

Introduction :

A15 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 a small profile sensor, designed for pressure port welding or o-ring mounting. Each sensor was strictly temperature compensated for both zero and span.

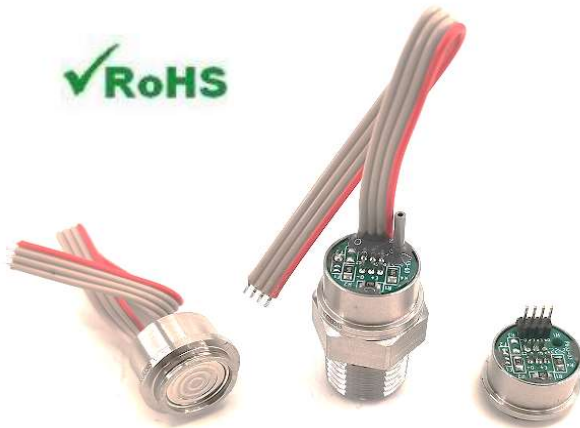
There are two options of excitation power -- current and voltage.
We can also provide port welded sensor (A17 series)

Features:

- Low cost OEM
- Pressure range from 0-100kPa...7MPa
- Wide operable temperature range -40~125°C
- Material: Stainless Steel 316L
- Small profile and easily to be welded
- 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.
Accuracy (%FS)			
Non-Linearity ¹		±0.10	±0.20
Hysteresis		±0.05	±0.10
Repeatability		±0.05	±0.10
Output (mV)			
Zero ²	-2	±1	2
Span (FS)	80		
Temp. characters			
Operation Temp. (°C) ³	-40		125
Compensation			
100kPa	0		70
Temp (°C)			
>100kPa	-10		70
Zero Temp. error (%FS) ⁴		±0.75	±1.0
Span Temp. error (%FS) ⁴		±0.75	±1.0
Thermal hysteresis (%FS)		0.1	
Long term Stability			
Zero (±%FS annual)		0.1	
Span (±%FS annual)		0.1	
Supply Current	0.5mA	1.5mA	2mA
Input Resistance	2kΩ	2.5kΩ	3kΩ
Output Resistance	2.5kΩ	3.3kΩ	4kΩ
Load Resistance⁵	5MΩ		
Insulation Resistance(100V)⁶	100MΩ		

Specifications of voltage excitation (10VDC 25°C)

Parameters		Min.	Typical	Max.
Accuracy (%FS)				
Non-Linearity ¹			±0.10	±0.20
Hysteresis			±0.05	±0.10
Repeatability			±0.05	±0.10
Output (mV)				
Zero ²		-2	±1	2
Span (FS)	< 7MPa	98	100±1	102
	7MPa	147	150±1.5	153
Temp. characters				
Operation Temp. (°C) ³		-40		125
Compensation Temp (°C)	100kPa	0		70
	>100kPa	-10		70
Zero Temp. error (%FS) ⁴			±0.75	±1.0
Span Temp. error (%FS) ⁴			±0.75	±1.0
Thermal hysteresis (%FS)			0.1	
Long term Stability				
Zero (±%FS annual)			0.1	
Span (±%FS annual)			0.1	
Supply Voltage			10VDC	14VDC
Input Resistance		5kΩ	8kΩ	10kΩ
Output Resistance		2.5kΩ	3.3kΩ	4kΩ
Load Resistance⁵		5MΩ		
Insulation Resistance(100V)⁶		100MΩ		

Pressure Range	0-100kPa...7MPa
Pressure Overload	2.5 times of rated pressure or 10MPa whichever is less
Pressure Media	Liquids and Gases compatible with 316L Stainless Steel

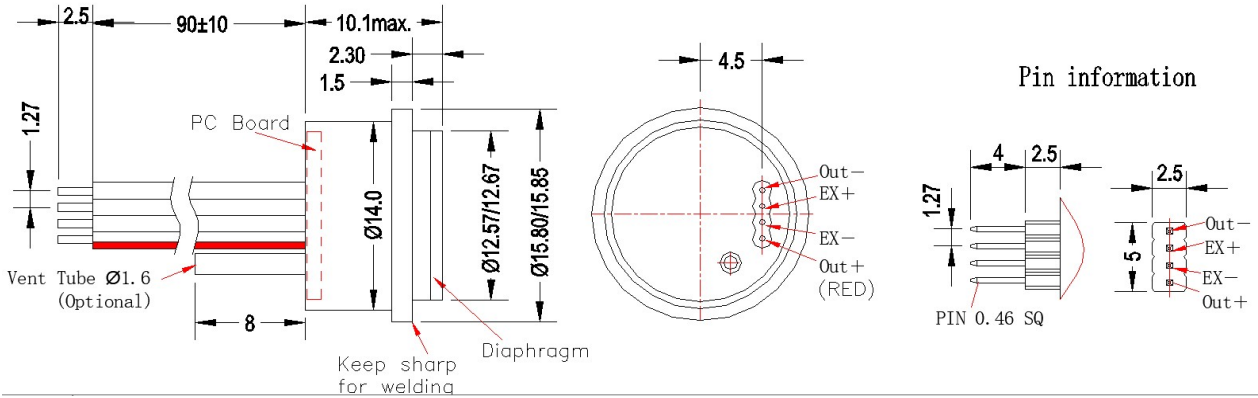
※Remark:

1. Best fit straight line.
2. Measured at vacuum for absolute (A), ambient for gage (G).
3. Maximum temperature range for product with standard cable is -20° C to +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.

