

## G2803 Series



### Features

- Internal photoelectric data reading, ultra-parallel light 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.
- Compact size, lightweight, built-in servo flange, and easy installation.

### 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/s <sup>2</sup> , 10~200Hz, 2 hours in each XYZ direction |
| Current Consumption  | ≤160mA                                    | Shock Resistance                  | 980m/s <sup>2</sup> , 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 <sup>-3</sup> N.m ( +25°C )        | Storage Temperature               | -30°C ~ +85°C                                                |
| Moment of Inertia    | 3.5*10 <sup>-6</sup> kg.m <sup>2</sup>    | Operating Humidity                | 30 ~ 85%(No Condensation)                                    |
| Maximum Shaft Load   | Radial: 15N, Axial: 10N                   | Weight                            | Approximately 0.1kg (excluding cable)                        |

## Model Definition

|               |   |                                                                                                                                                                                                                        |                  |   |                                                                                                                                                                                                |   |                                                                                                                  |   |                                                                                                                                    |                                                                           |
|---------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| G2803         | - | □                                                                                                                                                                                                                      | Z                | - | □                                                                                                                                                                                              | - | □                                                                                                                | - | □                                                                                                                                  | □                                                                         |
| Product Model |   | Number of Pulses                                                                                                                                                                                                       | Number of Phases |   | Output Method                                                                                                                                                                                  |   | Power Supply Voltage                                                                                             |   | Cable Outlet Method                                                                                                                | Length                                                                    |
|               |   | <b>Number of Pulses:</b><br>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). |                  |   | <b>Output Method:</b><br>C = Open-collector NPN<br>CP = Open-collector PNP<br>T = Voltage Output<br>F = Complementary Output<br>L = 26LS31 Differential Output<br>K = 7272 Wide Voltage Output |   | <b>Power Supply Voltage:</b><br>5 = 5V<br>24 = 5-24V<br>H = 5-24V Input, 5V Output<br>L = 5V Input, 5-24V Output |   | <b>Cable Outlet Method:</b><br>D = Metal Side Outlet<br>G = Rubber Side Outlet<br>H = Socket Side Outlet<br>F = Rubber Rear Outlet | <b>Cable Length:</b><br>0.17 = 0.17 meters<br>1 = 1 meter<br>2 = 2 meters |

## Installation Dimensions

