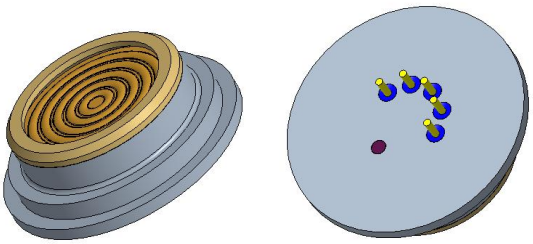
XGZP136 PRESSURE TRANSMITTER

FEATURES

- Absolute Pressure Type
- 0~7bar...50bar
- MEMS piezoresistive principle
- Isolated mebrance oil-filling structure
- Radial seal installation method
- High temperature resistant
- Various media resistant
- Low temp.drift
- Excellent stability and linearity
- Constant voltage excite(constant current power supply is customized)



APPLICATIONS

- Automotive electronics such as fuel pressure, oil pressure, brake systems, etc.
- Air compressor, home appliance, etc.
- Water pressure testing for water pumps, fire fighting, diving, dams, etc.
- Oil, coal, high speed rail, electric power and other industrial fields
- Various instruments and meters, like pressure transmitter meter.

INTRODUCTION

XGZP136 is oil-filled sensor that adopts MEMS piezoresistive pressure sensitive chip, which consists of an elastic membrane and four resistors integrated in the membrane. The four piezoresistors form a Wheatstone bridge structure, and when there is pressure acting on the elastic membrane the bridge will generate a voltage output signal that is linearly proportional to the applied pressure. The chip adopts SOI structure and can be used in high temperature field up to 180℃.

The oil-filled core has good linearity, repeatability and stability, small temperature drift at zero and full scale, excellent anti-interference and anti-static capability, strong overload capability, high sensitivity, etc. It is convenient for users to debug for the output using op-amps or integrated circuits.

PERFORMANCE PARAMETER

Unless otherwise specified, measurements were taken with a a temperature of 25±1℃ and humidity ranging from 25％ ~ 85%RH(supply voltage:(5±0.25)Vdc)

Electrical Performance

Parameter	Min.	Typ.	Max.	Unit	Remark
Constant Voltage		5	10	V	
Constant Current		1.5	3	mA	
Bridge Resistance	4	5	6	kΩ	
Input Resistance	8	9	10	kΩ	Constant Voltage
	3	4	5	kΩ	Constant Current
Output Resistance	4	5	6	kΩ	Constant Voltage
	3	4	5		Constant Current

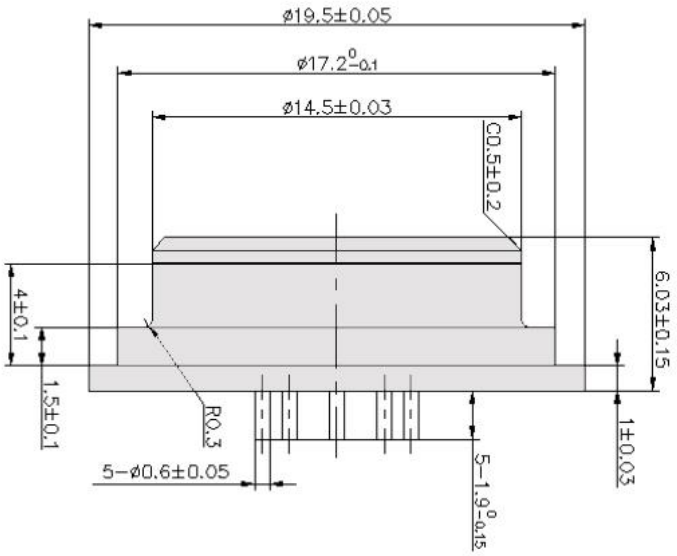
Temperature Characteristic

Parameter	Min.	Typ.	Max.	Unit	Remark
Working Temp.	-40		+150	℃	
Store Temp.	-40		+150	℃	Dry&Non-corrosive
Resistance Temp. Coefficient	200	500	800	ppm/℃	
Offset Temp. Coefficient	-0.06	±0.03	0.06	%FS/℃	
Sensitivity Temp. Coefficient	-0.06	±0.03	0.06	%FS/℃	

