

**Introduction :**

A11 series are based on piezoresistive silicon pressure sensors packaged in a 316L stainless steel housing. The sensing package utilizes silicon oil to transfer pressure from the 316L diaphragm to the sensing element.

It is designed for o-ring mounting for the applications where compatibility with corrosive media is required. Each sensor was strictly temperature compensated for both zero and span.

There are two options of excitation power -- current and voltage

**Features:**

- Low cost OEM
- Pressure Range: 0-10kPa...7MPa
- Wide operable temperature range -40-125°C
- Stainless Steel 316L
- Standard mounting size (Ø19mm)
- Typical output: 0-100mV

**Applications:**

- Process control
- Fresh and waste water measurements
- Medical instruments
- Pressure transmitters



**Specifications of current excitation(1.5mA, 25°C)**

Parameters		Min.	Typical	Max.
<b>Accuracy (%FS)</b>				
Non-	10kPa		±0.40	±0.60
Linearity <sup>1</sup>	≥20kPa		±0.10	±0.20
Hysteresis			±0.05	±0.1
Repeatability			±0.05	±0.1
<b>Output (mV)</b>				
Zero <sup>2</sup>		-2	±1	2
Span (FS)	10kPa	38	45	55
	20kPa, 40kPa	60	75	90
	≥100kPa	90	120	160
<b>Temp. characters</b>				
Operation Temp. (°C) <sup>3</sup>		-40		125
Compensation Temp (°C)	10kPa	0		50
	≥20kPa	-10		70
Zero Temp. error (%FS) <sup>4</sup>			±0.75	±1.0
Span Temp. error (%FS) <sup>4</sup>			±0.75	±1.0
Thermal hysteresis (%FS)			0.1	
<b>Long term Stability</b>				
Zero (±%FS annual)			0.2	
Span (±%FS annual)			0.1	
Supply Current		0.5mA	1.5mA	2mA
Input Resistance		2kΩ		4kΩ
Output Resistance		2.5kΩ		5.5kΩ
Load Resistance <sup>5</sup>		5MΩ		
Insulation Resistance(100V) <sup>6</sup>		100MΩ		

**Specifications of voltage excitation (10VDC 25°C)**

Parameters		Min.	Typical	Max.
<b>Accuracy (%FS)</b>				
Non-	10kPa		±0.40	±0.60
Linearity <sup>1</sup>	≥20kPa		±0.10	±0.20
Hysteresis			±0.05	±0.1
Repeatability			±0.05	±0.1
<b>Output (mV)</b>				
Zero <sup>2</sup>		-2	±1	2
Span (FS)	10kPa	68	70±1	72
	20kPa...4MPa	98	100±1	102
	7MPa	147	150±1.5	153
<b>Temp. characters</b>				
Operation Temp. (°C) <sup>3</sup>		-40		125
Compensation Temp (°C)	10kPa	0		50
	≥20kPa	-10		70
Zero Temp. error (%FS) <sup>4</sup>			±0.75	±1.0
Span Temp. error (%FS) <sup>4</sup>			±0.75	±1.2
Thermal hysteresis (%FS)			0.1	
<b>Long term Stability</b>				
Zero (±%FS annual)			0.2	
Span (±%FS annual)			0.1	
<b>Supply Voltage</b>			10VDC	14VDC
<b>Input Resistance</b>		4.5kΩ		10kΩ
<b>Output Resistance</b>		2.5kΩ		5.5kΩ
<b>Load Resistance<sup>5</sup></b>		5MΩ		
<b>Insulation Resistance(100V)<sup>6</sup></b>		100MΩ		

<b>Pressure Range</b>	0-10kPa...7MPa	
<b>Pressure</b>	10kPa;20kPa	10 X Rated pressure range
<b>Overload</b>	≥40kPa	2.5 X Rated pressure range or 10MPa whichever is less
<b>Pressure Media</b>	Liquids and Gases compatible with 316L Stainless Steel	

