

G830: Precision series high-precision angle sensor

■ PRODUCT DESCRIPTION

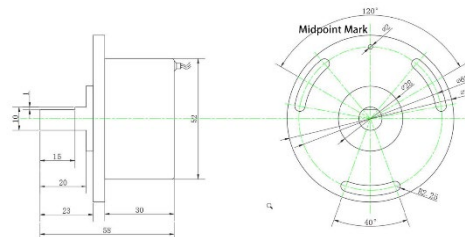
G830 precision series high-precision angle sensor, with an accuracy of 0.02° , supports setting the measuring range, uses integrated MEMS technology, low power consumption, built-in high-precision 16-bit A/D converter, and multiple outputs RS232, TTL, RS485, RS422, CAN, 0-5V, 0-10V, 4-20mA, 0-20mA, 0-24mA optional. It applies magneto-electric induction technology, precision bearings, uses differential array magnetic sensitive elements, and non-contact measurement of the shaft. By sensing the parallel magnetic field strength of the permanent magnet installed at one end of the shaft, it is processed by MCU, and the linearity correction, temperature compensation, self-developed filtering algorithm, and



■ PRODUCT MAIN SPECIFICATION

Parameter	Condition	G830-90	G830-180	G830-270	G830-360	Unit
Measuring range		0~90	0~180	0~270	0~360	°
Temperature drift	-40~85°	0.002	0.002	0.002	0.002	°/°C
Resolution		0.01	0.01	0.01	0.01	°
Accuracy	-40~85°C	0.02	0.03	0.04	0.05	°
Linearity		0.035	0.035	0.035	0.035	%FS
Response time	Slow/Fast	500/200μs				
Power-on start time		0.2s				
Output signal	R _{load} =240 Ω	0~20mA, 4~20mA, 0-24mA optional, RS232 or RS485				
Noise		5mV				
Midpoint Offset	Output at midpoint (approximation to left and right)	4-20mA output 12mA 0-20mA output 10mA 0-24mA output 12mA				
Average working hours		≥55000 hours/time				
Shock resistance		20000g, 0.5ms, 3 times/axis				
Vibration resistance		10grms、2~2000Hz				
Operating temperature		-40~85°C				
Waterproof grade		IP66 (IP67 can be customized)				
Cable		Standard 1.5m length, wear-resistant, oil-proof, wide temperature range, shielded cable 5*0.3mm ²				
Weight		180g (without packaging)				

■ 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