

Introduction :

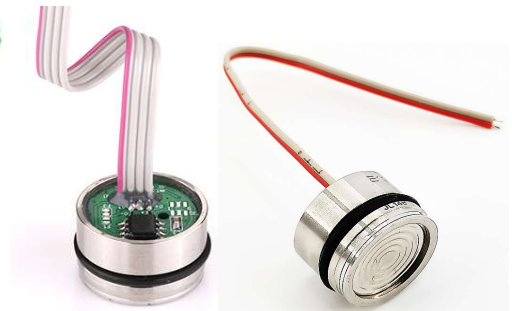
E series are designed as a transmitter capsule, There are three function modules embedded in a 316L stainless steel housing. Various amplified output with 4-20mA, 0.5-4.5V, 0-5V, 1-5V are available,

- 1) Pressure module--Utilizing silicone oil to transfer pressure from the 316L stainless steel diaphragm to a MEMS pressure die.
- 2) ASIC module--Amplification and temperature compensation for pressure signal
- 3) EMC module--Protection for the whole electric circuit

The transmitter capsules themselves are ideally suited for embedding in application-specific systems.

Features:

- Sensor size with transmitter functions
- Pressure range: 0-7kPa...7MPa
- Total error band<0.50%(typical)
- Wide compensation temp. (-10~70°C)
- Side O-ring seal, no assembly stress
- Low cost
- Reverse polarity protection
- EMC functions



Performance Specifications Ambient Temperature: 25° C (unless otherwise specified)

Parameters	Min.	Typical	Max.
Accuracy (%FS) combined linearity, hysteresis and repeatability		±0.05	±0.1
Output	0.5-4.5V(Ratiometric); 0-5V; 1-5V; 4-20mA		
Zero output (%FS)	-0.5	±0.25	0.5
Full Scale output (%FS)	-0.5	±0.25	0.5
Temp. characters			
Operation Temp. (°C)	-40		125
Compensation Temp. (°C) ¹	≤10kPa	0	50
	>10kPa	-10	70
Total error band (%FS) ²	≤100kPa	±0.5	1
	>100kPa	-0.5	±0.25
Long term Stability			
Zero (±%FS annual)		0.2	
Span (±%FS annual)		0.1	
Power supply (V)	See ordering information		
Insulation Resistance	50MΩ/250V		
Frequency (Hz)	1K		
Overpressure	≤20kPa	10X rated pressure	
	>20kPa	2X rated pressure or 10MPa whichever is less	
Pressure media	Liquids and Gases compatible with 316L Stainless Steel		
Life	>10 ⁷ Full range pressure		

1. Compensation temp. -20~85°C optional

2. Total error band: total output error including Zero, Span, non-linearity, temp. error within compensated temperature range.

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 Electrical Fast Transient Immunity (1kV)

IEC61000-4-5 Surge Immunity

Input to Output: $\pm 1kV/42\Omega$; Leads to Case: $\pm 1kV/12\Omega$;

IEC61000-4-6 Immunity to conducted disturbances Induced by Radio Frequency Fields

150kHz~80MHZ, 3V Level for current output; 10V Level for Voltage output

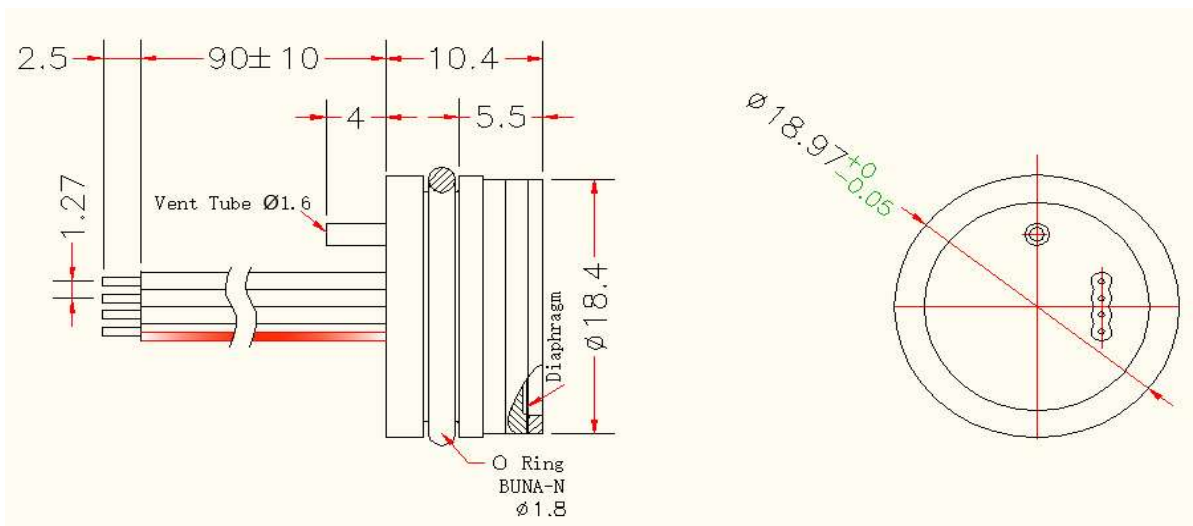
IEC61000-4-9 Pulse Magnetic Field Immunity (100A/m Peak)

