XGZP6185 PRESSURE TRANSMITTER

(Ceramic Diaphragm General Series)

FEATURES

- Pressure Range(0~1/1.6/2.5MPaA)
- Ceramic Diaphragm Construction
- Smart and Exquisite, High Stability
- Advanced Anti-interference, High Insulation
- Anti-overload&Shock&Vibration
- Anti-waterhammer, Anti-leak, Corrosion-resistant
- Easy-to-use, Low Cost.

APPLICATIONS

- HVAC System
- Hydraulic/Pneumatic
- Refrigeration Systems
- Pumps and Compressor
- Industrial Process Control and Monitoring
- Agriculture, Metallurgy, Hydrology, Energy etc,.

INTRODUCTION

XGZP6185 Pressure Transmitter is high performance and low cost products. It is structured by Piezo-resistive OEM ceramic sensor as signal sensing element and the customized amplified circuit, assort with stainless steel housing and durable Aviation or Packard connector.

XGZP6185 Transmitter is integrally temperature compensated and linearity corrected that can meet the requirement of measure and control under complex environment. Through strict component making, semi-finished product and all-finished product testing and aging, the transmitter is stable and reliable,having excellent consistency, anti-interference, anti-overload and sensitivity.

XGZP6185 Transmitter provide various output mode and pressure interface, the OEM service can meet extremely clients application requirement.

PERFORMANCE PARAMETER

Unless otherwise specified, measurements value as below were taken with a a temperature of 25±1℃ and humidity ranging from 25％ ~ 85%RH.

ITEM		MIN.	TYP.	MAX	UNIT OR NOTE
Pressure Range[1]		0~10/16/25BAR			Bar
Supply Voltage	Voltage Output	3	5	5.5	Vdc
	Current Output	10	24	30	Vdc
Output Signal	Voltage Output	10%Vcc ~ 90%Vcc			V(Ratio-voltage Output)
	Current Output	4 ~ 20			mA
Accuracy[2]	0 ~ 60℃			±1.0	%FSS
	-40~0℃&60 ~ 125℃			±3.0	%FSS
Load Impedance	Voltage Output	10K			Ω
	Current Output			500	Ω
Over Voltage	Voltage Output		28		Vdc
	Current Output		36		Vdc
Reverse Voltage			-24		Vdc
Insulation Impedance		100MΩ			At 500V
Electrical Strength			1.5kVAC		60 seconds
ESD Protection			±2kV		at Terminal
Operating Temp.		-40		125℃	
Storage Temp.		-40		130℃	
Over Pressure[3]		2x			FSS
Burst Pressure[4]		3x			FSS
Cycle Times		1 million			Times
Housing Material		304 Stainless Steel			Available for SS316, 316L
Electrical Port		Packard/GX12-3 Aviation Plug			Available on request
Pressure Port		G1/4			Available on request
Protection Grade		Packard(IP67)/Aviation Plug(IP65)			

Table 1 Performance Parameter

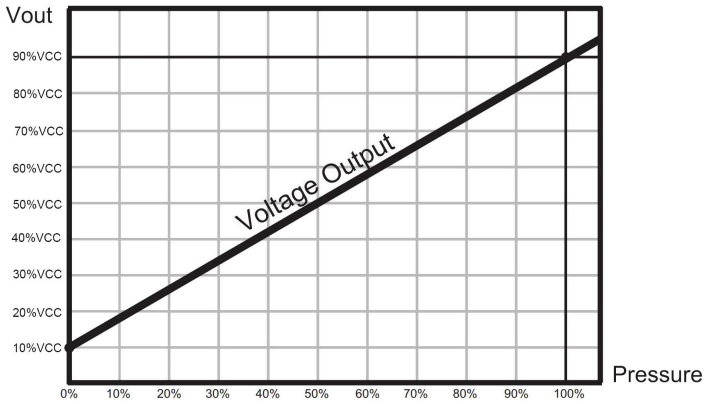
1 Pressure Range: ATM(101.3kPa) is defined as 0 Bar, namely the lower range value"0" in pressure range.

