

Introduction:

This 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.

The sensor was welded in front end of a fitting (M20X1.5 or G1/2 made by Stainless Steel 316L).

There are two kinds of structures, one is A13 which including a weld ring in the front, the other is A23, which W/O weld ring.

Each sensor was strictly temperature compensated for both zero and span.

Features:

- Low cost OEM
- Pressure Range:0-20kPa...7MPa
- Wide operable temperature range -40-125°C
- Compatible with corrosive media
- Standard mounting size
- Typical output: 0-100mV



Applications:

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

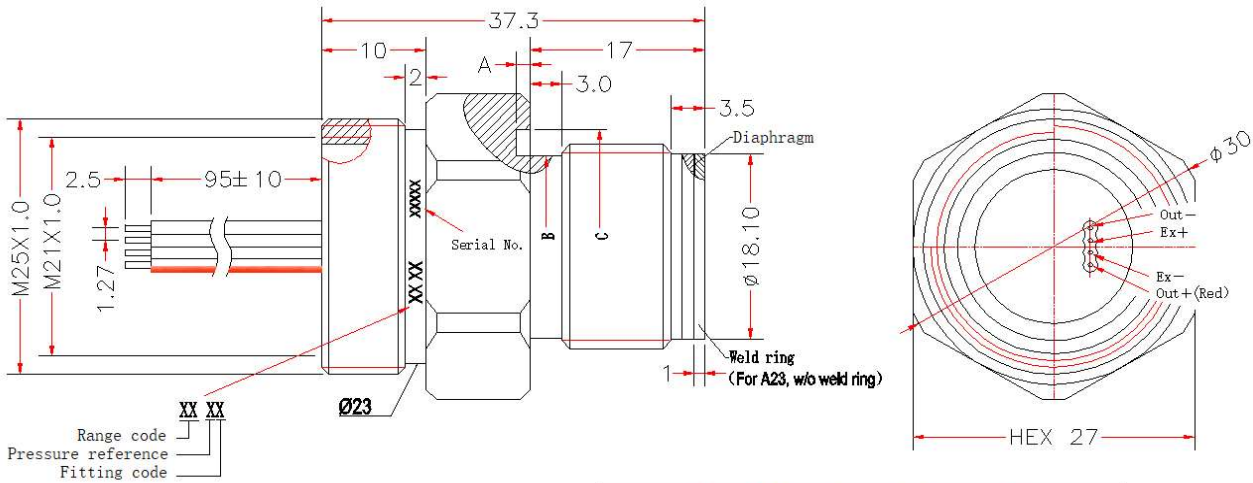
Specifications of current excitation(1.5mA, 25°C)

Parameters	Min.	Typical	Max.
Accuracy (%FS)			
Non-Linearity ¹		±0.10	±0.20
Hysteresis		±0.05	±0.1
Repeatability		±0.05	±0.1
Output (mV)			
Zero ²	-5	±1	5
Span (FS)	20kPa, 40kPa	60	90
	≥100kPa	90	160
Temp. characters			
Operation Temp. (°C) ³	-40		125
Compensation Temp(°C)	≤100kPa	0	50
	>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)		0.2	
Span (±%FS annual)		0.1	
Supply Current	0.5mA	1.5mA	2mA
Input Resistance	4.5kΩ		10kΩ
Output Resistance	2.5kΩ		5.5kΩ
Load Resistance⁵	5MΩ		
Insulation Resistance(100V)⁶	100MΩ		
Pressure Range	0-20kPa...7MPa		
Pressure Overload	20kPa	200kPa	
	≥40kPa	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) :



	ED Seal Ring Dim.	Dim. A	Dim. B	Dim. C
M20X1.5	22.9*17.8*1.5	1.2	17.7	23
G1/2	23.9*18.5*1.5	1.2	18.4	24

Ordering Information

Model	Description
A13	Flush Diaphragm sensor (with weld ring in the front)
A23	Flush Diaphragm sensor (w/o weld ring)

Code	Power Supply				
C	Constant Current				
Code	Pressure Range	Vent Gauge	Sealed Gauge	Absolute	
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	*	*	*	
7M	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 Gauge				
Code	Fitting				
1	M20X1.5				
2	G1/2				
X	Special				

Example:

A13	C	600k	G	1		
Model	Current Supply	0-600kPa	Vent Gauge	M20X1.5		A13C-600k-G1

Remark:

1. Can provide vacuum test sensor of vent gauge, need consulted with factory
2. Can provide constant voltage sensor as required (Specification refer to A11 series)
3. Can provide I²C output sensors, Pls. contact factory