XGZP6182

EVAPORATIVE FUEL PRESSURE SENSOR

Datasheet

Version: V1.0

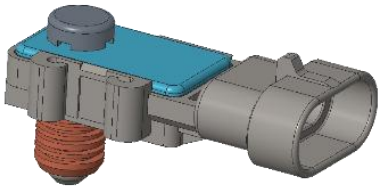
Approved Date: 2022.05.13

Index

Revision History

Revision	Description	Date
V1.0	Original	2022.05.13

1.FEATURE



This product is made with advanced MEMS principles, and the core technology is piezoresistive based MEMS pressure sensor chip and high performance signal conditioning AISC chip is of high quality and precise packaging. Using experienced and reliable technology on calibration, compensation and protection , Fast response speed, high reliability, good stability, it's a cost-effective sensor product. The evaporative fuel pressure sensor is a real-time pressure measurement in the fuel tube, which ensures that the carbon canister system works properly and reduces emissions.

2.APPLICATION

Applied in automobile fuel tank, for monitoring the pressure difference between the pressure of the vehicle fuel tank and the ambient air pressure, and convert the pressure difference signal into an analog voltage signal, which is transferred to the ECU/ECM of the automobile to realize the diagnosis of oil and gas leakage in the fuel tank.

3.DESCRIPTION

XGZP6182 is a calibrated fuel evaporative fuel pressure sensor product launched by CFSensor for the automotive market. This product uses an automotive-grade signal conditioning chip to calibrate and compensate the output of the MEMS chip, and can adjust from -3.75kPa to +1.25kPa is converted into an analog output signal of 4.5V to 0.5V (range and output can be customized).

4.PERFORMACE PARAMETER

Power supply: （5±0.25）V DC

Refered Temperature：25℃

Figure 1. Performance Parameter

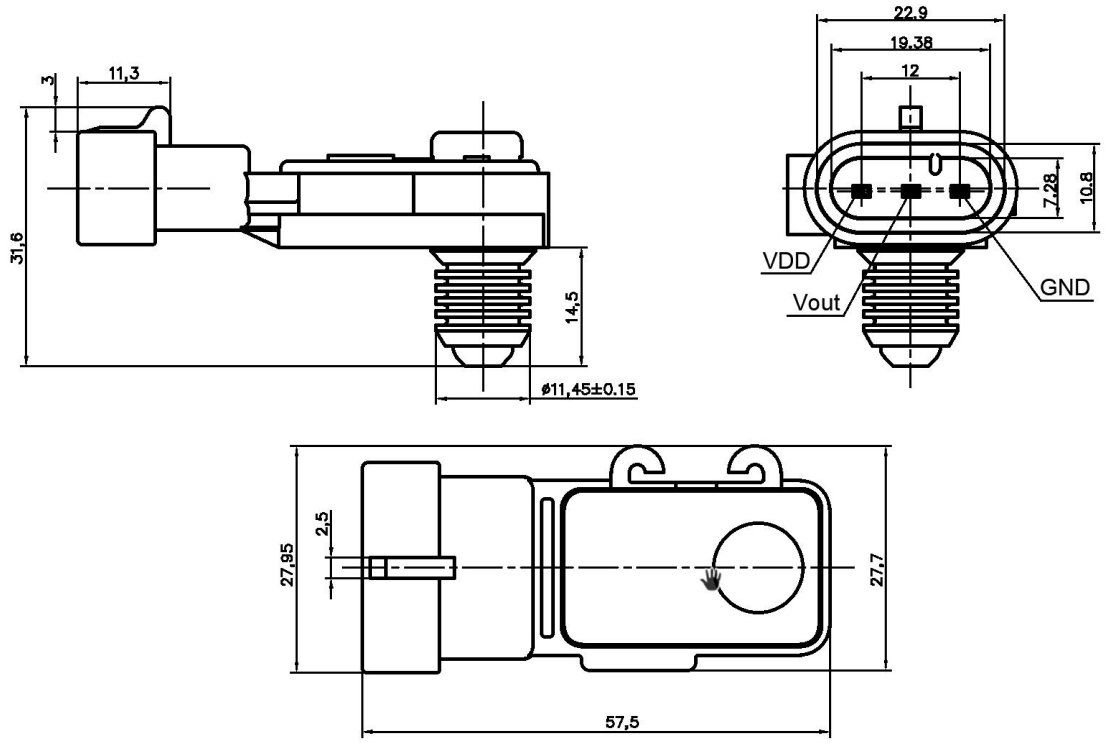
Subject	Value	Unit
Range	-3.75 ~ +1.25（customized）	kPa
Output	4.5 ~ 0.5 （customized with ratio output or fixed output）	V
Accuracy	±1.5	%Span
Accuracy in Full Temp.Range	±3	%Span
Overload Pressure	68	KPa(G)
Burst Pressure	300	KPa(G)
Protection Grade	IP67	
Response Time	⩽2	mS
Clamp Vol.(up&down)	Customized as request.	
Insulance	⩾10MΩ/500VDC	MΩ
Working Temp.	-40 ~ 115	℃
Store Temp.	-40 ~ 130	℃

