XGZR6192(HALL)
ROTATIONAL SPEED SENSOR

Datasheet

Version: V1.0

Approved Date: 2022.06.14

INDEX

Revision History

Revision	Description	Date
V1.0	Original	2022.06.13

1. FEATURE

Adopting well-known brand Hall components can ensure product output accuracy and quality reliability. Using samarium cobalt magnets as the constant magnetic field of the product can guaranteed performance and high stability. Adopt one-piece injection molding structure scheme, reduce the number of parts and shorten the process flow, reduce material and production costs

2.APPLICATION

The sensor are mainly aimed at the commercial vehicle and passenger vehicle markets, and are applied to the engine power system, measuring the speed and position of the engine camshaft, crankshaft, and ABS wheel speed detection in the braking system.

3.DESCRIPTION

XGZR6192 is a mature and reliable passive speed sensor product launched by CFSensor for the automotive market. The product mainly composed of Hall elements, permanent magnets, electronic circuits and external packaging. The product have simple structure and prefect consistency injection.

4.PERFORMACE PARAMETER

Refered Temperature：20℃

Figure 1. Performance Parameter

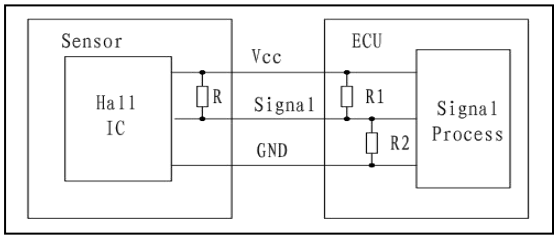
Subjet	Value	Unit
Working Voltage	4.75~5.25	V
Working Current	⩽15	mA
Output High-level	⩾4.5	V
Output Low-level	⩽0.4	V
Rise Time	⩽15	uS
Fall Time	⩽3	uS
Working Air-Gap	0.3~2.0	mm
Working Frequency	0~5	KHz
Insulating Resistance	⩾10MΩ/500VDC	MΩ
Protection Grade	IP69K	/
Working Temperature	-40 ~ 150	℃
Restore Temperature	-40 ~ 160	℃

5. ELECTRICAL SPECIFICATION

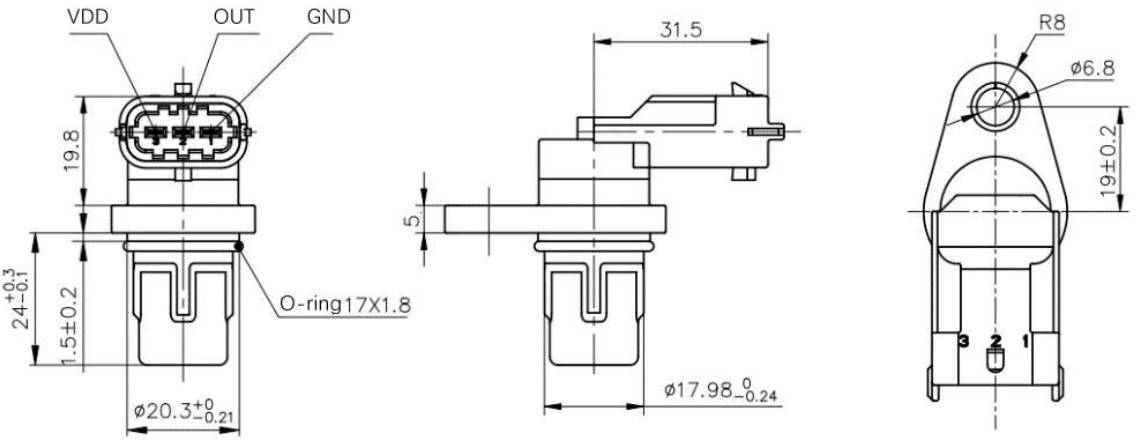
Figure 2. Electrical Specification

Parameter	Min.	Typ.	Max.	Unit	Remark
Power Supply	4.75	5	5.25	V	Available for 12/24V
Working Current			10	mA	
Overload Voltage			24	V	
Reverse Voltage			-18	V	
Output Current Overload			20	mA	
Short-circuit Current Limitation	30	50	80	mA	
Output Load(Pull down)	47			KΩ	
Output Load(Pull up)	1		10	KΩ	

ECU Terminal interface circuit requirements



6.DIMENSION (UNIT: mm)



7. ELCTRICAL CONNECTION

The recommended model of the female terminal of the electrical connector: AMP 2050049-1

