

PC series general pressure sensor

Features

- Measurement range: minimum 0-350KPa, maximum 0-70MPa can be customized
- 17-4PH or 316L stainless steel isolation, all stainless steel construction
- No O-ring in the pressure interface, no welding, no silicone oil, no leakage
- High precision: 0.25-0.5% (BFSL)
- High overload capability and high reliability
- Diversified shape and small size
- Current / voltage multiple output options
- Multiple media compatible
- Gauge pressure
- Non-standard customization



Product description

PC series universal pressure sensor uses silicon strain technology compared with the traditional metal strain gauge principle. The new technology uses a silicon strain gauge and a high temperature sintering process to increase the sensitivity of the pressure sensor by more than 5 times, coupled with proprietary numbers. The amplifier circuit and digital temperature compensation circuit ensure the electrical characteristics, temperature characteristics and long-term stability of the sensor. The sensor interface and housing are made of stainless steel for excellent corrosion resistance. This product can be widely used in industrial, aerospace, aerospace, automotive, medical, refrigeration and other fields.

Applications

- Air compressor, natural gas compressor
- Hydrogen, oxygen equipment, air conditioning and refrigeration equipment
- High-power diesel engine
- Industrial and civil water pumps
- Injection molding machine, die casting machine, construction machinery
- Pressure measurement in home appliances and other civilian equipment

Performance parameters (@25°C)

Measuring range	Minimum 0-350KPa, maximum 0-70MPa (please contact factory for other ranges)
Precision	±0.5%FS (BFSL), ±0.25%FS (BFSL) (other precision optional)
Zero deviation	±0.5%FS
Full scale deviation	±0.5%FS
Long-term stability	±0.25% FS/year (typical)
Pressure cycle	>100 million full pressure cycles
Overload pressure	2 times rated pressure
Destruction pressure	5 times rated pressure (maximum 150MPa)
Comprehensive error	±1% FS (within the compensation temperature range)
Media contact material	17-4PH/316L
shell	304 stainless steel

Electrical parameters

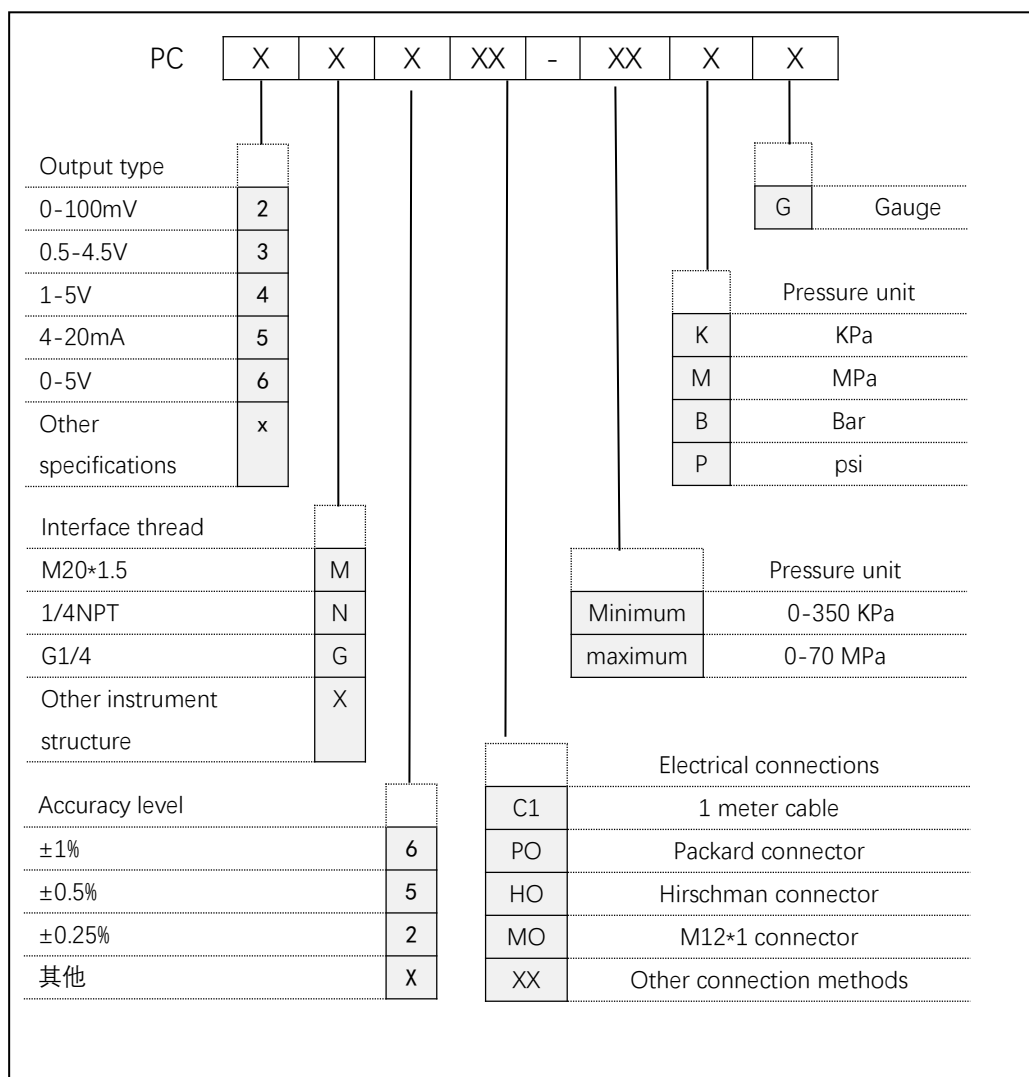
Output	4 ~ 20mA	1 ~ 5VDC, 1 ~ 6VDC	0 ~ 50mV, 0 ~ 100mV	Proportional output
powered by	10 ~ 30VDC	10 ~ 30VDC	5VDC	5VDC
Output impedance	> 10k Ohms	< 100 Ohms	2000 Ohms	< 100 Ohms
Supply current	< 24mA	< 10mA	< 5mA	< 10mA
Frequency response	(-3dB):DC to 250Hz	(-3dB):DC to 1kHz	(-3dB):DC to 5kHz min	(-3dB):DC to 1kHz
Zero deviation	< ±1% of FS	< ±1% of FS	< ±2% of FS	< ±1% of FS
Full scale deviation	< ±1% of FS	< ±1% of FS	< ±2% of FS	< ±1% of FS
Output load	0-1000 Ohms@10-30VDC	> 100K Ohms	> 1M Ohms	> 100K Ohms
Reverse polarity protection	Have	Have	—	no

