GP-1900 Pressure Sensor

Features

- ✓ Pressure range 0 ~ 20kPa···1MPa
- ✓ Gauge, absolute and differential pressure
- ✓ Constant current power supply
- ✓ Measure non-conductive, non-corrosive gas or liquid
- ✓ TO-8 packing, enable for PCB installation

Introduction

GP-1900-1 pressure sensor is a MEMS sensing die packaged in a TO-8 structure. The measured pressure is transmitted directly to the silicon die through the pressure port, and the pressure is converted to a voltage signal through a linear relationship. The sensor is temperature-compensated and linearly corrected, it is suitable for use on PCBs or in tight spaces to measure various types of pressure in non-corrosive gases.

Parameters

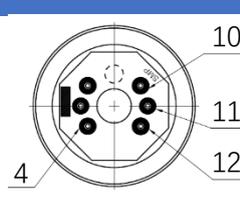| Items	Parameters
Power supply	≤2.0mADC
Electric connection	6-pin Kovar, Φ0.45×22mm, TO-8 packing
Input impedance	3kΩ ~ 8kΩ
Output impedance	3.5kΩ6kΩ
Response (10% ~ 90%)	<1ms
Insulation resistor	100MΩ, 100VDC
Overpressure	1.5 times FS or ≤200psi, min. value is valid
Pressure port material	Stainless steel
Pin material	Kovar
Net weight	~ 5g
Orientation	Deviate 90° from any direction, zero change ≤ 0.05%FS
Vibration	No change at 10gRMS, (20 ~ 2000)Hz condition
Shock	100g, 11ms
Standard Condition	Media temperature：25±1℃ Environment temperature: 25±1℃ Humidity: 50%±10%RH Environment pressure: 86 ~ 106kPa Power supply: 1.5±0.0015mA DC

Specification

Specification*	Typ.	Max.	Unit
Non-linearity	±0.15	±0.25	%FS, BFSL
Repeatability	±0.05	±0.05	%FS
Hysteresis	±0.05	±0.05	%FS
Zero output		±2	mV DC
FS output		≥50	mV DC
Zero thermal error	±0.75	±1.0	%FS, @25℃
Span thermal error	±0.75	±1.0	%FS, @25℃
Thermal hysteresis		±0.1	%FS
Long-term stability		±0.2	%FS/year
Compensated temperature	0 ~ 50		℃
Working temperature	-40 ~ 125		℃
Storage temperature	-40 ~ 125		℃
*Testing at standard condition			

Dimensions (mm)

Absolute	Gauge/Differential
GP-1900-1	
GP-1900-2	
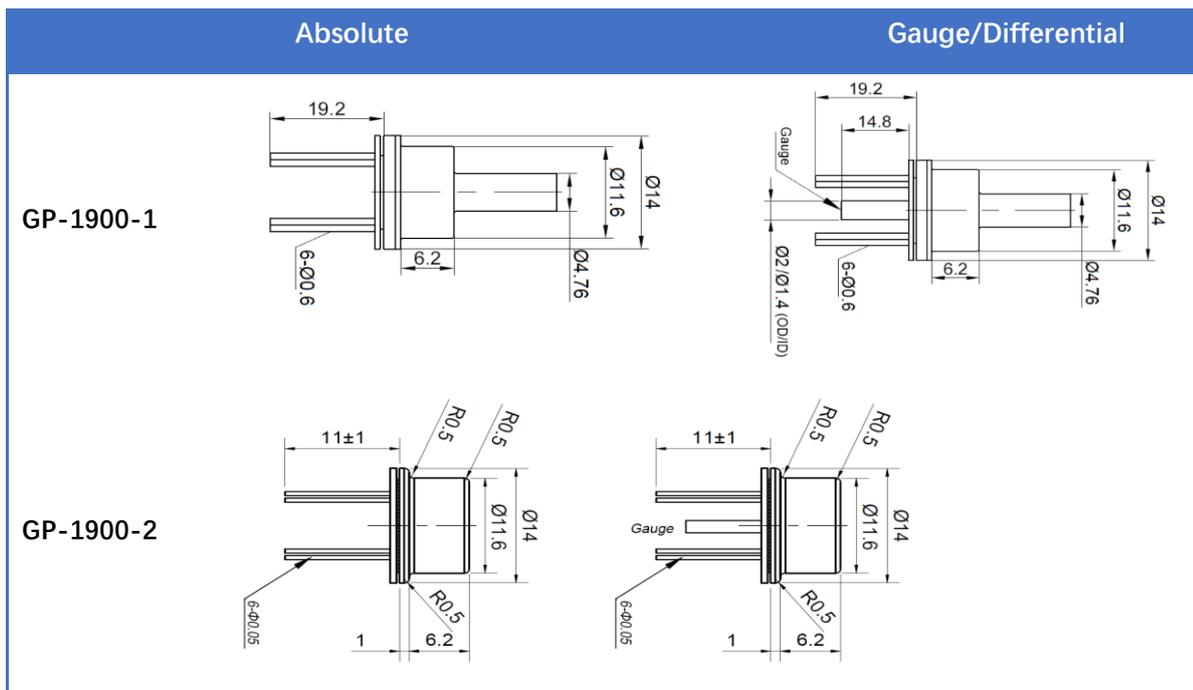
Electrical connections

Pin Code	Pin	Wire Color	Definition
	4	Red	OUT +
	10	Blue	OUT -
	11	Yellow	IN -
	12	Black	IN +

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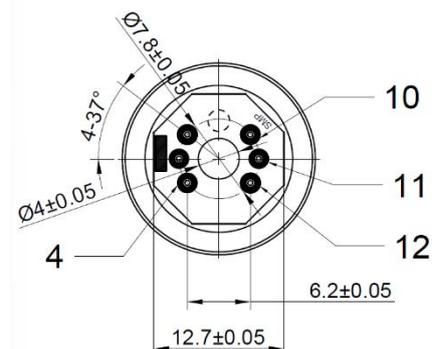
Order Guide

GP-1900	Pressure Sensor				
	Code1	Pressure Port			
	1	With tube			
	2	Without tube			
		Code2	Range		
		0B	0 ~ 20kPa	G	
		0A	0 ~ 35kPa	G	
		02	0 ~ 70kPa	G	
		03	0 ~ 100kPa	G/A	
		07	0 ~ 200kPa	G/A	
		08	0 ~ 350kPa	G/A	
		09	0 ~ 700kPa	G/A	
		10	0 ~ 1MPa	G/A	
			Code3	Pressure type	
			G	Gauge	
			A	Absolute	
				Code4	Connecter
				1	Goden Kovar pin
				2	100mm wires
Example: **GP-1900-1-03-G-1**					