

GP-2900 Differential Pressure Sensor

Features

- ✓ Range: 0kPa ~ 20kPa~3.5MPa
- ✓ Temperature compensation
- ✓ 316L housing
- ✓ Static pressure can be up to 20MPa
- ✓ High accuracy and stability



Introduction

GP-2900 piezoresistive differential pressure sensor for the classic appearance and sealing structure, in the stainless-steel material housing encapsulated MEMS pressure sensing die, high and low pressure on both sides of the stainless-steel diaphragm to do the media isolation, suitable for pressure measurement of various gases and liquids, it is the core component of compact industrial differential pressure instrumentation or transmitter.

Parameters

Items	Parameters
Diaphragm material	SS 316L
Housing material	SS 316L
Pin Wire	Gold-Plated Kovar / 100mm silicone rubber wire
Seal ring	NBR
Power supply	$\leq 2.0\text{mA DC}$
Impedance input	$3\text{k}\Omega \sim 8\text{k}\Omega$
Impedance output	$3.5\text{k}\Omega \sim 6\text{k}\Omega$
Response	$< 1\text{ms}$ (10% ~ 90%)
Insulation resistance	$100\text{M}\Omega$, 100V DC
Maximum static pressure	20MPa
Media applicability	Fluid no corrosion on stainless steel and NBR
Position effects	Deviate 90° from any direction, zero change $\leq \pm 0.05\% \text{FS}$
Standard Condition	Media temperature: $25 \pm 1^\circ\text{C}$ Environment temperature: $25 \pm 1^\circ\text{C}$ Humidity: $50\% \pm 10\% \text{RH}$ Environment pressure: $86 \sim 106\text{kPa}$ Power supply: $1.5 \pm 0.0015\text{mA DC}$

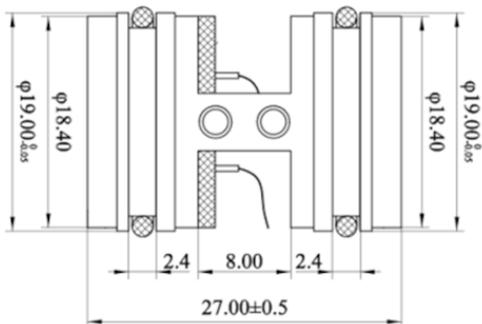
Specification

Item	Min.	Typ.	Max.	Units
Linearity		±0.2	±0.25	%FS, BFSL
Repeatability		±0.05	±0.075	%FS
Hysteresis		±0.05	±0.075	%FS
Zero output	-2		+2	mV DC
FS output	45	130		mV DC
Compensated temp. range	0 ~ 50			°C
Working temp. range	-40 ~ 125			°C
Storage temp. range	-55 ~ 150			°C
Zero temp. error		±0.75	±1.0	%FS, @25°C
Full temp. error		±0.75	±1.0	%FS, @25°C
Long term Stability		±0.2		%FS/year

Note:

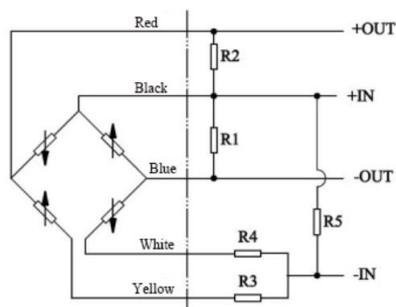
1. The above performance indicators are tested under the benchmark conditions.
2. The temperature range for temperature drift test is the compensation temperature range.

Dimensions (mm)



Electrical connections

Definition	Wire Color
+IN	Black
- OUT	Blue
+OUT	Red
- IN	Yellow
- IN	White



Order Guide

GP-2900		Differential Pressure Sensor		
Code1	Range	Positive	Negative	(Overpressure)
0B	0-20kPa	70kPa	20 kPa	
0A	0 ~ 35kPa	70kPa	35 kPa	
02	0 ~ 70kPa	150 kPa	70 kPa	
03	0 ~ 100kPa	200 kPa	100 kPa	
07	0 ~ 200kPa	400 kPa	200 kPa	
08	0 ~ 350kPa	700 kPa	350 kPa	
09	0 ~ 700kPa	1400 kPa	700 kPa	
10	0 ~ 1MPa	2.0 MPa	1000 kPa	
12	0 ~ 2MPa	4.0 MPa	1000 kPa	
13	0 ~ 3.5MPa	7.0 MPa	1000 kPa	
		Code2	Electrical Connection	
		M	Kovar with independent compensation resistances (default)	
		2	100mm silicone wires with PCB	

*Completed Sample: **GP-2900-03-M***

Tips:

- 1: The differential pressure sensor is suitable for the customer to use by assembling the shell, when installing, please avoid pressing the front and back faces of the sensor to ensure the sensor to be stable.
- 2: When customers weld the sensor to a shell or housing, improper methods might lead to irreparable damage. At this time, please contact us to offer the welding of components directly.