

PC90M Multivariable Differential Pressure Sensor

Features

- Optional imported high stability monocrystalline silicon differential pressure die
- High precision and good stability
- Static pressure error within $\pm 0.1\%$ FS/10MPa
- Patented Dual Overload Protection Diaphragm Design
- Unidirectional overvoltage limit can reach 40MPa
- Constant stress excitation
- 316L stainless steel fully welded integrated structure
- Positive and negative pressure symmetry, no O-ring inside
- Small splint structure

Application

- Core components of differential pressure transmitter
- Core components of differential pressure flow transmitter

Notes:

1. Do not touch the diaphragm with hard objects, as it may cause damage to the isolation diaphragm.
2. Before installation, please carefully read the product manual and verify the relevant information of the product.
3. Strictly follow the wiring method, otherwise it may cause product damage and other potential faults.
4. Incorrect use can lead to danger and personal injury.



Products overview

The PC90M multivariable differential pressure sensor is a differential pressure sensor with overload pressure protection. The differential pressure-sensitive core uses an imported high-stability single-crystal silicon differential chip from Germany. It is packaged using a fully welded sealed structure and is filled with silicone oil under high vacuum. Measurement diaphragms of different materials not only isolate the measured medium and the differential pressure chip but also enable the sensor to reliably measure the pressure difference signal of various strongly corrosive media over a long period. The differential pressure sensor can convert the measured pressure difference signal into a millivolt signal linearly proportional to it through external excitation.

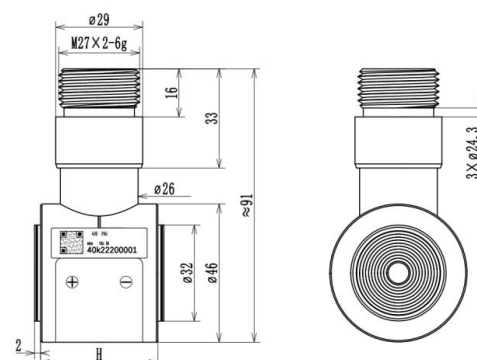
Note:

1. Do not misuse the file.
2. The information in this selection is for reference only and cannot be used as a product installation guide.
3. provides complete installation, operation and maintenance
4. information in the product manual.
5. Incorrect use can lead to danger and personal injury.

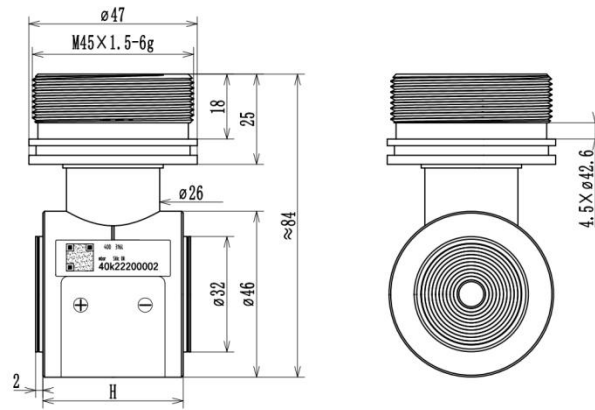
Performance parameters

Power supply	5V DC
Operation temperature	-40~85°C
Storage temperature	-50~125°C
Output signal voltage	60~140mV
Zero temperature drift	±0.05%FS/°C
Temperature hysteresis	±0.1%FS(10kPa<range≤1000kPa) ±0.5%FS(range≤10kPa)
Pressure hysteresis	±0.025%FS
Long-term Drift	±0.05%FS/year
Nonlinear	±0.5%FS(10kPa<range≤1000kPa) ±1.5%FS(range≤10kPa)
Static pressure effect	±0.15%FS/10MPa
Diaphragm material	316L

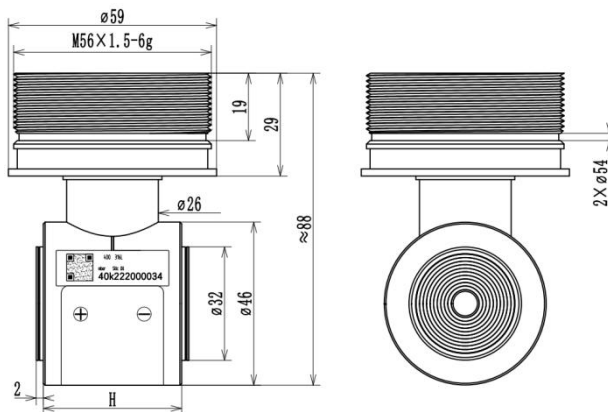
External dimensions

Thread code	Dimensions	unit:
	mm	
H2: M27×2		

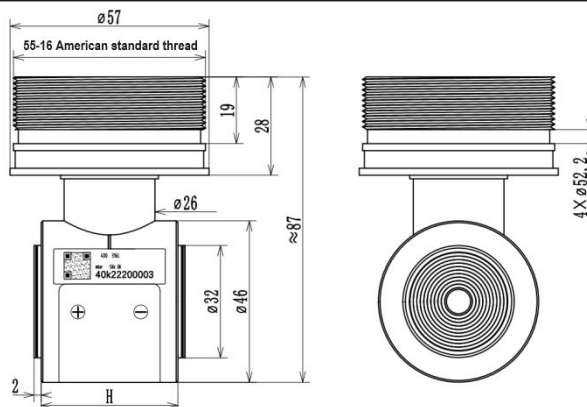
**H9:
M45×1.5**



**H10:
M56×1.5**



**H11:
55-16 American standard
thread**



H=38.9(6kPa),39(40kPa),39.1(100kPa),39.3(250kPa),39.6(1MPa), 39.8(3MPa)

