

## G803: LOW COST CURRENT OUTPUT ANGLE SENSOR (ABSOLUTE VALUE ENCODER, ANGULAR DISPLACEMENT SENSOR)

### ■ PRODUCT DESCRIPTION

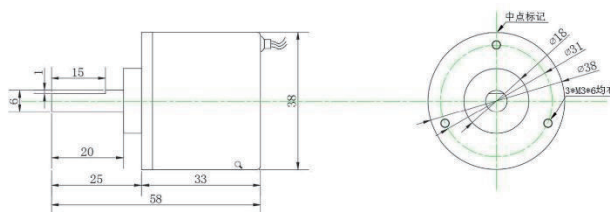


G803 low-cost series magnetic angle sensor uses MEMS technology to integrate the nanomagnetic focusing film material and the differential array magnetic sensitive element to non-contact sense changes in the rotating magnetic field. The system integrates a microprocessor (micro-computer), a current transmitter and a variety of protection circuits. Through DSP processing, it can perform linearity correction, temperature compensation, standardization of output signals according to the range, digital filtering, zero point setting, and multi-segment different slope settings. Programmed intelligent control enables measurement of absolute position output at user-set angles within the range of 0 to 360°.

### ■ PRODUCT MAIN SPECIFICATION

Parameter	Condition	G803-90	G803-180	G803-270	G803-360	unit
Measuring range		0~90	0~180	0~270	0~360	°
Temperature drift	-40~85°	0.02	0.02	0.02	0.02	°/°C
Resolution		0.05	0.05	0.05	0.05	°
Accuracy	-40~85°C	0.3	0.5	0.6	1	°
Long term stability	-40~85°C	0.32	0.53	0.65	1.1	°
Response time	slow/fast	600/200 μs				
Power-on start time		0.2 s				
Output signal	Rload=240Ω	0~20mA, 4 20mA optional				
Noise		3mV				
Midpoint offset	midpoint output (Approach left and right)	4~20mA output 12mA 0~20mA output 10mA				
Average working hours		≥55000 hours/time				
Impact resistance		200 00g, 0.5ms, 3 <sup>rd</sup> /axis				
Anti-vibration		10grms、2 ~ 2000Hz				
Operating temperature		-40~85°C				
Waterproof level		IP66 (can be customized IP67)				
Cable		Standard 1.5 meter length, wear-resistant, oil-proof, wide temperature, shielded cable 3 * 0.3 mm <sup>2</sup>				
Weight		120g (excluding box)				

### ■ PRODUCT DIMENSION



### ■ PRODUCT APPLICATION

- Motor control: servo system, corner position
- Valve: angle actuator
- Ship industry: ship rudder position and hatch door position
- Car safety control: steering wheel
- Coal mining machinery: coal washing machine, mineral concentrator, shield machine
- Textile machinery: tension control, shuttle wire diameter
- Engineering equipment such as cranes, cranes, and excavators
- Robot: attitude control, boom rotation