

PCM90D Monocrystalline Silicon Differential Pressure Sensor Component

Feature

- Advanced monocrystalline silicon gauge/absolute pressure sensor adopted
- Wide pressure range covering -0.1~3MPa
- Double-wire mode, 4~20mA@HART protocol option
- Intelligent LCD gauge head with backlight
- With both the remote transmission and the local zero and pressure range adjustment
- Complete varieties, high accuracy, good stability
- High static pressure, high overload protection
- Double overload protection diaphragm design

Application

- Process control fields for the industries such as petroleum, chemical industry, metallurgy, electricity, food, papermaking, medicine, machine manufacturing, scientific experiment and military aviation etc.

Notes:

- 1 Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.
- 2 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.
- 3 Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults



Product overview

PCM90D Monocrystalline Silicon Differential Pressure Sensor Component is a well-developed high performance pressure transmitter based on the international leading technology, adopting the world advanced monocrystalline silicon pressure sensor technology and the patented packaging process. This product adopts the patented double overload protection diaphragm design, with the internal circuit surge protection design, and can accurately measure the gauge pressure, flow, vacuum degree, liquid level and density.

Notes:

- 1 Do not misuse documentation.
- 2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- 3 Complete installation, operation, and maintenance information is provided in the instructions of the product.

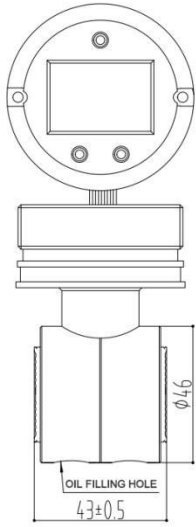
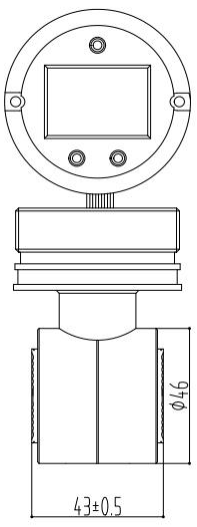
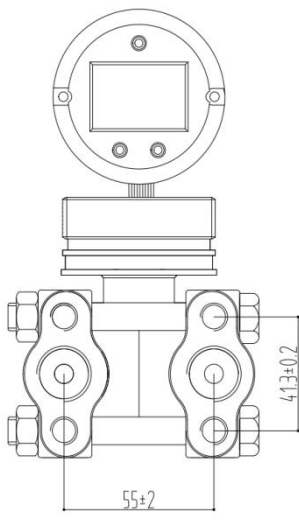
Performance parameters

Pressure rang	±1kPa; ±6kPa; ±40kPa; ±100kPa; ±250kPa; -100kPa~1MPa; -100kPa~3MPa
Power supply	12VDC~32VDC, 24VDC recommended
Output	4~20mA+HART protocol
Accuracy	±0.2%FS (±1kPa); ±0.1%FS (±6kPa); ±0.075%FS (Other pressure ranges);
Temperature drift	±0.5%FS (±1kPa); ±0.3%FS (±6kPa); ±0.25%FS (Other pressure ranges) @-20℃~70℃
Ambient temperature	non-explosive area -30℃~80℃; with LCD gauge outfit -30℃~70℃
Medium temp.	-40℃~125℃
Static pressure range	±1kPa; ±6kPa; ±40kPa Static pressure resistance 16MPa; ±100kPa; -100~250kPa Static pressure resistance 25MPa; -0.1~1MPa; -0.1~3MPa Static pressure resistance 40MPa
Unilateral overpressure	16MPa
Ambient humidity	5~95%RH
Long-term stability	0.1%FS/year(Standard pressure range)

Structural performance

Diaphragm material	316L、Hastelloy C
Exhaust/Drain valve	304、316L
O-ring	Silicone rubber
Filling liquid	Silicon oil
Clamp block	304、316L

Structure & dimensions

Product model	PCM90D ±1kPa	PCM90D Other pressure ranges	PCM90D With clamp block
Outline drawing			

PCM90D - 40k H11 M1 - Z K0

Product model:
PCM90D

Pressure range:
1k=±1kPa
6k=±6kPa
40k=±40kPa
100k=±100kPa
250k=-100kPa~250kPa
1M=-100kPa~1MPa
3M=-100kPa~3MPa

Housing connection:
H2=M27×2
H9=M45×1.5
H10=M56×1.5
H11=55-16 British thread

Accessories:
NA=Standard gauge outfit
Z=Beijing Zhongrui gauge with temperature compensation
Z=Beijing Zhongrui gauge with temperature compensation
K0=Material of exhaust/drain valve and clamp block 304
K1: Material of exhaust/drain valve and clamp block 316

Diaphragm material:
NA=316L
M1=Hastelloy C

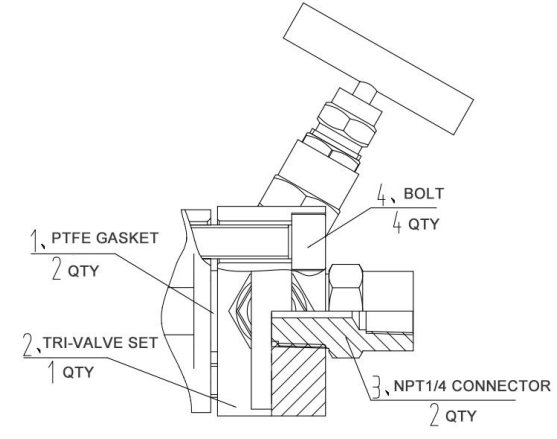
Example: PCM90D-40kH11M1-ZK0

Product model: PCM90D; pressure range: ±40kPa; housing connection: 55-16British thread; diaphragm material: Hastelloy C; Gauge head model: Beijing Zhongrui gauge with temperature compensatio; material of exhaust/drain valve and clamp block 304.

Process connection

Process connection Code	Specifications		Assembly drawing
	Name	Qty.	
C1: M20×1.5 with welded pipe	T shape connector	2	
	M10×20 bolt	4	
	O-ring	2	
	PTFE gasket	2	
	M20 nut	2	
	φ14×4 pressure welded pipe	2	

C7F: NPT1/2(F) Waist shape flange	O-ring	2	
	Waist shape flange	2	
	M10×35 bolt	4	
	-	-	
	-	-	
C2: G1/2 with welded pipe	NPT1/4 to G1/2 adaptor	2	
	G1/2 nut	2	
	φ14×4pressure welded pipe	2	
	PTFE gasket	2	
	-	-	
C3: G1/4	NPT1/4 转 G1/4 接头	2	
	-	-	
	-	-	
	-	-	
C7: NPT1/2	NPT1/4 to G1/4 adaptor	2	
	-	-	
	-	-	
	-	-	
SFZC1: tri-valve set M20 with welded pipe (304/316 options)	PTFE gasket	2	
	tri-valve set	1	
	M20×1.5 connector	2	
	M20×1.5 nut	2	
	PTFE gasket	2	
	φ14×4 pressure welded pipe	2	
	M10×35 bolt	4	

SFZC5F: tri-valve set NPT1/4 Female (304/316 options)	PTFE gasket	2	
	tri-valve set	1	
	NPT1/4 connector	2	
	M10×35 bolt	4	
	-	-	
	-	-	

Example: SFZC5F

Accessories model: tri-valve set NPT1/4 Female

Ordering tips

Accessories need to be purchased separately

Contact us

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