

Pressure Sensor, 0-7MPa, Sealed Gauge,  
Compensated, with cap 16.8mm diameter



## PS783 Series IOT Pressure Sensors Technical Data Sheet

PS783-114SL1

### Features

- Pressure range 0-7MPa
- Constant current / Constant Voltage power supply
- Isolated construction, enable to measure various fluid media
- 12.6 mm compact size, sealed gauge pressure
- Stainless steel 316L
- Wide temperature compensation range

### Applications

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

### Description

PS783-114SL1 is a highly stable and reliable piezo-resistive pressure sensor with wide temperature compensation and zero correction. Optimized for middle to high pressures, the PS783-114SL1 contains a highly stable silicon die, stainless steel 316L housing with diameter 12.6 mm. 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:	Pressure Sensor
Pressure Type:	Sealed Gauge
Electrical Connector:	Kovar pin

### General Specifications\*

Description	Minimum	Typical	Maximum	Unit
Pressure Range	0		7	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			3	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	-10		80	°C
Long Term Stability		±0.1	±0.2	%Full Scale
Overpressure		1.5		xFull Scale

\*General Specifications hold under the following Nominal Conditions



an INFINIT® brand

Pressure Sensor, 0-7MPa, Sealed Gauge,  
Compensated, with cap 16.8mm diameter



## PS783 Series IOT Pressure Sensors Technical Data Sheet

PS783-I14SL1

### \*Nominal Conditions

DESCRIPTION	DESCRIPTION
Media temperature: (35±1)°C	Environment temperature: (35±1)°C
Shock: 0.1g (1m/s <sup>2</sup> ) Max	Humidity: (50%±10%)RH
Local air pressure: (86-106)kPa	Power supply: (1.5±0.0015)mA DC

### 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
Pin	Kovar
O-Ring	Viton

### Mechanical Specifications

Weight 0.018 lbs [8.16 g]



an INFINIT® brand

Pressure Sensor, 0-7MPa, Sealed Gauge,  
Compensated, with cap 16.8mm diameter

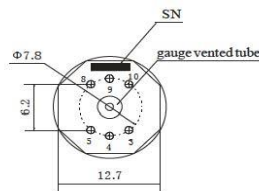
## PS783 Series IOT Pressure Sensors Technical Data Sheet



PS783-I14SL1

### Electrical Connection

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



### Environmental Specifications

Temperature (Operating) -40°C to 125°C

Temperature (Storage) -40°C to 125°C

Shock 100g, 11ms

Impact no change at 10gRMS, (20-2000)Hz

Notes: Media compatibility-the liquid or gas which is compatible with stainless steel and viton