Environmental requirements

range of working temperature	—40°C ~ 125°C
Compensation temperature range	0 ~ 70°C, —25°C ~ 85°C optional
Insulation resistance	>100M/250VDC
Shock	50g, 11msec, 1/2 sine wave
vibration	(Refer to MIL Standard 202F, Program 213B, Condition A)
Anti-electromagnetic / anti-RF	±20g (refer to MIL Standard 810C, Program 514.2, Figure 514.2-2, Curve L)

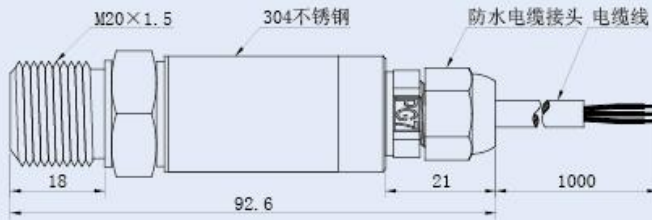
Note: Other parameters can be customized according to customer's special needs.

product model



Dimensions

输出类型 尺寸图



毫伏输出

红线: 电源+
黑线: 电源-
白线: 输出+
绿线: 输出-

电压输出

红线: 电源+
黑线: 电源-
白线: 输出

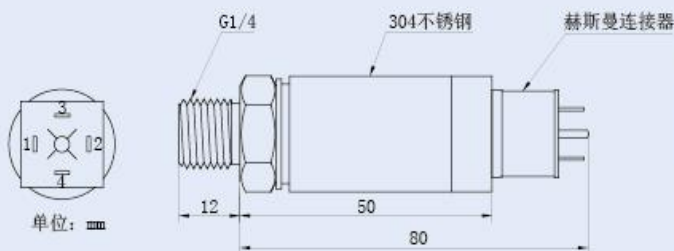
4~20mA输出

红线: 电源+
黑线: 输出



单位: mm

输出类型 尺寸图

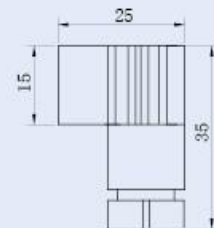


电压输出

脚1: 电源+
脚2: 输出
脚3: 电源-
脚4: 外壳

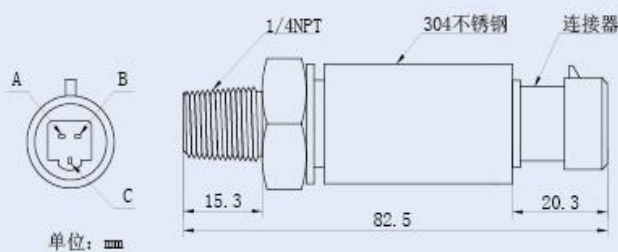
4~20mA输出

脚1: 电源+
脚2: 输出
脚4: 外壳



赫斯曼连接插头

输出类型 尺寸图



电压输出

A: 电源+
B: 电源-
C: 输出

4~20mA输出

A: 电源+
B: 输出



Precautions

1. Please read the instructions carefully before use to avoid personal injury or sensor damage;
2. Please confirm the sensor range before use to prevent the sensor from being damaged due to excessive pressure;
3. It is forbidden to use in an environment that is incompatible with the material of the medium contact;
4. If the non-professionals or the manufacturer does not have permission from the manufacturer, please do not disassemble the sensor by yourself, otherwise the sensor will be damaged and the manufacturer will not provide warranty or repair service;

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