



S3004 Series Solid Shaft



Features

- Compact Encoder (Outer Diameter $\phi 30$)
- To meet positioning requirements, equipped with origin output (Z-phase).
- Complete pulse options up to 1024, compact size, lightweight, and excellent performance, making it particularly suitable for applications in confined spaces.

Cable Definition

Signal Output Method of the Circuit	Signal	+V	0V	A	B	Z	A/	B/	Z/	NC.
	Wire Color	Red	Black	Green	White	Yellow	Brown	Gray	Orange	Shield
Open-collector, Voltage, Complementary	7-pin Socket Number	1	4	3	5	2	-	-	-	6
Driver	9-pin Socket Number	1	4	5	3	2	7	6	8	9

Technical Parameters

Supply Voltage (VCC)	DC 5V±0.25V or 5~30V	Maximum Mechanical Rotation Speed	6000r/min
Output Voltage	High Level ≥ 3.4V, Low Level ≤ 0.4V	Vibration Resistance	49m/s², 10~200Hz, 2 hours in each XYZ direction
Current Consumption	≤160mA	Shock Resistance	980m/s², 6ms, 3 times in each XYZ direction
Response Frequency	0~80KHz (or as per customer requirements)	Protection	Waterproof, Oil-proof, Dustproof (IP54)
Output Waveform	Square Wave	Operating Life	MTBF ≥ 50000h(+25°C, 2000rpm)
Duty Cycle	0.5T±0.1T	Operating Temperature	-20°C ~ +80°C
Starting Torque	1.5*10 ⁻³ N.m (+25°C)	Storage Temperature	-30°C ~ +85°C
Moment of Inertia	3.5*10 ⁻⁶ kg.m²	Operating Humidity	30 ~ 85%(No Condensation)
Maximum Shaft Load	Radial: 15N, Axial: 10N	Weight	Approximately 0.1kg (excluding cable)

Model Definition

S3004	-	☐	Z	-	☐	-	☐	-	☐	☐
Product Model		Number of Pulses	Number of Phases		Output Method		Power Supply Voltage		Cable Outlet Method	Length
		Number of Pulses: 50, 100, 120, 125, 150, 180, 200, 250, 256, 300, 360, 400, 500, 512, 600, 720, 800, 900, 1000, 1024, 1200, 1800, 2000, 2048, 2400, 2500, 3000, 3600 p/r (or as per customer requirements).			Output Method: C = Open-collector NPN CP = Open-collector PNP T = Voltage Output F = Complementary Output L = 26LS31 Differential Output K = 7272 Wide Voltage Output			Power Supply Voltage: 5 = 5V 24 = 5-24V H = 5-24V Input, 5V Output L = 5V Input, 5-24V Output	Cable Outlet Method: D = Metal Side Outlet G = Rubber Side Outlet H = Socket Side Outlet F = Rubber Rear Outlet	Cable Length: 0.17 = 0.17 meters 1 = 1 meter 2 = 2 meters

Installation Dimensions