Certifications ROHS Compliant

CE Compliant

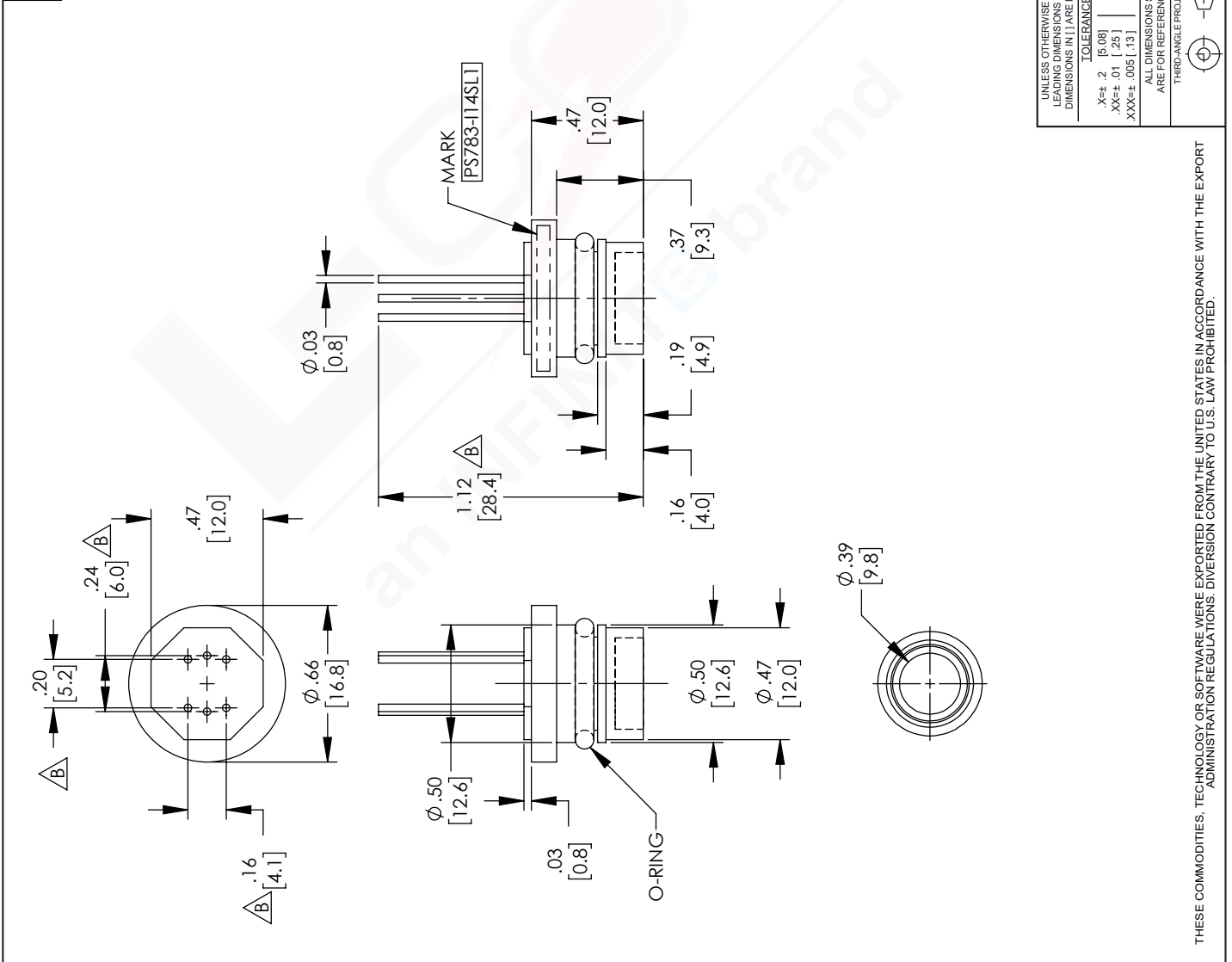
The Infinite Electronics portfolio includes coaxial cable assemblies, connectors, adapters and custom products, as well as our wireless product line which includes antennas, RF amplifiers, lightning and surge protectors, and NEMA rated enclosures.

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume any liability arising out of the use of any part or documentation.

# PS783-114SL1 CAD Drawing

Pressure Sensor, 0-7MPa, Sealed Gauge, Compensated, with cap 16.8mm diameter

REV	DESCRIPTION	DATE	APPROVED
B	ECN 10065; DIM [5.2] WAS 4.5, [6.0] WAS 5.5, [4.1] WAS 4.5, [28.4] WAS 23.0	08/28/19	TO/A



UNLESS OTHERWISE SPECIFIED LENGTH DIMENSIONS ARE IN INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF L-COM. ALL RIGHTS RESERVED.
TOLERANCES: .X±.2 [5.08]   FRACTIONS ± 1/32 .XX±.01 [25]   ANGLES ± 1° .XXX±.005 [13]	SHEET 1 OF 1
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY	SCALE N/A
THIRD-ANGLE PROJECTION	www.L-com.com   e-mail: CustomerService@L-com.com
SIZE [CAGE] DRAWN BY PART NUMBER	REV
A 43321 DZINN PS783-114SL1	B

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.