (8-26V)		



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