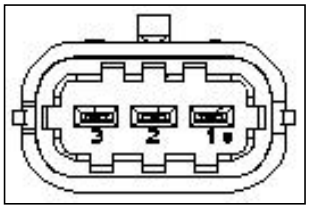
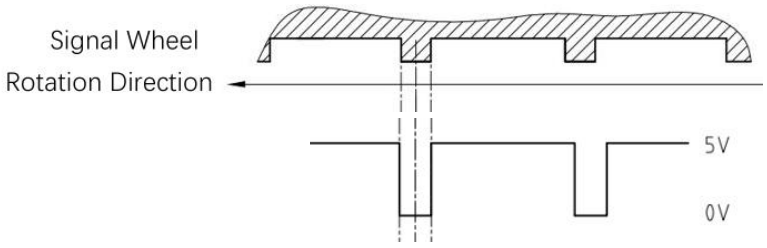


Image 1. PIN Schema

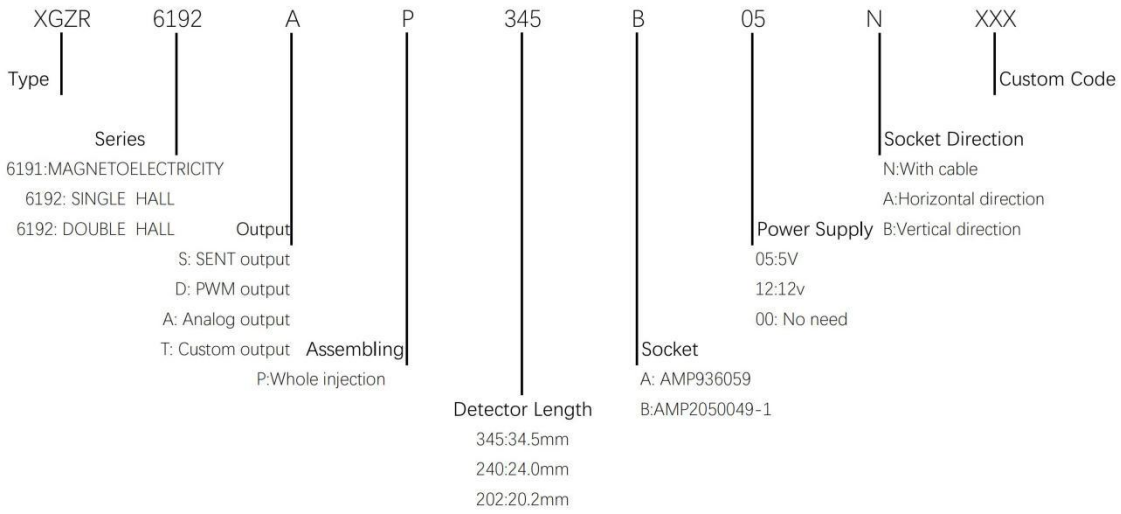
Figure 3. PIN Definition

No.	Description	
1	GND	Power Supply GND
2	OUT	The Output Signal
3	VDD	Power Supply VDD: 5±0.25VDC

8. OUTPUT CURVE



9. ORDER GUIDE



10 ORDER NOTE:

Contact CFSesnor if you have special requirements on the performance parameters and functions of the product,

11.NOTICE&ATTENTION

1) The sensor can only be unpacked before being installed on the engine.

2) The sensor is designed to measure the fuel tank pressure of the internal-combustion engine using gasoline, diesel, LNG or CNG as fuel, and is not allowed to be used in other occasions.

3) Sensor installation torque 8±2N.m(when use 8.8 grade M6×12 screw bolt).

4) The normal packaged pressure sensor can be transported by ordinary conveying means. Please Note: Product is protected from moisture, shock, sunburn and stress during shipping.

5) If you have any questions, please contact CFSensor.

■ Since this specification is a single product specification, in order to improve the reliability in actual use, please confirm the performance and quality in the actual use state.

SAFETY NOTES

Using these sensors products may malfunction due to external interference and surges, therefore, please confirm the performance and quality in actual use. Just in case, please make a safety design on the device (fuse, circuit breaker, such as the installation of protection circuits, multiple devices, etc.), so it would not harm life, body, property, etc even a malfunction occurs. To prevent injuries and accidents, please be sure to observe the following items:

- The driving current and voltage should be used below the rated value.
- In order to ensure safety, especially for important uses, please be sure to consider double safety circuit configuration.
- Be careful when fixing the product and connecting the pressure inlet. Otherwise, accidents may occur due to sensor scattering and the blowing out of the media.