**※Remark:**

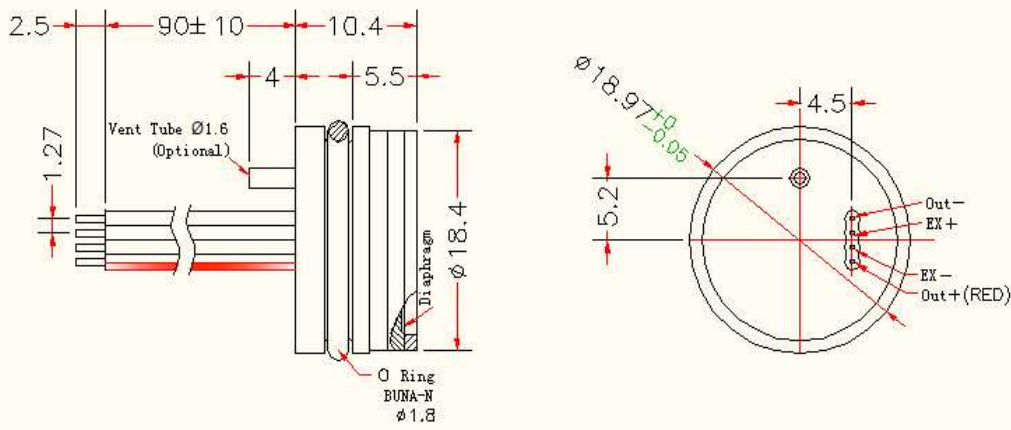
1. Best fit straight line.
2. Measured at vacuum for absolute (A), ambient for gage (G).
3. The maximum rating temp. of ribbon cable and NBR O-ring is 105° C.
4. Over the compensated temperature range with respect to 25° C.
5. Load resistance to reduce measurement errors due to output loading.
6. Between case and sensing element.

**Dimensions (mm) :**

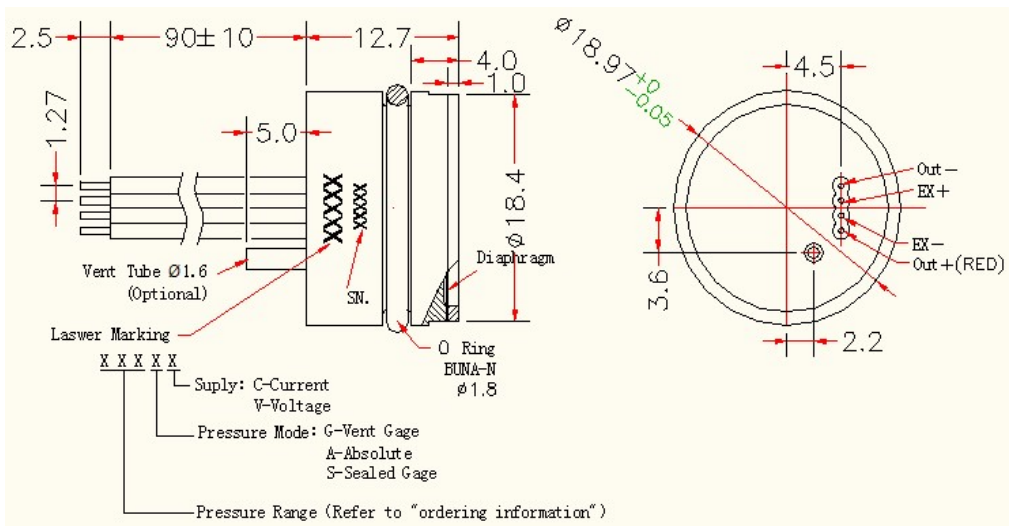
Remark: Ribbon Cable or Connect Pins are optional for all models

