

PK40X High purity pressure sensor

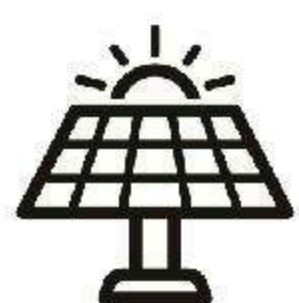
Product Certification



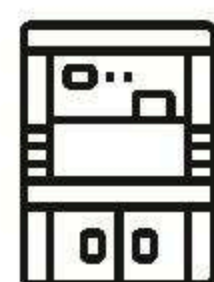
RoHS

Ex ia II C T4 Ga

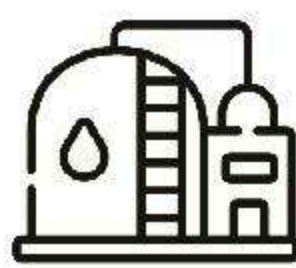
Application Scenarios



Photovoltaic semiconductor



High purity/ultra pure application environment



Corrosive liquid gas environment



Air distribution system



Product Features

Seal

Using semiconductor specific pressure joints 9/16-18 UNF

Measure

100% helium leak test

Package

Vacuum packaging in Class 100 clean rooms

Surface Treatment

The EP level at the process connection is $Ra \leq 0.13 \mu m$

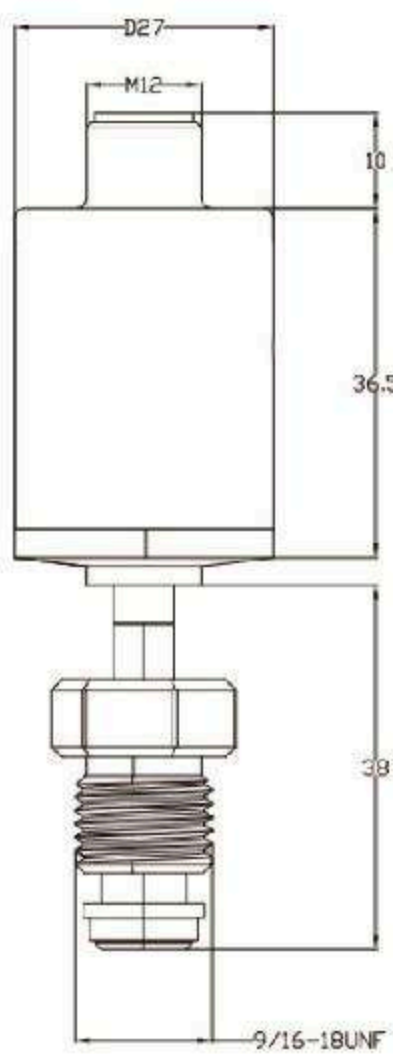
Product Description

- This product has a 316L metal welding structure and can be selected as a pressure connector for semiconductor photovoltaics. The liquid contact surface is treated with 100% special EP and cleaned degreased and oil-free, fully meet applications such as semiconductors, photovoltaics, flat panel displays, high-purity/ultrapure environments, and special gas pipelines.
- The pressure range covers -14.7~5000psi, and the range can be selected to meet special customer requirements.
- 100% leakage test for product production, meeting industry sealing requirements, and avoiding the risk of flammable, explosive, corrosive, or toxic media overflow.
- The product is produced in a Class 100 clean room and vacuum packaged, with 100% cleaning to meet SEMI standards.

Technical Parameter

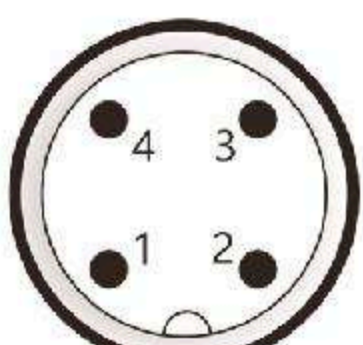
Application scenarios	Gauge, Absolute, and Negative pressure
Pressure range	-14.7.....0.....5000psi
Accuracy level (@ 25 °C)	≥160psi: ±0.1%FS BFSL; < 160psi: ±0.15%FS BFSL
Max deviation (@ 25 °C)	±0.25%FS
Overpressure	Max 4 times
Medium temperature	-20.....85°C
Operating temperature	-40.....125°C
AVG temp coef (-20~85 °C)	Zero: < 0.1%FS/10K; FS: < 0.1%FS/10K
Voltage Supply	DC24V (10...30 V DC)
Output signal	4...20mA 、 0...5V、 0...10V、 1...5V
Connector material	SUS316L
Diaphragm Material	SUS316L/ 316L VIM/VAR/ Nickel-based alloy
Stability performance	Typical value: 0.1% FS/Year
Leakage rate	≤ 1 X 10 ⁻¹⁰ kPa.l/s
Package	Vacuum double-layer packaging, compliant with SEMI E49.6

Specifications and Dimensions (Unit: mm)



Electrical Connections

4-20mA current output					
	Pin	Description		Pin	Description
	1	PS +		1	PS +
	2	PS -		3	PS -
	3	N/C		4	N/C
4			2	N/C	

0-10V、 0-5V Voltage Output					
	Pin	Description		Pin	Description
	1	PS +		1	PS +
	2	PS - / V -		3	PS - / V -
	3	V +		4	V +
4			2	N/C	

Abbreviation

- PS + Positive power supply terminal
- PS - Negative power supply terminal
- V + Positive voltage output
- V - Negative voltage output

Certification

A NEPSI Ex ia IIC T4

Shell + Electrical Connector

- J Exquisite (stainless steel)+M12 connector
- K Exquisite (stainless steel)+Waterproof type
- Y Customized

Output

- 1 4-20mA
- 3 0-10V
- 4 0-5V
- 5 1-5V
- Y Customized

Range

- PU 30psi
- PT 60psi
- PS 100psi
- PR 160psi
- PN 250psi
- PM 350psi
- PH 500psi
- PE 750psi
- PD 1000psi
- PC 1500psi
- PB 2000psi
- PA 3000psi
- P4 4000psi
- P5 5000psi
- YY Customized

Type

- G Gauge
- A Absolute
- M Negative

Accuracy

- C 0.25%FS

Process connection

- VM 9/16-18UNF
- VF Female thread 9/16-18UNF
- WM 7/8-14UNF
- WF Female thread 7/8-14UNF
- GT NPT1/4
- NT NPT1/4 F
- C1 1.5" C-Seal
- C2 1.125" C-Seal
- W1 1.5" W-Seal
- W2 1.125" W-Seal
- T1 1/4" Tube
- YY Customerized

Application

- S High purity/ultra pure

10 20 30 40 50 60 70 80

PK40X high purity pressure sensor

Selection rules:

Requirements: M12, 4-20mA output, -14.7~250psi, and 9/16-18UNF Male thread

Select model: PK40X-AJ1PNMCVMS