Range selection for differential pressure monocrystalline silicon die

Range code	Pressure type	Range	Single-end overload	Static pressure
6k	D	-6kPa~0~6kPa	16MPa	16MPa
40k	D	-40kPa~0~40kPa	16MPa	16MPa
100k	D	-100kPa~0~100kPa	16MPa	25MPa
250k	D	-250kPa~0~250kPa	16MPa	25MPa
1M	D	-1MPa~0~1MPa	16MPa	40MPa
3M	D	-3MPa~0~3MPa	16MPa	40MPa

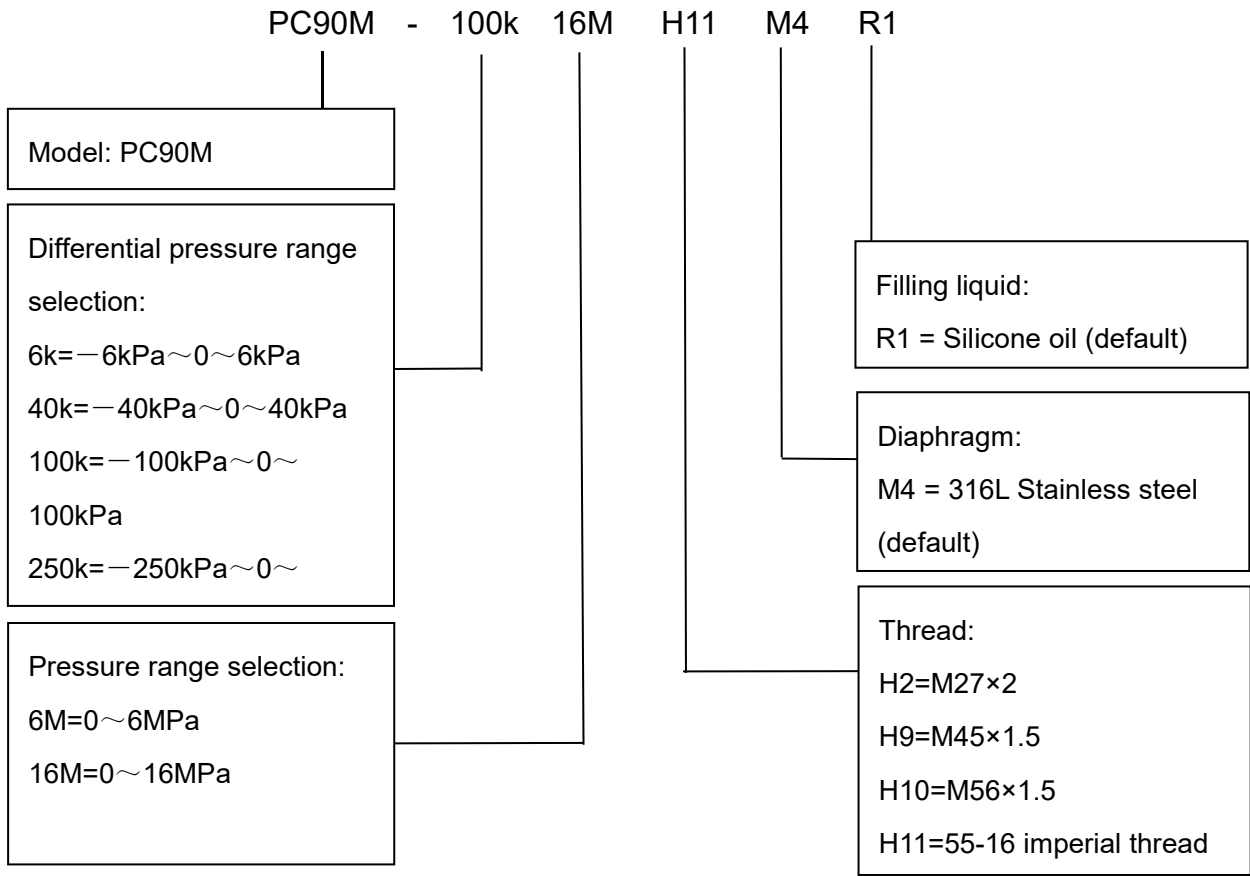
Range selection for pressure industrial grade die



Range code	Pressure type	Range	Overload pressure	Burst pressure
6M	S	0~6MPa	200%FS	400%FS
16M	S	0~16MPa	200%FS	400%FS

Note: 1.D - Differential pressure, S - Sealing pressure
 2. Pressure die at differential pressure positive pressure end

How to order



Example: PC90M-100k16MH11

Product model is PC90M, range-100kPa~0~100kPa, static pressure 16MPa, thread 55-16 imperial thread, diaphragm material 316L, filling liquid silicone oil.

Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

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