**Ribbon Cable**

10kPa

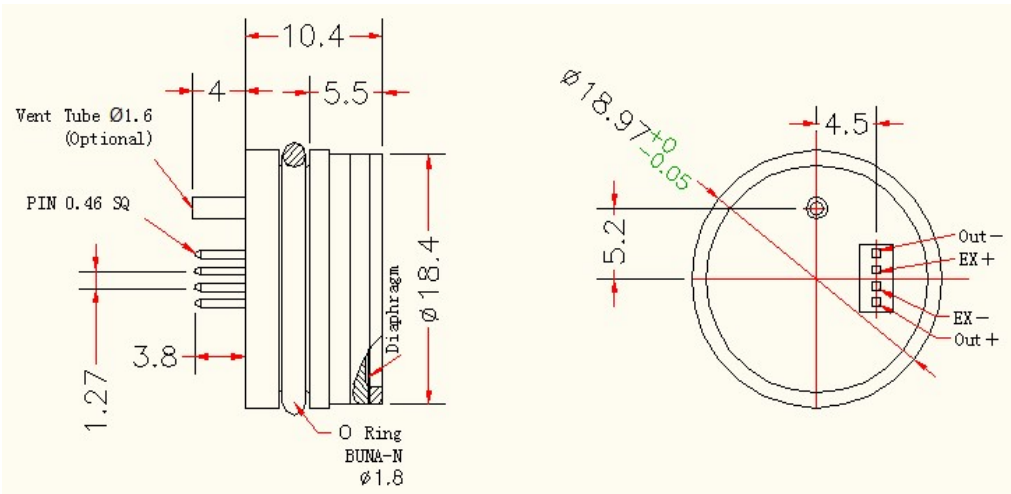


20kPa...7MPa

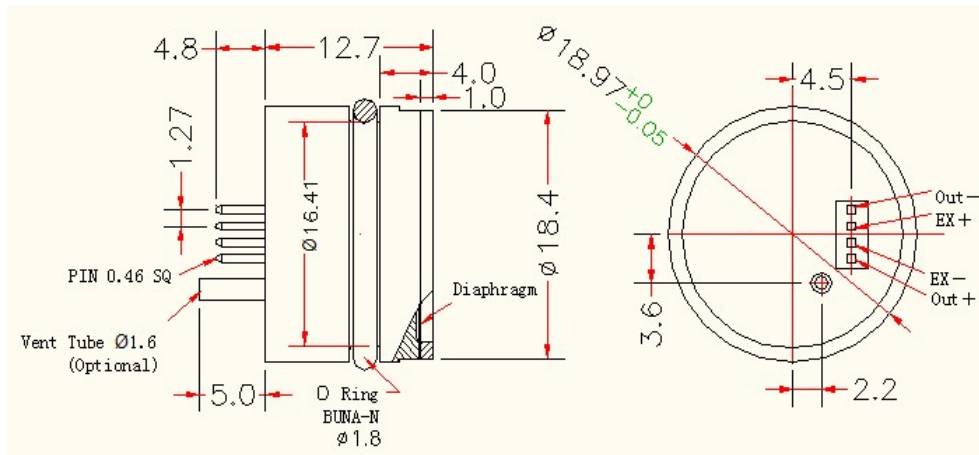


**Connect Pin**

10kPa



20kPa...7MPa



**Ordering Information**

Model	Description					
A11	Diameter 19mm O Ring mounting					
	Code	Power Supply				
	C	Constant Current				
	V	Constant Voltage				
	Code	Pressure Range	Gauge	Absolute		
	10k	0-10kPa	*			
	20k	0-20kPa	*			
	40k	0-40kPa	*			
	100K	0-100kPa	*	*		
	160K	0-160kPa	*	*		
	400K	0-400kPa	*	*		
	600K	0-600kPa	*	*		
	1M	0-1MPa	*	*		
	1.6M	0-1.6MPa	*	*		
	2.5M	0-2.5MPa	*	*		
	4M	0-4MPa	*	*		
	7MPa	0-7MPa	*	*		
	XX	Special				
	Code	Pressure Reference				
	G	Vent Gauge Pressure (W/O vent tube as default)				
	GT	Vent Gauge Pressure (With vent tube)				
	A	Absolute Pressure				
	S	Sealed Gage				
		Code	Electrical Connection			
		1	Connect Pins			
		2	Ribbon Cable (90mm as default)			
		X	Special			
<b>Example:</b>	A11	C	1M	A	1	
	Dia 19mm	Current Supply	0-1MPa	Absolute	Pins	Model: A11C-1M-A1

**Remark:**  
 1. If need vent gauge modle to measure vaccum pressure, Pls. contact us  
 2. If need sensors with hastelloy steel diaphragm and weld ring, Pls. contact us.