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SPT82 50.5mm Clamp Mounting Pressure Sensor

Features

- Pressure range: 0 ~ 1...100bar
- Gauge, Absolute and Sealed gauge
- Constant current or Constant voltage power supply for option
- Isolated construction to measure various fluid media
- Hygienic structure optional ($Ra < 0.4\mu m$)
- Negative pressure measurement is available, the lowest to around -1bar



Application

- Industrial process control
- Level measurement
- Gas, Liquid pressure measurement
- Pressure meter
- Pressure calibrator
- Liquid pressure system and Switch
- Refrigeration equipment and Air conditioner
- CIP or SIP online cleaning or sterilization system

Introduction

SPT82 50.5mm Clamp Mounting Pressure Sensor is a pressure sensing element through male thread and clamp connection. It has pressure port DN25clamp, sealed by FKM or silicon O-ring. The isolated diaphragm is welded in front of thread port, the range is 0 ~ 1...100bar(clamp connection). It is suitable for pressure detection in food, medicine, health and other industries and occasions where the measuring medium may be fouled. We can use gauge type of general, assembled and flush diaphragm type MPM280 to measure pressure below air pressure, the min. pressure can be around -1bar.

Electric Specification

- Power supply: $\leq 2.0mA$ DC
- Electric connection: $\Phi 0.5mm$ gold-plated Kovar pin or 100mm flexible silicone rubber wires
- Common mode voltage output: 50% input (typ.)
- Input impedance: $2.5k\Omega \sim 8k\Omega$
- Output impedance: $3.5k\Omega \sim 6k\Omega$
- Response (10%~90%): $< 1ms$
- Insulation resistor: $100M\Omega @ 100VDC$
- Overpressure: 2 times FS

Construction

- Diaphragm: stainless steel 316L with gold plated
- Housing: stainless steel 316L
- Pin: Kovar
- O-ring:FKM
- Net weight: ~148g

Environment Condition

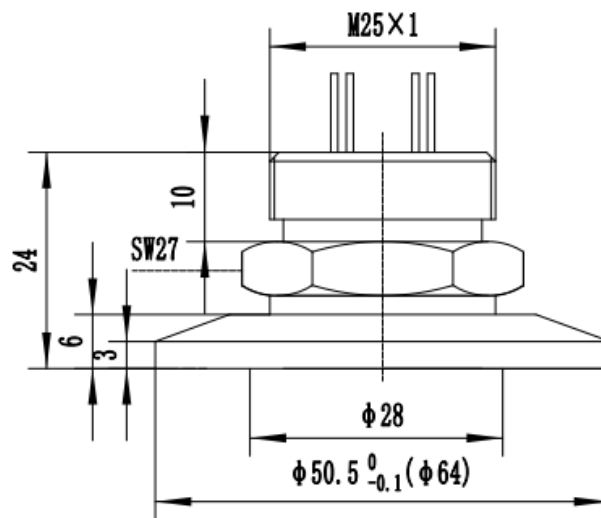
- Shock: No change at 10gRMS,(20~2000)Hz
- Impact: 100g, 11ms
- Media compatibility: The gas or liquid which is compatible with construction material and FKM.

Basic Condition

- Media temperature: (25±1)°C
- Environment temperature: (25±1)°C
- Shock: 0.1g (1m/s²) Max
- Humidity: (50±10)%RH
- Local air pressure: (0.86 ~ 1.06)bar
- Power supply: (1.5±0.0015)mADC

Basic Specification

Specification*	Min.	Typ.	Max.	Units
Linearity**		±0.15	±0.25	%FS,BFSL
Repeatability		±0.05	±0.075	%FS
Hysteresis		±1.0	±0.075	%FS
Zero output		±1.0	±2.0	mVDC
Output/Span**	70			mVDC
Zero thermal error***		±0.75	±1.0	%FS,@25°C
Span thermal error		±0.75	±1.0	%FS,@25°C
Compensated temp. range	0 ~ 50			°C
Working temp. range	-40 ~ 125			°C
Storage temp. range	-55 ~ 125			°C
Stability error		±0.2	±0.3	%FS/year
* Testing at basic condition,G: Gauge; A: Absolute; S: Sealed gauge ** Output/Span=full scale output - zero point 350mbar G, FS output ≥60mV 700mbar A, 0.1bar A, 700mbar GY, 1.0bar GY, FS output ≥45mV				



Electric Connection

Pin	Definition	Wire color
4	+OUT	Red
5	+IN	Black
6	-IN	White
10	-OUT	Blue

Order Guide

SPT82		50.5mm Clamp Mounting Pressure Sensor						
		Code	Range	Ref.	Code	Range	Ref.	
		03	0bar~1bar	G.A	12	0bar~20bar	G.A	
		07	0bar~2bar	G.A	13	0bar~35bar	G.A.S	
		08	0bar~3.5bar	G.A	14	0bar~70bar	S.A	
		09	0bar~7bar	G.A	15	0bar~100bar	S.A	
		10	0bar~10bar	G.A				
		Code	Pressure type					
		G	Gauge					
		A	Absolute					
		S	Sealed gauge					
		Code*	Pressure connection					
		O or null	O ring					
		PD1	DN25 Clamp connection				Top: M25×1 External thread	
		Code	Compensation					
		L	Laser trimming					
		M	Outer compensated resistor(providing resistor value)					
		Code	Electrical connection					
		1	Kovar pin(default)					
		2	100mm silicon rubber flexible wires					
		Code	Special measurement					
Y	Gauge sensor to measurevacuum(-1bar~0bar)							
O or null	normal type							
W	NEObee M20							
SPT82	08	G	PD1	L	2	Y	W	The whole spec