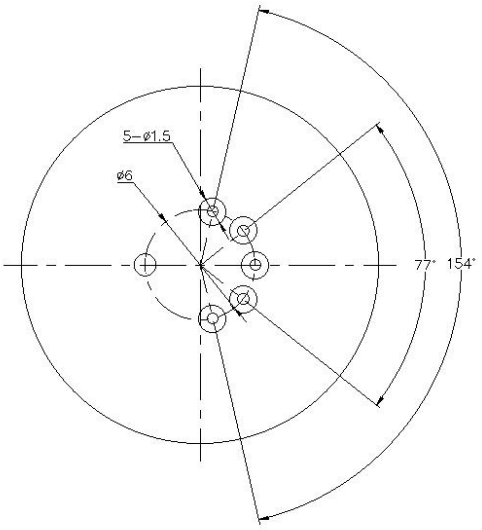
Pressure Characteristic

Parameter	Min.	Typ.	Max.	Unit	Remark
Range	700		5000	kPaA	
Offset Output	-20		20	mV	
FS Output	60	90	120	mV	
Over-Pressure	2X				
Burst Pressure	3X				
Non-linearity	-0.5	±0.2	0.5	%FS	
Hysteresis	-0.3	±0.15	0.3	%FS	
Repeatability	-0.3	±0.15	0.3	%FS	

DIMENSION (Unit:mm)

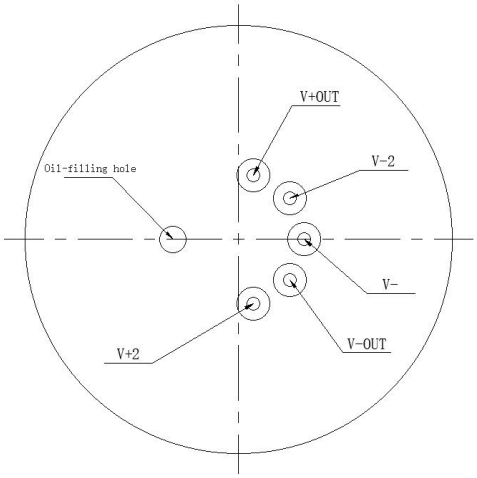


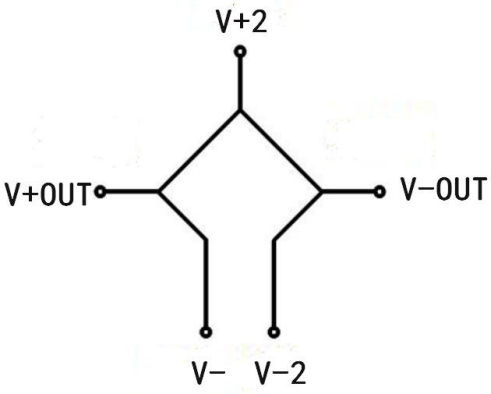
Side View



Bottom View

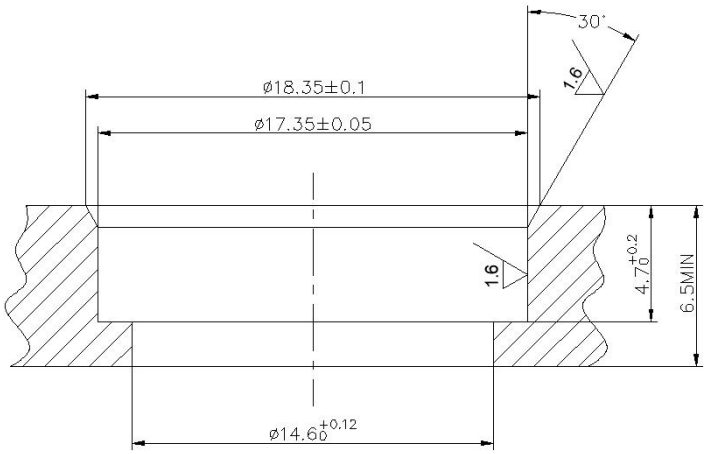
ELECTRICAL CONNECTION



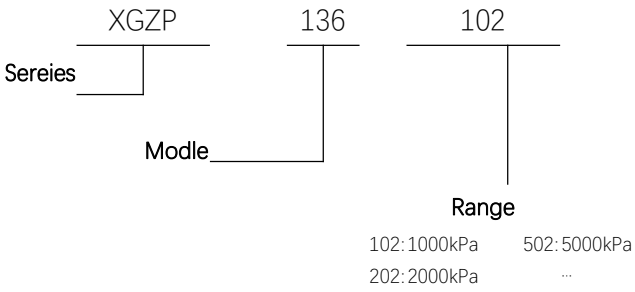


PIN	Description
V+ OUT	Output V+
V-2	Power Supply V-
V-	Power Supply V-
V-OUT	Output V-
V+2	Power Supply V+ (5VDC)

RECOMMENDED INSTALLATION CONNECTION



ORDER GUIGE



【 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.
- Because the Pressrue sensor body is sold, please be careful not to hurt your body when using it.

【 WARRANTY 】

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