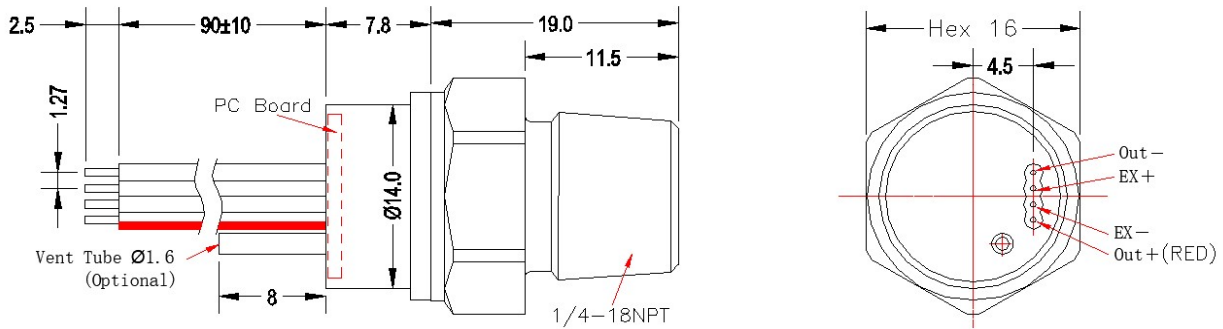
Dimensions (mm) :

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

A15

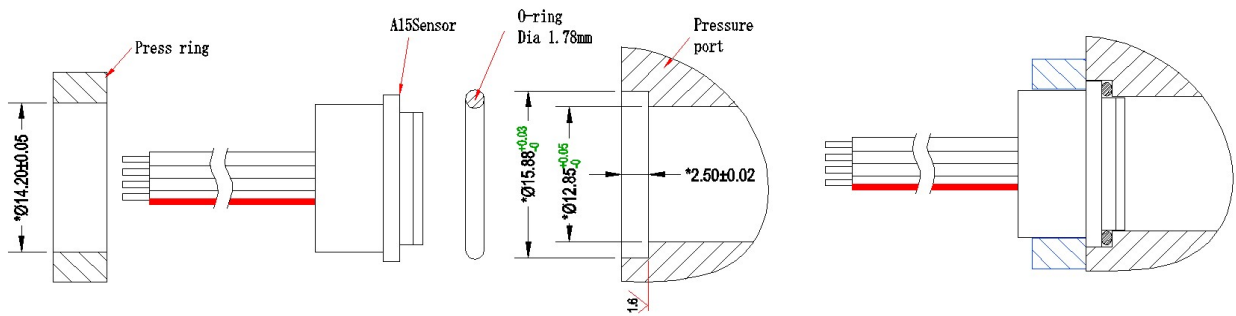


A17

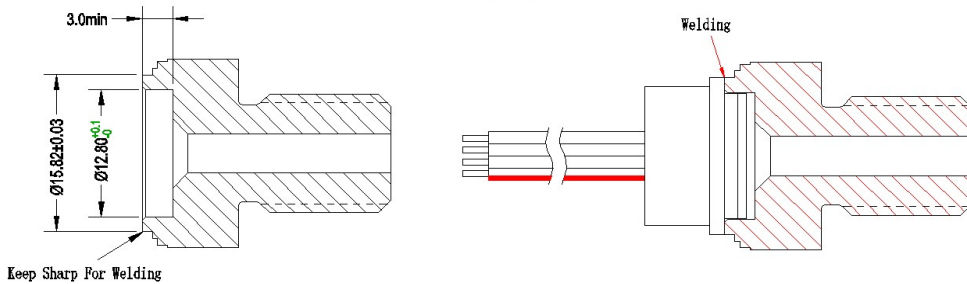


Recommended assemble dimension (unit:mm)

For O-ring Seal



For Welding



Ordering Information

Model	Description						
A15	Diameter 12.6mm weldable sensor						
A17	With pressure port						
	Code	Power Supply					
	C	Constant Current					
	V	Constant Voltage					
	Code	Pressure Range	Gauge	Absolute			
	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					
	1	Connect Pins					
	2	Ribbon Cable(90mm as default)					
	X	Special					
	Code	Pressure port (For A17)					
	1	1/4NPT					
	X	Customized					
Example:	A17	C	600k	G	2	1	
	Model	Current Supply	0-600kPa	Vent gauge	Ribbon cable	1/4NPT	A17C-600k-G21

Remark: If need to do vacuum test for vent gauge sensor, pls. contact factory