2 Accuracy: The max. deviation in output from ideal transfer function at any pressure or temperature over the specified ranges, units are in percent of full scale span (%FSS)

3. Over Pressure: the maximum pressure which may be applied without causing durable shifts of the electrical parameters of the sensing element and remain the specification once pressure is returned to the operating pressure range.

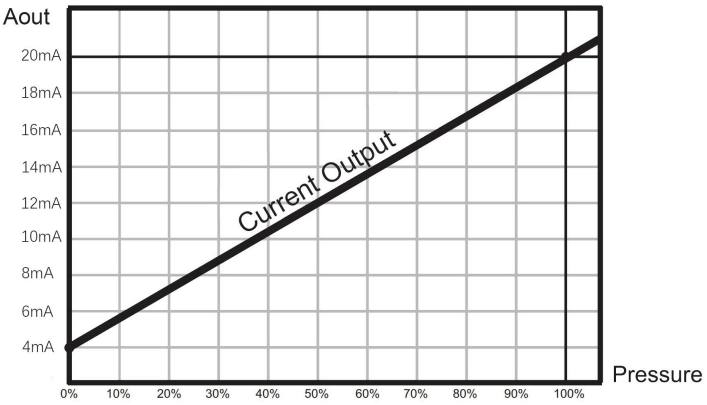
4. Burst Pressure: the maximum pressure which may be applied without causing damage to the sensing die or leaks; The sensor should not be expected to recover function after exposure to any pressure beyond the burst pressure.

PERFORMANCE CURVE



$$\text{Output Voltage} = \frac{(Vcc * 80\%)}{\text{Pressure Range(Bar)}} \text{ X Pressure Applied(Bar)} \quad +(Vcc * 10\%)$$

Figure 1 Voltage output curve and formula



$$\text{Output Current} = \frac{\text{Pressure Applied(Bar)}}{\text{Pressure Range(Bar)}} \text{ X 16 (mA)} \quad +4\text{mA}$$

Figure 2 Current output curve and formula

DIMENSION (Unit:mm)

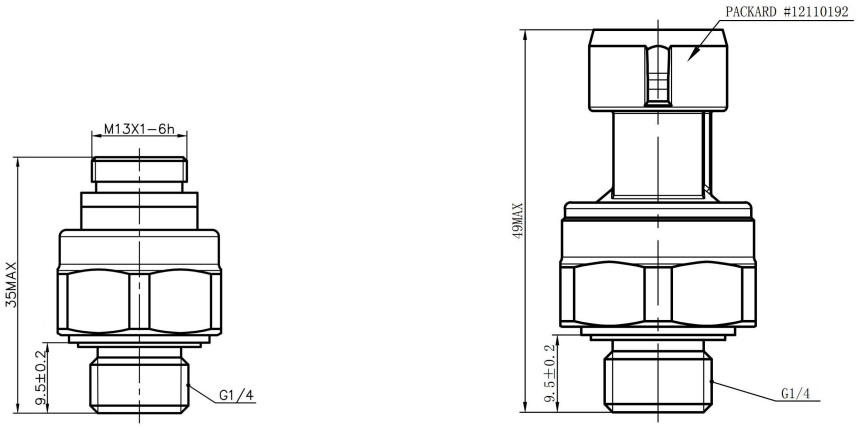


Figure 3 Structure Dimension

ELECTRIC CONNECTION

PIN Code	Elec-Definition(Voltage Output)	Elec-Definition(Current Output)	Cable Colour
1	V+: Power +	Loop+: Power +	Red Wire
2	VOut: Voltage signal output	Loop-: Current signal output	Green Wire
3	GND: Power -	None	Black Wire

