

GP-2580 Digital Pressure Sensor

Features

- ✓ Ranges: -100kPa...0 ~ 20kPa...60MPa
- ✓ 24-bit High precision analog to digital conversion
- ✓ Real-time compensation
- ✓ Isolated structure for multiple media
- ✓ I²C Bus protocol



Introduction

The GP2580 is an oil-filled MEMS pressure sensor featuring metal diaphragm isolation. Its integrated temperature sensor provides real-time compensation for temperature drift and sensitivity errors in the pressure signal. A digital ASIC calibrates linearity errors, outputting pressure and temperature data via the I²C interface protocol. This product features a compact design, straightforward installation, and accurate, reliable pressure measurement. Its digital communication capability facilitates the easy integration of various pressure measurement modules.

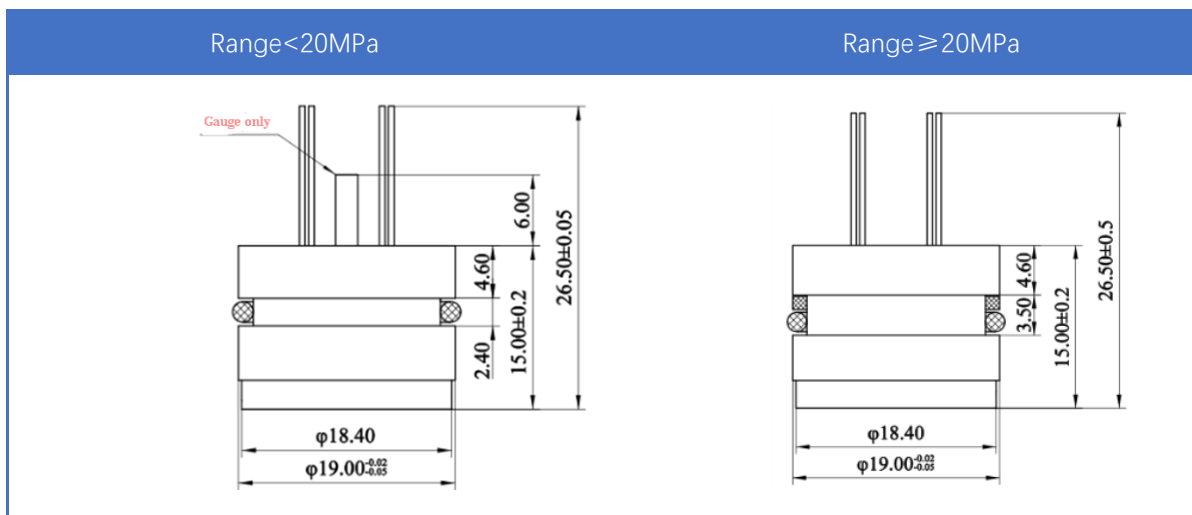
Parameters

Items	Parameters
Range	-100kPa...0 ~ 20kPa...60MPa
Overload	x 1.5 FS
Accuracy	±0.1%FS BFSL @25°C
TEB	±1.0%FS (Includes calibration error and temperature drift effects)
Power Supply	1.8V ~ 3.6V DC
Output	15%~85% (I ² C Bus protocol)
Working Current	≤1mA, Standby current is about 0.1μA
Operation Temperature	-10°C ~ 80°C
Storage Temperature	-40°C ~ 125°C
Long-term stability	±0.2% FS/year

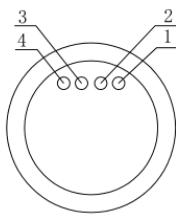
Output conversion

Percentage output (%)	Digital quantity (decimal)	Digital quantity (hexadecimal)
0	0	0x000000
10	1677722	0x19999A
15	2516582	0x266666
85	14260633	0xD99999
90	15099494	0xE66666
100	16777215	0xFFFFF

Dimensions (mm)



Electrical connection

	No.	Wire Color	Definition
	1	Red	V+
	2	Black	V-
	3	Yellow	SDA
	4	Blue	SCL

Order Guide

GP-2580 Digital Pressure Sensor							
	Code1	Pressure Range					
	0B	0~20kPa	G	12	0~2MPa	G/A	
	0A	0~35kPa	G	13	0~3.5MPa	G/A	
	02	0~70kPa	G	14	0~7MPa	A/S	
	03	0~100kPa	G/A	15	0~10MPa	A/S	
	07	0~200kPa	G/A	17	0~20MPa	A/S	
	08	0~350kPa	G/A	18	0~35MPa	A/S	
	09	0~700kPa	G/A	19	0~60MPa	A/S	
	10	0~1MPa	G/A				
		Code2	Type				
		G	Gauge				
		A	Absolute				
		S	Sealed Gauge				
			Code3	Electrical Connector			
			1	100mm Silicon rubber Wires with 4pin connector			
			2	others			
	GP-2580	10	G	1			

Completed Sample: **GP-2580-10-G-1**

Tips:

- 1: The sensor diaphragm is extremely fragile. Any direct contact with hard objects may cause diaphragm deformation and damage to the sensor.
- 2: When soldering on the gold-plated Kovar leads, please use a soldering iron of 25W or less, solder at low temperature, and complete the soldering within 3 seconds to avoid heat transfer to the sensor.