Introduction:

A80 pressure transducers are based on piezoresistive silicon pressure sensor. The sensing package utilizes silicone oil to transfer pressure from the 316L stainless steel diaphragm to the sensing element.

There is a custom ASIC in sensor circuit, Super accuracy is achieved through advanced digital compensation with an aggressive compensated temperature range of -20℃ to 85℃. The standard output of A80 is 0.5-4.5V, but other outputs, including 0-100mV, 4-20mA, 1-5V etc. are available as required.

The wetted material is made of 316L stainless steel, the plastic housing was made of PA66+30%GF. The sensors meet the latest heavy industrial CE requirements,

Features:

- 0-200kPa…1.6MPa (Sealed Gauge or Absolute)
- Small profile
- O-ring mounting
- Compatible with corrosive medias
- Hihg performance, low cost

Application:

- Urea level
- Urea pressure
- Air break
- Other pressure test of corrosive media

Specifications

Parameters	Min.	Typical	Max.
Accuracy (%FS) combined linearity[1], hystere-sis and repeatability.		±0.1	±0.15
Output	0.5-4.5V (Ratiometric)		
Temp. characters			
Operation Temp. (℃)[2]	-40		125
Compensation Temp. (℃)	-20		85
Total error band (%FS)[3]	-1.0	±0.75	1.0
Long term Stability			
Zero (±%FS annual)		0.2	
Span (±%FS annual)		0.1	
Power supply (V)	4.75	5.00	5.25
Insulation (MΩ/250V)	50.0		
Frequency (Hz)	1k		
Shock	50g, 11MSEC HALF SINE SHOCk PER MIL-STD-202G, METHOD 213B, CONDITION A.		
Vibration	±20g MIL-STD-810C, PROCEDURE 514.2, FIGURE 514.2-2, CURVE L.		
Water proof	IP65		
Over pressure	2X		
Burst pressure	3X		
Materials	Wetted materials: Stainless steel 316L; Housing: Nylon PA66+30%GF		
Life	>10^6 full range pressure		

1. BFSL (best fitting straight line)
2. Operation temp. of cable is 105℃ maximum
3. Total error band: total output error including Zero, Span, non-linearity, temp. erorr within compensated temperature range.

Circuit with reverse polarity protection

CE Compliance:

EN55032 Emissions Class A&B

IEC61000-4-2(ESD):15KV(air)/8KV(contact)

IEC61000-4-3 Radiated, Radio-Frequency Electromagnetic Field Immunity (10V/m, 80MHZ~1GHZ)

IEC61000-4-4 Electrial Fast Transient Immunity (1kV)

IEC61000-4-5 Surge Immunity

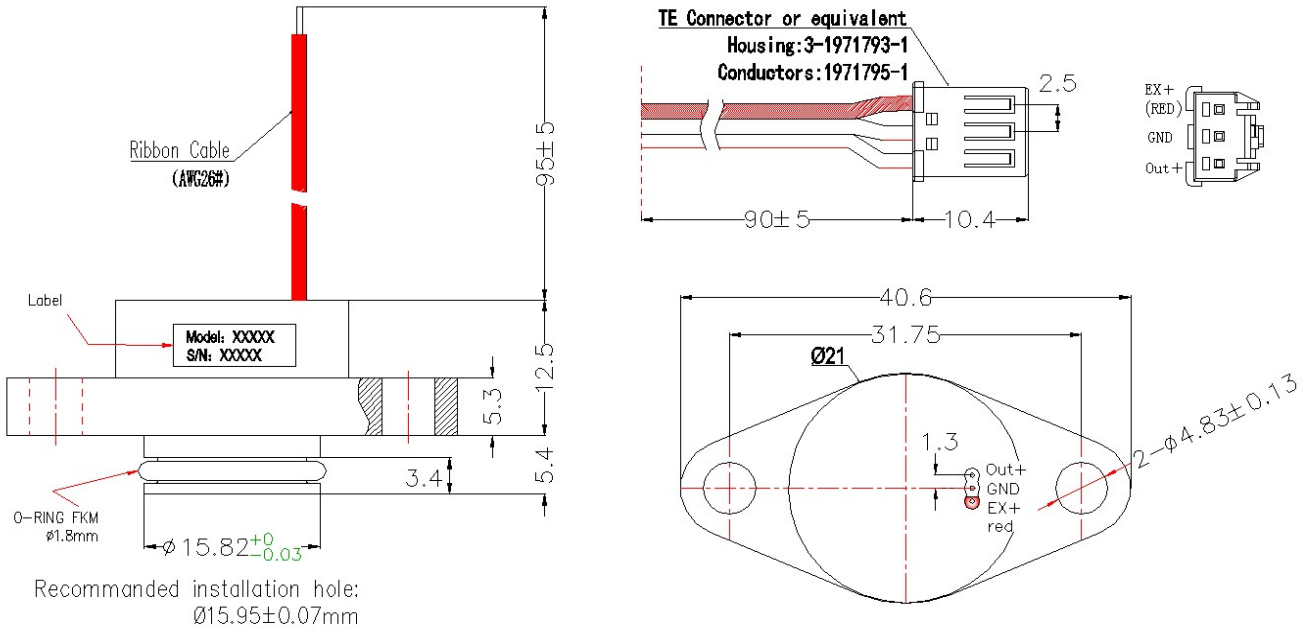
Input to Output:±1kV/42Ω; Leads to Case: ±1kV/12Ω; Output to GND: ±1kV/42Ω

IEC61000-4-6 Immunity to conducted disturbances Induced by Radio Frequency Fields ,150kHZ~80MHZ,10V Level

IEC61000-4-9 Pulse Magnetic Field Immunity (100A/m Peak)

For CE compliance tests, allowed output deviation within: ±1.5%FS

Dimensions(mm)



A80 ordering information

Model	Excitation/Output						
A81	5V/0.5-4.5V (Ratiometric)						
	Range Code	**Pressure Range**					
	200k	0-200kPa					
	400k	0-400kPa					
	600k	0-600kPa					
	1M	0-1MPa					
	1.6M	0-1.6MPa					
	XX	Special					
		Code	**Pressure Mode**				
		S	Sealed Gauge				
		A	Absolute				
			Code	**Electric outlet**			
			1	Ribbon Cable			
			2	TE connector(Pin pitch:2.5mm)			
Example:			X	Special			
A81	1M	S	1				
0.5-4.5V	0-1MPa	Sealed Gauge	Ribbon Cable				Model: A81-1MS-1