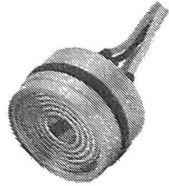


## SMP3011 User Manual



### Overview

SMP3011 uses metal membrane to isolate oil-filled pressure sensor core. The product has built-in temperature compensation sensor, which can compensate the zero error and temperature drift of sensor signal, sensitivity error, temperature drift and nonlinearity error in real time, and output pressure and temperature data in accordance with the I2C interface protocol.

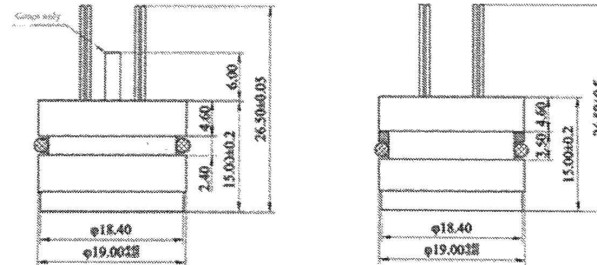
### Features

- Ranges: -100kPa...0 ~ 20kPa...70MPa
- 24-bit High precision analog to digital conversion
- Real-time compensation
- Isolated structure for multiple media
- Out put : 15%~85%
- I<sup>2</sup>C Bus protocol

### Parameters

Range	-100kPa...0 ~ 20kPa...70MPa
Overload	1.5 times FS
Pressure type	Gauge
Accuracy	±0.5%FS BFSL@25°C
Total erro	±0.5%FS
Operating temperature	-10°C ~ 80°C
Storage temperature	-40°C ~ 125°C
Power supply	3.3V DC
Signal output	15%~85% (I2C protocol)
Working current	≤0.3Ma, Standby current is about 0.1μA
Long-term stability	±0.2%FS/year

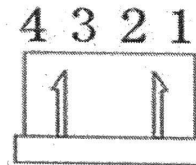
### Outline structure



Range<20Mpa

Range≥20Mpa

### Electrical definition



Item	definition	Wire color
1	V+	Red
2	V-	Black
3	SDA	Yellow
4	SCL	Blue

### 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

### Note:

Since the date of shipment within 12 days, for the sales return due to the product quality, we can offer free replacement. But we will charge for repair or replacement for performance degradation or damage due to customer reasons. Products due to customer welding, cut short lead, glue and other secondary processing of product quality problems, the company will not offer free replacement, please understand

**XI'AN SENSORS CO., LTD**