Table 2 Electric Definition

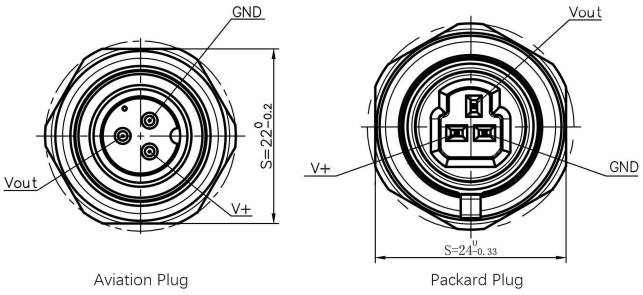


Figure 4 Electric Port(Voltage Output)

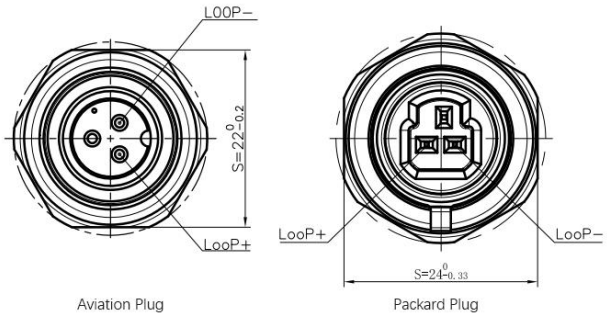


Figure 5 Electric Port(Current Output)

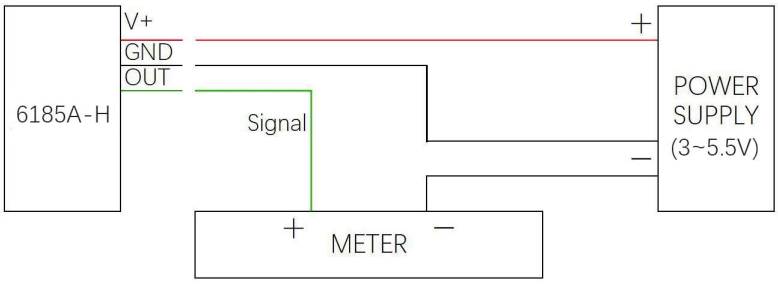


Figure 6 Application Circuit (Voltage Output)

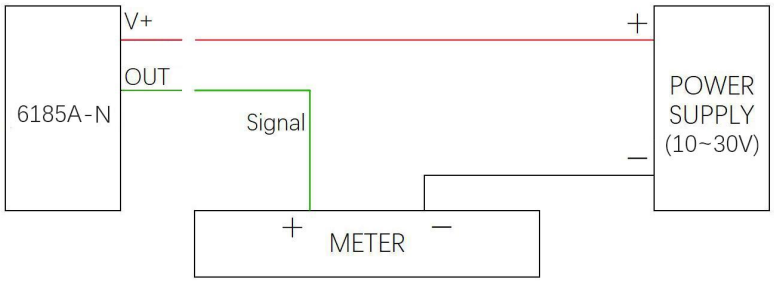


Figure 7 Application Circuit (Current Output)

ROUTINE PRESSURE RANGE

Pressure Range (Bar)	Pressure Range (MPa)	Pressure Range (kPa)
0 ~ 10	0 ~ 1.0	0 ~ 1000
0 ~ 16	0 ~ 1.6	0 ~ 1600
0 ~ 25	0 ~ 2.5	0 ~ 2500

Table 3 Routine Pressure Range

ORDER GUIDE

XGZP 6185A-H - S - 02 - A032 E008 B02 C100

XGZP	CFSensor
6185A-H	Product Categories
S	Housing Materials (S: Stainless Steel)
02	Port (02: G1/4(S=22)&Aviation Plug; 04: G1/4(S=24)@Packard Plug)
A032	Pressure Range (A032: 0~1.0MPa; A033: 0~1.6MPa; A265: 0~2.5MPa)
E008	Power Supply&Output (E008: 10%~90% Vcc; T236: 4-20mA)
B02	Package Type (B02: Tray)
C100	Cable Length(C100: 100cm long)

Table 4 Order Guide

【 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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