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Highly Stable Pressure Sensor, 0-35MPa, Sealed Gauge, Compensated, 19mm diameter

PS781 Series
IOT Pressure Sensors Technical Data Sheet

PS781-18S0L1

Features

- Pressure range 0-35MPa
- Sealed gauge pressure sensor
- Constant current / Constant Voltage power supply
- Isolated construction, enable to measure various media
- F19mm standard OEM pressure sensor
- Full stainless steel 316L
- Wide temperature compensation
- Long-term stability ±0.1%FS/year

Applications

- Industrial process control
- Level measurement
- Pressure checking meter
- Pressure calibrator
- Liquid pressure system and switch
- Cooling equipment and air conditioning system
- Aviation and navigation inspection

Description

PS781-18S0L1 is a highly stable piezo-resistive pressure sensor with wide temperature compensation and zero correction. It contains a highly stable silicon die, stainless steel 316L housing with diameter 19mm. The measured pressure is transmitted onto the silicon die through the 316L diaphragm and inner media. This transforms the measured pressure into an electrical signal.

Product Configuration

Application:	Highly Stable Pressure Sensor
Pressure Type:	Sealed Gauge
Electrical Connector:	0.5mm Kovar Pin

General Specifications*

Description	Minimum	Typical	Maximum	Unit
Pressure Range	0		35	MPa
Linearity		±0.15	±0.2	% Full Scale
Repeatability		±0.05	±0.075	% Full Scale
Hysteresis		±0.05	±0.075	% Full Scale
Full Scale Output	70			mV DC
Zero Output			2	mV DC
Zero Thermal Error @35°C		±0.75	±1	% Full Scale/°C
Span Thermal Error @35°C		±0.75	±1	% Full Scale/°C
Compensated Temp Range	0		70	ºC
Long Term Stability		±0.1	±0.2	%Full Scale/year
Overpressure		1.5		xFull Scale

*General Specifications hold under the following Nominal Conditions

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*Nominal Conditions

DESCRIPTION	DESCRIPTION
Media Temperature: (35±1)°C	Environment Temperature: (35±1)°C
Shock: 0.1g(1m/s²)Max	Humidity: (50%±10%)RH
Locail air pressure: (86-106)kPa	Power supply: (1.5±0.0015)mADC

Electrical Specifications

Description	Minimum	Typical	Maximum	Unit
Power Supply/Excitation Level			10	VDC
Power Supply Current			2	mA
Input Impedance	2,000		6,000	Ω
Output Impedance	3,500		6,000	Ω
Response 10%-90%			1	msec
Insulation Resistance 100VDC		100		MΩ

Material Specifications

Description	Material
Diaphragm	Stainless Steel 316L
Plug Housing	Stainless Steel 316L
Tubing	Stainless Steel 316L
Pin	Kovar
O-Ring	Viton

Mechanical Specifications

Weight	0.035 lbs [15.88 g]

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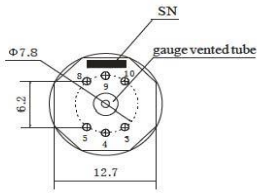
Electrical Connection

Pin	Connection	Wire Color
4	-OUT	Blue
5	-IN	Yellow
8	+IN	Black
9	+Out	Red



Environmental Specifications

Temperature (Operating)	-40ºC to 125ºC
Temperature (Storage)	-40ºC to 125ºC
Shock	No change at 10gRMS, (20-2000)Hz
Impact	100g, 11ms
Notes: Media compatibility-the gas or liquid which is compatible with stainless steel and Viton	
Certifications	ROHS Compliant
	CE Compliant

The Infinite Electronics portfolio includes coaxial cable assemblies, connectors, adapters and custom products, as well as our wireless product line which includes antennas, RF amplifiers, lightning and surge protectors, and NEMA rated enclosures.