For all CE compliance tests, allowed output deviation within:

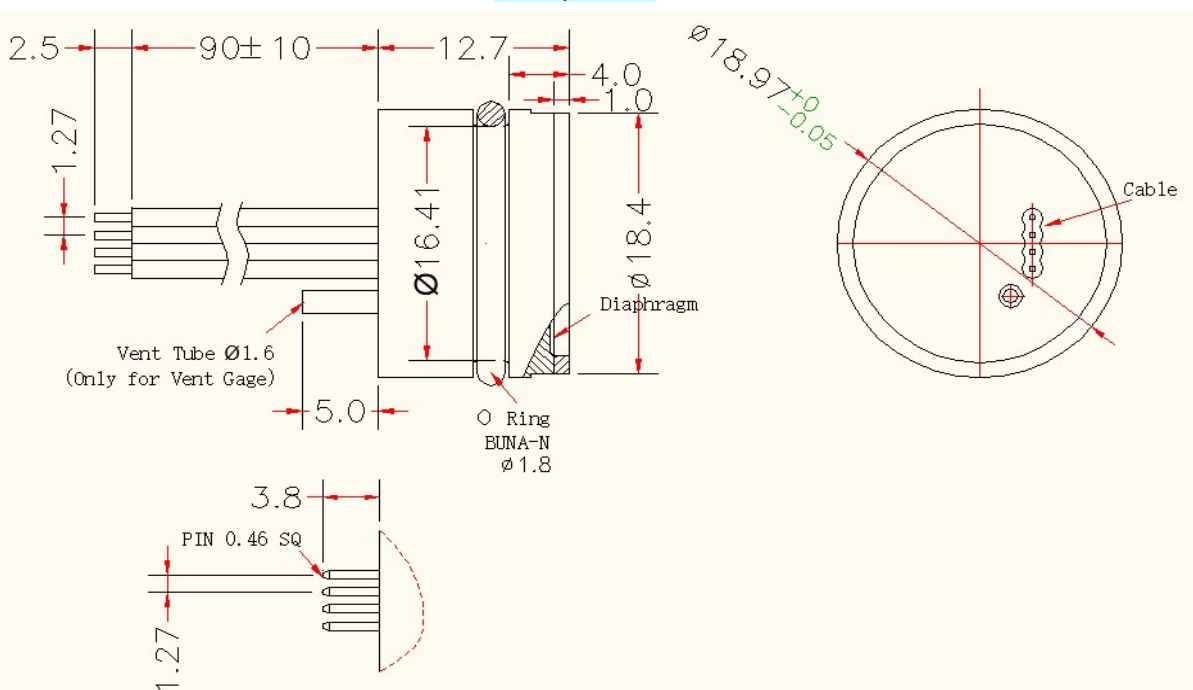
$\pm 1\%FS$ (for current output); $\pm 1.5\%FS$ (for voltage output)

Dimension (mm)

$\leq 10kPa$

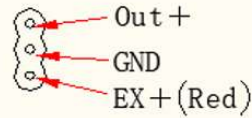


$> 10Kpa$

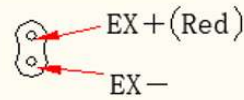


Wiring information

Voltage Output



Current Output



E10 Series Ordering Information

Model	Input/Output			
E11	5V/0.5-4.5V (Ratiometric)			
E12	8-30V/0-5V			
E13	8-30V/4-20mA			
E14	8-30V/1-5V			
E1X	Special			
Code	Pressure Reference			
G	Vent Gauge Pressure			
S	Sealed Gage			
A	Absolute Pressure			
Code	Pressure Range	Vent Gauge	Sealed Gauge	Absolute
7k	0-7kPa	*		
10k	0-10kPa	*		
20k	0-20kPa	*		
35k	0-35kPa	*		
100k	0-100kPa	*	*	*
200k	0-200kPa	*	*	*
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	Electrical Connection			
1	Connect Pins			
2	Ribbon Cable (90mm as default)			
X	Special			
E13	A	600k	1	
4-20mA	Absolute	0-600kPa	Pins	Model: E13A-600k1

Example: