

WG311 Zero Power Consumption Sensor

◆ Features

- No need the power supply when it works.
- Bipolar excitation working mode, the sensor outputs a pair of positive and negative electrical pulse signal when the magnetic field polarity changes for a circle.
- Only when the external magnetic field polarity changes, magnetic strength reaches the excitation threshold, the sensor will outputs a pulse signal, so the vibration won't happen. The operation is stable and reliable.
- The signal amplitude has nothing to do with the magnetic field changing speed, and it can work at the speed near to zero.
- The signal processing is simple, and it can be directly connected with transistors, comparators, A/D converter, etc.
- The output signal can be remote transmitted by the signal lines, it's suitable for LAN management.
- No mechanic contact, no spark, is a kind of intrinsic safety devices..
- Wide operating temperature range, strong environmental adaptability.

◆ Performance Index

Name	Symbol	Value	Unit
Excitation strength	B	3	mT
		5~6	
		12	
Pulse signal amplitude		≥ 1.5	V
Pulse width (in the location of 1V)		10~30	μ S
DC internal resistance		1400~1600	Ω
Operating frequency	f	unlimited	kHz
		10	
Operating Temp.		-40~+125	$^{\circ}$ C
Outline Dimension and Typical		See the figure	-
Sensitive silk location (distance to the bottom surface of sensor)		Central axis	-
Package		Aluminum shell, Epoxy potting	-
External lead		Tinned copper hard leads	-

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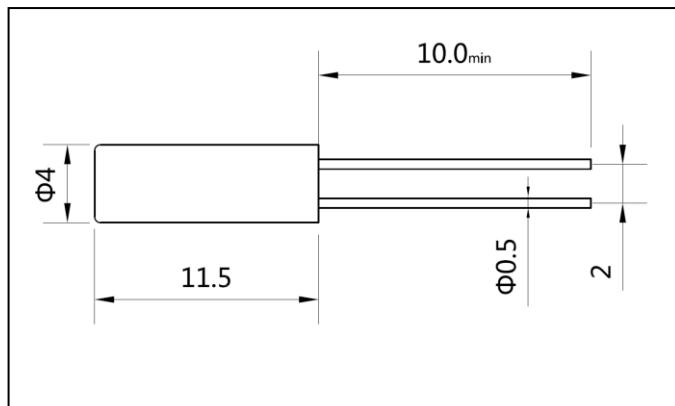
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◆ Application

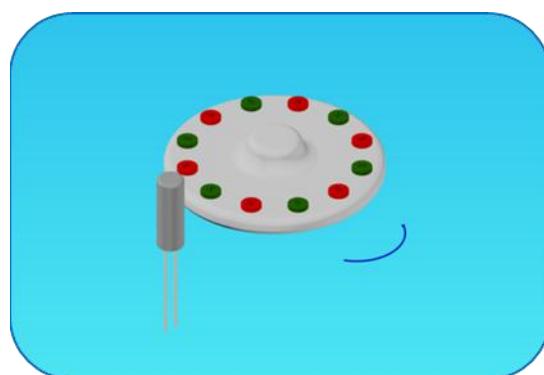
- **Rotation count:** Smart water meter, heat meter, gas meter, fuel gauge, flow meter, odometer etc.
- **Position detection:** oil depot level detection, tipping bucket rain gauge, unattended hydrometeorology monitoring.
- **Electronic switch:** Explosion-proof switch, ignition switch etc.

◆ Sensor dimension



◆ Sensor dimension and sensitive silk location

- WG311 is suitable for the magnetic field generated by multi-pole magnet's rotation, and it can be used in the industrial flow meter. It needs to measure its magnetic field and adjust the installation distance before installation.
- Note: the sensor has certain requirements to the magnetic strength, too strong or too weak magnetic field may affect its operation.



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