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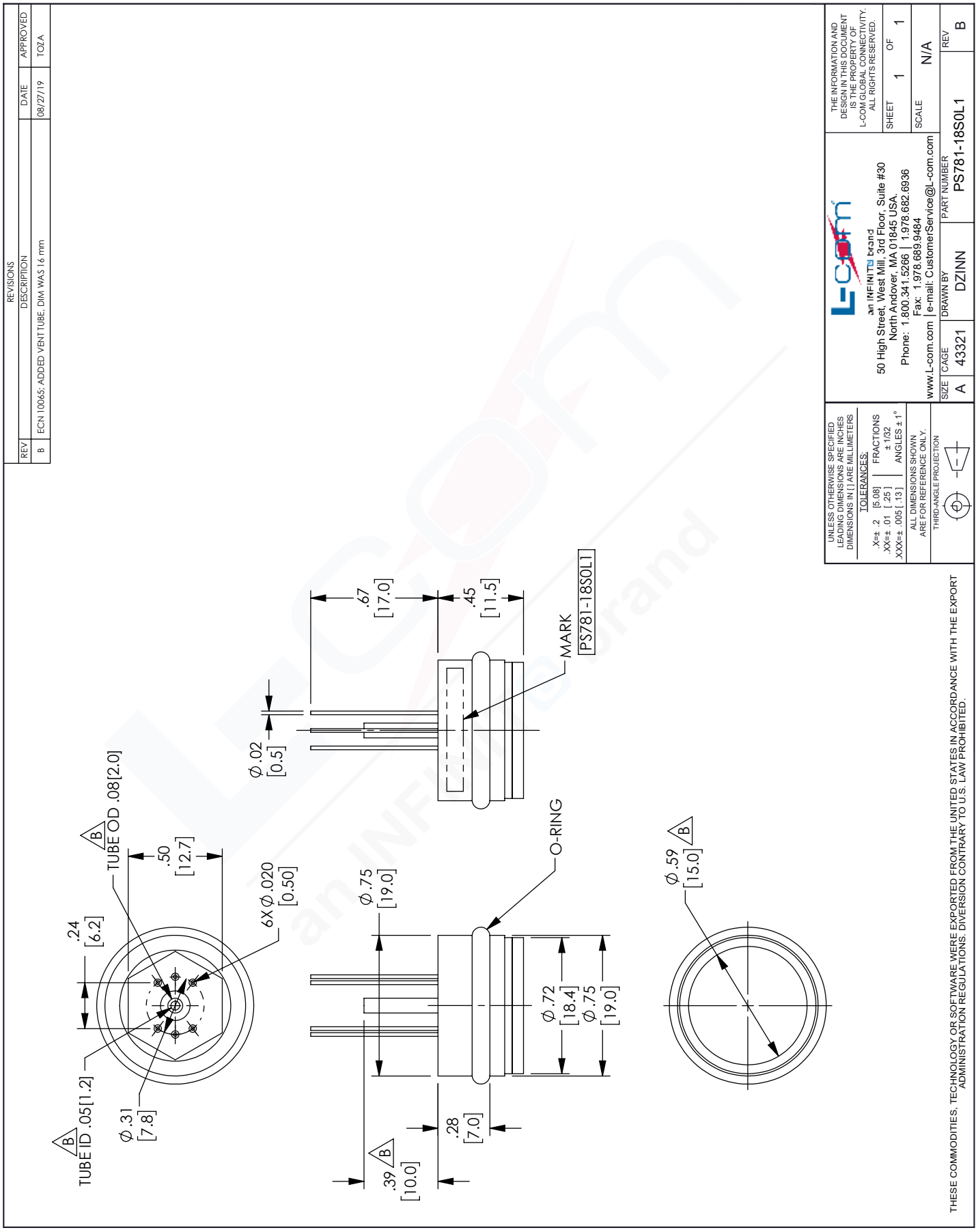
PS781-18S0L1 CAD Drawing

Highly Stable Pressure Sensor, 0-35MPa, Sealed Gauge, Compensated, 19mm diameter



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