

S5810 Series Solid Shaft



Features

- Internally equipped with an ASIC phase array chip, ultra-parallel optical components, and direct reading of code disc signals.
- High reliability, long service life, and strong anti-interference capability.
- Equipped with A, B, and Z three-channel signal output, compatible with standard line drivers (26LS31) RS422, and capable of providing 6 output signals, compatible with TTL. Additional options include open-collector, voltage-type output, and complementary output interface circuits.
- Strong shaft load capacity and long service life; aviation plug output, customizable according to customer requirements.

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
Open-collector, Voltage, Complementary	Computer Socket Number (15-pin)	7	5	4	2	9	-	-	-	8
Driver	Computer Socket Number (15-pin)	6	5	4	2	9	3	1	10	8

Technical Parameters

Supply Voltage (VCC)	DC 5V±0.25V or 5~26V	Maximum Mechanical Rotation Speed	6000r/min
Output Voltage	High Level 3.4V, Low Level 0.4V	Vibration Resistance	49m/s ² , 10~200Hz, 2 hours in each XYZ direction
Current Consumption	≤160mA	Shock Resistance	980m/s ² , 6ms, 3 times in each XYZ direction
Response Frequency	0~500KHz (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	-30°C ~ +85°C
Starting Torque	6*10 ⁻³ N.m (+25°C)	Storage Temperature	-40°C ~ +95°C
Moment of Inertia	8.5*10 ⁻⁶ kg.m ²	Operating Humidity	30 ~ 85%(No Condensation)
Maximum Shaft Load	Radial: 40N, Axial: 30N	Weight	Approximately 0.30kg (excluding cable)

Model Definition

S5810	-	□	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

