

## PK46X High Purity Digital Pressure Switch

### Product certification



RoHS



### Application scenario



Semiconductor photovoltaic



Ultra-pure environment



Corrosive media



Gas distribution system

### Product features

#### Sealing

9/16-18UNF、  
C/W-Seal、  
Through-flow

#### Testing

100% helium  
leakage test

#### Packaging

Vacuum packaging  
in a Class 100  
cleanroom

#### Surface treatment

The process  
connection surface  
has an EP grade  
finish with  $Ra \leq 0.18\mu m$ .

### Product Description

This product features an all-metal welded structure and offers the option of semiconductor photovoltaic-specific pressure joints. The media contacting surface undergoes 100% special EP treatment and is degreased and oil-free cleaned, ensuring suitability for semiconductor, photovoltaic, flat panel display, high purity/ultra-pure environments, and special gas pipeline applications.

The pressure range spans from -14.7 to 6000 psi, with customizable ranges available to meet specific customer requirements.

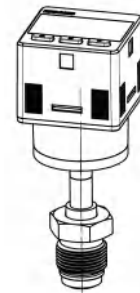
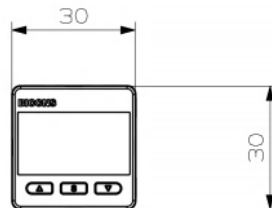
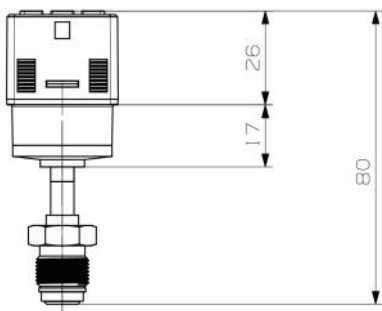
The product undergoes 100% leakage testing during production to meet industry sealing standards, mitigating risks of flammable, corrosive, or toxic media overflow.

Manufactured entirely in a Class 100 cleanroom environment and vacuum-packaged, the product undergoes 100% cleaning, adhering to SEMI standards.

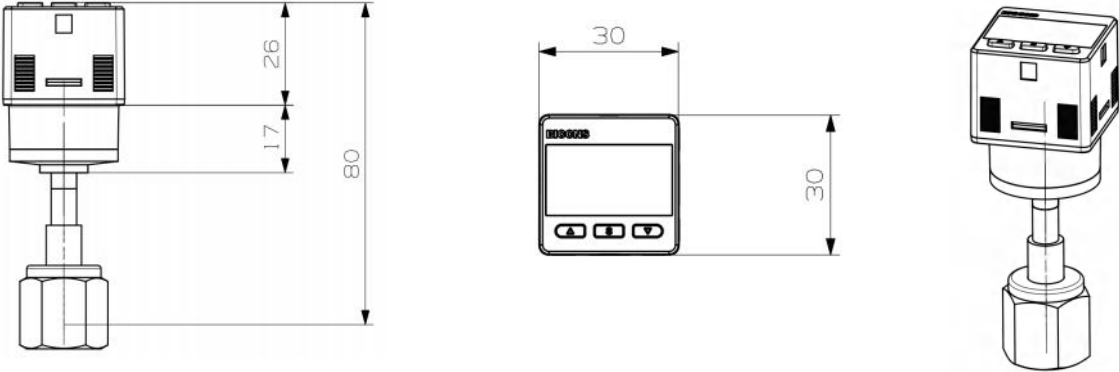
## Technical parameters

Applications	Gauge, absolute, and vacuum measurement
Measurement range	-14.7.....0.....6000psi
Accuracy class (@25°C)	≥160psi: ±0.1%FS BFSL; < 160psi: ±0.15%FS BFSL
Max deviation (@25°C)	±0.25%FS (< 160psi: ±0.5%FS)
Overload pressure	Maximum 4 times
Media temperature	-20.....85°C
Ambient temperature	-40.....125°C
Temp.Coefficient(-20~85°C)	Zero: < 0.1%FS/10K; Full Scale: < 0.1%FS/10K
Supply voltage	DC24V (10...30 V DC)
Output signal	4...20mA 、 1...5V
Switching point	PNP*2 or NPN*2
Connection material	SUS316L / 316L VIM/VAR
Diaphragm material	SUS316L VIM/VAR/Nickel-based alloy
Stability performance	Typical: 0.1%FS/Year
Leakage rate	≤ 1 X 10 <sup>-10</sup> kPa.l/s
Packaging	Double-layer vacuum packaging, compliant with SEMI E49.6

## Specifications and Dimensions (Unit: mm)



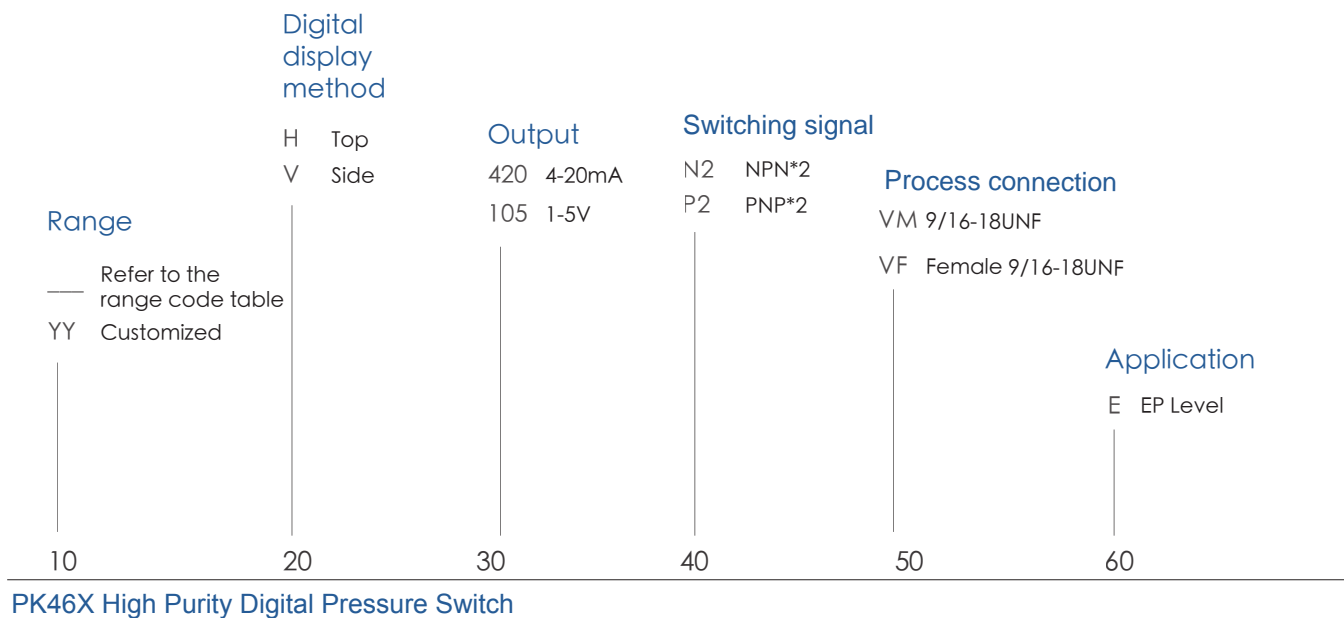
Top digital display 9/16-18UNF male thread



Top digital display 9/16-18UNF female thread

These dimensions are for reference only. Actual dimensions may vary.

Range code table					
Code	Range MPa	Range Bar	Code	Gauge MPa	Gauge Bar
BG200K	(- 0.1~0.2)	(- 1~2)	G200K	(0~0.2)	(0~2)
BG300K	(- 0.1~0.3)	(- 1~3)	G300K	(0~0.3)	(0~3)
BG500K	(- 0.1~0.5)	(- 1~5)	G500K	(0~0.5)	(0~5)
BG700K	(- 0.1~0.7)	(- 1~7)	G700K	(0~0.7)	(0~7)
BG1M	(- 0.1~1)	(- 1~10)	G1M	(0~1)	(0~10)
BG2M	(- 0.1~2)	(- 1~20)	G2M	(0~2)	(0~20)
BG3.5M	(- 0.1~3.5)	(- 1~35)	G3.5M	(0~3.5)	(0~35)
BG5M	(- 0.1~5)	(- 1~50)	G5M	(0~5)	(0~50)
BG10M	(- 0.1~10)	(- 1~100)	G10M	(0~10)	(0~100)
BG20M	(- 0.1~20)	(- 1~200)	G20M	(0~20)	(0~200)



#### Selection rules:

Requirement: 4-20mA output + PNP\*2, -0.1~0.5MPa, top digital display, 9/16-18UNF male thread, EP grade.

Model selected: PK46X-BG500KH420P2VME