5.ELECTRICAL SPECIFICATION

Figure 2. Electrical Specification

Parameter	Min.	Typ.	Max.	Unit	Remark
Power Supply	4.75	5	5.25	V	
Working Current			10	mA	
Overload Voltage			18	V	
Reverse Voltage			-14	V	
Output Load			5	mA	
Short-circuit Current Limitation	15	20	25	mA	
Output Load(pull down)		47		KΩ	
Output Load(pull up)		100		KΩ	

6.DIMENSION (UNIT: mm)



7. ELCTRICAL CONNECTION

The recommended model of the female terminal of the electrical connector:

DELPHI PACKARD PART NO. 12059595

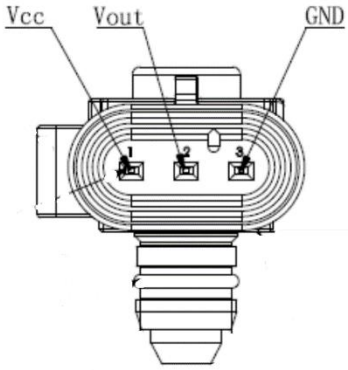


Image 1. PIN Schema

Figure 3. PIN Definition

No.	Description	Remark
1	VCC	Power supply Postive (5±0.25VDC)
2	Vout	Output(Voltage signal)
3	GND	Power supply Negative

8. OUTPUT CURVE

Curve Formula: Vout/Vcc = 0.3-0.16* P

Remark:

Vcc: Power supply Unit: V ;

P: Pressure value (Difference value between fuel tube and atmosphere pressure) ,Unit: kPa;

Vout: Output Voltage Unit: V

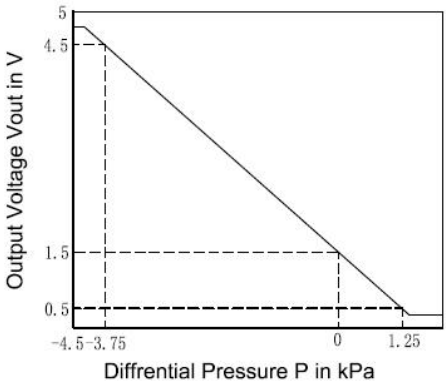


Image 2 Output VS Pressure Curve

9.ORDER GUIDE:

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

10.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) 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.

4) 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.
- Please follow the terminal connection diagram for wiring. Especially for the reverse connection of the power supply, it will cause an accident due to circuit damage such as heat, smoke, fire, etc.
- In order to ensure safety, especially for important uses, please be sure to consider double safety circuit configuration.
- Do not apply pressure above the maximum applied pressure. In addition, please be careful not to mix foreign matter into the pressure medium. Otherwise, the sensor will be discarded, or the media will blew out and cause an accident.
- 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.